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SECRETARY OF THE AIR FORCE**

**AIR FORCE TACTICS, TECHNIQUES  
AND PROCEDURES 3-42.5**

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***Tactical Doctrine***

**AEROMEDICAL EVACUATION**



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The Air Force Tactics, Techniques and Procedures (AFTTP) 3-42 series is the primary reference for medical combat support capabilities. This document provides Tactics, Techniques and Procedures (TTP) for Aeromedical Evacuation (AE) across the full range of military operations, Defense Support of Civil Authorities (DSCA) responses, and other operations in accordance with Joint Publication (JP) 4-02, *Joint Health Services*, and Air Force Doctrine (AFD) Annex 3-17, *Air Mobility Operations*. This publication applies to all Air Force military personnel in the Regular Air Force, Air Reserve Component (ARC), and Air Force civilian personnel (Air National Guard [ANG] is considered to be a Major Command [MAJCOM] in this publication). The doctrine in this document is authoritative but not directive. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual 33-363, Management of Records, and disposed of in accordance with the Air Force Records Disposition Schedule located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the Office of Primary Responsibility using the AF Form 847, *Recommendation for Change of Publication*. Route AF Form 847 through the appropriate chain of command and parent MAJCOM. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

## ***SUMMARY OF CHANGES***

This AFTTP has been significantly revised. It should be reviewed in its entirety.

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## Chapter 1

### OVERVIEW

**1.1. Purpose.** This guidance is designed to assist AE planners to successfully integrate and execute AE within the greater Department of Defense (DOD) Patient Movement (PM) system.

**1.2. Scope.** AE is just one component of the DOD En Route Care (ERC) Capability, or En Route Casualty Care System (ERCCS), which enables continuation of care during movement (evacuation) without clinically compromising a patient's condition. The Air Force AE system provides a critical PM capability which cuts across traditional Service lines. Historically, the majority of AE patients generated during wars and contingency operations since World War II came from Army and Marine Corps ground combat units. Therefore, it is important that the AE system integrates well with medical components of all Services, not just those of the Air Force. Moreover, the past decade has increasingly revealed the necessity of advancing AE interoperability with coalition and allied AE partners (reference AFD Annex 3-17 and JP 4-02).

**1.3. Caution.** Do not use this instruction as permission to move patients (AFI 48-307V1, *En Route Care and Aeromedical Evacuation Medical Operations*). Patients must be eligible for aeromedical transportation according to Department of Defense (DOD) Instruction 4515.13, *Air Transportation Eligibility* (additionally reference AFI 24-101, *Passenger Movement*, Air Force Policy Directive (AFPD) 24-1, *Personnel Movement*, and any current, operational DOD, AF, or theater-specific directives).

## Chapter 2

### AEROMEDICAL EVACUATION MISSION

**2.1. AE Mission.** The United States Air Force (USAF) AE system provides a critical patient movement capability that crosses traditional Service lines. Since World War II, the preponderance of AE patients generated during wars and contingency operations has come from U.S. Army (USA) and U.S. Marine Corps (USMC) ground combat units. Therefore, it is important the AE system integrates well with the medical components of all Services. Moreover, during the past decade, it has become increasingly important the USAF AE system continue to develop its capability to integrate with components of our Nation's allies. Air Mobility Command Surgeon (HQ AMC/SG) is the Manpower and Equipment Force Packaging (MEFPAK) Responsible Agency (MRA) and HQ AMC A3/10 is the Functional Area Manager (FAM).

2.1.1. The rapid evacuation of patients during contingencies is necessary to prevent undue suffering and preserve military strength. AE provides time-sensitive En Route Care (ERC) of regulated and unregulated casualties to and between medical treatment facilities using organic and/or contracted aircraft with medical aircrew trained explicitly for the mission. AE forces can operate as far forward as aircraft are able to conduct air operations, across the full range of military operations, and in all operating environments. Specialty medical teams may be assigned to work with the aeromedical evacuation crewmembers (AECM) to support patients requiring more intensive ERC.

**2.2. AE Concepts.** The AE system provides: (1) Integrated control of casualty movement by air transport; (2) Specialty trained aircrew clinicians and operational support personnel; (3) Equipment for in-flight supportive medical care and ground support operations; (4) En Route Critical Care (ERCC) to monitor and manage specific patients requiring intensive care; and (5) En Route Patient Staging System (ERPSS) capability/patient preparation at or near secure airstrips for the processing and care of casualties entering, en route, or leaving the AE system.

2.2.1. The primary mission of the DOD Patient Movement (PM) system is to transport U.S. military casualties from within the Joint Operations Area (JOA) to the appropriate role of care provided in or out of the theater, as required. United States Transportation Command (USTRANSCOM) is designated as the DOD single-manager for global Patient Movement (PM). USTRANSCOM oversees PM via the regionalized United States Transportation Command Patient Movement Requirements Centers (TPMRCs). Timely PM plays an important role in support of the Joint Task Force (JTF) Concept of Operations (CONOPS) and evacuation requirements. The PM system provides a continuum of care and coordinates the movement of patients from site of injury or onset of disease, through successive roles of care, to a Medical Treatment Facility (MTF) meeting the needs of the patient. Each Service component has an organic PM capability and is responsible for evacuation from point of injury (POI) to initial treatment at a Military Treatment Facility (MTF).

2.2.2. Casualty evacuation (CASEVAC), a term used by all Services in the forward environment from the POI, refers to the unregulated movement of casualties aboard ships, vehicles, or aircraft. Joint/Service intra-theater PM is accomplished in the "forward or tactical" environment evacuating or moving regulated and unregulated patients through a combination of medical evacuation (MEDEVAC) and CASEVAC assets. MEDEVAC assets are dedicated ground and air ambulances permanently equipped and staffed with medical attendants for ERC

and are the preferred method of patient movement. In the forward or tactical environment CASEVAC assets, which are designated and may or may not have appropriate ERC, supplement the MEDEVAC and greater PM mission throughout the operational area (OA) to meet necessary mission requirements. In addition to MEDEVAC/CASEVAC assets in the intra-theater environment, USAF fixed-wing AE assets move patients over extended distances to meet intra-theater PM requirements. Joint/Service inter-theater PM is accomplished solely by the USAF AE system to move patients out of the OA and to Role 3 and 4 MTFs to meet the patients' definitive care needs.

2.2.3. The operational environment (OE) during major operations and campaigns may present lethal threats requiring the evacuation of casualties to highly developed medical capabilities in the JOA and locations outside the JOA for advanced medical services and rehabilitative care. The decreased medical footprint and the increased PM requirements demand a more interdependent medical community, improved interagency and multinational partnerships, and joint solutions.

**2.3. Theater Aeromedical Evacuation System (TAES) Elements.** A component of ERCCS, the TAES is modular by design and can be tailored and deployed to meet situational requirements. The AE process is dependent upon reliable, pertinent, and timely communication and coordination between the originating requestor, the Patient Movement Requirements Center (PMRC), the appropriate airlift agency, AE elements, and the destination MTF. When deployed, the TAES provides a rapid, flexible, incremental, mobile response. Unit type codes (UTCs), elements of the TAES, are employed to provide command, control, communications, patient care, and system support. The AE system needs to have the capability to move casualties after minimal stabilization from forward areas. The concept is to employ an immediate, versatile, and flexible AE presence to respond to the needs of deployed forces. After the initial buildup, planners can augment the deployed teams with additional manpower and equipment (augmentation packages), as required, to support more intense or ongoing operations.

2.3.1. Expeditionary Aeromedical Evacuation Squadron/Flight (EAES/EAEF). The EAES may be assigned to an expeditionary wing, air expeditionary operations group, or expeditionary operations support squadron as an expeditionary AE flight. The EAES provides command functions for all AE personnel assigned to the air expeditionary wing. The EAES ensures all elements are prepared to conduct AE operations as tasked by the Air Operations Center (AOC) and will provide AE assets to support the wing operations center. The EAES can arrange support requirements for follow on AE forces, as required.

2.3.2. AE Command Squadron (AECS). Provides command of assigned AE forces. This UTC provides procedural and technical guidance and management oversight for assigned, attached, and transiting AE elements.

2.3.3. Aeromedical Evacuation Crews. AE crews are specially trained to perform in-flight medical care, are experts on aircraft configuration and aerospace physiology (how stresses of flight affect patients), and provide the operational interface between the patient, medical equipment, and aircraft systems.

2.3.4. ERCC Teams. Critical Care Air Transport Team (CCATT). CCATT is an example of one type of ERCC team. CCATTs provide specialized care, in conjunction with AE crews, to evacuate patients requiring critical care during transport. CCATTs represent a specialty or critical care team added to the basic AE crew in order to offer a higher level of care to stabilized

patients during AE staging and flight. AE missions moving regulated patients that require the addition of a CCATT will be validated by the PMRC and tasked by an AE control team (AECT). Refer to AFTTP 3-42.51, *Critical Care Air Transport Team (CCATT)*, for command and control (C2) relationships.

2.3.5. En Route Patient Staging System. The ERPSS is a flexible modular patient staging system able to operate across the spectrum of scenarios, such as military operations, Foreign Humanitarian Assistance (FHA), and Defense Support of Civil Authorities (DSCA). Utilizing the ERPSS force modules to support operations ranging from 10-250 beds, patients may be held from 6 to 72 hours, dependent upon the arrival of the earliest opportune aircraft for which a patient can be prepared for AE. The primary mission of the ERPSS is to provide personnel and equipment necessary for 24-hour staging operations for patients entering and transiting the ERC system worldwide. The ERPSS coordinates and communicates with medical and AE elements to accomplish patient care and PM, including ground transportation. It provides patient reception, provides complex medical/surgical nursing, provides limited emergent intervention, and ensures patients are medically and administratively prepared for flights. Refer to AFTTP 3-42.57, *En Route Patient Staging System*, for C2 relationships.

2.3.6. Aeromedical Evacuation Liaison Team (AELT). The AELT provides support between the forward user and the AE system in the form of operational and clinical interface. This interface may occur at locations that do not otherwise have USAF personnel on them such as far forward/bare bases and shipboard.

2.3.7. Aeromedical Evacuation Operations Team (AEOT). AEOTs are located at strategic airlift hubs or en route locations to support aircrews, equipment, and launch and recovery operations. The AEOT provides direct supervision and crew management for assigned, attached, and transiting AE crews and CCATTs in conjunction with the air mobility operations control center, AECT, and base operations, as applicable.

**2.4. Planning for AE.** AE planners are an integral part of the airlift planning team and should build appropriate AE support into the en route structure. The AE planner should interface with medical planners to ensure appropriate medical capability along airlift routes. Comprehensive planning will ensure a coordinated effort in providing timely and effective evacuation.

2.4.1. Aeromedical Evacuation Planning Factors. AE planners must take many factors into account to select the best or most appropriate means of executing each AE mission. Airlift routes must be identified in order to establish potential AE plans. Based on planning directives, the Combatant Command (CCMD) operation plans (OPLAN) and concept plans (CONPLAN) will include bed- down of AE capable airlift, strategic aerial port of debarkations and/or aerial ports of embarkation, planned mission routing, availability of intra/inter-theater retrograde airlift for AE missions, and planned patient movement requirements (evacuees) by C-Day (the unnamed day on which a deployment operation commences or is to commence). For more on AE Planning Factors, see Chapter 5 of this publication and Air Force Pamphlet (AFPAM) 10-1403, *Air Mobility Planning Factors*.

