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SECRETARY OF THE AIR FORCE**

**AIR FORCE TACTICS, TECHNIQUES
AND PROCEDURES 3-42.71**



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Tactical Doctrine

***EXPEDITIONARY MEDICAL SUPPORT
(EMEDS) AND AIR FORCE THEATER
HOSPITAL (AFTH)***

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SUMMARY OF CHANGES

This document has been updated to reflect the current personnel composition and equipment packages within each EMEDS module. It incorporates technical updates resulting from program reviews and field development exercises. It removes or revises outdated content related to EMEDS

Health Response Team (HRT) development. This document has been substantially revised and should be completely reviewed.

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Chapter 1

INTRODUCTION

1.1. Purpose. This publication provides general operational and planning guidance for the Expeditionary Medical Support (EMEDS) and Air Force Theater Hospital (AFTH) platforms. It provides a source document for developing standardized policies, operating procedures, training programs, and allowance standards. Operation plans and regional guidance provide mission-specific information that amplify and tailor the guidance contained in this publication.

1.2. Background. The EMEDS platform delivers light, lean, and life-saving medical support to deployed forces through the full range of military operations. EMEDS deploys in capability-based modules composed of personnel and equipment unit type code (UTC) building blocks. EMEDS modules are sized to provide the appropriate level of health service support and force health protection for each phase of an operation while balancing resource, time, and transportation constraints. Each EMEDS module provides an incremental and interoperable buildup of capability that can be tailored on execution. Since its inception, the EMEDS platform has been the Air Force Medical Service's (AFMS) main deployable medical asset for a variety of ground-based contingencies to include combat support operations, domestic disaster relief, and global humanitarian crisis assistance.

1.3. EMEDS Configuration Updates. EMEDS capabilities continuously evolve based on national defense strategies, Air Force strategic direction, combatant command requirements, programmed lifecycle reviews, and lessons learned from real-world operations. Key configuration changes from previous versions include the following:

1.3.1. FFGST, Ground Surgical Team, replaces personnel UTCs FFMFS, Mobile Field Surgical Team, and FFEP1, Critical Care Team, in the EMEDS Health Response Team (HRT) module. A second Ground Surgical Team is added in the EMEDS+25 module, replacing FFEP5, Surgical Augmentation Team. Several positions were shifted to other EMEDS UTCs. See [Chapter 2, EXPEDITIONARY GROUND MEDICAL SUPPORT CAPABILITIES](#), for more information on the composition of each module.

1.3.2. EMEDS equipment from FFMF1, Mobile Field Surgical Equipment, and FFEPE, Critical Care Equipment, moved to FFHR1, EMEDS HRT Equipment. A separate equipment set (FFGS1, Ground Surgical Equipment) was developed to support ground surgical teams that have a stand-alone mission in austere environments. FFGS1 is separate and distinct from the EMEDS equipment set. See AFTTP 3-42.77, *Ground Surgical Team (GST)*, for more information on the ground surgical team's stand-alone capabilities.

1.3.3. The transition to the EMEDS HRT equipment set is complete to include adoption of shelters with chemical and biological collective protection infused into the fabric (single-skin shelters).

1.3.4. Key equipment changes to the allowance standards since the last program review include modernization of the digital radiation system, sterilizer, and defibrillators.

1.3.5. The baseline configuration for the deployable AFTH has changed from 58 beds to 87 based on the revised Medical Resourcing Letter (MRL). Several specialty UTCs were combined to simplify planning and minimize the number of single-person UTCs.

1.4. Medical Threat Environment. The health threat to bed-down populations varies considerably within the range of military operations. Disease and injury resulting from the total force environment (such as endemic disease, food and water contamination, environmental extremes, hazardous exposures, and occupational accidents) have historically accounted for the majority of hospitalizations in deployed environments (Source: Joint Publication [JP] 4-02, *Joint Health Services*). The current National Defense Strategy and supporting Joint and Air Force doctrine outline a security environment marked by complex interactions between a rapidly changing global balance of military capabilities, emerging technologies, and competitor doctrines that threaten strategic stability. Strategic competitors and non-state actors possess the means, ranging from cyber tools to weapons of mass destruction, to disrupt operations and inflict scalable harm to deployed forces. A key impact for medical support is that the range, quantity, and lethality of these systems threaten the U.S. network of fixed forward bases, putting at risk the traditional continuum of care. Besides treating routine illness and injury, expeditionary ground medical facilities could encounter potentially larger casualty streams and patients exposed to chemical, biological, radiological, and nuclear (CBRN) agents, directed energy weapons, and other offensive capabilities.

1.4.1. Disease and injury induced by operational conditions are a consistent threat to air expeditionary forces. This threat varies depending on endemic disease, climate, terrain, socioeconomic conditions, and other occupational and environmental health hazards associated with the deployed environment. Managing this threat involves a combination of preventative medicine, theater epidemiology, diagnostics, proper sanitation and waste management, and medical intelligence data.

1.4.2. Conventional and unconventional weapons have the potential to inflict varying degrees of trauma, damage or destruction of critical equipment, systems, and infrastructure, and widespread collateral damage. A strike can come with little to no warning, producing a casualty stream that quickly overwhelms the medical facility. Airfield battle damage could drive longer patient hold times. Effective traumatic injury therapy relies on equipment and techniques that meet the current standard of care, access to advanced diagnostic and testing capabilities, real-time telemedicine support, and patient movement support.

1.4.3. The release of CBRN agents has the potential to significantly burden or overwhelm the medical system. These agents can cause early clinical symptoms that mimic routine medical conditions and delay detection. Physically healthy personnel fearing possible exposure might overwhelm the medical treatment facility to seek treatment (known as worried well). These incidents could force personnel to operate in a restrictive, protective environment for days. Platforms and materiel might become contaminated and present a health risk to personnel or cross-contamination risk. Managing this threat involves an overarching and robust force health protection strategy that includes passive defense, surveillance, detection, identification, and consequence management. Effective treatment requires appropriate supply levels and medical support personnel, ability to process tests and data rapidly, access to medical intelligence and information management systems, advanced diagnostic capabilities, real-time telemedicine support, and patient movement support.

Chapter 2

EXPEDITIONARY GROUND MEDICAL SUPPORT CAPABILITIES

2.1. Mission. The EMEDS platform provides individual bed-down and theater-level medical services for deployed forces and select population groups. The primary mission is to provide essential health service support, force health protection, and stabilization to ensure a fit and healthy force, optimize return to duty, and improve survivability. Core capabilities include forward resuscitative care, primary care, dental services, and preventive medicine. Its modular and scalable design allows the Air Force to deploy medical capabilities ranging from small teams that provide highly skilled medical care for a small number of casualties to a large medical system that can provide specialized care to a population at risk over 6,500. EMEDS capabilities are grouped into distinct medical support packages that provide an incremental buildup of capability: EMEDS HRT, EMEDS+10, and EMEDS+25. AFTHs are built by adding medical specialty and support UTCs to an EMEDS+25 foundation.

2.2. Scope of Care. Expeditionary ground medical facilities provide essential care focused on treating casualties for return to duty or stabilization for movement to a higher level of care. Deployed medical facilities normally do not provide definitive care, such as reconstructive surgery, rehabilitation, or convalescent care.

2.3. Planning Assumptions. The EMEDS platform provides a rapidly deployable, tailored medical response designed to minimize forward footprint and airlift requirements. Medical support requirements for a deployed location are based on several factors such as patient population, anticipated force health protection threats, projected patient streams, and strategic airlift availability. Configuration of medical support packages, estimated operational timelines, and other employment concepts are based on the following planning assumptions.

- Transportation is available to move personnel, equipment, and supplies.
- Expeditionary Combat Support (ECS) or base operating support (BOS) is available.
- The patient population consists of military personnel, emergency essential civilians and contractors, additive forces, and mobilization augmentees on base.
- Local nationals are not factored into the population at risk. In humanitarian assistance, disaster relief, and stability operations, patient throughput projections are based on estimated injury and regional disease rates.
- The supported U.S. military population has received pre-deployment medical screening, prophylaxis, immunizations, Tactical Combat Casualty Care (TCCC) training, and applicable reporting instructions.
- Military personnel are either returned to duty or evacuated in accordance with theater policy.
- In humanitarian assistance, disaster relief, and stability operations, medical personnel coordinate movement of civilian patients with host nation and local hospitals.
- Members deploy with, or have pre-positioned, adequate chemical warfare defense ensembles in accordance with reporting instructions.

2.4. EMEDS Health Response Team (HRT). EMEDS HRT is the first increment of EMEDS capability. It provides Role 2E capabilities for a population at risk up to 3,000. EMEDS HRT is equipped to stabilize and hold 4 patients for 24 hours. Core capabilities generally include medical

command and control, health administration, medical logistics, health information systems management, damage control surgery and resuscitation, surgical and post-operative critical care, flight medicine, dental, bioenvironmental engineering, and public health. Specialty care capabilities typically include internal medicine, obstetrics/gynecology (OB/GYN), and pediatrics. Designed for rapid response, EMEDS HRT can deploy within 24 hours of notification and quickly establish essential medical capabilities upon arrival: emergency room within 2 hours, operating room within 4 hours, and critical care within 6 hours. It can reach full operational capability within 12 hours of arrival. EMEDS HRT typically supports the early phases of military operations in austere environments and requires reinforcement of personnel and equipment after 10 days. [Table 2.1](#) provides the personnel details and [Table 2.2](#) lists the equipment packages for the EMEDS HRT module.

Table 2.1. EMEDS HRT Personnel.

Title	AFSC	SEI	Grade	Quantity
FFEP2, Medical Command and Control Team				
Medical Commander	040C0		06	1
Health Services Administrator	041A3		04	1
Group Superintendent	9G100			1
Health Services Management Craftsman	4A071S	264		1
Medical Materiel Craftsman	4A171			1
Biomedical Equipment Craftsman	4A271			1
Total UTC Personnel				6
FFEP6, Clinical and Ancillary Support				
Pharmacist	043P3		04	1
Critical Care Physician	044Y3		04	1
Orthopedic Surgeon	045B3		04	1
Clinical Nurse	046N3		04	1
Respiratory Care Practitioner Craftsman	4H071			1
Aerospace Medical Service Craftsman	4N071			4
Diagnostic Imaging Craftsman	4R071			1
Total UTC Personnel				10
FFF0C, Dental Team				
Dentist, Comprehensive	047G3A		04	1
Dental Assistant Craftsman	4Y071			1
Total UTC Personnel				2
FFGST, Ground Surgical Team				
Health Services Administrator	041A3		04	1
Emergency Medicine Specialist	044E3A		04	1
Anesthesiologist	045A3		04	1
Surgeon	045S3		04	1
Critical Care Nurse	046N3E		04	1
Surgical Technologist Craftsman	4N171			1
Total UTC Personnel				6
FFPM1, Preventive and Aerospace Medicine (PAM) Advanced Echelon (ADVON) Team				
Aerospace Medicine Physician Specialist	048A3		05	1

Title	AFSC	SEI	Grade	Quantity
Bioenvironmental Engineer	043E3A		04	1
Public Health Officer	043H3		04	1
Aerospace Medical Service Craftsman, Independent Duty Medical Technician (IDMT)	4N071C			1
Total UTC Personnel				4
FFPM2, PAM Team 2 (Optional)				
Bioenvironmental Engineering Craftsman	4B071			1
Public Health Craftsman	4E071			1
Total UTC Personnel				2
FFDAB, Flight Medicine Team				
Note: Typically supports flying operations. FFPCM can substitute for this UTC for non-combat missions.				
Residency Trained Flight Surgeon	048R3		04	1
Aerospace Medical Service Craftsman, Flight and Operational Medical Technician	4N071F			1
Aerospace Medical Service Journeyman, Flight and Operational Medical Technician	4N051F			1
Total UTC Personnel				3
FFPCM, Primary Care Team				
Note: Deploys in place of FFDAB when flight medicine specialty is not required.				
Family Physician	044F3		04	1
Aerospace Medical Service Craftsman	4N071			1
Aerospace Medical Service Journeyman	4N051			1
Total UTC Personnel				3
FFP01, Specialty Care Team				
Internist	044M3		04	1
Pediatrician	044K3		04	1
Obstetrician/Gynecologist	045G3		04	1
Clinical Nurse, Obstetrics	046N3G		03	1
Aerospace Medical Service Craftsman	4N071			1
Aerospace Medical Service Journeyman	4N051			2
Total UTC Personnel				7
Total EMEDS HRT Personnel				40
Note: Air Force Specialty Code (AFSC), grade, and skill-level substitutions are in accordance with the <i>War and Mobilization Plan, Volume 1 (WMP-1), Enclosure F, Medical Supplement</i> , unless specified otherwise in the mission capability statement.				

Table 2.2. EMEDS HRT Equipment.

Title	Allowance Standard	Quantity
FFHR1, EMEDS HRT Equipment	938P	1
FFP0E, Specialty Care Equipment	917R	1

Title	Allowance Standard	Quantity
FFPM4, PAM ADVON Equipment	916E	1
FFPM5, PAM Sustainment Equipment	916F	1
FFEE4, EMEDS HRT Resupply	938D	2

2.5. EMEDS+10. EMEDS+10 is the second increment of EMEDS capability. It provides Role 2E capabilities for a population at risk of 3,000-5,000. EMEDS+10 maintains a similar scope of care as EMEDS HRT with increased staffing, holding capacity, diagnostic capabilities, and medical materiel to support a larger population. It can hold 10 patients (4 critical) for 24 hours. Added capabilities include advanced cardiac life support, advanced trauma life support, oxygen generation, lab, and limited blood banking. When deployed as a whole module, EMEDS+10 can reach full operational capability within 36 hours of arrival. **Table 2.3** provides the personnel details and **Table 2.4** lists the equipment for the EMEDS+10 module.

Table 2.3. EMEDS+10 Personnel.

Title	AFSC	SEI	Grade	Quantity
FFEP3, EMEDS+10 Personnel Package				
Physician Assistant	042G3		04	1
Critical Care Nurse	046N3E		04	1
Clinical Nurse	046N3		04	1
Residency Trained Flight Surgeon	048R3		04	1
Emergency Trauma Nurse	046N3J		03	1
Clinical Nurse	046N3		03	2
Operating Room Nurse	046S3		03	1
Health Services Management Craftsman	4A071			1
Health Services Management Journeyman	4A051			1
Medical Materiel Journeyman	4A151			1
Biomedical Equipment Journeyman	4A251			1
Aerospace Medical Service Craftsman	4N071			2
Aerospace Medical Service Journeyman	4N051			8
Medical Laboratory Craftsman	4T071			1
Total UTC Personnel				23
FFPM3, PAM Team 3				
Bioenvironmental Engineering Journeyman	4B051			2
Public Health Journeyman	4E051			1
Total UTC Personnel				3
EMEDS+10 Added Personnel				26
EMEDS HRT Personnel Includes: FFEP2, FFEP6, FFF0C, FFGST, FFPM1, FFPM2, FFDAB (or FFPCM), FFP01				40
Total EMEDS+10 Personnel				66

Title	AFSC	SEI	Grade	Quantity
Note: Air Force Specialty Code (AFSC), grade, and skill-level substitutions are in accordance with the <i>War and Mobilization Plan, Volume 1 (WMP-1), Enclosure F, Medical Supplement</i> , unless specified otherwise in the mission capability statement.				

Table 2.4. EMEDS+10 Equipment.

Title	Allowance Standard	Quantity
FF0X2, Deployable Oxygen Generation Package	903A	1
FFEE2, EMEDS+10 Equipment	938B	1
FFEE5, EMEDS+10 Resupply	938E	2
Requires EMEDS HRT Equipment (FFHR1, FFPOE, FFPM4, FFPM5, FFEE4)		

2.6. EMEDS+25. EMEDS+25 is the third increment of EMEDS capability. It provides Role 2E capabilities for a population at risk of 5,000-6,500. It builds on the capabilities of EMEDS+10 with increased capacity for patient holding, medical/surgical care, emergency/trauma care, dental care, ancillary services, mental health, and health services support functions. EMEDS+25 can hold 25 patients (4 critical) for 24 hours and support 20 damage control surgical interventions or trauma resuscitations. Added capabilities include basic physical therapy, nutritional medicine, comprehensive laboratory procedures, and basic microbiology. When deployed as a whole module, EMEDS+25 can reach full operational capability within 60 hours of arrival. [Table 2.5](#) provides the personnel details and [Table 2.6](#) lists the equipment for the EMEDS+25 module.

Table 2.5. EMEDS+25 Personnel.