**2.5. Medical Operations in Denied Environments (MODE) Concept.** Future adversaries will employ Anti-Access and Area Denial (A2/AD) against the United States and our allies in order to deter and prevent access of U.S. and coalition forces. The AE system must be prepared to provide health service support over vast distances and in areas with little to no patient staging capability. MODE is a limited objective concept, describing the necessary joint medical force required to treat

and evacuate casualties from the POI to definitive medical care and subsequent evacuation to low risk areas within the JOA or uncontested environments outside the JOA. To address the A2/AD contested environment, the MODE concept suggests integrated medical forces create cross-domain synergies to produce the required medical forces with the capability and capacity to operate in contested environments. Anti-Access (A2) strategies impede movement into a theater and compel forces to operate from greater distances. Area Denial (AD) strategies threaten maneuverability within a particular theater. The emerging concepts of A2/AD could significantly alter how military medicine and patient movement operations are delivered in future conflicts. Medically, an inherent tension exists between the potential mass casualty of an A2/AD missile strike and the imperative need to reduce the large combat support capability. For additional information, reference JP 3-0, *Joint Operations*.



## Chapter 3

### COMMAND AND CONTROL

**3.1. Introduction.** Command and Control (C2) functions exercised over AE missions are consistent with those for all air mobility missions and are conducted in accordance with (IAW) the C2 processes as described in Joint Publication 3-17, *Air Mobility Operations*; Air Force Doctrine Annex 3-30, *Command and Control*; and Air Force Doctrine Annex 3-17, *Air Mobility Operations*, which includes specific sections on AE doctrine. In contingency operations, AE-specific tasks and objectives will be outlined in the military order (execute order [EXORD], deployment order [DEPOD], operation order [OPORD]) and may include references such as Annex C, Appendix 30, and Annex Q from supporting deliberate planning products (base plan [BPLAN], concept plan [CONPLAN], operation plan [OPLAN]). AE assets are integrated within the inherent mobility structure established to support airlift operations through the Air Mobility Division (AMD) to the wing and down to the assigned expeditionary AE squadron/element. A comprehensive summary of command functions and relationships may be found in Chapter 2 of AFI 48-307V1, *En Route Care and Aeromedical Evacuation Medical Operations*.

**3.2. Roles and Responsibilities.** Patient evacuation from point of injury to initial treatment at a health care facility is the responsibility of each Service component. The Geographic Combatant Commander (GCC), in conjunction with the supporting commanders, sets the theater PM policy for contingency planning. USTRANSCOM, as Distribution Process Owner (with the exception of intra-theater PM) and single “point” manager for PM coordinates with the GCCs and the Services on the implementation and enforcement of PM policies. Upon execution, the GCC adjusts the theater PM policy as required. The joint command validates theater requirements for peacetime and contingency PM and identifies potential channel movement to USTRANSCOM transportation validation process. CCMD OPLANs will include appropriate information to support Service planning for patient evacuation.

3.2.1. USTRANSCOM is the DOD single manager for PM, providing global PM in coordination with the GCCs, through the Defense Transportation System. USTRANSCOM is responsible for PM in the U.S. and worldwide. This includes support for natural disasters, counterterrorist activities, and the redistribution of normal support through a direct support relationship rather than transferring forces. USTRANSCOM will typically retain operational control (OPCON) of its assets for intertheater AE operations, with C2 provided by the 618 AOC (Tanker/Airlift Control Center [TACC]). USTRANSCOM provides standardized processes for managing PM events, ensuring patient safety and quality of care, to include conducting any event reviews or investigations of PM activities from entry of the patient into the PM system to arrival at the destination MTF.

3.2.1.1. Service units operating within the scope of the PM system should develop an active PM safety program. Instructions apply to all Services, GCCs, military MTFs, and divisions deployed or in garrison involved in the PM process.

3.2.1.2. The Commander (CC)/USTRANSCOM, through the USTRANSCOM Command Surgeon (SG), oversees the worldwide PM safety program, coordinates with the Secretaries of the military departments to ensure compliance through implementation of effective quality assurance/quality control consistent with Joint Staff health support policies, and has

authority to direct an event review and/or medical incident investigation for all events in coordination with GCC SGs.

3.2.2. Each Service is responsible for organizing, training, and equipping their forces to ensure the capability to meet their PM requirements. Evacuation may require any combination of air, ground, or sea resources. To ensure patients receive continuous, timely, and quality care, all personnel involved in the PM system must be fully trained, and essential evacuation assets (such as personnel, platforms, equipment, and supplies) must be programmed, procured, and sustained. Establishing a seamless PM system requires close coordination with the Services on employment of PM doctrine, CONOPS, modernization and sustainment of equipment and platform capabilities, and interoperability of Patient Movement Items (PMI)/PMI in-kind.

### **3.3. Patient Movement Management.**

3.3.1. The Joint PMRC (JPMRC) integrates medical regulation responsibilities (the proper MTF specialty bed), transportation movement requirements (best mode of transportation, such as aircraft/ships/ground vehicles), mission requirements determination (the right medical crew members and medical equipment), coordination, and related activities supporting DOD PM requirements. The JPMRC provides the TPMRC type, automated information system support, and operations for a joint force. Normally, supporting activities are established to support joint force DOD PM operations within the designated OA. When operating within an area that already has an established TPMRC, the TPMRC maintains overall visibility for theater DOD PM operations, while the JPMRC supports DOD PM operations within the OA and coordinates with the TPMRC for USAF intratheater PM and the Global PMRC (GPMRC) for intertheater PM.

3.3.2. TPMRC. The TPMRC consists of TPMRC-Americas, supporting the Americas; TPMRC-West, supporting the western hemisphere; and TPMRC-East, supporting the eastern hemisphere. All three have a permanent PMRC managing the validation and regulation of PM within, and between, their respective theaters. The TPMRC is responsible for theater-wide PM (e.g., medical regulating and in coordination with the AE control team, AE scheduling) and coordinates with theater MTFs to allocate the proper treatment assets required to support its role. The TPMRC communicates this transport to bed plan to the theater Service transportation component or other agencies responsible for executing the mission.

3.3.3. GPMRC. The GPMRC is a joint activity reporting directly to the Commander, USTRANSCOM, which provides medical regulating and aeromedical evacuation scheduling for the continental United States and intertheater operations, provides support to the TPMRCs, and coordinates with supporting resource providers to identify available assets and communicates transport to bed plans to the appropriate transportation agency for execution.

**3.4. Joint Force Air Mobility Operations Structure.** During joint operations, a GCC may conduct operations at the theater level within their area of responsibility (AOR), or they may establish a JTF with a designated joint operations area (JOA) to conduct operations. In both cases, the commander is a joint force commander (JFC), and if Air Force forces are assigned/attached, a commander of Air Force forces (COMAFFOR) will be designated, typically delegated OPCON of those Air Force forces. If the COMAFFOR is also designated the joint force air component commander (JFACC), they will normally be delegated tactical control (TACON) over forces made available for tasking. A JFC is responsible for PM within their operational area.

3.4.1. The COMAFFOR is delegated authority from the JFC who assigns missions, directs coordination among subordinate commanders, and redirects and organizes forces to ensure the air component can accomplish the overall mission. AE operations are an important part of the JFC's mission, and the COMAFFOR plays a critical role in successful AE operations.

3.4.1.1. An AE contingency planner should be incorporated into the COMAFFOR staff to outline, develop, and coordinate AE theater plans along airlift routes, including number and location of AE assets needed to support operational requirements. The AE contingency planner should also coordinate with the Air Force Forces (AFFOR) Surgeon to ensure visibility of theater medical facilities/capabilities affecting AE plans. These functions may be provided from HQ AMC Subject Matter Experts (SMEs), utilized in a reach back status to support operations until a senior AE expert or AE planner is identified.

3.4.2. COMAFFOR Special Staff. For contingency operations, the COMAFFOR special staff includes a senior AE expert as identified, in conjunction with the AE force provider, HQ AMC A3/10, to support the COMAFFOR on the special staff. The AE expert will have extensive experience in the AE and ERC system, airlift operations and plans, and will have attended mandatory training as part of HQ AMC A3/10 pre-selection and training requirements. This person will serve on the advanced echelon (ADVON) support staff, assist with the development of the initial AE force lay down, C2, and coordinate the interface with airlift operations.

3.4.3. The Director of Mobility Forces (DIRMOBFOR) is the COMAFFOR's designated coordinating authority with all agencies affecting air mobility operations. The DIRMOBFOR is also the advisor on how best to effectively and efficiently use air mobility assets. He or she is normally assigned or attached to the COMAFFOR's special staff to assist in planning and conducting air mobility operations and should be given appropriate liaison authority. The DIRMOBFOR normally exercises coordinating authority between the geographic Air Operations Center (AOC), the 618 AOC (TACC), and deployment and distribution operations centers to expedite the resolution of air mobility issues. They normally have direct liaison authority (DIRLAUTH) with other organizations. Additionally, the DIRMOBFOR ensures the effective integration of inter-theater and intra-theater air mobility operations and facilitates the conduct of intra-theater air mobility operations.

3.4.4. A Deputy DIRMOBFOR/AE may deploy as part of an ADVON, or as a member of the AMD. Deputy DIRMOBFOR/AE candidates with AE expertise will be selected by HQ AMC /A3/10 and trained in the AOC, and will attend the theater validation course. This individual, when tasked, will fully integrate into the AMD and assist the DIRMOBFOR in all other duties as required.

**3.5. Operational C2.** The AE system has been standardized to ensure peacetime processes mirror wartime processes. This allows for the system to exercise its wartime infrastructure in peacetime and enhance wartime training. Command and control of AE assets, to include tasking authority for AE and mobility forces, resides with the normal airlift and mobility C2 structure. Field and AE squadron operations will be conducted through operational inter-theater wing C2 channels. Intra-theater air mobility operations are defined by geographic boundaries. Air mobility forces assigned or attached to that GCC normally conduct these operations. Intra-theater common-user air mobility assets are normally scheduled and controlled by the theater Air Force AOC or Joint Air Operations Center (JAOC) if established. 618 AOC (TACC) serves as the AOC for the HQ AMC air mobility

mission and is responsible for tasking and controlling operational missions for all activities supporting HQ AMC's global air mission.

3.5.1. HQ AMC manages and operates the inter-theater and AE subsystems, and provides AE elements and planning assistance to the theater, in intermediate supporting theaters, or in the U.S. The United States Air Forces in Europe (USAFE) and United States Pacific Air Forces (PACAF) are responsible for theater-assigned AE units and associated airlift units. When contingencies exceed theater AE capabilities, HQ AMC will provide mission-specific augmentation forces to support increased theater requirements and will expand or establish the inter-theater capability to support movement between theaters, or to and within the U.S., as required.

3.5.2. Movement of patients between points within a GCC's area of responsibility is referred to as intra-theater, while movement of patients between GCC's area of responsibility to points outside the area of responsibility, is referred to as inter-theater. In both cases, AE's portion of en route medical care is provided by qualified flight nurses (FN) and Aeromedical Evacuation Technician (AET) and can be supported with medical attendants (MA), CCATTs, or other ERCC teams.

3.5.2.1. Intra-theater. These operations are regional in nature and serve a single CCMD's requirements. They are normally conducted using forces assigned, attached, or made available for tasking to the CCMD. Patients are most likely to enter the joint system for evacuation and medical regulation at the theater hospitalization capability. However, casualties can enter at the forward resuscitative care capability, depending on the type of operation and forces supported. Intra-theater patient movement requires a coordinated effort between Service and host nation (HN) MTFs, the responsible PMRC, and Service component organic and theater evacuation assets. The Joint Force Surgeon (JFS) is responsible for developing intra-theater policies in coordination with Service component evacuation representatives.

3.5.2.2. Inter-theater. These operations are generally global in nature and serve the transportation needs of the CCMD outside the JOA supporting the conduct of operations within the JOA. USTRANSCOM directs policies and procedures for inter-theater patient movement and identifies transport resources. Currently, inter-theater patient movement is primarily conducted utilizing airlift assets because long evacuation distances may preclude other modes of patient movement in supporting rapid evacuation out of the CCMD AOR. However, circumstances permitting other modes and lift assets may be used for inter-theater patient movement. Patients are most likely to enter the inter-theater system from a theater hospitalization capability for movement to a definitive care capability, outside the theater, and eventually to the U.S. Inter-theater patient movement requires a coordinated effort between Service or HN MTFs, responsible PMRCs, and transportation agencies.

3.5.3. The airlift agency (AOC/JAOC/AMD) will execute the AE mission by optimizing the use of available multi-mission aircraft, mixing cargo and AE on mobility missions, and integrating AE requirements into cargo channel routes. Airlift for urgent and priority patients will be tasked from alert AE crews, if necessary, diversion of in-system select aircraft, or contracting with a civilian air ambulance. Each patient's clinical requirements may also dictate specific airframe use. To enhance responsiveness, AE crews and CCATTs should be strategically positioned based on airlift and key patient originating locations. On execution,

AE plans may integrate allied and/or other Services' airlift capabilities, when appropriate. AE and airlift elements are tasked through the Air Expeditionary Wing (AEW) using an air tasking order. The AEW will provide airlift, aircrews, and augmentation assets (equipment and/or specialized medical personnel) to comply with the tasking. AE assets are placed at strategic locations throughout the JOA for rapid response.

### **3.6. Airlift Control Agencies.**

3.6.1. 618 AOC (TACC). The 618 AOC (TACC) is responsible for tasking and controlling operational missions for all activities supporting USTRANSCOM's global air mobility mission. Its functions include, but aren't limited to: current operations, C2, AE and aerial port operations, mission management, flight planning, deployment, diplomatic clearances, weather, and intelligence.

3.6.1.1. 618 AOC (TACC) Aeromedical Evacuation Division. The AE Division is the source of AE operational expertise and mission execution within the 618 AOC (TACC) for USTRANSCOM assigned intra- and inter-theater AE Forces. The AE Division provides C2 to assigned AE elements and provides the clinical and operational interface between airlift operations and the PMRC. AE Division personnel have extensive knowledge of flight physiology, airlift AE capability, and information technology such as operational mission planning, tasking, scheduling, and mission monitoring of airlift and AE assets to support PM, as well as coordination with the PMRC for medical issues.

3.6.2. Geographic AOC/Air Mobility Division. The Geographic AOC/AMD plans, coordinates, tasks, and executes the intra-theater air mobility mission. The AMD is led by the AMD Chief who ensures the AMD works as an effective division of the AOC in the air and space planning and execution process. The AMD is normally organized into four functionally oriented teams: Airlift Control Team, Air Refueling Control Team, Air Mobility Control Team, and Aeromedical Evacuation Control Team (AECT). The AMD coordinates with the theater's Deployment and Distribution Operations Center (DDOC) for validated cargo and passenger movement requirements. Due to the mission uniqueness of some theaters, you may find additional teams within an AMD, such as an aerial port control team or theater direct delivery cell. Team composition (e.g., numbers, specialties and skill levels) will normally be tailored to unique mission demands. All AMD teams integrate their activities to deliver mobility effects in support of the COMAFFOR/JFACC objectives.

3.6.3. AE Control Team. The AECT is one of four teams assigned to the Geographic AOC/AMD and is responsible to the AMD Chief and AOC Director for intra-theater AE operational planning, tasking, and mission execution. Once a validated patient movement request (PMR) is received, the AECT coordinates and integrates theater airlift and AE assets to meet AE movement requirements, tasks the appropriate airlift wings through the Airlift Control Team (ALCT) and air tasking order (ATO), and passes mission information to the PMRC. This team also coordinates with the 618 AOC (TACC) to integrate inter-theater AE missions and requirements into the theater AE plan. AECT members require an in-depth knowledge of AE specific regulations, to include operations, aircrew management, aircraft configuration, and aircraft systems. However, current qualification as an AECM is not required.

### **3.7. Air Expeditionary Forces.**

3.7.1. Air Expeditionary Wing. When the size and scope of the operation warrants establishing an AEW, AE forces will be aligned as part of the Air Expeditionary Group (AEG) under the total AEW construct. AE standardization/evaluation will be integrated with similar group-level functions.

3.7.2. Air Expeditionary Group (AEG). When the size and scope of the operation warrants a minimal footprint, a smaller AEG may be deployed instead of the larger AEW. AE elements will then be aligned as part of the Air Expeditionary Squadron under the total AEG construct.

3.7.3. Expeditionary AE Squadron (EAES). The EAES is assigned to an AEW and operations group. The deployed UTC (FFQCC) integrates into AEW operations with the senior ranking officer designated as the EAES/CC on G-series orders.

3.7.3.1. The AE Command Squadron (AECS), (FFQCC). Provides command of assigned AE Forces. The AECS can deploy in advance of other AE UTCs to establish the support required for AE forces and establishment of a theater aeromedical evacuation system (TAES). The AECS will advise Wing and Operations Group commanders, as well as other appropriate personnel/agencies on AE CONOPS, doctrine, capabilities, and requirements. This UTC provides procedural guidance, technical guidance and management oversight for assigned, attached, and transiting AE elements. The AE Operations Team (FFQNT), AE Manpower Augmentation Team (FFQCM), AE Liaison Team (FFQLL) or AE Communications Team (FFQCR) UTCs may augment the AECS as required. The AECS deploys with the AE Command Squadron equipment package (FFQC1) UTC.

### **3.8. Clinical Oversight.**

3.8.1. The Joint Force Surgeon is appointed by the JFC to serve as the theater or JTF special staff officer responsible for establishing, monitoring, or evaluating joint force health service support (reference JP 4-02). The JFS is responsible for coordinating and integrating health service support within the AOR as well as coordinating intra-theater patient movement support to the Joint Task Force Commander (JTF/CC). The JFS should appoint a theater Medical Director who is responsible for the quality of patient movement and clinical care provided within the AOR.

3.8.2. The Air Force Forces (AFFOR) Surgeon is the designated medical advisor to the COMAFFOR on all Air Force specific health services support resources, including health surveillance, risk assessment, and other Force Health Protection (FHP) issues. The AFFOR Surgeon provides professional oversight for deployed Air Force medical units, writes supporting CONOPS, and coordinates with HQ AMC/SG to establish clinical policies for AE, supported CCMD, and other Component Commands.

3.8.3. The theater Validating Flight Surgeon (VFS) works with the PMRC and complies with DOD and Service-specific medical licensing requirements. The VFS must have the appropriate knowledge base and experience sufficient to ensure proper medical care during transport, as well as the ability to provide medical direction during transport for all patient types served by the patient movement system. The theater VFS must ensure compliance with applicable accepted practice standards for air and ground patient movement. Medical direction can be transferred from the theater VFS to a physician traveling with patients as a Medical Attendant (MA) or to an En Route Critical Care (ERCC) physician.

3.8.4. En Route Critical Care Director. During major contingency operations the CCMD may establish a theater ERCC Director. In coordination with HQ AMC/SGK (Command Surgeon En Route Medical Care Division), the HQ AF/SG CCATT consultant will nominate a qualified member for the position from a list of candidates to be maintained by the consultant. Generally, the theater ERCC Director will be assigned to the AFFOR/SG staff. They will serve as an advisor to CCMD/SG and AFFOR/SG for the development, utilization, and optimization of a theater-wide ERC capability including utilization of UTC FFCCT and other special ERC capabilities, such as Tactical Critical Care Evacuation Teams (TCCET), Acute Lung Rescue Teams (ALRT), and other special and coalition medical critical care air transport assets.

3.8.5. In accordance with (IAW) AFI 48-307V2, *En Route Critical Care*, the EAES commander will appoint a unit ERCC director for management and oversight of all assigned ERCC teams, and to serve as ERCC-liaison for the AE command section. The ERCC director appointment will be assigned to a physician who may be of lesser rank but with greater ERCC experience. The ERCC director will be responsible for managing each of the ERCC teams assigned to the squadron, establishing the rotational schedule, coordinating with the Director of Operations (DO), reviewing clinical processes, liaising with local MTFs to establish processes for ERCC team clinical sustainment, and all other team issues that may arise. The ERCC director reports directly to the AE commander and is integrated into the AE unit executive leadership structure at the equivalent level of the DO and the Chief Nurse.

## Chapter 4

### OPERATIONS

**4.1. AE Across the Range of Military Operations.** HQ AMC is charged with the responsibility to operate the common-user Air Force AE system and has been given the overall responsibility as the AE lead command for the Air Force to manage and operate the inter-theater and AE sub-systems, and provide the AE elements and the planning assistance to the theater of operations, in intermediate supporting theaters or in CONUS.

**4.2. Steady-State/Peacetime Engagement and Crisis Response.**

4.2.1. Theaters will validate patient movement mission requirements through the existing theater unified command cargo/passenger annual validation process. Patients traveling as passengers in a Temporary Duty (TDY) status must be validated as clinically able to do so by the TPMRC/VFS and granted duty passenger priority. Associated costs with the use of seats on military lift by patients, MAs, and AE assets will be outlined in appropriate DOD Instructions (DODI) and joint publications.

4.2.2. Patients requiring in-flight medical care but not supported by the organic AE system, may be moved via other Service assets or civilian air ambulance (CAA). Outpatients and eligible beneficiaries needing air transportation, but not requiring in-flight care, can be moved by commercial airline travel, contract airlift, duty passenger travel, or in a space available status in the DOD transportation system, as validated by the PMRC.

4.2.3. AE Defense Support of Civil Authorities (DSCA). DSCA is support provided by U.S. Federal military forces, National Guard forces performing duty, DOD civilians, DOD contract personnel, and DOD component assets, in response to requests for assistance from civil authorities for special events, domestic emergencies, designated law enforcement support, and other domestic activities. Support provided by National Guard forces performing duty is considered DSCA, but is conducted as a state-directed action, also known as civil support. Requests for health support during disasters in the U.S. will normally be initiated by Department of Health and Human Services through submission of a request for assistance or mission assignment. Requests typically flow from the Federal Emergency Management Agency (FEMA) to the Joint Director of Military Support and are processed forward to the Secretary of Defense for approval.

4.2.3.1. The Air Force AE system supports patient evacuations accomplished through the National Disaster Medical System (NDMS). USTRANSCOM is the authority that validates the requirement to support civilian authorities with Director of Aerial Port of Embarkation (APOE), FEMA, and the NDMS. Once validated, HQ AMC and 618 AOC (TACC) are the lead operational authority (LOA) for AE planning, coordinating, and, when directed, executing DSCA support. HQ AMC also provides trained AE coordinating officers and coordinating elements for DSCA from existing active and reserve component forces in execution of the National Response Framework (NRF) in CONUS. AE assets required will depend on the size and scope dictated by the disaster or contingency and may be supported by in-place AE infrastructure or the deployment of AE assets to the disaster area.



4.2.3.2. ANG AE assets, as part of their state's Emergency Management Plan (EMP), may be mobilized and deployed/employed in a state activated status prior to federalization.

4.2.3.3. HQ AMC plays a key role in response efforts by providing specifically trained AE personnel, planners, and support staff. With proper authorization, AE personnel may be used to support local efforts at command and control centers, staging at existing airports, and/or AE liaisons at medical treatment facilities preparing patients for transport.

**4.3. Deterrence and Contingency Operations.** AE forces are incremental and can be built from a small liaison team to a fully operations Theater Aeromedical Evacuation System (TAES). The initial, expeditionary, AE assets that can deploy far forward, are mobile, and support the various medical ground units from all user services.

4.3.1. During support of operations, AE employs its full capability, to include staging, AECMs, ERCC specialty teams, and integrated communications. During wartime, AE includes the movement of military casualties from forward airfields to more capable facilities, and if required, on to definitive care facilities. The AE system may be tasked to transport injured/ill special operations forces, provide support for noncombatant evacuation operations (NEO), and/or evacuate injured/ill repatriated U.S. or allied prisoners of war (POW). The AE system may also be tasked to evacuate injured/ill enemy prisoners of war (EPW), detainees, and coalition forces. AE also includes transportation of patients to and from redistribution centers within CONUS and in support of Humanitarian Assistance or Disaster Response (HA/DR) operations.