Title	AFSC	SEI	Grade	Quantity
FFBH1, Behavioral Health Rapid Response Team-Psychologist				
Clinical Psychologist	042P3		04	1
Mental Health Service Craftsman	4C071			1
Total UTC Personnel				2
FFBH2, Behavioral Health Rapid Response Team-Social Worker				
Clinical Social Worker	042S3		04	1
Mental Health Service Craftsman	4C071			1
Total UTC Personnel				2
FFEP4, EMEDS+25 Personnel Package				
Nursing Administrator	046A3		05	1
Physical Therapist	042B3		04	1
Emergency Trauma Nurse	046N3J		04	1
Clinical Nurse	046N3		04	1
Operating Room Nurse	046S3		04	1
Family Nurse Practitioner	046Y3H		04	1
Biomedical Laboratory Scientist	043T3A		03	1
Clinical Nurse	046N3		03	2
Health Services Management Journeyman	4A051			3
Medical Materiel Journeyman	4A151			1
Diet Therapy Craftsman	4D071			1

Title	AFSC	SEI	Grade	Quantity
Aerospace Medical Service Superintendent	4N091			1
Aerospace Medical Service Craftsman	4N071			2
Aerospace Medical Service Journeyman	4N051			3
Surgical Technologist Journeyman	4N151			1
Pharmacy Craftsman	4P071			1
Diagnostic Imaging Journeyman	4R051			1
Medical Laboratory Journeyman	4T051			1
Total UTC Personnel				24
FFF0C, Dental Team				
Dentist, Comprehensive	047G3A		04	1
Dental Assistant Craftsman	4Y071			1
Total UTC Personnel				2
FFGST, Ground Surgical Team				
Health Services Administrator	041A3		04	1
Emergency Medicine Specialist	044E3A		04	1
Anesthesiologist	045A3		04	1
Surgeon	045S3		04	1
Critical Care Nurse	046N3E		04	1
Surgical Technologist Craftsman	4N171			1
Total UTC Personnel				6
EMEDS+25 Added Personnel				36
EMEDS+10 Personnel				26
Includes: FFEP3, FFPM3				
EMEDS HRT Personnel				40
Includes: FFEP2, FFEP6, FFF0C, FFGST, FFPM1, FFPM2, FFDAB (or FFPCM), FFP01				
Total EMEDS+25 Personnel				102
Note: Air Force Specialty Code (AFSC), grade, and skill-level substitutions are in accordance with the <i>War and Mobilization Plan, Volume 1 (WMP-1), Enclosure F, Medical Supplement</i> , unless specified otherwise in the mission capability statement.				

Table 2.6. EMEDS+25 Equipment.

Title	Allowance Standard	Quantity
FF0X2, Deployable Oxygen Generation Package	903A	1
FFBHS, Behavioral Health Small Equipment Package	917B	2
FFEE3, EMEDS+25 Equipment	938C	1
FFEE6, EMEDS+25 Resupply	938F	2
Requires EMEDS+10 Equipment (FF0X2, FFEE2, FFEE5) and EMEDS HRT Equipment (FFHR1, FFP0E, FFPM4, FFPM5, FFEE4)		

2.7. Air Force Theater Hospital (AFTH). AFTHs provide dedicated in-theater and en-route Role 3 medical support to a population at risk of 6,500 and above. They are usually located at strategic air hubs to facilitate patient movement to definitive care facilities in the continental United States (CONUS) and designated facilities outside the continental United States (OCONUS). Deployable AFTHs are built by adding medical support and expansion UTCs to an EMEDS+25 foundation. AFTH expansion packages are modular and can be added in multiple sets to expand medical ward capability in 25-bed increments, critical care capability in 4-bed increments, and operating room capability in 2-bed increments. Medical and surgical subspecialties can be added as needed. AFTHs are the largest of the Air Force deployed ground medical facilities. The baseline configuration starts at 87 beds, which includes 75 medical/surgical beds and 16 critical care beds. It has 3 operating rooms and 6 operating tables. **Table 2.7** lists the personnel and equipment UTCs typically included in an 87-bed AFTH.

Table 2.7. 87-Bed AFTH Buildup.

UTC	Title	Personnel	Allowance Standard	Quantity
Ambulance Services				
FFAMB	Ambulance Equipment		937N	2
FFGLE	Ambulance Support Team	13		1
Ancillary Services				
FFAN1	Ancillary Medical Equipment		885H	1
FFANC	Ancillary Medical Support Team	6		1
FFD01	Optometry Equipment		917Q	1
FFHAG	CT Scan Equipment		885G	1
FFRA5	Radiology Equipment		885J	1
FFRAD	Radiology Team	6		1
Behavioral Health				
FFBH3	Behavioral Health Rapid Response Team-Psychiatrist	2		1
FFBH6	Behavioral Health Rapid Response Team-Psychiatric Mental Health Nurse Practitioner	2		1
FFBHE	Behavioral Health Equipment		917A	1
FFBHS	Behavioral Health Small Equipment Package		917B	4
Blood Support				
FFLB1	Expeditionary Blood Support Center Equipment		893C	1
FFLBB	Expeditionary Blood Support Center Team	6		1
Critical Care				
FFCC1	Intensive Care Equipment		885I	3
FFCCU	4-Bed Intensive Care Unit	12		1
FFCCV	4-Bed Intensive Care Expansion Team	8		2
Dentistry				

UTC	Title	Personnel	Allowance Standard	Quantity
FFF0C	Dental Team	2		2
FFF0E	Dental Equipment		917I	1
Emergency Medicine				
FFEDT	Emergency Medicine Team	3		1
General Surgery and Surgical Subspecialties				
FFEES	Hospital Surgical Expansion Package		885A	2
FFENM	Head and Neck Surgical Team	8		1
FFEST	Surgical Expansion Team	19		1
FFET1	Otorhinolaryngology (ENT) Equipment		917E	1
FFEY1	Ophthalmology Equipment		917F	1
FFGKQ	Thoracic/Vascular Surgical Equipment		917G	1
FFGY1	Gynecology Equipment		917L	1
FFGYN	Gynecology Team	5		1
FFMA1	Oral Surgery Equipment		917P	1
FFNE1	Neurosurgical Equipment		917D	1
FFPP1	Urology Equipment		917H	1
FFPPT	AFTH Surgical Team	14		1
Infectious Disease Control				
FFHA2	Infectious Disease Team	3		1
FFHAF	Infectious Disease Equipment		902J	1
Medical Ward				
FFEEW	Hospital Medical Expansion Package		885B	2
FFEW1	Hospital Expansion Support Team – Increment 1	27		1
FFEW2	Hospital Expansion Support Team – Increment 2	21		1
Oxygen Delivery				
FF0X2	Deployable Oxygen Generation System		903A	2
Optometry, Occupational Therapy, and Physical Therapy				
FF00P	Optometry, OT, and PT Team	6		1
Pediatrics				
FFPE1	Pediatric Equipment		917C	1
FFPED	Pediatric Module	8		1
Medical Command, Administration, and Quality Management				
FFAAT	Medical Management Support Team	6		1
Medical Logistics				
FFFDT	Forward Distribution Medical Logistics Team	14		1
Medical Information Systems Management				
FFSYS	Medical Systems Support Team	3		1
Total Personnel Added		204		

UTC	Title	Personnel	Allowance Standard	Quantity
	EMEDS+25 Module FFBH1, FFBH2, FFEP4, FFF0C, FFGST, FF0X2, FFEE3, FFEE6	36		
	EMEDS+10 Module FFEP3, FFPM3, FF0X2, FFEE2, FFEE5	26		
	EMEDS HRT Module FFEP2, FFEP6, FFF0C, FFGST, FFPM1, FFPM2, FFDAB (or FFPCM), FFP01, FFHR1, FFPM4, FFPM5, FFP0E, FFEE4	40		
	Total Personnel 87-Bed AFTH	306		

2.8. Consequence Management and Crisis Response Support. Specialty consequence management and crisis response packages are available to provide EMEDS facilities with expanded capabilities tailored to a specific contingency. Examples include CBRN casualty management and prevention, mental health and stress management, and infectious disease control. **Table 2.8** lists the available UTCs.

Table 2.8. Consequence Management and Crisis Response Capabilities.

UTC	Name	Reference
CBRN Health Protection and Consequence Management		
FFPM6	PAM Counter-CBRN Team	AFTTP 3-42.23, <i>Preventive and Aerospace Medicine (PAM) Team</i>
FFPM7	PAM Counter-CBRN Equipment	
FFBA1	Biological Augmentation Equipment	
FFGLB	Expeditionary Medical Decontamination Team	AFTTP 3-42.33, <i>Expeditionary Medical Decontamination Team</i>
FFGLC	Expeditionary Medical Decontamination Equipment	
FFNR1	Nuclear/Radiological (Nuc/Rad) Incidence Response Team	AFTTP 3-42.34, <i>Air Force Radiation Assessment Team (AFRAT)</i>
FFNR2	Nuc/Rad Surveillance Team	
FFNR4	Nuc/Rad Laboratory Team	
FFNR6	Nuc/Rad Dosimetry Team	
FFNR8	Nuc/Rad Tactical Command and Control (C2) Support Team	
FFNR9	Nuc/Rad Response Liaison Team	
FFNRB	AFRAT Lab Equipment	
FFNRC	AFRAT Dosimetry Equipment	
FFNRD	AFRAT Surveillance Equipment	
Contagious Casualty Management		
FFHA2	Infectious Disease Team	AFTTP 3-42.22, <i>Contagious Casualty Management</i>
FFHAF	Infectious Disease Equipment	
FFCCM	Contagious Casualty Management Equipment	

UTC	Name	Reference
FFEES	Hospital Medical Expansion Package	
FFEW1	Hospital Expansion Support Team – Increment 1	
FFEW2	Hospital Expansion Support Team – Increment 2	
Mental Health and Combat Stress Management Support		
FFBH1	Behavioral Health Rapid Response Team-Psychologist	AFTTP 3-42.78, <i>Medical Behavioral Health Teams</i>
FFBH2	Behavioral Health Rapid Response Team-Social Worker	
FFBH3	Behavioral Health Rapid Response Team-Psychiatrist	
FFBH4	Behavioral Health Rapid Response Team-Nurse	
FFBH5	Behavioral Health Rapid Response Team-Enlisted	
FFBH6	Behavioral Health Rapid Response Team-Psychiatric Mental Health Nurse Practitioner	
FFBHE	Behavioral Health Equipment	
FFBHS	Behavioral Health Small Equipment Package	
<p>Note: Referenced AFTTPs not available on the Air Force E-Publishing site are available on the AFMS Knowledge Exchange at: https://kx.health.mil/kj/kx3/Doctrine/Pages/doctrine_hierarchy_chart.aspx</p>		

2.9. Collectively Protected EMEDS (CP-EMEDS). CP-EMEDS provides the equipment to chemically and biologically harden an EMEDS facility. When properly configured and maintained, it allows up to 72 hours of continued, enclosed operations following a chemical or biological incident. These equipment sets can be added to any EMEDS configuration deploying to areas with a CBRN threat. CP-EMEDS equipment consists of chemically hardened environmental control units, filtered air blowers, airlocks, pressure alarms, and a water distribution system. The water distribution system provides potable water flow and wastewater recovery to all areas of the medical facility. It requires ECS/BOS for potable water supply and wastewater disposal. EMEDS shelters have a chemical-biological barrier infused into the fabric (single-skin protection). See the UTS Systems *Expeditionary Medical Support (EMEDS) Single Skin Operators Manual* for instructions on shelter assembly and maintenance. This document and other reference materials are available on the Air Combat Command Surgeon (ACC/SG) Ground Medical UTC Management website's Biomedical Equipment and Logistics page at <https://usaf.dps.mil/sites/12173/SitePages/BMET.aspx> or by request from the ACC/SGXM Ground Medical UTC Management Branch (acc.sgxm@us.af.mil). **Table 2.9** lists the CP-EMEDS components for each EMEDS module.

Table 2.9. CP-EMEDS Equipment Sets.

Module	UTC	Allowance Standard	Quantity
EMEDS HRT	FFCP1, CP 1 Tent with Airlock	948H	1
	FFCP2, CP 4-Tent with Airlock and Latrine	948I	1
	FFCP5, CP 1 Tent (for water distribution system)	948L	1
	FFWDS, Medical Water Distribution System	938M	1
EMEDS+10	FFCP1, CP 1 Tent with Airlock	948H	1
	FFCP2, CP 4-Tent with Airlock and Latrine	948I	1
	FFCP3, CP 3-Tent with Airlock	948J	1
	FFCP5, CP 1 Tent (for water distribution system)	948L	1
	FFWDS, Medical Water Distribution System	938M	1
EMEDS+25	FFCP1, CP 1 Tent with Airlock	948H	1
	FFCP2, CP 4-Tent with Airlock and Latrine	948I	1
	FFCP3, CP 3-Tent with Airlock	948J	1
	FFCP4, CP 3-Tent with Airlock and Latrine	948K	1
	FFCP5, CP 1 Tent (for water distribution system)	948L	1
	FFWDS, Medical Water Distribution System	938M	1
Note: Contact ACC/SGXM, acc.sgxm@us.af.mil, for guidance on AFTH collective protection capabilities and recommendations.			

2.10. Initial Operational Capability Timelines. EMEDS HRT establishes the initial operational capability for the EMEDS platform. Equipment packaging and load plans prioritize rapid setup and provision of stabilizing medical care. Initial capabilities include essential and emergent care, damage control surgery, damage control resuscitation, limited post-operative critical care, and initial health assessments of the area. **Table 2.10** lists the key functions that need to be in place and target timelines to achieve this milestone. These timelines assume delivery of EMEDS HRT equipment and arrival of personnel at the operating site.

Table 2.10. Initial Operational Capability Timelines.

Capability	Timeline
Essential and emergent care in progress	15 minutes
Initial occupational, environmental, and public health assessments (includes input on site selection and layout of facilities if applicable) in progress	15 minutes
Emergency room ready to receive patients and ready to provide damage control resuscitation	2 hours
Operating room ready to receive patients and ready to provide damage control surgery	4 hours
Critical care holding area ready to receive patients	6 hours

2.11. Full Operational Capability Timelines. Each EMEDS module provides an incremental buildup of capability. As the size and scope of capability increases, so does the timeline required

to reach full operational capability: 12 hours for EMEDS HRT, 36 hours for EMEDS+10, and 60 hours for EMEDS+25. These timelines have been tested in numerous field development exercises. Many factors can impact these timelines in real-world deployments such as weather conditions, terrain, delivery of equipment, and availability of ECS/BOS. (**Note:** AFTH operational capability timelines have not been tested.) The following functions need to be in place to achieve full operational capability.

- Shelters and full infrastructure are installed and operational (such as, power, lights, environmental control units, heating, ventilation, air conditioning [HVAC], water, sanitation).
- Command and control functions are in place to include medical control center operations, administration, patient movement coordination, operational reporting, and communications systems.
- All medical/surgical functions are in place and ready to provide their full scope of care.
- All mission-essential equipment and instrumentation are in place and functional.
- All medical support functions are in place.
- Initial occupational, environmental, and public health site assessments are complete, a safe source of water and food have been procured, and the health risk baseline has been established.

2.12. EMEDS Functional Area Descriptions and Buildup. EMEDS functional areas mirror the organization and structure of in-garrison operations to the extent possible. In the early phases of operations and during surges, team members may need to provide cross-functional surge support commensurate with their skills and scope of practice.

2.12.1. Ambulance Services. EMEDS facilities rely on pre-positioned ambulances, vehicles of opportunity, or rental vehicles for emergency transport. These vehicles are base transportation assets. Two vehicles are normally required to support flight line and emergency medical service response. The EMEDS equipment package provides life-support equipment and supplies to support two ambulances. An ambulance support equipment package (FFAMB) can be requested if additional supplies are needed (for example, to support an additional vehicle). AFTHs include an ambulance support team (FFGLE) and additional ambulance support equipment.

2.12.2. Critical Care. EMEDS provides critical care, respiratory therapy, and post-anesthesia care to a variety of trauma, surgical, and medical patients. EMEDS HRT provides a critical care surge capability that can hold four critical care patients for 24 hours. The Ground Surgical Team (FFGST) provides the core critical care staffing for EMEDS. When their specialty skills are not in demand, the critical care staff can provide surge support in the emergency room and medical ward. At the EMEDS HRT level, all clinical functions share equipment and supplies from the EMEDS HRT equipment package (FFHR1). This equipment includes vital-sign monitoring devices, ventilators, defibrillators, and suction machines. The EMEDS+10 (FFEE2) and EMEDS+25 (FFEE3) equipment sets provide dedicated critical care supplies and equipment. The EMEDS+10 personnel package (FFEP3) provides additional critical care nursing personnel to support the increased patient population. EMEDS+25 includes two Ground Surgical Teams. An AFTH typically has a minimum of 16 critical care beds (4 beds from FFHR1 plus 3 FFCC1s [12 beds]) with dedicated critical care staff. The 4-Bed Intensive Care Unit (FFCCU) provides critical care physician, nursing, and respiratory care staff. The 4-Bed Intensive Care Expansion Team (FFCCV) provides additional nursing support staff for

expansions beyond 4 beds. **Table 2.11** lists the typical personnel and equipment mapping for critical care expansions up to 16 additional beds (20 total). For guidance on the equipment and personnel laydown for larger expansions, contact ACC/SGXM at acc.sgxm@us.af.mil.

Table 2.11. AFTH Critical Care Expansion Packages.

Beds Added	Equipment	Personnel
4	1 – FFCC1	1 – FFCCU
8	2 – FFCC1	1 – FFCCU, 1 – FFCCV
12	3 – FFCC1	1 – FFCCU, 2 – FFCCV
16	4 – FFCC1	2 – FFCCU, 2 – FFCCV
Note: The baseline EMEDS configuration includes 4 critical care beds. Column 1 reflects the number of beds included in the critical care expansion equipment package (not the total number of critical care beds).		

2.12.3. Dental Clinic. EMEDS provides general dentistry services. Restorative capability is limited in accordance with theater policy. Staffing at the EMEDS HRT and EMEDS+10 levels consists of a comprehensive dentist and a dental assistant (FFF0C). The dentist may also serve as the triage officer. The EMEDS HRT equipment package (FFHR1) provides the core dental equipment, which includes one dental chair, x-ray equipment, and a portable dental delivery system. The EMEDS+10 equipment package (FFEE2) includes additional dental equipment and supplies to support the increased patient population. EMEDS+25 includes two dental teams. The EMEDS+25 equipment package (FFEE3) provides dental equipment and supplies to support the additional team. AFTHs typically have four dental teams and a separate dental clinic (FFF0E).

2.12.4. Emergency Medicine. Emergency medicine capabilities include initial resuscitation, triage, advanced critical care life support, trauma care, basic management of toxicological emergencies, minor surgical stabilization procedures, and limited management of thermal injuries. The emergency room includes electrocardiogram (ECG) monitoring, defibrillation, transcutaneous pacing, and continuous oxygen saturation monitoring equipment. The emergency medicine physician from the Ground Surgical Team (FFGST) provides the core emergency medicine staffing for EMEDS. The Primary Care Team (FFPCM) (or Flight Medicine Team [FFDAB] if tasked) and nursing staff from the Clinical and Ancillary Support Team (FFEP6) provide surge support as needed. The EMEDS+10 personnel package (FFEP3) and EMEDS+25 personnel package (FFEP4) each provide an emergency trauma nurse and additional medical technicians to support the increased patient population at the EMEDS+10 and EMEDS+25 levels. At the AFTH level, the Emergency Medicine Team (FFEDT) provides an additional trauma nurse and medical technicians.

2.12.5. Infectious Disease Management and Infection Control. EMEDS personnel follow the infection prevention and control guidelines for field settings specified in AFI 44-108, *Infection Prevention and Control Program*. The public health officer, in conjunction with the flight surgeon, oversees communicable disease control and isolation procedures within the EMEDS facility. EMEDS public health personnel support surveillance and reporting activities. The EMEDS HRT floor plan does not have space readily available to physically isolate patients and requires a shelter of opportunity for patient isolation. EMEDS+10 and EMEDS+25 have space that can be adapted to physically isolate two patients. AFTHs typically include

infectious disease support personnel (FFHA2) and equipment (FFHAF) for infectious disease diagnosis, treatment, and control. The equipment set (FFHAF) includes equipment for public health surveillance, planning, and consequence management. Medical ward expansion and ventilator support capabilities can be added to support large-scale incidents or threats. See AFTTP 3-42.22 for more information about ground medical contagious disease consequence management capabilities.

2.12.6. Information Systems. EMEDS deploys with communications and computer equipment and relies on base communications units to provide network access. The Medical Command and Administration Team (FFEP2) provides one health information technician to provide client system information assurance, administration, and technical support for the EMEDS facility and coordinate requirements with base communications units. The Medical Systems Support Team (FFSYS) provides additional health information technology support staff at the AFTH level. See [Chapter 5, COMMUNICATIONS AND INFORMATION SYSTEMS](#), for more information on EMEDS computer and communications systems and support requirements.

2.12.7. Laboratory. EMEDS HRT has no formal laboratory section or trained laboratory personnel. Providers perform their own lab testing. Lab testing is limited to waived or moderate complexity testing to include provider performed microscopy. The EMEDS+10 personnel package (FFEP3) provides one laboratory technician to perform hematology, urinalysis, and serology functions. The EMEDS+25 personnel package (FFEP4) adds one laboratory officer and a laboratory technician to perform comprehensive laboratory procedures and basic microbiology. The EMEDS+25 equipment package (FFEE3) provides an additional chemistry analyzer to support multiple chemistry analyses. The Ancillary Support Team (FFANC) and equipment package (FFAN1) provide additional lab personnel and equipment to handle the increased throughput requirements of an AFTH and expanded testing capabilities needed by the medical and surgical subspecialties. See [Attachment 12, EMEDS HRT LAB SUPPLIES AND TESTING CAPABILITIES](#), [Attachment 13, EMEDS+10 LAB SUPPLIES AND TESTING CAPABILITIES](#), and [Attachment 14, EMEDS+25 LAB SUPPLIES AND TESTING CAPABILITIES](#), for more information about the lab capabilities in each module. See AFTTP 3-42.76, *Medical Ancillary Augmentation Teams*, for more information about AFTH lab support capabilities.

2.12.8. Blood Support. The Armed Services Blood Program provides blood products for EMEDS. Requests for blood supplies are routed through the Joint Task Force Surgeon's Area Joint Blood Program Office representative (J-4) in accordance with Air Force Handbook (AFH) 44-152, *Armed Services Blood Program – Joint Blood Program Handbook*.

2.12.8.1. EMEDS HRT has no blood grouping, typing, or crossmatching capability. Uncrossmatched Group O packed red blood cells (PRBC) will be issued for all casualty care. EMEDS+10 and EMEDS+25 have limited blood banking capabilities to include ABO/Rh determination and immediate spin crossmatching. Blood inventories at the EMEDS+10 and EMEDS+25 levels include group A, B, and O Rh negative and positive red blood cells (RBCs), fresh frozen plasma (FFP), and plasma frozen within 24 hours (PF24). Platelets and cryoprecipitate may be available depending on theater supplies.

2.12.8.2. EMEDS facilities can conduct emergency whole blood collection if treatment needs exceed the on-hand inventories, if resupply is interrupted, or if medical indications

determine component therapy is inadequate to treat the patient. Consult the Area Joint Blood Program Office representative on theater requirements for maintaining a walking donor program.

2.12.8.3. EMEDS HRT has a blood bank refrigerator for storing whole blood and blood components. EMEDS HRT has no frozen blood storage or processing capabilities. Frozen blood storage and processing capabilities are added at the EMEDS+10 level. Each blood bank refrigerator can store up to 60 PRBC/liquid plasma units or 40 whole blood units (450 mL). Each plasma freezer can store up to 78 plasma boxes. **Table 2.12** lists the blood storage capabilities for the EMEDS platform.

Table 2.12. EMEDS Blood Storage Capabilities.

Force Element	Equipment	Total Capacity
EMEDS HRT	1 Blood Bank Refrigerator	Up to 60 PRBC/liquid plasma units or 40 whole blood (450 mL) units
EMEDS+10	2 Blood Bank Refrigerators 1 Plasma Freezer	Up to 120 PRBC/liquid plasma units or 80 whole blood (450 mL) units Up to 78 plasma boxes
EMEDS+25	2 Blood Bank Refrigerators 2 Plasma Freezers	Up to 120 PRBC/liquid plasma units or 80 whole blood (450 mL) units Up to 156 plasma boxes
AFTH (87-Bed)	4 Blood Bank Refrigerators 4 Plasma Freezers	Up to 240 PRBC/liquid plasma units or 160 whole blood (450 mL) units Up to 312 plasma boxes

2.12.8.4. Blood products must be maintained within required temperature ranges:

- PRBC and liquid plasma: 1-6 degrees Celsius
- Frozen blood products: Negative 18 (-18) degrees Celsius
- Platelets: 20-24 degrees Celsius
- Low Titer O whole blood and cold stored whole blood: 1-6 degrees Celsius

Note: Emergency whole blood can be maintained at room temperature up to 8 hours.

2.12.8.5. AFTHs include the Expeditionary Blood Support Center (EBSC), which provides laboratory personnel (FFLBB) with specialized skills in the collection and preparation of blood components for emergency trauma situations. The equipment set (FFLB1) provides apheresis kits, platelet incubators, blood bags for fresh whole blood collection, and a shelter for donor screening, blood collection, and processing. See AFTTP 3-42.711, *Blood Support Operations*, for more information on EBSC capabilities.

2.12.9. Medical Command and Administration. EMEDS command and administration functions include medical command center operations, medical readiness, patient administration (to include patient movement coordination), and personnel administration. The medical command center is the focal point for all classified material handling and distribution, secure communications, and development of mass-casualty response plans. The Medical Command and Administration Team (FFEP2) provides the core medical command and health services administration personnel for EMEDS. The team is led by a corps-neutral medical service colonel who functions as the EMEDS commander and a medical group superintendent

who serves as the senior enlisted leader for the medical facility. The EMEDS+10 personnel package (FFEP3) and EMEDS+25 personnel package (FFEP4) provide additional health services management personnel to support the increased patient administration workload. The Medical Management Support Team (FFAAT) provides additional health services administration and management personnel at the AFTH level.

2.12.10. Medical Logistics. The Medical Command and Administration Team (FFEP2) provides the initial medical logistics personnel for EMEDS. The team's medical materiel craftsman and biomedical equipment craftsman are responsible for all logistics, facility management, and maintenance activities. Each EMEDS facility has a segregated, environmentally controlled storage area. Storage space is limited and personnel should coordinate with other units to share and optimize space. The EMEDS+10 personnel package (FFEP3) and EMEDS+25 personnel package (FFEP4) provide additional medical logistics support. The Forward Distribution Medical Logistics Team (FFFDLT) is added at the AFTH level to extend medical materiel support capabilities and facilitate the flow of materiel and information. Medical logistics roles and responsibilities are in accordance with AFI 41-201, *Managing Clinical Engineering Programs*, and Air Force Manual (AFMAN) 41-209, *Medical Logistics Support*. See Department of the Air Force Tactics, Techniques, and Procedures (DAFTTP) 3-42.8, *Expeditionary Medical Logistics (EML) System*, for more information about medical logistics UTCs.

2.12.11. Medical Ward/Patient Holding. Patient care supplies include intravenous fluids, oxygen, suction, monitoring equipment, and multiple-position field hospital beds. EMEDS HRT can hold four patients for 24 hours. The Clinical and Ancillary Support Team (FFEP6) and Ground Surgical Team (FFGST) provide the core nursing staff to support the patient holding beds. Medical personnel from the other functional areas provide surge support as needed. EMEDS+10 adds medical staffing and equipment (FFEP3 and FFEE2) to support a 10-bed medical/surgical ward. EMEDS+25 adds staffing and equipment (FFEP4 and FFEE3) to support a 25-bed medical/surgical ward. The Hospital Medical Expansion Packages (FFEW1, FFEW2, FFEEW) provide personnel and equipment to expand medical ward capacity in 25-bed increments. The hospital expansion packages are modular and are typically implemented as shown in [Table 2.12](#).

Table 2.13. Hospital Expansion Package Laydown.

Number of Additional Beds	Equipment	Personnel
25	1 – FFEEW	1 – FFEW1
50	2 – FFEEW	1 – FFEW1, 1 – FFEW2

2.12.12. Nutritional Medicine. EMEDS HRT and EMEDS+10 do not have a formal nutritional medicine section or dietary technician. Clinicians perform nutritional assessments in consultation with a designated dietary consultant. The EMEDS+25 personnel package (FFEP4) provides one dietary technician. AFTHs include an additional dietitian and dietary technicians (FFEW1). All EMEDS modules rely on ECS/BOS for meal procurement and preparation and to obtain medical supplements to the standard meal kits. Ice and drinking water for patients are provided through ECS/BOS or from contract sources. EMEDS personnel are responsible for ordering patient diets and supplements, meal delivery, and returning serving equipment for sanitation. Nutritional medicine guidelines are followed in accordance with the

Academy of Nutrition and Dietetics *Nutrition Care Manual (NCM)* and AFMAN 44-144, *Nutritional Medicine*.

2.12.13. Operating Room/Surgery. The Ground Surgical Team (FFGST) provides the core surgical staff for EMEDS. The EMEDS HRT equipment package (FFHR1) provides essential operating room equipment and supplies for initial damage control procedures. EMEDS HRT equipment includes surgical instruments and supplies, monitoring devices, portable oxygen equipment, and a general anesthesia machine. EMEDS HRT and EMEDS+10 have comparable surgical capabilities. The surgical area consists of one surgical tent and one operating table. When fully operational, EMEDS HRT and EMEDS+10 can perform 10 major surgeries or 20 non-operative trauma resuscitations before resupply. EMEDS+10 adds an operating room nurse (FFEP2), oxygen generation capability (FFOX2), and additional surgical and postoperative instruments and supplies (FFEE2) to support the increased patient population. A second Ground Surgical Team (FFGST) and operating room nurse (FFEP4) are added at the EMEDS+25 level. The EMEDS+25 equipment package (FFEE3) includes an additional operating table, anesthesia machine, surgical equipment and supplies, and an additional oxygen generation system (FFOX2) is added. When fully operational with two surgical teams and two operating tables, EMEDS+25 can perform 20 major surgeries or 20 non-operative trauma resuscitations before resupply. Each surgical area requires 100 square feet of separation. The EMEDS configuration does not allocate separate space for pre-operative care. Surgical capability at the AFTH level is sized to the population at risk and bed capacity. The surgical expansion packages expand operating room capability in two-bed increments. The 87-bed AFTH includes two additional operating rooms (FFEES) with surgical staff (FFEST), an additional oxygen generation system (FFOX2), and space for pre-operative and post-operative care. AFTHs usually include surgical subspecialties such as oral/maxillofacial surgery, neurosurgery, ophthalmology, otorhinolaryngology, thoracic/vascular surgery, gynecology, urology, and orthopedic surgery. See AFTTP 3-42.74, *Surgical Subspecialty Teams*, for more information on these capabilities.

2.12.14. Optometry. The EMEDS platform does not include dedicated optometry. The Optometry Team (included in FF00P) includes an optometrist and technician to provide primary eye care, disease prevention, and acute intervention services at the AFTH level. See AFTTP 3-42.76 for more information about optometry capabilities.

2.12.15. Pharmacy. All EMEDS modules have a pharmacist (FFEP6) and pharmacy section for storage and dispensing of medications. Controlled medications are stored in locked rooms or containers. The pharmacist is responsible for accurate accounting of all medications. The EMEDS+25 personnel package (FFEP4) adds a pharmacy technician to support the increased workload demands. The Ancillary Medical Support Team (FFANC) and Ancillary Equipment package (FFAN1) are added at the AFTH level and include an additional pharmacist, pharmacy technicians, and pharmacy supplies. The EMEDS/AFTH pharmacy is also responsible for resupplying the flight-line clinics.

2.12.16. Physical and Occupational Therapy. The EMEDS platform has no specialized physical or occupational therapy equipment. Physical and occupational therapy capabilities at the EMEDS HRT and EMEDS+10 levels are limited to the care provided by the orthopedic surgeon (FFEP6) and other clinicians. The EMEDS+25 personnel package (FFEP4) includes one physical therapist. The physical therapist can support primary care and orthopedic functions as needed. The Optometry, Occupational Therapy, and Physical Therapy Team

(FF00P) includes an additional physical therapist, an occupational therapist, and physical therapy technicians and is added at the AFTH level.

2.12.17. Preventive and Aerospace Medicine. The PAM ADVON Team (FFPM1) provides the core preventive medicine personnel for EMEDS. This team is generally the first medical presence at new bed-down locations. They typically deploy as early as possible to assist ECS/BOS teams in site selection and to ensure consideration of occupational and environmental health factors. They deploy with portable field packs (FFPM4) that include equipment and supplies for initial clinical care, occupational and environmental health sampling, food and water safety inspections, and basic hazard and CBRN identification. The PAM Sustainment Equipment package (FFPM5) includes a shelter and additional equipment and supplies to sustain operations for 30 days. PAM Team 2 (FFPM2) provides bioenvironmental and public health craftsmen and can be added at either the EMEDS HRT or EMEDS+10 level, depending on operational requirements. PAM Team 3 (FFPM3) provides bioenvironmental engineering and public health journeymen to support the increased patient population at the EMEDS+10 level.

2.12.17.1. The PAM Counter-CBRN Team and equipment package (FFPM6 and FFPM7) can be added to support increased CBRN surveillance requirements for operating locations with a moderate to high threat. See AFTTP 3-42.23 for more information on PAM capabilities and deployment scenarios.

2.12.17.2. If required by the deployed commander, a separate, flight-line clinic can be deployed to support flight operations. The Flight Medicine Team (FFDAB) provides this staffing, which includes a flight surgeon and two aerospace medical service technicians. This geographically separated clinic requires its own space (minimum of 650 square feet) and ECS/BOS.

2.12.18. Primary Care. All EMEDS modules provide outpatient primary care for patients with non-life-threatening urgent and routine conditions. The Primary Care Team (FFPCM) provides the core family medicine staffing for EMEDS. (**Note:** The Flight Medicine Team [FFDAB] is the alternate for operations that require flight medicine capability.) The team can provide surge support in the emergency room and medical ward. The EMEDS+10 personnel package (FFEP3) adds a physician assistant, and the EMEDS+25 personnel package (FFEP4) adds a family practice nurse practitioner. Medical technicians are also added at the EMEDS+10 and EMEDS+25 levels to support the increased patient population. The Hospital Medical Expansion Package, Increment 2 (FFEW2) includes additional family medicine personnel for an AFTH.