**4.4. CONUS Contingency AE.** AE missions returning patients from the theater deliver the patients to CONUS staging facilities that will be strategically placed to support defined airlift routes. Additional medical assets may be required to support patients at organic en route hubs, and redistribution of casualties in CONUS may also involve a network of commercial airlift. For example, critical care and mental health patients will not be held in the staging facility (En Route Patient Staging System [ERPSS]), as these facilities are not staffed with providers to treat these types of patients. See AFTTP 3-42.57 for further information on ERPSS capabilities.

**4.5. AE Interface with the Joint Community.** Movement of patients between points within a GCC's AOR is referred to as intra-theater, while movement of patients between the GCC's AOR to points outside the AOR is referred to as inter-theater (refer to para. 3.5.2.). PMRCs are responsible for identifying MTF capability, regulating patients to the closest capable facility, clinically validating, and coordinating with Service components for patient evacuation. This process aligns the patient to an MTF with the necessary capabilities and bed availability. PMRs are validated then passed to the service air component for execution. The airlift operations centers may request other destinations due to availability of airlift and routes to support AE, but these decisions will be coordinated with the PMRC prior to execution.

4.5.1. PM and Roles of Care.

4.5.1.1. POI/illness to Role 2. Generally, the component commands are responsible for evacuation of the casualty from POI/illness to Role 1 or Role 2 MTFs 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 (rotary- or fixed-wing) transport. The USA generally employs dedicated MEDEVAC assets such as ground and air ambulances. The U.S. Navy (USN) normally relies on lifts of

opportunity. The USMC has some dedicated ground evacuation and relies on designated air and other lifts of opportunity. If USAF assets are required, at this level, lifts of opportunity may be used.

4.5.1.2. Role 2 to Role 3. Movement within and from Role 2 capabilities is normally a Service component responsibility; however, some operations may require evacuation by the joint common-user PM system. For example, the USMC has no organic theater hospitalization (Role 3) capabilities, and this care is provided by the USN. The USN does not have dedicated or designated evacuation vehicles with the capacity to go forward and retrieve patients from units with Role 1 and Role 2 capabilities to evacuate them to the Role 3 capability. For this reason, the USA will be tasked with providing PM support for ship-to-shore and shore-to-ship evacuation. For environments beyond the capabilities of rotary-wing PM support, joint common-user resources may be required. Requests to the joint common-user PM system are submitted to the PMRC for coordination.

4.5.1.3. Role 3 to Role 4. If a patient cannot be returned to duty within the limits of the theater PM policy, the originating Role 3 MTF will normally request PM to a Role 4 MTF for more definitive care and disposition. The originating MTF will submit a PM request, in accordance with prescribed procedures, using the USTRANSCOM Regulating and Command and Control (C2) Evacuation System (TRAC2ES). PM requests are submitted to the appropriate PMRC (or Joint Patient Movement Regulating Center [JPMRC] if one is established). When operating within an area that already has an established TPMRC, the TPMRC maintains overall visibility for theater USAF PM operations, but the JPMRC is responsible for USAF PM operations within the OA and coordinates with the TPMRC for USAF intra-theater PM and the Global PMRC (GPMRC) for inter-theater PM. The JPMRC identifies intra-theater PM requirements through the theater AOC/JAOC/AECT, and the TPMRC coordinates with the theater air mobility operations control center to identify theater airlift assets available, and with the GPMRC to identify inter-theater PM requirements through USTRANSCOM's Joint Mobility Control Group.

4.5.1.4. Role 1/Role 2 to Role 4. Some joint operations may present unique situations and considerations where a theater hospitalization (Role 3) capability may not exist. Stabilized casualties may enter the joint common-user PM system near the Role 1 capability and be evacuated directly to a Role 4 capability in another theater. In such cases, the component command medical regulating officer will submit a PM request to the JPMRC.

#### **4.6. AE Interface with the Patient Movement Process.**

4.6.1. Patient Movement Request (PMR). The PM process begins when the health care unit sends a PMR to the servicing PMRC. The PMRC evaluates the request for eligibility, necessity, and acuity. PMRs are then submitted to the PMRC by the Service medical patient administration section in each facility and will be communicated through TRAC2ES for patient in-transit visibility (ITV). Operational tracking of AE missions will be through standard air mobility automated systems.

4.6.2. Patient Movement Requirements Centers (PMRCs) - Global, Theater, and Joint. The PMRC is a joint activity responsible for PM management and coordination. The PMRC validates patient movement requests, regulates patients to appropriate medical facilities for continued medical care, and determines the mode of transportation (air, sea, and ground). PMRCs should exist at the joint level as an element of the joint movement center, to ensure

visibility of joint assets for PM lift options. PMRC staffing includes nurses as Patient Movement Clinical Coordinators (PMCC), and one or more theater VFSs who are assigned or delegated by the theater Command Surgeon to work with the PMCC. Theater VFSs provide physician medical direction and clinical oversight of PM validation, transfer/en route care planning, and en route care during AE. The PMCCs provide clinical and administrative expertise during validation and may be delegated validation authority by the VFS for routine patients using approved algorithms.

4.6.3. Patient Movement Clinical Coordinator (PMCC). A PMCC is a nurse assigned to a PMRC who provides clinical and aerospace oversight for clinical validation of patient movement requests. The senior PMCC ensures standardized training requirements for PMRC personnel are met, conducts case reviews, implements PMRC clinical practice guidelines for personnel (nurses and medical technicians) performing clinical regulation/validation in the PMRC, and defines the scope of practice for clearing patients by PMCC's when an originating MTF flight surgeon is not available.

4.6.4. Patient Administration Director (Clerk/Officer) (PAD) or the Medical Regulating Officer (MRO) is responsible for contacting the PMRC with PM requirements and submitting patient movement data. This individual manages patient numbers and bed classifications, determines availability of facility-based resources to assist with the movement of patients, and coordinates the use of those assets. The PAD/MRO serves as the liaison between the referring physician and medical staff, the patient, the PMRC, and is responsible for inputting patient data for PMRs.

#### **4.7. Mission Coordination and Operational Considerations.**

4.7.1. Management of AECMs is essential for efficient system operations. Crew management and tasking includes support to all AECMs, CCATTs, ERCC teams, and other supporting medical augmentees. AECMs will comply with appropriate crew duty days, and alert procedures IAW governing AFIs. AECMs normally fall under the direct control of an AEOT (FFQNT) responsible for crew management. AECMs that remain overnight (RON) from deployed C2 structure will align with the Pilot in Command (PIC) for reporting location, availability, and follow on mission requirements. AE crew management will be integrated into local mobility ATOs, airlift stage management operations, and crew alerting processes. AE crews will be alerted following the same process as other flight crews for that location and/or IAW AFI 11-2AEV3, *Aeromedical Evacuation (AE) Operations Procedures*. It is the medical crew director's (MCD) responsibility to contact the en route controlling C2 authority, to determine return mission/follow-on mission availability. AE equipment will be considered part of aircrew equipment.

4.7.2. DOD Definitions for Theater Evacuation Precedence. Times begin once a patient is validated. The timeframes are expected response time, but can be negotiated with the lift agency. In contingencies, follow OPOD Annex Q, "Medical Support," for specific directives and joint operations priorities.

4.7.3. Mission Coordination. Once the mission has been identified, the AOC/AMD/618 AOC (TACC) will task mobility wings for airlift, crews, and augmentation assets (equipment and/or specialized medical personnel support). The AE cell/AECT will pass mission information including aircraft arrival and departure times through the Wing, servicing PMRC, and the

originating and destination health care facilities. The AE cell/AECT will track missions and all operational aspects of the patient movement.

4.7.4. Unregulated Casualties. When security or operational conditions exist which require casualties to be moved immediately, patients may be moved without prior PMRC validation. In this case, the originating AE component will attempt to alert the AECT of the departure of AE missions with unregulated patients. AECT will then notify the PMRC, and a VFS will be identified to clear the patients for movement within the AE environment.

4.7.5. Patient Considerations and Preparation for AE. Proper clinical preparation for AE increases the likelihood of successful patient outcomes. Originating physicians and staff, in consultation with local flight medicine personnel, should begin preparatory actions by outlining the care plan the patient requires en route to the PMRC. For patient preparation and considerations for flight, please reference AFI 48-307V1.

4.7.6. Management of Patient Weapons. During contingency operations, weapons will be returned to the user Service, or in special situations, will be cleared and transported IAW aircraft regulations and the Geneva Conventions.

4.7.7. Patient Essentials. Regulated patients will be transported with their medical records or evacuation battle tag, valuables, personal effects, and medical essential items IAW established regulations. Medical equipment, referred to as patient movement items (PMI)/PMI in-kind, and supplies required to support patients during evacuation should be coordinated in advance. While in theater, patients should also be transported with their personal protective equipment readily accessible to them, and any chemical warfare/biological warfare (CW/BW) gear will be available as applicable.

4.7.8. ERC Medical Equipment. ERC medical equipment and supplies will be standardized throughout the system and will comply with air-worthiness requirements. This will ensure rapid medical equipment exchanges and forward re-supply. For further guidance on ERC and patient preparation please refer to AFI 48-307V1, AFI 10-2909, *Aeromedical Evacuation Equipment Standards*, the current *Aeromedical Evacuation Non-PMI (Non-Standard) Medical Equipment Compendium* available on the A3VM “Master Library Verified AE” SharePoint site (see Attachment 2, “Additional Resources” for URL), and/or current theater/local medical equipment guidance.

## Chapter 5

### PLANNING AND SUPPORT CONSIDERATIONS

#### 5.1. CONOPS.

5.1.1. Each Service component is responsible for all functions of the Service-specific PM system, including operational guidance, intelligence, medical direction, logistics, and communications support. From initial injury to definitive care, the treatment and evacuation of patients from the battlefield transcends many levels of communication and coordination, routinely crossing Service boundaries. Thorough knowledge of the PM systems will expedite casualty care and save lives. Patient evacuation must be planned to support any operation. JFCs should integrate and coordinate the use of evacuation resources toward the common purpose of reducing mortality while maintaining the medical continuum of care. It is, therefore, critical that each Service component properly plan to operate its portion of the overall PM system. Planning ensures a coordinated effort in providing timely and effective PM, which involves determining theater movement estimates, identifying frequency channel lift requirements, and regulating appropriate MTFs. All available forms of transportation must be considered within the constraints of the tactical situation and the details of patient handling.

5.1.2. The evacuation of casualties within the joint special mission arena can be a particularly complex issue since these forces often operate in small, widely dispersed teams, and in locations not easily accessible. Flexibility and sensitivity to the particular needs of the special mission community, both clinically and administratively, is important to consider in determining how to best support their AE requirements. The special mission forces are responsible for care and evacuation of casualties from the forward location to the secure airfield where AE forces will assume responsibility for the casualties, freeing special mission medical assets to return to forward locations. The AE planner must understand the need for limited resources and yet versatile, flexible capability to support special missions.

5.1.3. Evacuation plans should integrate and include ground ambulances, rotary- and fixed-wing evacuation platforms, crew, and attendants. Plans should also include en route (ground and air) critical care teams for transporting patients with critical care needs, Service staging or holding MTFs, Service liaisons, appropriate Service operational requirements, C2 elements, equipment, and handling to include reconstitution of PMI/PMI in-kind.

5.1.4. The USA is responsible for providing medical rotary-wing support for ship-to-shore and shore-to-ship patient transport operations in support of PM requirements for the hospital ships. USA MEDEVAC is conducted as an area support mission including support to all Services operating within the assigned grid coordinates. Requests for the USA evacuation support under the auspices of its area support role from the USN and/or USMC will be prioritized by urgency and not by Service of origin. Plans should reflect this arrangement when it supports the commander's CONOPS. If the USA MEDEVAC assets are not available or are not deployed as part of the operation, the USN and USMC have responsibility for ship-to-shore and shore-to-ship movement of patients.