2.12.19. Radiology. The Clinical and Ancillary Support Team (FFEP6) provides a radiology technician for initial radiology services. Trained dental technicians and clinicians can provide additional radiology support. The EMEDS+25 personnel package (FFEP4) adds another radiology technician to support the increased patient population. The EMEDS HRT equipment package (FFHR1) provides most EMEDS radiology equipment, which includes a mobile radiographic x-ray unit, portable ultrasound system, and a portable digital dental x-ray machine for intraoral radiology. The EMEDS+10 equipment package (FFEE2) provides additional accessory equipment. At the AFTH level, the Radiology Team (FFRAD) provides a diagnostic radiologist and diagnostic imaging technicians for advanced imaging and interventional services for surgical support and diagnostic workups. The Ancillary Medical Equipment

package (FFAN1) includes portable and fixed radiography units and radiographic tables. The Radiology Equipment package (FFRA5) provides a mobile angiographic/fluoroscopic unit (C-Arm) and an ISO shelter. AFTHs include computed tomography (CT) scan capabilities (FFHAG). EMEDS/AFTH radiology equipment can capture and store diagnostic images locally. Picture archiving and communication system (PACS) capability is not available. See AFTTP 3-42.76 for more information about AFTH radiology capabilities.

2.12.20. Specialty Care. The Specialty Care Team (FFP01) provides internal medicine, pediatric, and OB/GYN capabilities for EMEDS. Team members can provide surge support in the emergency room and medical wards commensurate with their skills and scope of practice. The specialty care equipment package (FFP0E) provides equipment and supplies to support the team up to 10 days, depending on patient volume. OB/GYN (FFGYN/FFGY1) and pediatrics (FFPED/FFPE1) are included in an AFTH. These teams can also be added at an EMEDS+10 or above if needed.

2.12.21. Sterile Processing. EMEDS HRT has no dedicated sterile processing department to receive, clean, and sterilize instruments and other medical items. The operating room is equipped with a tabletop steam sterilizer. EMEDS+10 and EMEDS+25 have a separate area adjacent to the operating room for sterile processing. The EMEDS+10 equipment package (FFEE2) provides a large sterilizer and water reclaimer unit, which should be placed in or near the operating room. The EMEDS+25 equipment package (FFEE3) adds an ultrasonic cleaner and an additional sink.

Chapter 3

OPERATIONS

3.1. EMEDS UTC Posturing. EMEDS UTCs are postured against units in the Unit Type Code Availability database and MRL. EMEDS equipment and facility infrastructure packages might be pre-positioned in theater based on requirements from geographic combatant commanders and the Commander, Air Force Forces (COMAFFOR).

3.2. Deployment Planning. Planners consider many factors, such as operational environment, pre-positioned materiel, host nation support agreements, contingency contracts, and acquisition cross-service agreements, in planning deployments and tailoring unit-level personnel and equipment requirements. Time-phased force deployment data (TPFDD) is built by the air component and flowed through the major commands to the wing plans and operations centers for action.

3.3. Pre-Deployment Preparations. Upon receipt of an alert, prepare to deploy, warning order, or other notification from higher headquarters, the medical readiness office provides a pre-deployment briefing to review key documents and responsibilities with the deploying EMEDS commander and UTC team chiefs. This information typically includes the deployment order, TPFDD, pre-deployment training requirements, force protection threats, and intelligence reports. EMEDS commanders are responsible for ensuring that all deploying personnel and equipment meet the tasking requirements defined by the supported command. EMEDS commanders should review [Attachment 15, EMEDS COMMANDER PRE-DEPLOYMENT AND POST ARRIVAL CHECKLIST](#), for general pre-deployment guidelines and recommendations. Many of these guidelines are based on commander feedback and lessons learned. Individual deploying personnel follow the pre-deployment requirements in AFI 10-403, *Deployment Planning and Execution*.

3.3.1. Provider Credentialing. To expedite privileging action, deploying medical units should provide an interfacility credentials transfer brief at least 15 days before the unit's arrival date when possible. Some host nations may require copies of various credentials such as licenses or Basic Life Support or Advanced Cardiovascular Life Support certification. All clinical providers should have a copy of their interfacility credentials transfer brief and current privilege list.

3.3.2. Equipment and Cargo. UTC team chiefs should assess the deployability of assigned equipment UTCs with medical logistics personnel and identify shortfalls. Deploying EMEDS commanders should ensure an adequate number of personnel are qualified in pallet build-up and cargo handling procedures (to include hazardous, protected, and classified cargo) to serve as cargo increment monitors during deployment and redeployment in accordance with AFI 10-403.

3.3.2.1. Hazardous cargo is subject to Defense Transportation Regulation (DTR) 4500.9-R Part III, *Mobility*, AFMAN 24-604, *Preparing Hazardous Materials for Military Air Shipments*, and host nation requirements. EMEDS commanders should ensure an adequate number of EMEDS personnel are appointed and trained as packers, handlers, inspectors, and certifying officials.

3.3.2.2. Protected cargo includes controlled substances, items vulnerable to theft, and weapons and ammunition. A controlled medical item custodian should witness and verify the packaging of medically controlled items. At the deployed location, controlled items should be stored in locked rooms or containers and managed in accordance with AFMAN 41-209. Units are responsible for assigning primary and alternate weapons and ammunition couriers to ensure security and accountability during transit in accordance with Department of the Air Force Instruction (DAFI) 31-101, *Integrated Defense (ID)*, and Department of the Air Force Manual (DAFMAN) 21-201, *Munitions Management*.

3.3.2.3. Classified material should be packaged, marked, safeguarded, and transported in accordance with DAFI 24-602, *Volume 2, Cargo Movement*. Units are responsible for assigning appropriately cleared and trained couriers to accompany classified material.

3.3.2.4. The medical logistics lead should coordinate with the Air Force Medical Logistics Operations Center (AFMLOC) before deployment to formalize resupply and equipment repair channels. They should track outbound equipment UTCs, and upon arrival at the bed-down location, verify that all equipment has arrived.

3.4. Employment. EMEDS typically deploys as part of an air expeditionary task force and is an integral component of the support elements required to open, establish, and operate an airbase. In the early phase of an operation, priorities are to establish medical command and control, provide limited, essential and emergent clinical care, and provide medical input into site selection and facility layout based on initial occupational, environmental, and public health assessments. Many of these activities are critical to the mission's success and should occur within the first 48 hours. See [Attachment 15, EMEDS COMMANDER PRE-DEPLOYMENT AND POST ARRIVAL CHECKLIST](#), for general guidelines and recommendations.

3.4.1. Patient Movement. EMEDS has limited patient holding capacity and relies on patient movement support for mission success. Casualties are typically reported for evacuation from EMEDS to the next appropriate level of care when they are not expected to return to duty within the timeframe prescribed in the theater evacuation policy. EMEDS health services administrators submit patient movement requests to the United States Transportation Command Patient Movement Requirements Center (TPMRC) in accordance with theater policy and DAFI 48-107, *Volume 1, En Route Care and Aeromedical Evacuation Medical Operations*. Casualties should be transported with their medical records, personal effects, and medically essential items.

3.4.1.1. EMEDS commanders should coordinate requirements for patient movement items (PMI) with the En Route Care system in advance of sending and receiving patients to ensure adequate quantities are available. Otherwise, the EMEDS facility may be responsible for supplying these items.

3.4.1.2. The attending physician is responsible for ensuring that all necessary forms (such as Air Force [AF] Form 3899, *Patient Movement Record*, or DD Form 1380, *Tactical Combat Casualty Care [TCCC] Card*) are completed in accordance with DAFI 48-107, *Volume 3, En Route Care Documentation*. EMEDS personnel should consult with the Aeromedical Evacuation Liaison Team (AELT) for fixed wing evacuation requests to ensure documentation, patient safety, equipment, medication, and other logistical requirements are met.

3.4.2. Patient Safety and Ready Reliable Care. The Chief of Medical Staff (SGH) appointed by the EMEDS commander oversees clinical quality operations, patient safety program management, and sustainment of a ready reliable care culture. The designated Patient Safety Manager manages the EMEDS facility's patient safety program and promotion of Ready Reliable Care in accordance with Defense Health Agency-Procedures Manual (DHA-PM) *Clinical Quality Management in the Military Health System, Volume 1: General Clinical Quality Management*, and AFI 44-119, *Medical Quality Operations*. The EMEDS Patient Safety Manager position is an additional duty assignment and is typically assigned to a clinical nurse. A trained aerospace medical services technician from the hospital expansion support team provides additional support at the AFTH level. All EMEDS clinical and administrative personnel should understand the DOD Patient Safety Program guidance and National Patient Safety Goals (NPSG) for hospitals and their application in deployed settings. Patient safety guidelines for EMEDS facilities are available in the *Deployed Patient Safety Program Guide*. This guide and other clinical quality management resources are available in the Deployed MTF Tools folder on the Air Force Medical Readiness site at <https://usaf.dps.mil/teams/11364/SitePages/Home.aspx>.

3.4.3. Documenting Patient Care. Medical personnel document the care provided to U.S. personnel in accordance with Department of Defense Instruction (DODI) 6490.03, *Deployment Health*, AFMAN 41-210, *TRICARE Operations and Patient Administration*, and theater surgeon policy. Patient encounter data should be filed electronically through the Theater Medical Information Program (TMIP) if network access is available. If access to TMIP is not available, medical personnel should use paper forms. Examples include Standard Form (SF) 600, *Chronological Record of Medical Care*, DD Form 1380, DD Form 3019, *Resuscitation Record*, and AF Form 3899.

3.4.4. Health Surveillance and Exposure Tracking. Throughout the deployment, the PAM team is responsible for ongoing health surveillance, including weekly and monthly disease and injury reports, entomology, and occupational and environmental health site assessments. The public health officer and bioenvironmental engineer should participate in the Threat Working Group to ensure threats and vulnerabilities are adequately addressed and corrective actions are identified and implemented. PAM personnel are responsible for recording and tracking patient encounters, occupational and environmental health exposures, and health surveillance data in accordance with DODI 6055.05, *Occupational and Environmental Health (OEH)*, DODI 6490.03, and theater surgeon policy. TMIP provides the system of record for recording this data.

3.4.5. Operational Reports. EMEDS commanders are responsible for submitting required operational reports in accordance with AFMAN 10-206, *Operational Reporting (OPREP)*, and specific combatant commander, joint force commander, and commander, Air Force forces requirements. After-action reports and lessons learned are submitted in accordance with AFI 10-204, *Air Force Service Exercise Program and Support to Joint and National Exercise Program*, and AFI 10-1302, *Air Force Lessons Learned Program*.

3.4.6. Maintenance and Disposition of Records. Records associated with EMEDS operations are maintained and disposed in accordance with the Air Force Records Disposition Schedule. Patient medical records, personally identifiable information, and protected health information are managed and protected in accordance with AFI 33-332, *Air Force Privacy and Civil Liberties Program*, and AFMAN 41-210. Medical personnel comply with Public Law 93-579

(as amended) Privacy Act of 1974, Public Law 104-191 (as amended) Health Insurance Portability and Accountability Act (HIPAA) of 1996, Freedom of Information Act, Drug Abuse and Treatment Act, and Comprehensive Alcohol Abuse amendments.

3.4.7. Care for Enemy Prisoners of War. If tasked to treat an enemy prisoner of war, EMEDS commanders should coordinate with security forces or equivalent authority to provide armed guards for prisoners. Following essential care, enemy prisoners of war are transferred to host nation or U.S. Army prisoner of war management authorities.

3.4.8. Care for Civilians and Non-U.S. Personnel. The theater combatant commander has approval authority to allow treatment at an EMEDS facility for local nationals and non-U.S. personnel who become injured as a direct result of U.S. Government operations. This treatment is in accordance with State Department guidance, standardized treaties, and agreements with coalition forces. See **Chapter 11, FOREIGN HUMANITARIAN ASSISTANCE AND STABILITY OPERATIONS**, for more information on treatment of civilians and non-U.S. personnel as part of a humanitarian assistance or disaster relief operation.

3.4.9. Mortuary Affairs. EMEDS is not organized, trained, or equipped for mortuary operations and relies on ECS/BOS. EMEDS personnel should coordinate with mortuary affairs for guidance on the transfer of deceased human remains and personal effects in accordance with DAFI 34-160, *Mortuary Affairs Program*, and local procedures. The EMEDS allowance standard includes a small quantity of human remains pouches. EMEDS is not equipped to decontaminate human remains. EMEDS commanders in conjunction with bioenvironmental engineering and public health personnel can provide guidance on medical safety precautions for handling contaminated remains.

3.4.10. CBRN Threat Environments. When mission requirements and threat assessments warrant, EMEDS deploys with collective protection equipment (CP-EMEDS) to harden the facility against chemical and biological contamination. When properly configured and maintained, CP-EMEDS allows up to 72 hours of continued, enclosed operations following a chemical or biological incident. Medical care at EMEDS facilities operating in a contaminated environment without collective protection is limited to those functions that can be performed while wearing individual protective equipment. EMEDS personnel should be familiar with the CBRN passive defense and consequence management procedures outlined in DAFI 10-2501, *Emergency Management Program*, and DAFI 10-2503, *Chemical, Biological, Radiological, Nuclear (CBRN) Defense Program*. For guidance on medical operations, see ATP 4-02.7/MCRP 4-11.1F/NTTP 4-02.7/AFTTP 3-42.3, *Multiservice Tactics, Techniques, and Procedures for Health Service Support in a Chemical, Biological, Radiological, and Nuclear Environment*.

3.4.10.1. The PAM Counter-CBRN Team (FFPM6) and equipment set (FFPM7) is typically force packaged with FFPM1-5 in operating locations with a moderate to high CBRN threat. The team provides bioenvironmental engineering and biomedical laboratory personnel for medical CBRN defense, consequence management, and recovery activities. See AFTTP 3-42.23 for more information about PAM Counter-CBRN capabilities and CBRN defense tasks.

3.4.10.2. The Expeditionary Medical Decontamination Team (FFGLB) and equipment package (FFGLC) typically deploy with CP-EMEDS to CBRN threat environments. The

team works to remove or neutralize to the extent possible surface CBRN agents from combat casualties before entry into the EMEDS/AFTH facility or patient movement. See AFTTP 3-42.33 for patient decontamination procedures. At EMEDS/AFTH facilities where the Expeditionary Medical Decontamination Team is not employed, decontamination capabilities are limited to expedient decontamination with soap and water.

3.4.10.3. Operational decontamination of equipment, environmental control units, generators, and shelters depends on the contaminating agent involved and the availability of replacement equipment. Decontamination may not be practical for some equipment (for example, uncoated painted equipment).

3.4.11. Contagious Casualty Management. During a contagious disease outbreak or biological event, EMEDS commanders should work with the wing or group commander to acquire additional space for housing contagious casualties. It is imperative that contagious casualties remain isolated from the non-contagious population. EMEDS staff should use separate triage locations for potentially contagious patients to reduce potential exposure. In the event of a large-scale contagious casualty incident, EMEDS commanders should contact the Air Force Forces Surgeon (AFFOR/SG) to request additional resources to contain and manage contagious patients. EMEDS facilities should be prepared to support a contagious casualty incident without support from the patient movement system. See AFTTP 3-42.22 for more information on contagious casualty management capabilities and procedures.

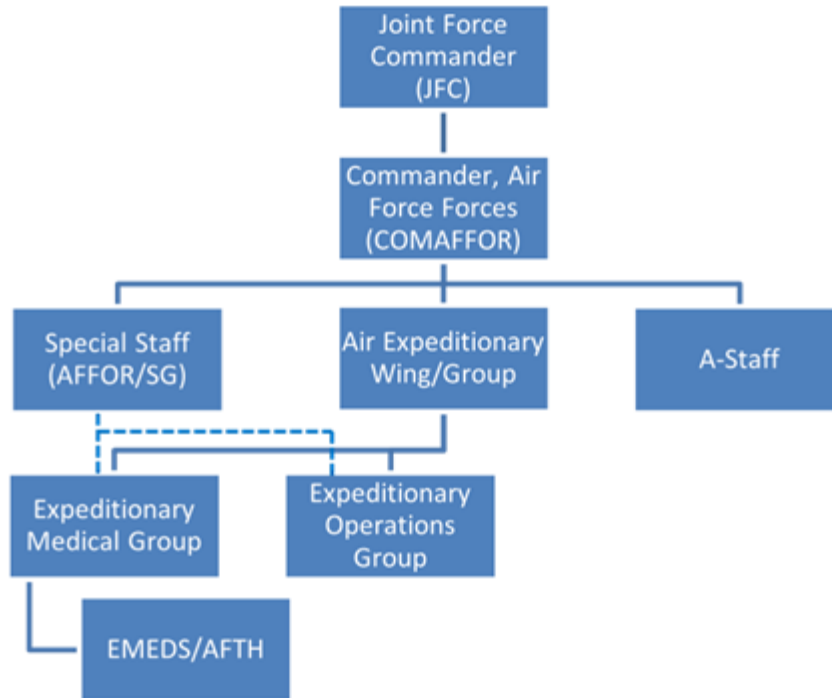
3.5. EMEDS Redeployment. EMEDS commanders should actively participate in redeployment planning to ensure a time-phased reduction in medical services consistent with the deactivation of the deployed location, change in mission, or change in threat scenario. Most EMEDS personnel and equipment typically depart with the bulk of the air expeditionary force. The EMEDS HRT, or a portion thereof, remains to provide emergency medical and surgical capability during the ramp-down phase. EMEDS personnel are responsible for disassembling the EMEDS infrastructure and providing loading assistance. Medical logistics personnel are responsible for load plans and shipping manifests in accordance with theater and host nation requirements. Equipment and supplies should be decontaminated in accordance with theater policy and applicable U.S. Department of Agriculture guidelines. Items not suitable for redeployment (such as pharmaceuticals, blood and biological waste, and sterile supplies) should be appropriately redirected within the theater or disposed of.

Chapter 4

COMMAND AND CONTROL RELATIONSHIPS

4.1. Command and Control of Expeditionary Ground Medical Teams. Command and control for expeditionary medical units is through line of the Air Force commanders. Air Force elements deployed into a theater are typically aligned under the command of the COMAFFOR. The COMAFFOR exercises administrative control responsibilities for assigned and attached Air Force forces. (Source: Air Force Doctrine Publication [AFDP] 3-30, *Command and Control*.) EMEDS personnel normally operate under the local direction of the deployed expeditionary unit commander (usually the EMEDS or AFTH commander). Deploying personnel should receive a chain of command briefing to ensure a clear understanding of the command structure. **Figure 4.1** depicts a notional command structure for EMEDS units attached to an air expeditionary wing or group for combat support operations.

Figure 4.1. Notional Command Structure in Combat Support Operations.



4.1.1. Air Expeditionary Task Force. Conventional ground medical units typically deploy as expeditionary medical groups or squadrons within an air expeditionary task force attached to an air expeditionary wing or group. The wing or group commander exercises administrative control of all attached air expeditionary wing or group assets. A medical group commander is typically a member of the wing or group commander's staff. (Source: AFDP 4-02, *Health Services*.)

4.1.2. Air Force Forces Surgeon (AFFOR/SG). Within an air expeditionary task force, the AFFOR/SG is a member of the COMAFFOR's special staff and is the Director of Medical Operations. The AFFOR/SG is the COMAFFOR's designed coordinating authority with all agencies affecting medical operations. (Source: AFDP 4-02.)

4.1.3. Expeditionary Medical Group Commander. The expeditionary medical group commander is designated on G-series orders specifically for the deployment and is accountable to the air expeditionary wing or group commander. The expeditionary medical group commander is responsible for installation medical services, including oversight and integration of non-EMEDS medical assets into a consolidated installation medical support and disaster response program. The expeditionary medical group commander communicates and coordinates with the AFFOR/SG on theater medical support issues and with other joint medical units at the location.

4.2. Joint and Multinational Operations. EMEDS units deployed to support joint, multinational, or United Nations operations operate under the command structure established by the air expeditionary task force or joint task force to which they are assigned. Command and control relationships are usually defined in the warning, execution, operations, or task order.

4.3. Air Combat Command Surgeon (ACC/SG) Responsibility. ACC/SG is the Manpower and Equipment Force Packaging (MEFPAK) Responsible Agency (MRA) for medical ground-based UTCs. ACC/SG has overall responsibility for EMEDS tactical doctrine, serves as the medical consultant for EMEDS operations, and provides technical guidance and planning.

Chapter 5

COMMUNICATIONS AND INFORMATION SYSTEMS

5.1. EMEDS Communications Equipment. EMEDS communications equipment includes DOD-approved radios, computer systems, and peripherals. ACC/SG determines the requirements for EMEDS communication and information system assets in partnership with the pilot units, ACC/A6 and the Air Force Operational Medicine Information Systems (AFOMIS) Program Office. Responsibilities and processes for acquisition, maintenance, and configuration management of deployable medical information management and technology assets are outlined in the *Air Force Medical Service (AFMS) Life Cycle Sustainment Plan (LCSP) for USAF Medical Equipment War Reserve Materiel (WRM) Information Management/Information Technology (IM/IT)*. The supported combatant command is responsible for associated upgrades and sustainment costs for deployed EMEDS communication and information system equipment and for ensuring that maintenance releases are applied.

5.1.1. Radios. EMEDS equipment includes Joint Tactical Radio System (JTRS) compliant wideband and multiband land mobile radios (LMRs). These radios are interoperable with existing DOD radio systems and joint networking waveforms and enable secure voice, data, and video communication over mobile, ad-hoc internet protocol based networks. They support line of sight and beyond line of sight communications such as convoy, ambulance to airfield operations, patient movement units, security, and local command and control networks. Radios are allocated according to the allowance standard and operational specific requirements. These assets primarily support communications during deployment and redeployment phases and in austere environments where an established communications infrastructure is not available.

5.1.2. Computer Systems. The Air Force Medical Logistics and Industrial Operations Division (AFMRA/SG4W), with support from the AFOMIS Program Office and deploying units, is responsible for ensuring that EMEDS communication and computer systems scheduled for deployment are current and compliant with deployed force information system naming conventions, information assurance requirements, and published theater minimum hardware standards. Computers issued to EMEDS teams include the DOD standard desktop configuration and TMIP applications.

5.2. Theater Medical Information Program (TMIP). TMIP is a suite of DOD standard medical information systems for theater health service support. It provides applications for medical command and control, health care delivery, patient tracking, occupational and environmental health exposure tracking and surveillance, medical logistics, and blood management. TMIP applications are provided through the AFOMIS Program Office. Contact the chief information officer, major command, or manpower and equipment force packaging responsible agency for the current list of applications included in the TMIP suite.

5.3. Network Support. Network Operations and Security Centers (NOSCs) at the theater level ensure the theater's operational and support systems remain fully capable. EMEDS facilities rely on the communications focal point at the deployed location for core network administration, network management, and information assurance at the local level. See [Attachment 5, EMEDS HRT NETWORK CONFIGURATION](#), [Attachment 8, EMEDS+10 NETWORK](#)

CONFIGURATION, and [Attachment 11](#), EMEDS+25 NETWORK CONFIGURATION, for notional local area network configurations for each module.

5.4. Field Assistance Services. The Air Force Operational Medicine Information Systems help desk provides technical and troubleshooting support for deployed TMIP and EMEDS/AFTH network hardware, computers, printers, peripherals, and software. The help desk is available 24 hours per day, 7 days per week, and can be reached at the following telephone numbers and email address:

DSN: (OCONUS: 312 +) 596-5771

Toll Free: 877-596-5771

Commercial: 334-416-5771

Email: fas.team1@us.af.mil

TMIP Helpdesk Email: tmip@medxs.af.mil

5.5. Information Assurance Policy. EMEDS personnel should understand and follow information assurance procedures, to include communications and computer security, in accordance with AFI 17-130, *Cybersecurity Program Management*, AFMAN 17-1301, *Computer Security (COMPUSEC)*, and associated Air Force information assurance guidance.

Chapter 6

INTEGRATION AND INTEROPERABILITY

6.1. Integration and Interoperability with Other Systems. Deployed medical personnel in a theater or area of operation may support elements of an air expeditionary force, components of the en route care system, joint medical counterparts, Special Operations Forces (SOF) medical components, and other federal and civilian agencies. In some instances, theater planners might request medical support for bed-down locations not associated with a typical air expeditionary force or ECS/BOS infrastructure.

6.2. Expeditionary Combat Support/Base Operating Support (ECS/BOS) Requirements. EMEDS assets deploy with limited organic capability and require ECS/BOS. ECS/BOS requirements include (but are not limited to) billeting, messing and other consumable materials, power, water, ice, latrines, showers, laundry, waste management, exterior lighting, transportation (to include ambulances and general purpose vehicles), fuels, vehicle maintenance, equipment maintenance, general supplies, contracting, information and communications systems support, mortuary affairs, public affairs, chaplain, linguist, personnel and vehicle decontamination, and security. ECS/BOS services for EMEDS facilities and personnel are provided through the host base's capabilities, deployable base systems, and contracted civilian support. ECS/BOS requirements for humanitarian assistance, disaster relief, and stability operations are tailored to the mission. See [Attachment 2, EXPEDITIONARY COMBAT SUPPORT REQUIREMENTS](#), for quantified estimates on required support.

6.2.1. Civil Engineering Support. EMEDS teams require civil engineering assistance for shelter and equipment siting, shelter setup, and to connect the EMEDS facility to the base infrastructure. EMEDS personnel and civil engineers install and connect electrical power utilities, environment control units, and waste and water management utility systems, as appropriate. EMEDS facilities rely on civil engineering forces for facility maintenance and maintenance of non-medical equipment (such as generators and environmental control units). Servicing and repair of non-medical equipment beyond the scope of civil engineering capabilities might be contracted out. See [Attachment 3, EMEDS HRT LAYOUT](#), [Attachment 6, EMEDS+10 LAYOUT](#), [Attachment 9, EMEDS+25 LAYOUT](#), for recommended EMEDS site layout configurations.

6.2.2. Billeting, Food, and Personal Hygiene Provisions. Provisions for billeting, meals, showers, and latrines for EMEDS personnel should be commensurate with that provided for other deployed personnel at the bed-down location.

6.2.3. Communications and Information Systems Support. EMEDS does not deploy with the communication infrastructure needed for independent operation. EMEDS facilities rely on the host base's communication units for support. EMEDS personnel require access to the Defense Switched Network (DSN), secure voice communication, Non-classified Internet Protocol Router Network (NIPRNET), and SECRET Internet Protocol Router Network (SIPRNET) for data collection, reporting, and reachback purposes. EMEDS equipment packages include computers, peripheral devices, a satellite phone, and radios. It does not include phone equipment.

6.2.4. Equipment Movement. EMEDS personnel require assistance from base personnel for moving and positioning EMEDS equipment at the deployed location.

6.2.5. Ice and Water. Potable water (bottled/bulk), ice, and dry ice are normally obtained on a contract basis. Depending on the operation, a reverse osmosis water purification unit may be deployed. EMEDS public health and bioenvironmental engineering personnel provide consultation on the procurement or in-house treatment of potable water and ice.

6.2.6. Fire and Emergency Services. Fire and emergency services for EMEDS personnel and facilities should be commensurate with that provided for other deployed personnel and resources.

6.2.7. Laundry. Laundry support is normally obtained on a contract basis but may be provided by ECS/BOS services.

6.2.8. Oxygen. EMEDS HRT includes mobile oxygen storage tanks, which provide a finite oxygen capability. Medically approved oxygen and other gases may be obtained on a contract basis when necessary. EMEDS+10 includes a deployable oxygen generation system. A second oxygen generation system is added at the EMEDS+25 level. The 87-bed AFTH includes four oxygen generation systems.

6.2.9. Petroleum, Oils, and Lubricants (POL). Fuel for vehicles, generators, and other equipment is normally obtained on a contract basis along with other base requirements.

6.2.10. Power. Base electrical power systems provide primary power generation. EMEDS commanders, in consultation with EMEDS biomedical equipment technicians or civil engineering, ensure that power is rationed appropriately. EMEDS+10 and above include generators, which are intended for initial operating capability and emergency backup power only. ECS/BOS provides ground power equipment specialists to connect EMEDS power distribution panels to commercial or base power. See [Attachment 4, EMEDS HRT POWER GRID](#), [Attachment 7, EMEDS+10 POWER GRID](#), and [Attachment 10, EMEDS+25 POWER GRID](#), for recommended power grid configurations.

6.2.11. Transportation Support. EMEDS relies on ECS/BOS for access to vehicles for patient movement, personnel movement, equipment movement, and vehicle maintenance. These vehicles are base transportation assets and might not be permanently assigned to the EMEDS facility. **Note:** Ambulances typically are not deployed at the EMEDS HRT level.

6.2.12. Waste Disposal. Medical and other waste disposal services will normally be obtained on a contract basis or will be provided as part of other base waste disposal services.

Chapter 7

SECURITY AND FORCE PROTECTION

7.1. Security Roles and Responsibilities. Medical personnel and equipment are non-combatant assets and have protected status under the Geneva Conventions and the broader Law of War. Arming requirements for deploying EMEDS personnel are mission and operating location specific and are provided in reporting instructions and theater guidance. Current threat assessments provided by the combatant commander and local threat conditions established by the joint task force, air expeditionary wing, or air expeditionary group commander dictate local security measures. EMEDS commanders are responsible for ensuring security measures are in place to protect patients and personnel at the EMEDS facility. EMEDS personnel are responsible for following the personal protection measures outlined in DAFI 31-101, area of responsibility security briefings, established force protection requirements, and local guidance. The EMEDS commander or appointed representative should be a member of the Integrated Defense Council.

7.2. Physical Security. Security forces guard medical facilities only if deemed necessary as part of the Integrated Defense Plan. If the threat changes, security forces may appoint an augmented detail to provide force protection and entry control (for example, a mass casualty event). The supported unit provides security for any patient determined to require a security detail or escort. EMEDS facilities are not manned to provide this layer of security.

7.3. Medical Convoy Protection. EMEDS commanders should coordinate with the defense force commander for tactical security element support for medical convoys outside the base perimeter and to local host nation medical facilities.

7.4. Operations Security. EMEDS personnel are responsible for protecting mission-critical information (to include medical or casualty information) in accordance with theater policy and AFI 10-701, *Operations Security (OPSEC)*. Classified information should be transmitted by secure means and protected in accordance with Department of Defense Manual (DODM) 5200.01, Volume 3_DAFMAN 16-1404, Volume 3, *Information Security Program: Protection of Classified Information*. Situation reports, medical surveillance, site locations, and compiled patient data are examples of information that may be classified and require protection.

7.5. Security of Weapons and Ammunition. Weapons and ammunition should be secured in accordance with DAFI 31-101 and local procedures. Normally, base security forces provide weapons handling guidance and an armory. In austere locations where access to an armory might not be available, EMEDS personnel are responsible for the safe storage of weapons and ammunition until the patient's unit or armory can assume responsibility. EMEDS commanders should coordinate with base security forces or the supported unit on local weapons handling guidance. Considerations include rules of engagement on searching and clearing patients of weapons and explosives, who is allowed to carry weapons into the medical treatment facility, weapons clearing procedures for personnel entering the facility, and safety measures for handling the discovery of unauthorized weapons or explosives.

Chapter 8

TRAINING

8.1. Medical Readiness Training Requirements. Medical personnel assigned to EMEDS UTCs must complete the Comprehensive Medical Readiness Program (CMRP) training requirements specified in AFI 41-106, *Medical Readiness Program*, and the CMRP Category III Training Guide. Additional training that may be required to meet operational or theater-specific requirements is identified in deployment reporting instructions.

8.2. EMEDS Formal Course. The EMEDS formal course provides field operational training in EMEDS setup and pack out, deployed operations, equipment proficiency, collective protection setup, and doctrine. The course is designed to promote team performance, cohesion, and cross-functionality. See the CMRP Category III Training Guide for attendance requirements. Additional course information and training schedules are available from the ACC Exercise and Training Branch (accsg.sgxt.utcfomaltraining@us.af.mil).

8.3. UTC Sustainment Training. UTC sustainment training occurs between formal course attendance cycles to maintain the skills and knowledge the team needs to fulfill its mission essential tasks. UTC sustainment training credit may be granted for participation in mission essential task-driven exercises, operational readiness exercises, local exercises, and joint exercises. Contact the ACC Exercise and Training Branch for information on approved sustainment training exercises.

8.4. Mission Essential Task Lists (METLs). Personnel assigned to an EMEDS UTC should be proficient in the EMEDS Core METLs and their UTC-specific METLs. METLs are available on the ACC/SG MEFPAK Playbook (<https://usaf.dps.mil/sites/12173/SitePages/ACC-SG-Ground-Medical-UTC-Management.aspx>) or from the ACC Exercise and Training Branch.

8.5. Joint Senior Medical Leaders Course (JSMLC). The JSMLC prepares senior medical leaders to serve as joint task surgeons and senior staff members. Completion of this course or an equivalent is highly recommended for EMEDS commanders and deputy commanders. This course is offered through the Defense Medical Readiness Training Institute (DMRTI) at Ft. Sam Houston in San Antonio, TX.

8.6. Vehicle Operation Training. Operators of material handling equipment, ambulances, and other government motor vehicles must have a government driver's license and appropriate certification in accordance with AFI 24-301, *Ground Transportation*. Certain vehicles (such as ambulances and materiel handling equipment) require completion of additional training, certification, and licensing. This training is a unit responsibility and should occur before deployment. Ground Transportation can assist units with reviewing training requirements and training options. Operators should document completion of required additional training and certification on AF Form 171, *Request for Driver Training and Addition to U.S. Government Driver's License*.

8.6.1. Medical materiel personnel (4A1XX) assigned to an EMEDS UTC should be fully trained on powered industrial trucks and all-terrain capacity materiel handling equipment in accordance with CMRP Category II, Readiness Skills Training for AFSC 4A1X1 – Medical Materiel.

8.6.2. Aerospace medical service technicians (4N0XX) assigned to FFEP3 and all members of FFGLE should be trained in ambulance operation in accordance with their UTC mission capability statements.

8.7. Weapons Training. EMEDS personnel follow the weapons qualification training requirements outlined in AFI 36-2654, *Combat Arms Program*, and DAFMAN 36-2655, *USAF Small Arms and Light Weapons Qualification Programs*, for Arming Group C. Theater combatant commands may impose additional or more stringent requirements, which are generally specified in the operation's execution order or reporting instructions. See the AFMS Arming Requirements document (also known as the Weapons and Munitions Forecasting Table) for weapons authorizations for EMEDS UTCs. This document is available on the ACC/SG MEFPK Playbook (<https://usaf.dps.mil/sites/12173/SitePages/Playbooks.aspx>) or by request from the ACC Ground Medical UTC Management Branch.