5.1.5. The USAF is responsible for providing AE. The AE system provides time-sensitive mission-critical ERC to patients to and between MTFs. Care is delivered by USAF medical personnel specially trained to operate within a global AE system. The USAF's AE capability

comprises a system including ground and airborne forces providing and supporting medical care within MTFs, patient staging platforms, and in the air. AE personnel and ERCC Teams execute PM predominately on mobility air force aircraft, as well as aboard Sister Service, contracted, and international partner airframes. AE forces operate as far forward as air operations occur in support of the full range of military operations, humanitarian assistance (HA), and disaster response. The system is designed to be flexible to enable it to operate across the spectrum of potential scenarios and interface with joint forces, multi-national forces, and Special Operations Forces (SOF).

**5.2. Movement of Casualties.** The movement of U.S./coalition casualties is accomplished by all available forms of transportation including ships, ground vehicles, and rotary- and fixed-wing assets. Although evacuation of patients through first responder and forward resuscitation is normally a Service responsibility, AE units may, depending upon the operational situation, evacuate casualties from forward airfields when requested to do so by the combatant commander. AE planning requires the integration of Joint and Service specific capabilities into the theater or JFC's CONOPS. Health service support considerations include the tactical mission and situation, enemy and friendly capabilities, threat assessment and the theater evacuation policy. AE planners are an integral part of the airlift planning team and should build appropriate AE support into the en route structure. The AE planner should interface with medical planners to ensure appropriate medical capability along airlift routes.

5.2.1. The process of patient categorization determines how quickly a patient will be evacuated within the PM system and has a significant impact on lift assets. PM priorities are derived from situational factors or individual patient clinical conditions. Refer to OPOD Annex Q, "Adaptive Planning and Execution" (APEX) for directives and specific joint operations priorities. Senior medical personnel, or if no medical personnel are present, the senior military personnel, recommend the precedence for PM to the PMRC based on each patient's condition/status. Patient condition/status may be upgraded or downgraded at each succeeding role of care. Timeframes to provide evacuation assets on-site ready to conduct PM begin once a PM request is passed to the responsible PMRC. The tables in JP 4-02, Appendix G, "Service Component Transportation and Medical Evacuation Assets," identify these timeframe objectives within which the PM system should respond.

**5.3. PM Evacuation Precedence Categories and Movement Precedence.** Due to the nature of AE operations and the use of mobility airframes to provide this expeditionary patient movement asset, the AE precedence categories are different than those utilized for other patient movement options. Refer to JP 4-02, Appendix A, "Patient Movement," and AFI 48-307V1, paragraph 3.5. for complete descriptions. AE patient movement categories:

5.3.1. Priority I—Urgent (stabilizing/unstable). Patients requiring immediate PM to save life, limb, eyesight, or prevent serious complications of injury or existing medical condition. Immediate action shall be taken to obtain suitable transportation to meet patient requirements. Timeline for movement is as soon as possible and will be validated by supporting PMRC Theater Validating Flight Surgeon (TVFS). PM should commence within 12 hours of a validated patient movement request. Note: It may be necessary, in some cases, to skip a medical capability echelon and evacuate a patient directly to a greater medical capability echelon in order to increase the survivability of the patient. To do so, the patient must be stable enough to endure the additional flight time to the greater medical capability.

5.3.2. Priority II—Priority (stabilizing/stabilized). Patients requiring expedient PM and prompt medical intervention when care is unavailable locally and medical condition could deteriorate; PM is required sooner than the next scheduled channel AE mission. Timeline for movement will be defined by the competent medical authority and validated by the supporting PMRC TVFS. PM typically commences within 24 hours of a validated patient movement request, but may be modified based on the patient's requirement for next clinical intervention.

5.3.3. Priority III—Routine (stabilized/stable). Patients requiring timely PM, can tolerate longer periods except when clinical requirements/or status change warrants higher movement precedence. Timeline for movement will be defined by competent medical authority and validated by the supporting PMRC TVFS. PM typically commences within 7 days of a validated patient movement request, but may be modified based on the patient's requirement for next clinical intervention.

**5.4. AE Planning Factors.** The 618 AOC (TACC) AE division is divided into two planning branches and one execution branch.

5.4.1. AE Current Operations Planning Branch is responsible for the planning and scheduling of inter-theater and CONUS intra-theater AE missions. This is done in coordination with the GCC OPLAN requirements and the PMRC. This branch develops and establishes the AE theater airlift plans and frequency requirements. Lastly, it coordinates with the Joint Operational Support Airlift Center (JOSAC), and CAA companies, if necessary, for airlift support to conduct the AE mission.

5.4.2. AE Mission Support Branch is responsible for mission support and current contingency plan operations. In coordination with the AE Current Operations Planning Branch, they develop inter-theater and CONUS AE execution plans in support of military and civil operations. Furthermore, they define and validate USTRANSCOM AE forces and equipment requirements to include G-series Unit Line Numbers (ULN) and coordinate with MAJCOMs, CCMDs, and federal and state agencies to support the AE mission. This branch is USTRANSCOM's tasking authority for AE personnel and ERCC Teams for HQ AMC AE missions.

5.4.3. AE Current Operations Branch is responsible for centralized C2 of HQ AMC-gained inter-theater and CONUS AE missions. It balances the medical requirements of the mission with the operational airlift requirements, receives urgent and priority patient movement requirements from PMRCs and AECTs, and is responsible for developing short-notice airlift plans to meet these time critical patient requirements.

**5.5. Theater Evacuation Policy.** The theater evacuation policy states the maximum number of days (hospitalization and convalescence) a patient may be held within the theater for treatment, prior to being evacuated, and who in the opinion of appropriate medical authority, cannot be returned to duty (RTD) within the prescribed period are evacuated as soon as practical to the next appropriate level of care for further treatment. The evacuation policy is determined by guidance from the Secretary of Defense in coordination with the GCC and Chairman of the Joint Chiefs of Staff. Upon execution and during operations, the theater evacuation policy may be adjusted based on various factors including the number of definitive care beds available in or deployable to the theater. The evacuation policy does not imply a patient must be held in the theater for the entire period identified in the theater evacuation policy.

**5.6. Airframe Considerations.** It is critical to identify the availability of various airlift platforms appropriate for the volume and clinical requirements of the patients to be moved. The AECT is the authority for USAF mobility airlift capabilities and system interface.

5.6.1. Organic Mobility Lift and In-System Select (ISS). Organic aircraft are Service airframe assets obtained primarily through mission tasking or through en route diversion and mission reprioritization for AE use. Organic airlift is the major airframe component of expeditionary AE. Requirements can vary from obtaining a seat to move ambulatory patients to procuring a pallet position to move litter patients, or an entire aircraft to perform a single mission or routine frequency mission. The AOC has visibility of airlift operating in the AOR and may divert a mission conducting an ISS to support the patient request. The AECT coordinates the AE tasking to ensure all assets are available to support the ISS mission.

**5.7. Airfield Capability.** The mobility en route structure and proximity of medical facilities to the airfield determine AE laydown. Proposed on load, en route, and offload airfields must be able to support the operation. The AECT coordinates with airlift operators to determine operating restrictions such as quiet hours, low light operations, approach restrictions, refueling restrictions, time to enplane and deplane patients, etc. Mission planners must consider flight line security, secured launch, and PHOENIX Raven requirements for designated airfield locations.

**5.8. Uncertain or Hostile Operational Environment.** The requirements for Security Forces to support aircraft during AE missions must be considered in the airlift planning process. The PHOENIX Raven program provides specially trained Security Forces personnel to protect HQ AMC aircraft and will be included on all AE missions to locations designated "Ravens required." AECMs will carry weapons, when appropriate and authorized, to protect themselves and their patients.

**5.9. Base Operating Support (BOS) and Operations Support.** AE operations depend on integration with the Line of the Air Force (LAF) to provide BOS and Senior Airfield Authority synchronization. This support is needed for AE units attached to specific locations, as well as en route transient support during patient evacuation through the system, and must be coordinated with appropriate agencies prior to deployment. These requirements include, but are not limited to, transportation (including patient transportation), messing and other consumable materials, water, fuels, cryogenics, liquid oxygen (LOX) and other gases (obtained from fuels or on a contract basis), billeting, latrines, showers, laundry, and security.

5.9.1. Additional requirements include: alternate generator support (primary generator capability is included in allowance standards), fire protection, vehicle maintenance support, vehicle decontamination, maintenance and logistics, Aircrew Flight Equipment (AFE), contracting, supportive information/communications systems maintenance, waste management, and personnel decontamination. AE UTC mission capabilities statements (MISCAP) must be reviewed to determine specific requirements especially in regard to communication and transportation support.

**5.10. Biomedical Equipment Technician (BMET) Support.** Equipment repair is essential in the theater for routine maintenance and minor repair. Deployed MTFs (and potentially civilian and multinational facilities) can support AE equipment repair and maintenance in steady state, but not surge periods. Therefore, the AE planner should insert AE BMET capability into airlift hubs and align with local MTFs to ensure AE equipment is processed to meet mission requirements.



**5.11. Communications.** A responsive communications system is essential to the conduct of PM. The JFC should establish a system which integrates the available capabilities of the PM system, synchronizes its application, and prepares to employ air, land, and sea forces to achieve PM objectives. This system should also support the operational requirements of medical information management as it relates to patient accounting and reporting, medical regulating, and patient in-transit visibility.

5.11.1. Service component commanders are responsible for C2 of their respective transportation agencies involved in joint PM. However, the JFS is responsible for establishing a joint PM CONOPS and identifying communications requirements necessary to integrate the functional aspects of the joint PM, medical regulating, and evacuation protocols out of the theater. This may include defining the requirements needed for intra-theater and inter-theater support. Effective PM 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 PM effort.

5.11.2. The JFC may provide detailed theater communications plans or assign theater communication management responsibilities to a single-Service component for specific functions during joint PM operations. Early identification of a theater's communications system requirements for evacuation connectivity is essential. At a minimum, medical communications in support of PM must provide reliable, real-time and, when possible, redundant communications within a theater, and from the theater to the U.S. They must also provide a link between the most forward point where the patient enters the PM system, long haul communication to PMRC, and each role in the medical system to the destination MTF or medical element.

5.11.3. The degree of success of PM operations is a function of the availability of reliable communications over dedicated and interoperable systems. Planners must identify frequencies common between Service component support forces assigned a PM mission. If no commonality exists, the JFC develops a theater plan ensuring adequate communications support to all Service components. All frequency requirements for organic equipment must be coordinated with the GCC's planning staff.

5.11.4. Short-range radio communications should be provided by each Service component to ensure communication between MTFs, evacuation vehicles, boats, aircraft, and operational C2.

5.11.5. When available, theater-based, long-range communications will be provided by satellite communications, and defense voice services, such as the Defense Switched Network (DSN), Defense Information Systems Network, and the Defense Messaging System. Satellite communications offering access to commercial telephones or point-to-point systems should be used when available.

5.11.6. TRAC2ES provides a responsive communications system essential to the conduct of PM. TRAC2ES is a web-based system, which maximizes the Internet while maintaining and protecting privacy and troop strength information. TRAC2ES provides global support throughout the full operational medical continuum for fixed and deployable MTFs and PMRCs.

**5.12. Ground Transportation.** Most AE units deploy with integral transportation capability specifically designated for the movement of assigned equipment packages with limited capability

to transport AE personnel. AE planners should ensure proper aircraft support equipment is available at the airfield (i.e., stanchion and loading systems). The staging facility, or MTF if there is no staging facility, is responsible for patient transport to and from the aircraft. Medical planners should determine the availability of other Service ambulances and vehicles and establish contracts or obtain HN support if required.