8.8. Communications and Information Systems Training. EMEDS personnel should be trained in the proper use of the communications and information systems included in their equipment packages. See the CMRP Category III Training Guide for more information on the training platform, attendance, and currency requirements.

8.9. CBRN Response Force Training. EMEDS personnel allocated to the CBRN Response Enterprise participate in Defense CBRN Response Force (DCRF) and C2 CBRN Response Element (C2CRE) training, exercises, and evaluations in accordance with the Joint Mission Essential Task List. Joint training plans, schedules, and training records are maintained in the Joint Training Management Information System (JTIMS).

Chapter 9

LOGISTICS

9.1. Expeditionary Medical Logistics (EML) System. The EML system provides global support and sustainment to air expeditionary force medical forces across the full spectrum of operations. The EML system uses a pull process for resupply and a repair-and-return process for medical equipment maintenance to minimize inventory and airlift requirements. Each combatant command has a supporting Theater Lead Agent for Medical Materiel (TLAMM). The TLAMM serves as a major theater medical distribution node and becomes the deployed unit's primary point of contact for materiel and equipment support in theater. For early phase operations and emergency situations in which a TLAMM is not able to provide support, the AFFOR/SG staff in coordination with the AFMLOC may designate a sustaining base to provide reachback support. Upon notification of activation, the logistics lead should contact the AFMLOC for guidance on the appropriate theater supply chain and points of contact. See DAFTTP 3-42.8 for more information on expeditionary medical logistics support capabilities, infrastructure, and supply chain management.

9.2. Supplies and Equipment. Most expeditionary medical equipment based in the continental United States is managed and deployed through designated storage and deployment centers. Equipment UTCs may also be pre-positioned in theater based on requirements from geographic combatant commanders and the COMAFFOR. EMEDS typically deploys with 30 days of supplies (an initial 10-day supply package and two 10-day resupply packages). UTC team chiefs should be aware of the contents of their equipment packages before deployment and should contact their medical logistics office for assistance with reviewing their allowance standards. At the deployed location, UTC team chiefs coordinate subsequent resupply through their medical logistics function. See [Chapter 2, EXPEDITIONARY GROUND MEDICAL SUPPORT CAPABILITIES](#), for more information on the equipment UTCs included in each EMEDS module and the corresponding allowance standard.

9.3. Medical Equipment Maintenance and Repair. EMEDS biomedical equipment technicians provide routine maintenance and repair of medical equipment at the deployed location. Equipment repairs and calibrations that cannot be done on site may be provided by an Air Force Medical Equipment Repair Center (MERC).

9.4. Equipment Upgrades and Modernization. Changes to the EMEDS assemblage may result from technology advances and lessons learned feedback. MRAs typically budget and plan for major equipment reviews every five years.

Chapter 10

DOMESTIC CIVIL SUPPORT OPERATIONS

10.1. Expeditionary Ground Medical Support in Domestic Disasters and Emergencies. EMEDS components may deploy in support of the federal response following a national disaster or emergency when directed by higher headquarters. The primary mission is to provide health services support for the response force, assist the medical relief efforts of overburdened domestic civilian agencies, and provide vital medical services. EMEDS personnel supporting these missions continue to operate under a military chain of command regardless of the lead agency. Command and control typically reside under a joint force command structure where the EMEDS commander reports through a line chain of command or through the joint force surgeon. Specific command and control relationships are usually defined in the warning, execution, operations, or task order.

10.2. Defense Support of Civil Authorities (DSCA) Response Packages. Some EMEDS UTCs are allocated to the combatant commands to support DSCA operations under the National Response Framework and National Incident Management System. The combatant commanders determine which EMEDS personnel and equipment UTCs support the domestic civil support mission within their areas of responsibility based on mission scope, threat assessment, and availability of forces. Specific UTCs are identified in the TPFDD. Historically, Air Force ground medical support for domestic civil support missions has been built on an augmented EMEDS+25 platform. ECS/BOS requirements will vary depending on the assemblage. See [Attachment 2, EXPEDITIONARY COMBAT SUPPORT REQUIREMENTS](#), for baseline ECS/BOS requirements.

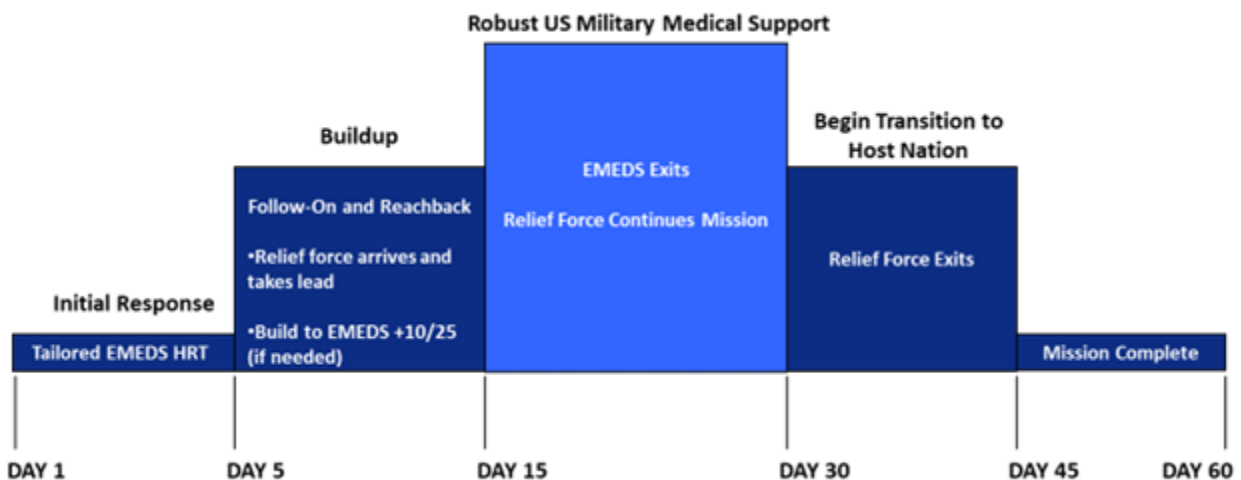
10.3. CBRN Response Force. The DOD maintains a dedicated, scalable, and readily available CBRN response force (known as the CBRN Response Enterprise) to provide a rapid and flexible response in the event of a domestic CBRN incident. When directed by higher headquarters, the CBRN Response Enterprise deploys to support the consequence management efforts of civilian authorities overwhelmed by a significant or catastrophic radiological or nuclear incident to the extent allowed by law to save lives, reduce suffering, and protect the environment. The CBRN Response Enterprise consists of state and federal military response forces. Federal military response forces consist of the Defense CBRN Response Force (DCRF) and Command and Control CBRN Response Elements (C2CRE A and B). Air Force UTCs allocated to this mission are part of the DCRF and include EMEDS, AFRAT, and the Theater Epidemiology Team. Additional medical support for the C2CREs is handled through a request for forces process.

Chapter 11

FOREIGN HUMANITARIAN ASSISTANCE AND STABILITY OPERATIONS

11.1. Mission. Upon direction by higher headquarters, EMEDS and associated ECS/BOS components deploy to support foreign humanitarian assistance (which includes disaster relief) and stability operations. The primary mission is to provide rapid, initial medical response, provide health services support for the response force, and help restore vital medical services. The military's role in these operations is intended to be limited in scope and duration. EMEDS augments the medical relief efforts of partner nations, intergovernmental agencies, and civilian relief agencies. The typical mission duration for EMEDS personnel is less than 30 days. **Figure 11.1** shows a notional EMEDS response timeline.

Figure 11.1. Notional EMEDS Response.



11.2. Support Capabilities. Medical support capabilities focus on estimated throughput and are not linked to a population at risk. EMEDS HRT provides the initial response capabilities and generally includes medical C2 and support services, surgical and critical care, primary care, dental, bioenvironmental engineering, public health, OB/GYN, pediatrics, and internal medicine. EMEDS HRT can triage and treat 350 patients per day with a surge capacity of 500. The preexisting health status of the affected population and the scope and severity of the event will impact patient throughput and supply duration. Due to anticipated high patient volumes, the estimate for initial supply duration is 5 days. If the anticipated patient throughput exceeds EMEDS HRT capabilities, an EMEDS+10 or EMEDS+25 may be deployed. Additional specialty UTCs, such as pediatrics (FFPED/FFPE1) and OB/GYN (FFGYN/FFGY1) can also be added.

11.3. Operational Assumptions. EMEDS response is based on the following assumptions about the operational environment:

- Civilian authorities are in control of their government and the operational environment.
- U.S. forces are not responsible for host nation patient movement, including rotary wing or ground evacuation.
- EMEDS will likely deploy to austere conditions with limited logistical support.
- U.S. forces will be self-billeted.

- Food, potable water, electrical power, transportation, and fuel may not be locally available. U.S. forces bring their own capability.
- The host nation has airfield control, and a runway is available to U.S. forces.
- Local communication systems are not available within the area of operations. The operating site will require communications setup and maintenance support.
- A Status of Forces Agreement (SOFA) or appropriate diplomatic notes exist.
- Humanitarian Assistance Survey Teams (HAST), Global Health Engagement, and Defense Institute for Medical Operations (DIMO) resources may be employed.

11.4. Medical Planning Factors. The supported population may include U.S. and partner nation forces, personnel from governmental agencies and non-government organizations, and local nationals. Medical rules of engagement should define the scope and level of care, types of patients who will be treated, plans for moving stabilized patients to the next level of care, patient referral policies, and other medical considerations. JP 3-29, *Foreign Humanitarian Assistance*, and JP 4-02 provide joint planning guidance.

11.4.1. Participants may include U.S. and coalition military forces; U.S., state, or host nation government agencies; multinational partners; and private sector relief organizations. EMEDS personnel should understand the key organizations involved and their interrelationships, roles, and responsibilities, as well as formal coordination requirements, rules of engagement, and reporting instructions.

11.4.2. Medical providers may encounter cultural and language barriers in providing medical triage and care. EMEDS commanders should explore basic language and cultural orientation for the medical staff before deployment. EMEDS personnel might have limited access to effective interpreters.

11.4.3. EMEDS commanders should be provided with public affairs guidance on theater and combatant command strategic themes and messages before departure from home station, if possible. All assigned personnel should follow active public affairs guidance. Communication on EMEDS capabilities should be realistic and specific. For example, the AFMS is not organized, trained, equipped, or mobilized to treat medical conditions that require extended hospitalization or prolonged nursing care.

11.4.4. Patient care documentation requirements for non-U.S. personnel (for example, non-government organization personnel, partner nation forces) treated at an EMEDS facility is determined by State Department guidance, standardized treaties, and partner nation agreements. Patient care documentation and records disposition requirements for local nationals should be negotiated with the host nation. This documentation is typically paper based so it can be shared with the host nation.

11.4.5. The EMEDS allowance standard is designed for the medical care needs of a predominately healthy active duty population and may not be appropriate for the host nation patient population. Providers should ensure that treatment options can be sustained locally. In emergent situations where there is no time to identify the regional availability of standard medications and supplies, medical personnel and planners can reference the World Health Organization's recommended Essential Medicines List and Interagency Emergency Health Kit for guidance.

11.4.6. ECS/BOS requirements depend on operational conditions and mission directives. ECS/BOS requirements typically include airfield operations, security forces, civil engineering, power production, transportation, and logistics support. The U.S. military is responsible for EMEDS site security and the protection of EMEDS personnel and equipment on and off site. A host nation may provide security augmentation or impose limitations on security operations outside the EMEDS area, as determined by agreements between the host nation and U.S. forces. Additional ECS/BOS requirements may include political advisory, judge advocate, civil affairs, linguist, and chaplain support.

11.5. Command Relationships. The State Department or the Office of U.S. Foreign Assistance (OFDA) within the U.S. Agency for International Development (USAID) is the U.S. government lead in foreign response. DOD military personnel operate under a military chain of command regardless of the lead agency. Command and control typically reside under a joint force command structure where the EMEDS commander reports through a line chain of command or through the joint force surgeon. Specific command and control relationships are usually defined in the warning, execution, or operation order.

11.6. Standard of Care. EMEDS providers should apply U.S. medical standards when treating American forces. The medical rules of engagement define the scope of care and triage guidelines for host nation patients based on the situation, other available health support capabilities, patient movement capabilities, and the host nation's request for support. Medical interventions typically are limited to procedures and therapies that are low risk, can be performed quickly, require limited follow-up, and do not undermine the host nation medical system.

11.7. Patient Movement. EMEDS may be employed with an En Route Patient Staging System (ERPSS) facility that can facilitate the intra-country movement of host nation patients. Due to Secretarial Designee status requirements, OCONUS host nation patients are not typically entered into the aeromedical evacuation system for movement outside their nation.

11.8. Interoperability with Host Nation and Partner Providers. Healthcare professionals and volunteers from the host nation or other partner may assist EMEDS personnel in providing health support if they meet mutually agreed upon requirements for proof of credentials.

11.9. Blood Supply. Blood products are generally used for the direct support of military forces supporting the mission. EMEDS facilities should use DOD sourced or DOD collected blood products. If supply or resupply is not available from DOD sources, consult the Area Joint Blood Program Office for direction. Blood policies for host nation patients are in accordance with the established medical rules of engagement.

11.10. Property Donation. Serviceable medical equipment and supplies (Class VIII A medical materiel) may be made available to the host nation or non-government organizations in accordance with combatant command policy and direction. Property donations typically require coordination with logistics personnel, public affairs, legal, and the Defense Logistics Agency (DLA). Requests for property should be forwarded to the DOD for approval and funding authorization. Transfer and distribution of the property is the responsibility of the State Department in accordance with Title 10 United States Code (USC), Section 2557. Donated equipment or materiel should be appropriate and interoperable with host nation standards, maintainable by host nation capabilities and resources, and have a measurable positive impact on host nation health capacity.

JEANNINE M. RYDER
Major General, USAF, NC
Commander, Air Force Medical Agency

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Abbreviations and Acronyms

ACC—Air Combat Command

ADVON—Advanced Echelon

AELT—Aeromedical Evacuation Liaison Team

AF—Air Force (form)

AFDP—Air Force Doctrine Publication

AFFOR—Air Force Forces

AFH—Air Force Handbook

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFMLOC—Air Force Medical Logistics Operations Center

AFMS—Air Force Medical Service

AFOMIS—Air Force Operational Medicine Information Systems

AFPAM—Air Force Pamphlet

AFRAT—Air Force Radiation Assessment Team

AFSC—Air Force Specialty Code

AFTH—Air Force Theater Hospital

AFTTP—Air Force Tactics, Techniques, and Procedures

ATP—Army Technical Publication

BEAR—Basic Expeditionary Airfield Resources

BOS—Base Operating Support

C2—Command and Control

C2CRE—Command and Control CBRN Response Element
CBRN—Chemical, Biological, Radiological, and Nuclear
CMRP—Comprehensive Medical Readiness Program
COMAFFOR—Commander, Air Force Forces
CONUS—Continental United States
CP—Collectively Protected, Collective Protection
CP-EMEDS—Collectively Protected Expeditionary Medical Support
CT—Computed Tomography
DAF—Department of the Air Force (form)
DAFI—Department of the Air Force Instruction
DAFMAN—Department of the Air Force Manual
DAFFTP—Department of the Air Force Tactics, Techniques, and Procedures
DBSS—Defense Blood Support System
DCRF—Defense CBRN Response Force
DD—Department of Defense (form)
DHA-PM—Defense Health Agency-Procedures Manual
DIMO—Defense Institute for Medical Operations
DLA—Defense Logistics Agency
DMRTI—Defense Medical Readiness Training Institute
DOD—Department of Defense
DODI—Department of Defense Instruction
DODM—Department of Defense Manual
DSCA—Defense Support of Civil Authorities
DSN—Defense Switched Network
DTR—Defense Transportation Regulation
EBSC—Expeditionary Blood Support Center
ECG—Electrocardiogram
ECS—Expeditionary Combat Support
ECU—Environmental Control Unit
EMEDS—Expeditionary Medical Support
EML—Expeditionary Medical Logistics
ENT—Ear, Nose, and Throat (Otorhinolaryngology)

ERPSS—En Route Patient Staging System
FFP—Fresh Frozen Plasma
FM—Field Manual
GYN—Gynecology
HAST—Humanitarian Assistance Survey Team
HIPAA—Health Insurance Portability and Accountability Act
HRT—Health Response Team
HVAC—Heating, Ventilation, Air Conditioning
IDMT—Independent Duty Medical Technician
JFC—Joint Force Commander
JP—Joint Publication
JSMLC—Joint Senior Medical Leaders Course
JTIMS—Joint Training Management Information System
JTRS—Joint Tactical Radio System
LMR—Land Mobile Radio
MCRP—Marine Corps Reference Publication
MEFPAK—Manpower and Equipment Force Packaging
MERC—Medical Equipment Repair Center
METL—Mission Essential Task List
MHS—Military Health System
MRA—MEFPAK Responsible Agency
MRL—Medical Resourcing Letter
NIPRNET—Non-classified Internet Protocol Router Network
NOSC—Network Operation and Security Center
NPSG—National Patient Safety Goals
NTTP—Navy Tactics, Techniques, and Procedures
Nuc/Rad—Nuclear/Radiological
OB—Obstetrics
OCONUS—Outside the Continental United States
OFDA—Office of U.S. Foreign Assistance
OPR—Office of Primary Responsibility
OT—Occupational Therapy

PACS—Picture Archiving and Communication System

PAM—Preventive and Aerospace Medicine

PF24—Plasma Frozen within 24 Hours

PMI—Patient Movement Items

POL—Petroleum, Oils, and Lubricants

PRBC—Packed Red Blood Cell

PT—Physical Therapy

RBC—Red Blood Cell

SDC—Standard Desktop Configuration

SEI—Special Experience Identifier

SF—Standard Form

SG—Surgeon General, Surgeon

SIPRNET—Secret Internet Protocol Router Network

SOF—Special Operations Forces

SOFA—Status of Forces Agreement

TCCC—Tactical Combat Casualty Care

TCP—Transmission Control Protocol

TLAMM—Theater Lead Agent for Medical Materiel

TMIP—Theater Medical Information Program

TPFDD—Time-Phased Force Deployment Data

TPMRC—(United States) Transportation Command Patient Movement Requirements Center

UDP—User Datagram Protocol

USAF—United States Air Force

USAID—U.S. Agency for International Development

USC—United States Code

UTC—Unit Type Code

VOIP—Voice Over Internet Protocol

VOSIP—Voice Over Secure Internet Protocol

WMP—War and Mobilization Plan

Attachment 2

EXPEDITIONARY COMBAT SUPPORT REQUIREMENTS

Table A2.1. EMEDS Expeditionary Combat Support Requirements.