**5.13. Determining Crew Support.** It is imperative that planners ensure crew resources are allocated appropriately, and a designated replacement schedule for AE crews departing the theater must be established. Consideration must be given to length of crew duty day, augmentation of basic crews, required crew rest period, as well as ensuring transportation and billeting arrangements.

**5.14. AE Interface with Special Mission Forces.** Some special mission operations and expeditionary forward deployed operations, such as SOF, Marine expeditionary forces, and combat search and rescue (CSAR), do not possess organic conventional AE capability and must identify requirements for and obtain, conventional AE support at forward airbases.

**5.15. AE UTC Employment Concept.** AE UTCs optimize use of limited airlift during the initial phases of an operation without sacrificing capability. Some of the equipment UTCs are portable to ensure AE can be employed in the very early stages of a contingency. The concept is to employ an immediate, versatile, and flexible AE presence to respond to the needs of the deployed forces. Personnel will need to be multifunctional and capable of performing additional duties. After the initial buildup, the planners can augment the deployed teams with more manpower and equipment (augmentation packages), as required, to support more intense or ongoing operations.

**5.16. AE UTC Selection and Utilization.** AE UTCs are developed based on the building-block principle allowing planners to select specific UTCs capable of supporting the range of steady state, contingency operations, or OPLANs. The UTCs are divided into three major categories: command and control, patient care, and support. Designed to meet highly mobile and austere conditions, and as workload changes are projected to change, the UTC packages may be deployed or redeployed in small increments or combined with other UTCs to provide capability as needed.

5.16.1. Command and Control UTCs: AECT and AECS, are outlined in Chapter 3 and integrated with airlift operations.

5.16.2. Patient Care UTCs.

5.16.2.1. Aeromedical Evacuation Crew (FFQDE). AECMs are explicitly trained to perform in-flight patient care on opportune fixed-wing aircraft using medical equipment certified for use by airworthiness testing standards. AECMs are knowledgeable about the stresses of flight, aerospace physiology, basic trauma skills, patient safety, and are experts on the interface between aircraft systems and medical equipment to meet clinical care requirements. Crews can also augment any ground UTC requiring additional clinical management or mission support capability as assigned by the C2 commander when AE mission support is not impacted. The basic AECM team may be tailored by the designated chief nurse to support the patient's needs and requirements. During execution of the AE mission, AECMs and ERCC Teams are directed by AOCs in control of the airlift mission (i.e., AECT/AMD for theater or 618 AOC (TACC) for inter-theater airlift. Planners must task the FFQDM (AE In-flight kit equipment package) to support each FFQDE (AE Crew)).

5.16.2.2. Critical Care Air Transport Team (CCATT), (FFCCT). CCATTs provide advanced, specialty medical capability to evacuate (in conjunction with AECMs) critically ill or injured patients requiring continuous stabilization or advanced care during transport to the next level of care. Prior to transport, the role of the CCATT is to assess and prepare the critically ill patient for movement. The CCATT should normally originate with a patient from a nearby/co-located medical treatment facility (MTF) located at a theater AE hub. CCATTs may also be transported from an AE hub to forward locations to pick up patients for transport to higher levels of care. The CCATT will accompany the patient from the originating facility to the aircraft and continue to monitor and intervene during in-flight operations as required. When in-flight, the CCATT works with and receives mission operational direction from the MCD. The mission operational management authority and responsibility remains with MCD.

5.16.2.2.1. In conjunction with equipment package, FFCC4, the CCATT provides care for a maximum patient load of up to three high-acuity (e.g., ventilated) patients, or up to six lower-acuity (e.g., non-ventilated) stabilized patients. Introduction of untreated or unstable patients will degrade CCATT capability and deplete resources accordingly unless augmented. Consultation with the PMRC validating flight surgeon (VFS) and/or the Theater En Route Critical Care Director will be required prior to mission execution to determine the ideal provider mix to transport neonatal and pediatric critical patients.

5.16.2.2.2. When deployed, teams may be assigned to a deployed expeditionary AE unit or another en route care patient movement element. When assigned to any en route care element (AE or other), the unit commander will appoint a unit CCATT Director for management and oversight of all assigned CCATT teams and to serve as CCATT liaison for the unit command section. The CCATT Director will be a physician – that physician may be of lesser rank but greater CCATT experience from the pool of CCATTs assigned. The CCATT Director will be responsible for managing each of the CCATTs assigned to the squadron, establishing the rotational schedule, coordinating with the Director of Operations (DO), reviewing clinical processes, liaison with local ground medical treatment facility to establish processes for CCATT clinical sustainment, and all other team issues that may arise. The CCATT Director reports directly to the unit commander and is integrated into the unit executive leadership structure at the equivalent level of the DO and the Chief Nurse at AE units. Reference AFTTP 3-42.51 for further guidance.

5.16.2.3. En Route Care Expeditionary Support Package (FFEC1). When AECMs and ERCC Teams are deployed to forward locations early in an operation or to support Global Mobility CONOPS, an equipment package, including tents, generators, and a vehicle (when tasked), may be used to support their BOS requirements.

5.16.2.4. En Route Patient Staging System-10 (ERPSS-10), (FFEPS). The ERPSS-10 provides rapid response patient staging and limited holding capability to support humanitarian and civil disaster response operations and major theater wars (MTWs). ERPSS-10 is normally physically located to afford ready access to active taxiways/runways as feasible. ERPSS-10 is designed to provide forward support with the smallest footprint, which includes a capability to receive patients, provide supportive patient care, and meet administrative requirements on the ground while awaiting AE. Additionally, the ERPSS-10 equipment package contains tentage which is used to provide BOS for ERPSS-10

personnel. The communications capability assigned to the ERPSS-10 may be integrated into the tanker/airlift control element or operations cell. For deliberate planning, patient throughput is 40 patients per 24 hours. The team should be able to sustain this tempo for 72 hours before augmentation is required. The 40-patient throughput is based on aircraft constraints in a theater of war. Additional throughput may be achieved with increased aircraft availability and personnel augmentation. This UTC can be deployed on aircraft pallets (463L) or as rolling stock if UTC UFMVE, High Mobility Multi-purpose Wheeled Vehicle (HMMWV) is also tasked. The ERPSS-10 cannot be considered mobile unless two UFMVE UTCs are tasked to support each FFPS1 (ERPSS-10 equipment package).

5.16.2.5. En Route Patient Staging System-50/100 (ERPSS-50/100), (FFPPS, FFFPS, FFHPS). ERPSS-50/100 may be used at major inter-theater hubs to support the full spectrum of contingency operations and Air Expeditionary Force (AEF) operations including humanitarian relief operations (HUMRO) and homeland defense missions. ERPSS-50/100 interfaces with the AE mission and falls under the C2 of the medical group commander. Reference AFTTP 3-42.57 for more ERPSS information. Planners must task FFPS1, FFPS2, FFPS3, FFPS4, FFPS7, FFPS8 ERPSS equipment packages to support this capability.

#### 5.16.3. Support UTCs.

5.16.3.1. AE Liaison Team (AELT), (FFQLL). The AELT provides support between the forward user and the AE system in the form of operational and clinical interface. This interface may occur at locations without other AF personnel such as far forward bases and onboard ships. An AELT may be geographically separated from other AF assets. The FN provides clinical expertise to facilitate clinical support for administrative, aircraft specific requirements, equipment requirements, and clinical implications of altitude and stresses of flight. The FN on the team assists the medical unit in preparing AE patients for flight. The Medical Service Corps (MSC) Officer is responsible for providing guidance and assisting with coordination on patient movement processes and acts as a coordinator between user and AE operations. The MSC Officer assists in patient manifesting if TRAC2ES is not available. They normally work with the patient regulating component or the PAD section of a user Service. Planners must task FFQCR and FFQL1 equipment package to support the AELT. This is a rolling stock UTC and one HMMWV (UTC UFMVE) must be tasked.

5.16.3.2. AE Operations Team (AEOT), (FFQNT)/AEOT Augmentation Team, (FFQCM). The AEOT provides operations and mission management support to airfields supporting AE. It provides supervision and crew management for all assigned, attached or transiting AECMs and CCATT crews. It performs AECM and CCATT scheduling. The AEOT also coordinates AECM and CCATT requirements for AFE, billeting, food service, transportation, finance, and administration. In addition, this team assists AE crews with aircraft configuration for AE missions, manages AE supplies and equipment, supports AE communications, and assists in enplaning/deplaning as required. It may coordinate with MAF flight crew stage management teams at strategic AE hubs and CONUS reception airfields. This team can support up to 10 AE crews and 4 CCATTs and can manage at least 6 mission launches/recoveries in a 24-hour time frame. Planners must task FFQCR and FFQN1 (AEOT equipment package) to support each FFQNT.

5.16.3.3. Patient Movement Items (PMI) teams are composed of FFLG1 (medical logistics) and FFBMM (biomedical equipment repair teams). The FFLG1 logistics teams provide operational PMI management capability. They can be deployed to support PMI centers, cells, and tracking nodes. Their duties consist of storage, reception, inventory control, issue, palletizing, shipping, recycling and identification of equipment requirements. The FFBMM equipment repair teams provide regional maintenance and repair capability for equipment in PMI Centers and/or cells. The FFBM1 biomedical maintenance equipment package must be tasked to support the FFBMM team. Duties include scheduling and completing scheduled preventative maintenance and calibration, repair and maintenance services, and updating the PMI Asset Tracking System and Defense Medical Logistics Support System (if available). Planners may task FFBM1 to support initial stand-up of a PMI cell, or to increase throughput. For further guidance refer to JP 4-02, AFTTP 3-42.8, *Expeditionary Medical Logistics (EML) System*, AFI 41-201, *Managing Clinical Engineering*, AFI 41-209, *Medical Logistics Support*, AFI 10-2909, *Aeromedical Evacuation Equipment Standards*, the current “*Aeromedical Evacuation Non-PMI (Non-Standard) Medical Equipment Compendium*” available on the A3VM “Master Library Verified AE” SharePoint site (see Attachment 2, “Additional Resources” for URL), and applicable OPLANS.

5.16.3.4. AE Communications Team (FFQCR). This team provides UTC voice and data communication equipment that is survivable, interoperable, flexible, mobile, and secure separated into 3 specific areas: 1) Initial contingency operations using organic communication devices; 2) Sustainment contingency operations coordinating with user service to provide Non-classified Internet Protocol Router Network/ Secret Internet Protocol Router Network (NIPRNET/SIPRNET), local area network (LAN) lines, web based applications, computer and software support; and 3) Homeland/natural disaster responses (CONUS only), for which cellular phones have been added to enhance organic communications. Equipment UTCs embedded with communication equipment are: FFQC1, FFQL1, FFPS1, and FFQN1.

5.16.3.5. AFE Aeromedical Evacuation Support (9ALAE). These personnel may deploy with UTCs FFQDE and FFQNT. AFE personnel support primary aeromedical aircrew stage operations to maintain AECM AFE. They provide scheduled and unscheduled aircrew AFE inspections (e.g. survival vests, survival radios, aircrew body armor, quick don masks, life preserver units, and aircrew Chemical, Biological, Radiological, and Nuclear (CBRN) equipment).

## **5.17. AE Mission Support Equipment.**

5.17.1. SPECTRUM Series. The SPECTRUM Series patient care module is routinely used on operational support aircraft to support urgent, single patient requirements (including infant isolette). The aircraft usually requires modification to accept the SPECTRUM Series. The litter system has self-contained oxygen, vacuum, compressed air, electrical power and an overhead light. Reference Chapter 7 in AFMAN 11-2AEV3 Addenda-A, *Aeromedical Evacuation Operations Configuration/Mission Planning*.

5.17.2. Litter Station Augmentation Set (LSAS). The LSAS is intended for patient loads that exceed the C-17's organic litter carrying capability. Although a mission may not require a full 36 litter positions (9 organic litters to the aircraft and 27 litters within the set), the LSAS is a

kit and the full complement of components (ISU-90 CONEX) will be transported on the mission. This ensures the equipment set is kept together for all stages of employment. Reference LSAS CONOPS available on the A3VM “Master Library Verified AE” SharePoint site (see Attachment 2, “Additional Resources” for URL).

5.17.3. Stanchion Litter System (SLS). The SLS increases and enhances operational capabilities for patient movement on multiple airframes during steady-state operations, times of war and military operations other than war. The SLS is a stand-alone stationary, non-mechanical structure that attaches to the existing aircraft attachment hard points and consists of three basic components, the vertical support stanchions, lower base frame, and the litter platforms. They are centrally managed by HQ AMC/SG. Reference operations and troubleshooting guides which are available on the A3VM “Master Library Verified AE” and/or “Approved Publications – AE” SharePoint areas (see Attachment 2, “Additional Resources” for URL).

5.17.4. High Deck Patient Loading Platform (HDPLP). The HDPLP is a special purpose vehicle (UFM849 UTC) with capability to transport, lift, and lower patients with disabilities or special needs onto and off of high-deck, fixed-wing aircraft (i.e. KC-135, KC-10, etc.). It has an enclosed, environmentally controlled cabin, and is scissors-hoist lifted. It has self-sustaining power; can be connected to shore power; and possesses redundant safety measures to include lighting, equipment/floor/wall tie-downs, non-slips floors, emergency egress capable, fall protection, etc.

5.17.5. Patient Loading System (PLS). The PLS is a specialized mobile ramp deployed to facilitate enplaning/deplaning patients on KC-135/KC-10 aircraft. If the PLS/High Deck Patient Loading Platform (HDPLP) is not available, request a Hi-lift truck, Halverson Lift, or Tunner (K-Loader), for patient enplaning/deplaning. This equipment is normally operated by aeromedical staging personnel at strategic hubs to support KC-135/KC-10 aircraft during day-to-day peacetime and wartime operations at forward locations.

5.17.6. KC-135 Portable Cargo Light System. The KC-135 Portable Cargo Light System is an LED lighting system that consists of 12 light bars (each 3ft long) that are clamped to overhead support bars to provide light from the galley to the auxiliary power unit (APU). The lighting system covers 75 percent of the cargo bay. There are 10 along the length of the cargo bay and 2 additional over the cargo door. Reference “KC-135 Light System Manual” which is available on the A3VM “Master Library Verified AE” SharePoint area (see Attachment 2, “Additional Resources” for URL).

## **5.18. AE Equipment and Supplies.**

5.18.1. Sustained medical logistics support for AE operations is essential. Reach back and resupply operations ensure sustainment of theater AE forces. Maintenance and refilling of liquid oxygen (LOX) containers requires qualified personnel. LOX refilling agreements should be coordinated by the EAES commander with the respective supporting operations group. Other items of interest are the shipment of in-flight medical kits and interface with prime vendor suppliers to fulfill deferred procurement items. Planners should identify base and medical logistics supply hub requirements and request additional manpower/equipment needed to support AE operations (i.e., additional LOX support personnel and refill/maintenance capability at airlift hubs). The initial point of entry into the logistics chain will be at the attached wing level. Medical supplies may be supported by the closest MTF medical logistics function.

In large operations or contingencies, AE operations may be required to interface with Theater Lead Agent for Medical Materiel (TLAMM). Requirements for Class VIII medical supplies/equipment will be processed through the established theater system.

#### 5.18.2. Responsibilities.

5.18.2.1. HQ AMC is the lead command for AE and provides continuous review and oversight of the AE system thus ensuring the AE force is appropriately supplied and equipped to perform the mission. HQ AMC/SG and HQ AMC A3/10 (Directorate of Operations, Strategic Deterrence, and Nuclear Integration) personnel will work together closely to ensure the viability of all assigned UTCs.

5.18.2.2. AE Equipment. The in-flight and theater AE environment exposes medical equipment to unique stresses. Equipment should be able to withstand environmental extremes of temperature and humidity, aircraft vibration, altitude and rapid decompression of the aircraft, and electromagnetic interference to and from the aircraft. Interface with the aircraft should not pose any safety hazards to the patients or aircrew. Equipment items are tested and certified as airworthy and compatible with Air Force mobility airlift.

5.18.2.3. The Air Force Aeronautical Systems Center Human Systems Division (ASC/WNU) at Wright-Patterson AFB, Ohio, is responsible for the airworthiness evaluation process for new or proposed medical devices for AE and coordinating with HQ AMC/SG. All medical equipment utilized for AE must be certified by ASC/WNU as safe for use in AF aircraft.

### 5.19. Patient Movement Items (PMI).

5.19.1. The system provides a seamless in-transit patient and/or equipment management process from initial patient entry into AE system to the patient's final destination and recycles back. The PMI system is comprised of the following UTCs: FFQP4 – Deployable Patient Movement Item Asset Tracking System, FFQP5 Spare Parts package, FFQP6 Shipping Supplies package, and FFQP3 – notional UTC built based on specific patient throughput requirements. These UTCs deploy in support of the AE system and are collocated with AE at key interface points to provide initial AE operational capability, to sustain AE operations and support equipment recycles. Equipment will be managed, supplied and resupplied through the PMI centers, cells, nodes, and joint medical logistics organizations. It is the responsibility of the originating health care facility to provide the PMI in-kind required to support the patient during evacuation. Services should outfit sets, kits, and assemblages with PMI in-kind medical equipment (same, make, model) and air-certified for use in deployable platforms. In a contingency, the PMI cell may be collocated with the TLAMM, normally at a robust air and logistics hub.

5.19.2. USTRANSCOM is the PMI system manager. HQ AMC/SGXLM (HQ AMC Command Surgeon/Medical Readiness/Logistics and MEFPK) is the program execution office. All Services will fund the original initial quantities of approved PMI in-kind assets. PMI in-kind assets are defined as the exact medical equipment by type and model approved for patient movement. All Services will maintain initial quantities of approved PMI in-kind equipment in their medical assemblages, kits/sets/outfits, table of allowance, or allowance standards. This will ensure standardization and the PMI programs ability to seamlessly support patient movement. This capability is critical to enabling the PMI system to properly

recycle/replace medical equipment in medical assemblages and to ensure their designed operational capability is not diminished due to equipment shortfalls. HQ AMC/SGXM manages and receives Defense Health Program funds to support DOD OPLAN patient movement requirements and is responsible for life cycle management of equipment assets in the PMI centers.

DOROTHY A. HOGG,  
Lieutenant General, USAF, NC  
Surgeon General



**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 10-2909, *Aeromedical Evacuation (AE) Equipment Standards*, 13 March 2019

AFI 11-2AEV3, *Aeromedical Evacuations (AE) Operations Procedures*, 15 August 2014

AFI 24-101, *Passenger Movement*, 28 April 2017

AFI 36-2101, *Classifying Military Personnel (Officer and Enlisted)*, 25 June 2013

AFI 41-201, *Managing Clinical Engineering Programs*, 10 October 2017

AFI 41-209, *Medical Logistics Support*, 04 January 2019

AFI 48-307V1, *En Route Care and Aeromedical Evacuation Medical Operations*, 09 January 2017

AFI 48-307V2, *En Route Critical Care*, 10 January 2017

AFMAN 11-2AEV3 Addenda-A, *Aeromedical Evacuation Operations Configuration/Mission Planning*, 19 October 2018

AFMAN 33-363, *Management of Records*, 01 March 2008

AFPAM 10-1403, *Air Mobility Planning Factors*, 24 October 2018

AFTTP 3-42.51, *Critical Care Air Transport Team (CCATT)*, 07 April 2015

AFTTP 3-42.57, *En Route Patient Staging System*, 10 August 2016

Air Force Doctrine Annex 3-17, *Air Mobility Operations*, 05 April 2016

Air Force Doctrine Annex 3-30, *Command and Control*, 07 November 2014

DODI 4515.13, *Air Transportation Eligibility*, 31 August 2018

JP 3-0, *Joint Operations*, 17 January 2017

JP 3-17, *Air Mobility Operations*, 05 February 2019

JP 4-02, *Joint Health Services*, 11 December 2017

Secretary of the Air Force, (10 U.S.C. § 9013)

*The Privacy Act of 1974*, (5 U.S.C. § 552a)

***Adopted Forms***

AF Form 847, *Recommendation for Change of Publication*, 22 September 2009

***Abbreviations and Acronyms***

**A2/AD**—Anti-Access/Area Denial

**A3/10**—Directorate of Operations, Strategic Deterrence, and Nuclear Integration

**AD**—Area Denial

**ADVON**—Advanced Echelon  
**AE**—Aeromedical Evacuation  
**AECM**—Aeromedical Evacuation Crewmember  
**AECS**—Aeromedical Evacuation Command Squadron  
**AECT**—Aeromedical Evacuation control team  
**AEG**—Air Expeditionary Group  
**AELT**—Aeromedical Evacuation Liaison Team  
**AEOT**—Aeromedical Evacuation Operations Team  
**AESC**—Aeromedical Evacuation Support Cell  
**AET**—Aeromedical Evacuation Technician  
**AEW**—Air Expeditionary Wing  
**AFD**—Air Force Doctrine  
**AFE**—Aircrew Flight Equipment  
**AFFOR**—Air Force Forces  
**AFPAM**—Air Force Pamphlet  
**AFPD**—Air Force Policy Directive  
**AFTTP**—Air Force Tactics, Techniques and Procedures  
**ALCT**—Airlift Control Team  
**ALRT**—Acute Lung Rescue Team  
**HQ AMC**—Headquarters Air Mobility Command  
**AMD**—Air Mobility Division  
**ANG**—Air National Guard  
**AOC**—Air Operations Center  
**APEX**—Adaptive Planning and Execution  
**APOE**—Aeromedical Evacuation Aerial Port of Embarkation  
**APU**—Auxiliary Power Unit  
**ARC**—Air Reserve Component  
**ASC/WNU**—Air Force Aeronautical Systems Center Human Systems Division  
**AST**—Austere Surgical Team  
**ATO**—Air Tasking Order  
**BMET**—Biomedical Equipment Technician  
**BOS**—Base Operating Support

**BPLAN**—Base plan  
**C2**—Command and Control  
**CAA**—Civilian Air Ambulance  
**CASEVAC**—Casualty Evacuation  
**CBRN**—Chemical, Biological, Radiological, and Nuclear  
**CC**—Commander  
**CCATT**—Critical Care Air Transport Team  
**CCMD**—Combatant Command  
**COMAFFOR**—Commander of Air Force Forces  
**CONOPS**—Concept of Operations  
**CONPLAN**—Concept Plan  
**CONUS**—Continental United States  
**CSAR**—Combat Search and Rescue  
**CW/BW**—Chemical Warfare/Biological Warfare  
**DDOC**—Deployment and Distribution Operations Center  
**DEPORD**—Deployment order  
**DIRLAUTH**—Direct Liaison Authority  
**DIRMOBFOR**—Director of Mobility Forces  
**DO**—Director of Operations  
**DOD**—Department of Defense  
**DODI**—Department of Defense Instruction  
**DSCA**—Defense Support of Civil Authorities  
**DSN**—Defense Switched Network  
**EAEF**—Expeditionary Aeromedical Evacuation Flight  
**EAES**—Expeditionary Aeromedical Evacuation Squadron  
**EMP**—Emergency Management Plan  
**EPW**—Enemy Prisoners of War  
**ERC**—En Route Care  
**ERCC**—En Route Critical Care  
**ERCCS**—En Route Casualty Care System  
**ERPSS**—En Route Patient Staging System  
**EXORD**—Execute order