EMEDS Expeditionary Combat Support Requirements				
Calculations are in accordance with AFP 10-219, Vols 5 & 6, where applicable unless otherwise specified.				
	EMEDS HRT	EMEDS+10	EMEDS+25	AFTH (87 Bed)
MOVEMENT REQUIREMENTS				
Calculations are in accordance with AFPAM 10-1403 and DTR 4500.9-R Part III and rounded to nearest whole number.				
Pallets (#)	13	26	36	118
C-130 (# aircraft)	2	4	6	20
C-17 (# aircraft)	1	1	2	7
C-5 (# aircraft)	1	1	1	3
M871 (# flatbed semitrailers)	4	9	12	39
M872 (# flatbed semitrailers)	3	7	9	30
SITE PREPARATION				
Square Footage (slight grade required)	17,000	26,000	40,000	62,000
Tents (#)	5	8	11	29 (plus 5 ISOs)
ECUs (# units)	5	8	11	35
Note: Civil engineering maintenance support is required for ECUs and backup generators.				
BASIC EXPEDITIONARY AIRFIELD RESOURCES (BEAR) REQUIREMENTS				
Latrine/Showers (total # people)	44	76	127	393
Staff (#)	40	66	102	306
Patients (#)	4	10	25	87
Billeting (# staff)	40	66	102	306
Officer (#)	20	28	45	129
Enlisted (#)	20	38	57	177
Meals (# meals/day, total) (= 3 meals/day)	132	228	381	1,179
Staff (# meals/day)	120	198	306	918
Patients (# meals/day)	12	30	75	261
Laundry (lbs/week, total) (= 32 lbs/person/week)	1,408	2,432	4,064	12,576
Staff (lbs/week)	1,280	2,112	3,264	9,792
Patients (lbs/week)	128	320	800	2,784

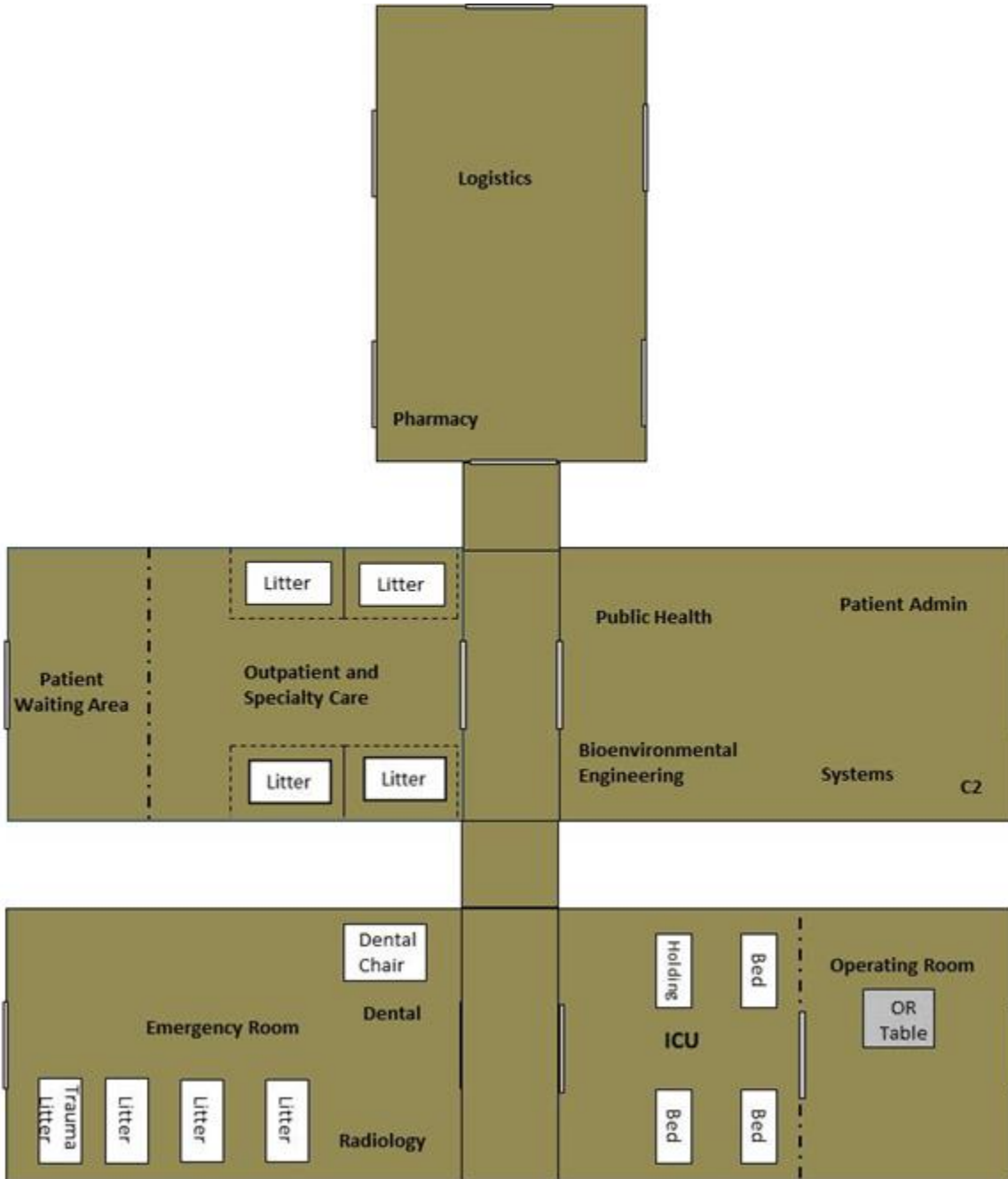
EMEDS Expeditionary Combat Support Requirements				
Calculations are in accordance with AFP 10-219, Vols 5 & 6, where applicable unless otherwise specified.				
	EMEDS HRT	EMEDS+10	EMEDS+25	AFTH (87 Bed)
Ice (lbs/day, total) (= 4.4 lbs/person/day)	193.6	334.4	558.8	1,729.2
Staff (lbs/day)	176	290.4	448.8	1,346.4
Patients (lbs/day)	17.6	44	110	382.8
Potable Water (gal/day, total)	660	1,310	2,645	8,725
Staff (gal/day) (= # staff x 10 gal/day)	400	660	1,020	3,060
Patients (gal) (= # patients x 65 gal/day)	260	650	1,625	5,655
Power (kW)	75	125	200	550
Power with CP-EMEDS (kW) (3-phase)	100	200	400	Contact ACC/SGXM for guidance
MEDICAL/BIOHAZARD WASTE MANAGEMENT				
Liquid (gal/day), total (= 0.7 x potable water rate)	30.8	53.2	88.9	275.1
Staff (gal/day)	28	46.2	71.4	214.2
Patients (gal/day)	2.8	7	17.5	60.9
Solid (lbs/day, total) (= 4 lbs x # people)	176	304	508	1,572
Staff (lbs/day)	160	264	408	1,224
Patients (lbs/day)	16	40	100	348
LOGISTICS REQUIREMENTS				
Petroleum, Oil, Lubricants				
Diesel Fuel Consumption (gal/day) (= 8.33 gal/hr x 24 hrs)	0	400	400	2,000
Diesel Fuel Consumption, CP mode (gal/day)	0	550	600	2,500
Unleaded Fuel Consumption (gal/day) (10kW backup generator)	60	60	60	60
Vehicles				
Transportation Requirements	UFMBJ: 1, 4x4 Pickup Truck	UFMBJ: 1, 4x4 Pickup Truck	UFMBJ: 1, 4x4 Pickup Truck	UFMBJ: 1, 4x4 Pickup Truck

EMEDS Expeditionary Combat Support Requirements				
Calculations are in accordance with AFP 10-219, Vols 5 & 6, where applicable unless otherwise specified.				
	EMEDS HRT	EMEDS+10	EMEDS+25	AFTH (87 Bed)
		UFM82: 1, 4x2 Ambulance UFM83:1, 4x4 Ambulance UFMT4: 1, 2.5 Ton Cargo Truck UFMV2: 1, Mobile Water Trailer	UFM82: 1, 4x2 Ambulance UFM83: 1, 4x4 Ambulance UFMT4: 1, 2.5 Ton Cargo Truck UFMV2: 1, Mobile Water Trailer	UFM82: 1, 4x2 Ambulance UMF83: 1, 4x4 Ambulance UFMT4: 1, 2.5 Ton Cargo Truck UFMV2: 1, Mobile Water Trailer
Materiel Handling Equipment	10K forklift Flatbed truck	10K forklift Flatbed truck	10K forklift Flatbed truck	10K forklift Flatbed truck
Vehicle Maintenance Support	Required			
COMMUNICATIONS AND INFORMATION SYSTEMS				
Organic Equipment				
Satellite/Telemedicine (#)	1	1	1	1
Land Mobile Radios (#)	13	14	15	15
Laptop (#)	14	24	29	35
Printers (#)	2	3	8	10
Server Suite (#)	0	1	1	1
Base Communications Support Requirements				
Phone/VOIP (#)	9 (4 cell, 3 land, 2 crash)	10 (4 cell, 4 land, 2 crash)	12 (4 cell, 6 land, 2 crash)	12 (4 cell, 6 land, 2 crash)
NIPRNET Access	1 ethernet drop required			
SIPRNET/VOSIP Access	Required			
Computer Configuration				
Operating System/Office Suite	DOD SDC			
RAM/Hard Drive	Enterprise Hardware Standard			
Clinical Applications	TMIP			
Required Port Number/Protocol Access (TCP/UDP)	21/TCP; 443/TCP; 8080/TCP			

EMEDS Expeditionary Combat Support Requirements				
Calculations are in accordance with AFP 10-219, Vols 5 & 6, where applicable unless otherwise specified.				
	EMEDS HRT	EMEDS+10	EMEDS+25	AFTH (87 Bed)
CHAPLAINCY SERVICE SUPPORT				
	Required for all modules			
SECURITY FORCES SUPPORT				
	Required for all modules not co-located on Air Base			

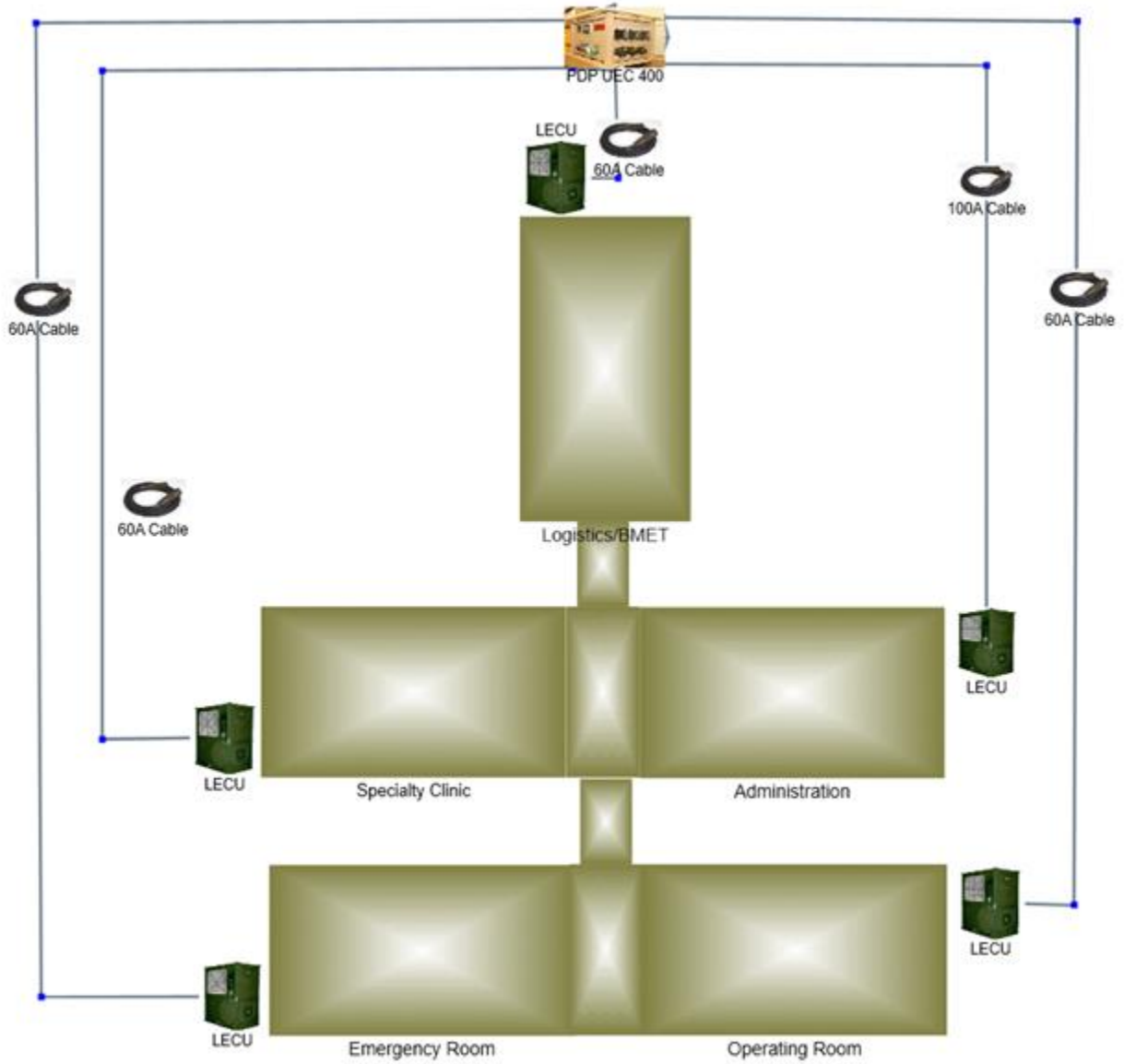
Attachment 3
EMEDS HRT LAYOUT

Figure A3.1. EMEDS HRT Site Layout.