**FAM**—Functional Area Manager

**FEMA**—Federal Emergency Management Agency

**FHA**—Foreign Humanitarian Assistance

**FHP**—Force Health Protection

**FN**—Flight Nurse

**GCC**—Geographic Combatant Commander

**GPMRC**—Global Patient Movement Regulating Center

**HA/DR**—Humanitarian Assistance or Disaster Response

**HDPLP**—High Deck Patient Loading Platform

**HMMWV**—High Mobility Multi-purpose Wheeled Vehicle

**HN**—Host Nation

**HQ AMC/SGXM**—HQ AMC Command Surgeon/Medical Readiness/Logistics and MEFPAC

**HUMRO**—Humanitarian Relief Operations

**IAW**—In Accordance With

**ISS**—In-System Select

**ITV**—In-Transit Visibility

**JAOC**—Joint Air Operations Center

**JFACC**—Joint Force Air Component Commander

**JFC**—Joint Force Commander

**JFS**—Joint Force Surgeon

**JOA**—Joint Operations Area

**JP**—Joint Publication

**JTF**—Joint Task Force

**LAF**—Line of the Air Force

**LAN**—Local Area Network

**LOA**—Lead Operational Authority

**LOX**—Liquid Oxygen

**LSAS**—Litter Station Augmentation Set

**MA**—Medical Attendant

**MAJCOM**—Major Command

**MCD**—Medical Crew Director

**MEDEVAC**—Medical Evacuation

**MEFPAK**—Manpower & Equipment Force Packaging  
**MISCAP**—Mission Capabilities Statement  
**MODE**—Medical Operations in Denied Environments  
**MRA**—MEFPAK Responsible Agency  
**MRO**—Medical Regulating Officer  
**MSC**—Medical Service Corps  
**MTF**—Military Treatment Facility  
**NDMS**—National Disaster Medical System  
**NEO**—Noncombatant Evacuation Operations  
**NIPRNET**—Non-classified Internet Protocol Router Network  
**NRF**—National Response Framework  
**OA**—Operational Area  
**OPCON**—Operational Control  
**OPLAN**—Operation Plan  
**OPORD**—Operation Order  
**PACAF**—United States Pacific Air Forces  
**PAD**—Patient Administration Director (Clerk/Officer)  
**PIC**—Pilot in Command  
**PLS**—Patient Loading System  
**PM**—Patient Movement  
**PMCC**—Patient Movement Clinical Coordinator  
**PMI**—Patient Movement Item  
**PMRC**—Patient Movement Requirements Center  
**POI**—Point Of Injury  
**POW**—Prisoner Of War  
**RON**—Remain Overnight  
**RTD**—Returned To Duty  
**SG**—Command Surgeon/Surgeon General  
**HQ AMC/SGK**—HQ AMC, Command Surgeon, En Route Medical Care Division  
**SIPRNET**—Secret Internet Protocol Router Network  
**SOF**—Special Operations Forces  
**TACC**—Tanker/Airlift Control Center

**TACON**—Tactical Control

**TAES**—Theater Aeromedical Evacuation System

**TCCET**—Tactical Critical Care Evacuation Team

**TDY**—Temporary Duty

**TLAMM**—Theater Lead Agent for Medical Materiel

**TPMRC**—United States Transportation Command Patient Movement Requirements Center

**TTP**—Tactics, Techniques and Procedures

**TVFS**—Theater Validating Flight Surgeon

**ULN**—Unit Line Number

**USA**—United States Army

**USAF**—United States Air Force

**USAFE**—United States Air Forces in Europe

**USC**—United States Code

**USMC**—United States Marine Corps

**USN**—United States Navy

**USNORTHCOM**—United States Northern Command

**USTRANSCOM**—United States Transportation Command

**UTC**—Unit Type Code

**VFS**—Validating Flight Surgeon

**Attachment 2****ADDITIONAL RESOURCES*****Aeromedical Evacuation References***

AFI 10-2912, *Aeromedical Evacuation Readiness Programs*, 20 June 2018  
AFI 10-401, *Air Force Operations Planning and Execution*, 07 December 2006  
AFI 10-403, *Deployment Planning and Execution*, 20 September 2012  
AFI 11-202V2, *Aircrew Standardization and Evaluation Program*, 06 December 2018  
AFI 11-202V3, *General Flight Rules*, 10 August 2016  
AFI 11-301V1, *Aircrew Flight Equipment (AFE) Program*, 10 October 2017  
AFI 11-301V2, *Management and Configuration Requirements for Aircrew Flight Equipment (AFE)*, 20 December 2013  
AFI 11-401, *Aviation Management*, 10 December 2010  
AFI 13-207-O, *Preventing and Resisting Aircraft Piracy (Hijacking)*, 05 February 2019  
AFI 24-301, *Vehicle Operations*, 01 November 2018  
AFI 24-302, *Vehicle Management*, 26 June 2012  
AFI 25-201, *Intra-Services, Intra-Agency, and Inter-Agency, Support Agreements Procedures*, 18 October 2013  
AFI 31-101, *Integrated Defense*, 05 July 2017  
AFI 31-117, *Arming and Use of Force by Air Force Personnel*, 02 February 2016  
AFI 44-102, *Medical Care Management*, 17 March 2015  
AFI 44-108, *Infection Prevention and Control Program*, 11 December 2014  
AFI 48-307V3, *En Route Care Documentation*, 12 April 2016  
AFI 64-117, *Air Force Government-Wide Purchase Card (GPC) Program*, 22 June 2018  
AFMAN 10-206, *Operational Reporting (OPREP)*, 18 June 2018  
AFMAN 10-2503, *Operations in a Chemical Biological, Radiological, Nuclear, and High-Yield Explosive (CBRNE) Environment*, 06 July 2011  
AFMAN 11-2AEV1, *Aeromedical Evacuation Aircrew Training*, 04 January 2019  
AFMAN 11-2AEV2, *Aeromedical Evacuation Aircrew Evaluation Criteria*, 25 October 2018  
AFMAN 11-421, *Aviation Resource Management*, 12 September 2018  
AFMAN 24-204, *Preparing Hazardous Materials for Military Air Shipments*, 13 July 2017  
AFMAN 41-209, *Medical Logistics Support*, 04 January 2019  
AFPD 10-29, *Worldwide Aeromedical Evacuation Operations*, 13 February 2019  
AFPD 10-3, *Operational Utilization of the Air Reserve Component Forces*, 29 November 2017  
AFTTP 3-2.18, *Multi-Service Tactics, Techniques, and Procedures for Tactical Radios*, 16 June 2017  
AFTTP 3-2.67, *Multi-Service Tactics, Techniques, and Procedures for Defense Support of Civil Authorities (DSCA)*, 13 October 2015  
AFTTP 3-2.68, *Multi-Service Tactics, Techniques, and Procedures for Airfield Opening*, 01 June 2015  
AFTTP 3-4, *Airman's Manual*, 11 January 2019  
AFTTP 3-42.3, *Multi-Service Tactics, Techniques, and Procedures for Health Service Support in Chemical, Biological, and Radiological, and Nuclear Environments*, 01 March 2016  
AFTTP 3-42.5, *Aeromedical Evacuation*, 01 November 2003  
AFTTP 3-42.6, *USAF Medical Support for Special Operations Forces*, 09 January 2012  
AFTTP 3-42.8, *Expeditionary Medical Logistics (EML) System*, 16 November 2018

Air Force Doctrine Annex 3-0, *Operations and Planning*, 04 November 2016

AMCI 10-202V1, *Presentation of Air Mobility Forces*, 08 February 2017

DTR 4500.9-R-Part II, *Cargo Movement*, 01 May 2014

JP 3-11, *Operations in Nuclear, Biological, Chemical, and Radiological (CBRN) Environments*, 29 October 2018

### ***Aeromedical Evacuation Resources***

847 Central (AMC/A3V, Mobility AF lead command, change recommendations to aircrew publications): <https://cs2.eis.af.mil/sites/12797/SitePages/847%20Central.aspx>

*Aeromedical Evacuation Medical Equipment Compendium*, 14 March 2019, and Medical Equipment Manuals may be found at the HQ AMC, Aircrew Standardization & Evaluation, Aeromedical Airlift (A3VM) SharePoint site.

AEF Online Personal Deployment Preparedness Tool (PDPT) (e-deployment folder, e-readiness tracker [After signing in, click "PDPT," populates information from ADLS, ASIMS, MILPDS]):

<https://aefonline.afpc.randolph.af.mil/personalprep.aspx>

AF Combat Support Tactics, Techniques, and Procedures (TTP) Repository:

<https://cs2.eis.af.mil/sites/10070/default.aspx>

AF Doctrine: <http://www.doctrine.af.mil/>

AF E-Publishing: <http://www.e-publishing.af.mil/>

AF Medical Readiness Decision Support System (MRDSS-Ultra):

<https://mrdss1.gunter.af.mil/ultra4/login>

AF Medical Service Knowledge Exchange Nurse Corps Consultants (including AE):

<https://kx.afms.mil/kj/kx2/AFNCConsultantsCorner/Pages/home.aspx>

AF Medical Service Knowledge Exchange: <https://kx2.afms.mil/Pages/default.aspx>

AF Reporting Instruction Tool (AFRIT):

<https://aefonline.afpc.randolph.af.mil/AFRIT/Afrit.aspx>

Aviation/Airman Safety Action Program (ASAP): <https://asap.safety.af.mil/>

Air & Space Expeditionary Forces Online (AEF Online):

<https://aefonline.afpc.randolph.af.mil/>

Airman's Manual: [https://cs2.eis.af.mil/sites/10070/Airman\\_Manual/SitePages/Home.aspx](https://cs2.eis.af.mil/sites/10070/Airman_Manual/SitePages/Home.aspx)

DOD Dictionary and Terminology Repository (Military Acronym Finder):

<https://jdeis.js.mil/jdeis/index.jsp?pindex=4>

DOD Directives Division (DOD Publications and Forms): <http://www.esd.whs.mil/DD/>

Education & Training Course Announcements (ETCA) (\*use email certificate\* May have to go to IE Options, Content, clear SSL State): [https://app10-](https://app10-eis.aetc.af.mil/etca/SitePages/Home.aspx)

[eis.aetc.af.mil/etca/SitePages/Home.aspx](https://app10-eis.aetc.af.mil/etca/SitePages/Home.aspx)

HQ AMC, Aircrew Standardization & Evaluation, Aeromedical Airlift (A3VM)

“Master\_Library Verified AE” SharePoint:

<https://cs2.eis.af.mil/sites/12679/aircrew%20pubs%20library/forms/better.aspx>

HQ AMC, Aircrew Standardization & Evaluation, MAF Aircrew Information Site, FCIF/SII Library (Select “...” to filter for AE, SII, etc.):

<https://cs2.eis.af.mil/sites/10370/SitePages/Home.aspx>

HQ AMC, Command Surgeon, Manpower & Equipment Force Packaging (MEFPAK)

SharePoint: <https://cs2.eis.af.mil/sites/12956/default.aspx>

Joint Chiefs of Staff Joint Doctrine Publications: <http://www.jcs.mil/Doctrine/Joint-Doctrine-Pubs/>



Joint Electronic Library Plus (JEL+): <https://jdeis.js.mil/jdeis/>

Joint Knowledge Online: <http://jko.jten.mil/>

Multi-Service Tactics, Techniques, and Procedures (MTTPS) Publications on the Air, Land, Sea Application Center website: <http://www.alsa.mil/mttps/>

Safe to Fly Matrix: <https://www.wpafb.af.mil/stf/>

Safe to Fly SharePoint: <https://cs2.eis.af.mil/sites/10567/sitepages/home.aspx>

TRANSCOM Regulating and Command & Control Evacuation System (TRAC2ES):  
<https://www.trac2es.ustranscom.mil/>

USAF Individual Medical Readiness (IMR) Status: <https://imr.afms.mil/imr/myIMR.aspx>