Attachment 4 EMEDS HRT POWER GRID

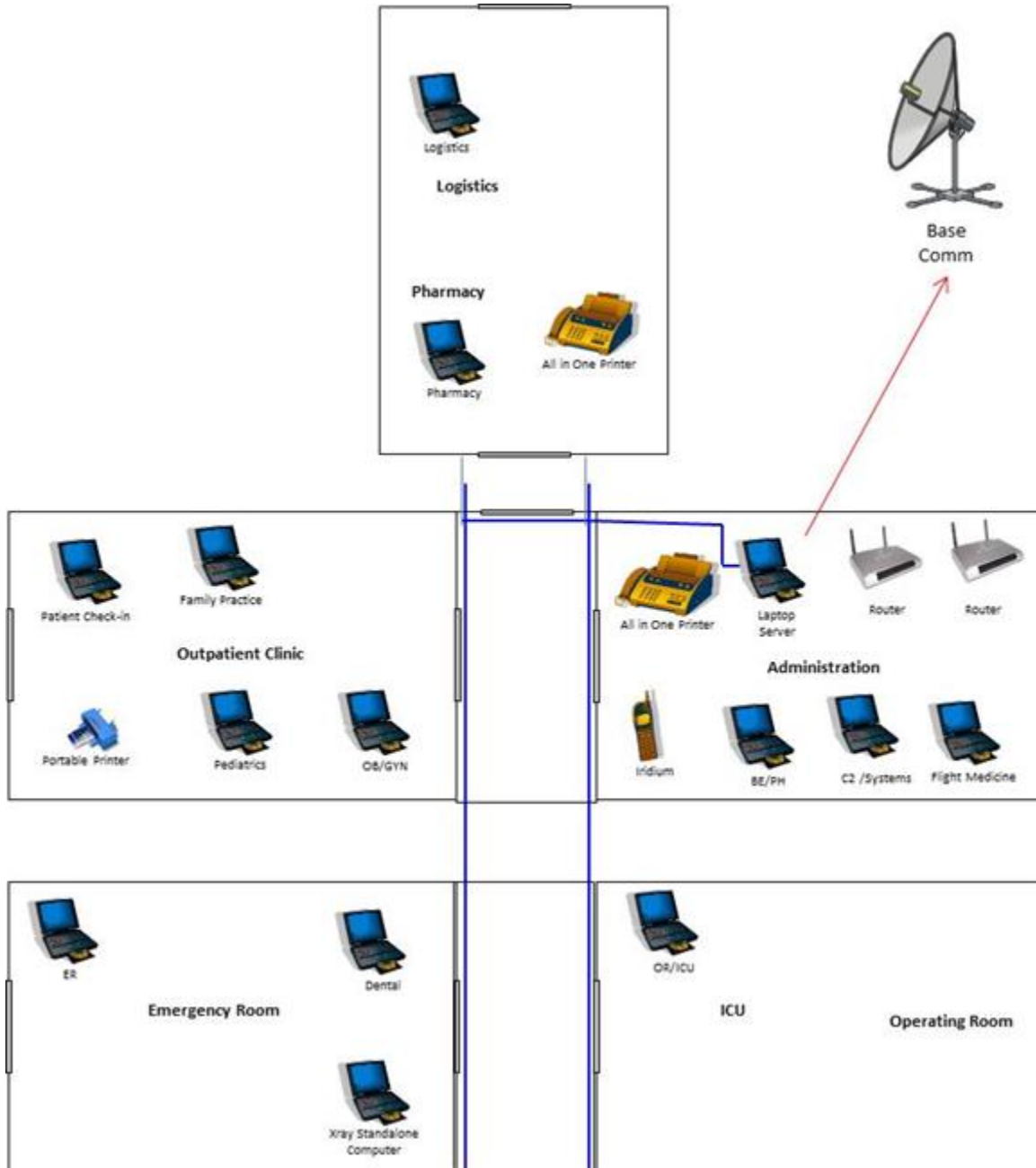
Figure A4.1. EMEDS HRT Power Grid.



Attachment 5

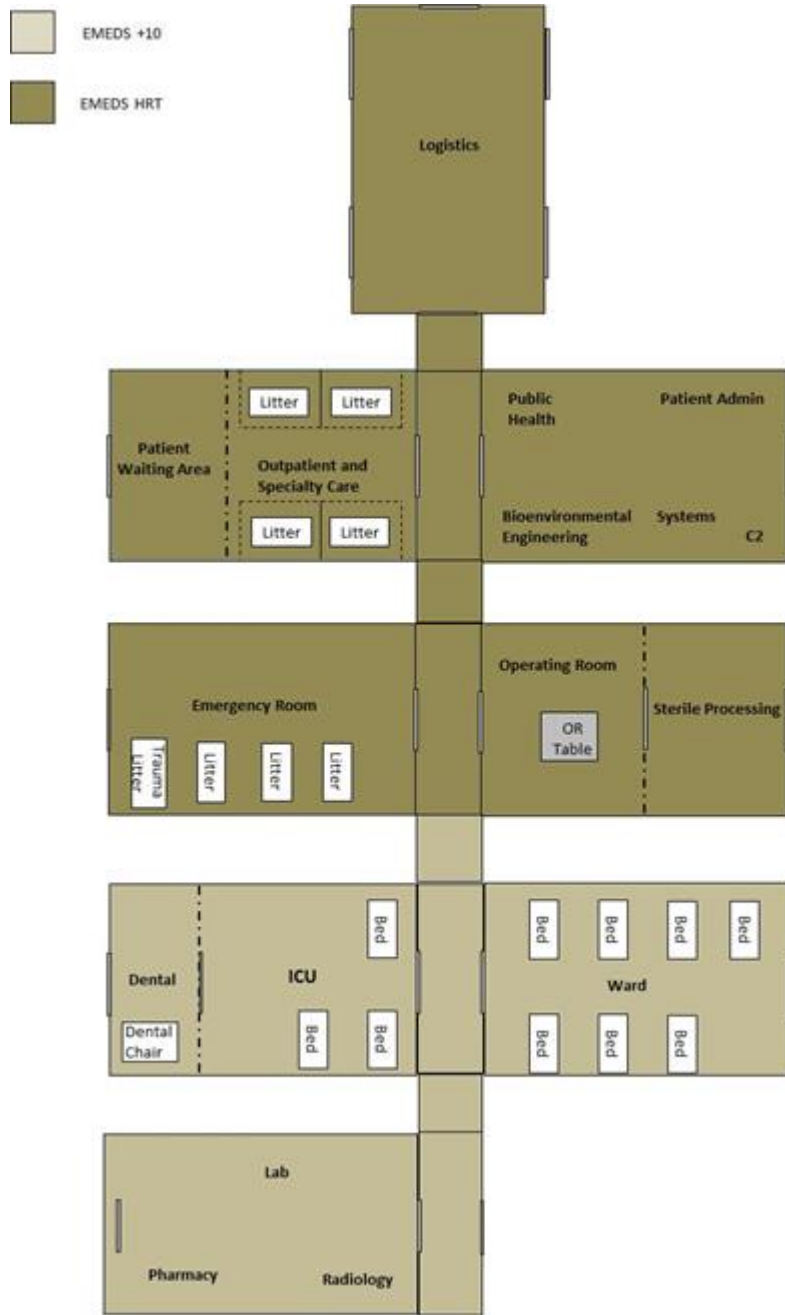
EMEDS HRT NETWORK CONFIGURATION

Figure A5.1. EMEDS HRT Network Configuration.



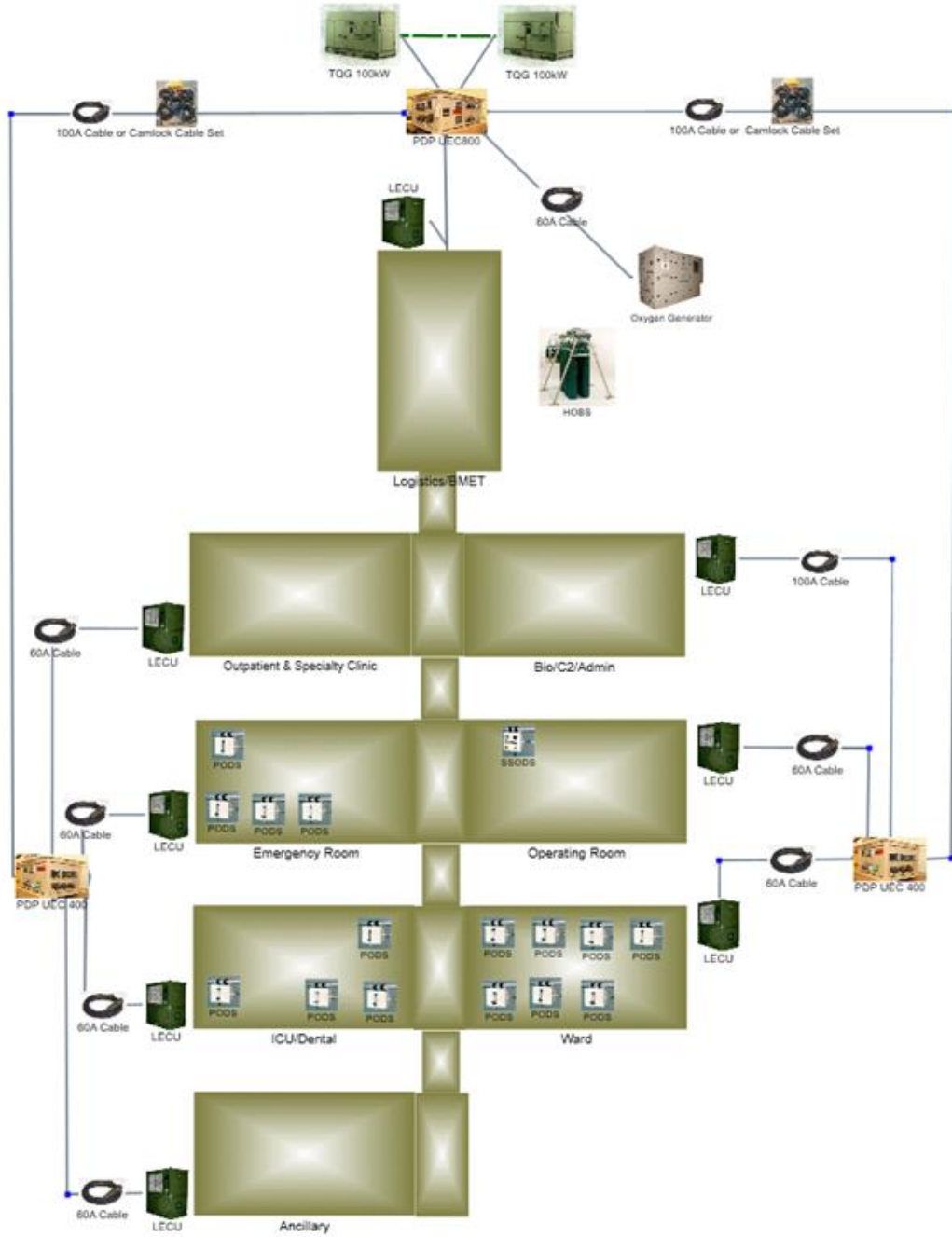
Attachment 6 EMEDS+10 LAYOUT

Figure A6.1. EMEDS+10 Site Layout.



Attachment 7 EMEDS+10 POWER GRID

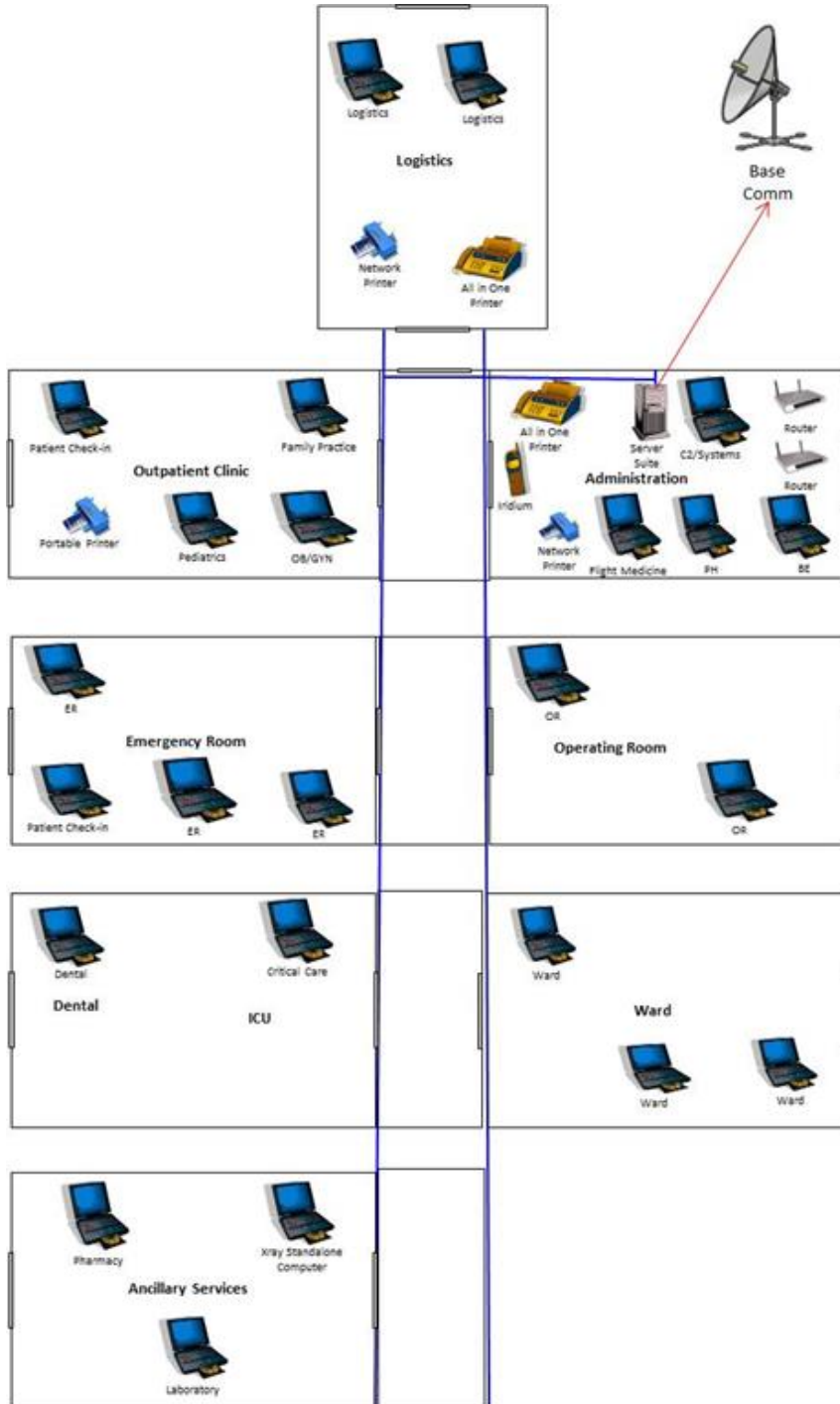
Figure A7.1. EMEDS+10 Power Grid.



Attachment 8

EMEDS+10 NETWORK CONFIGURATION

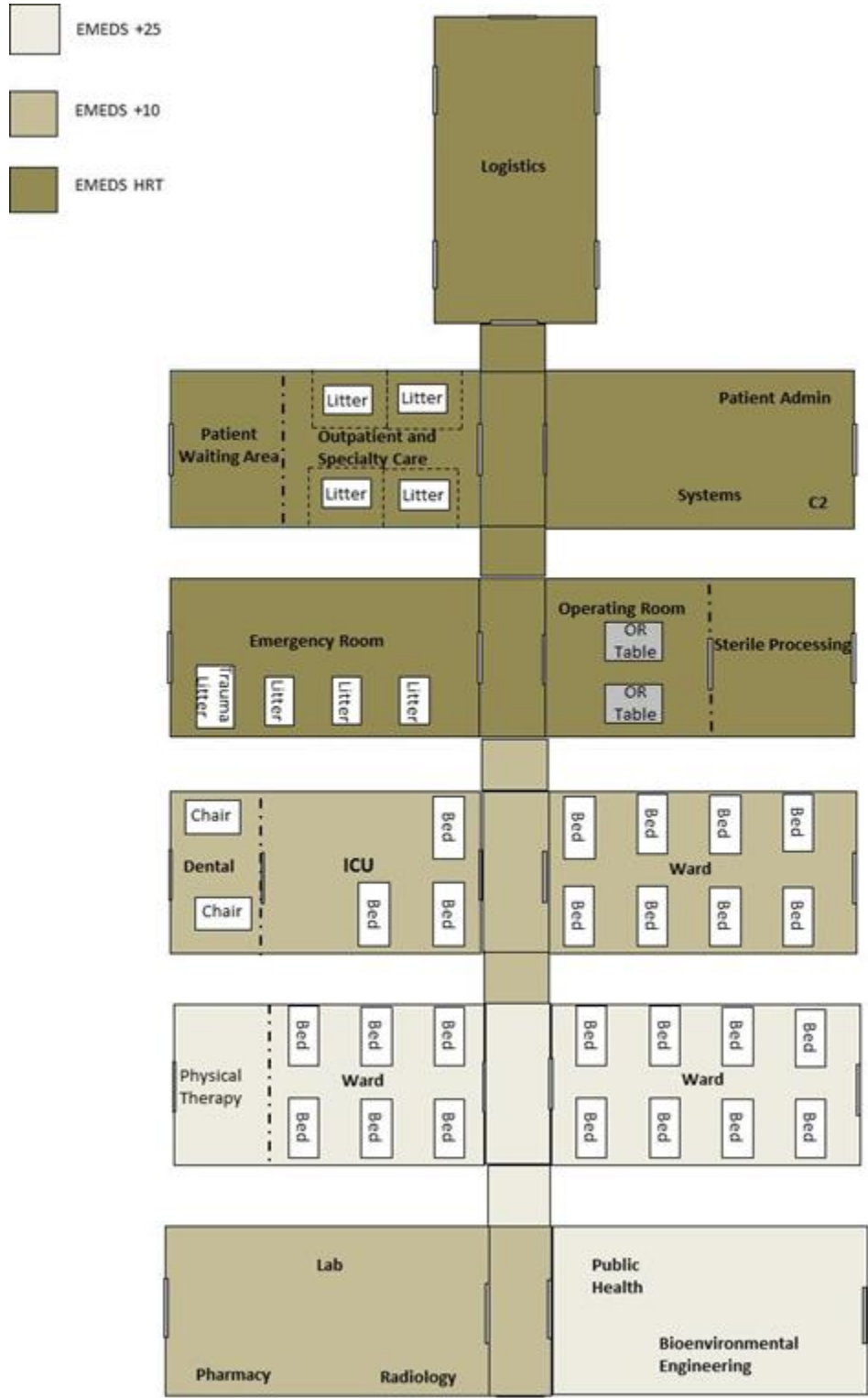
Figure A8.1. EMEDS+10 Network Configuration.



Attachment 9

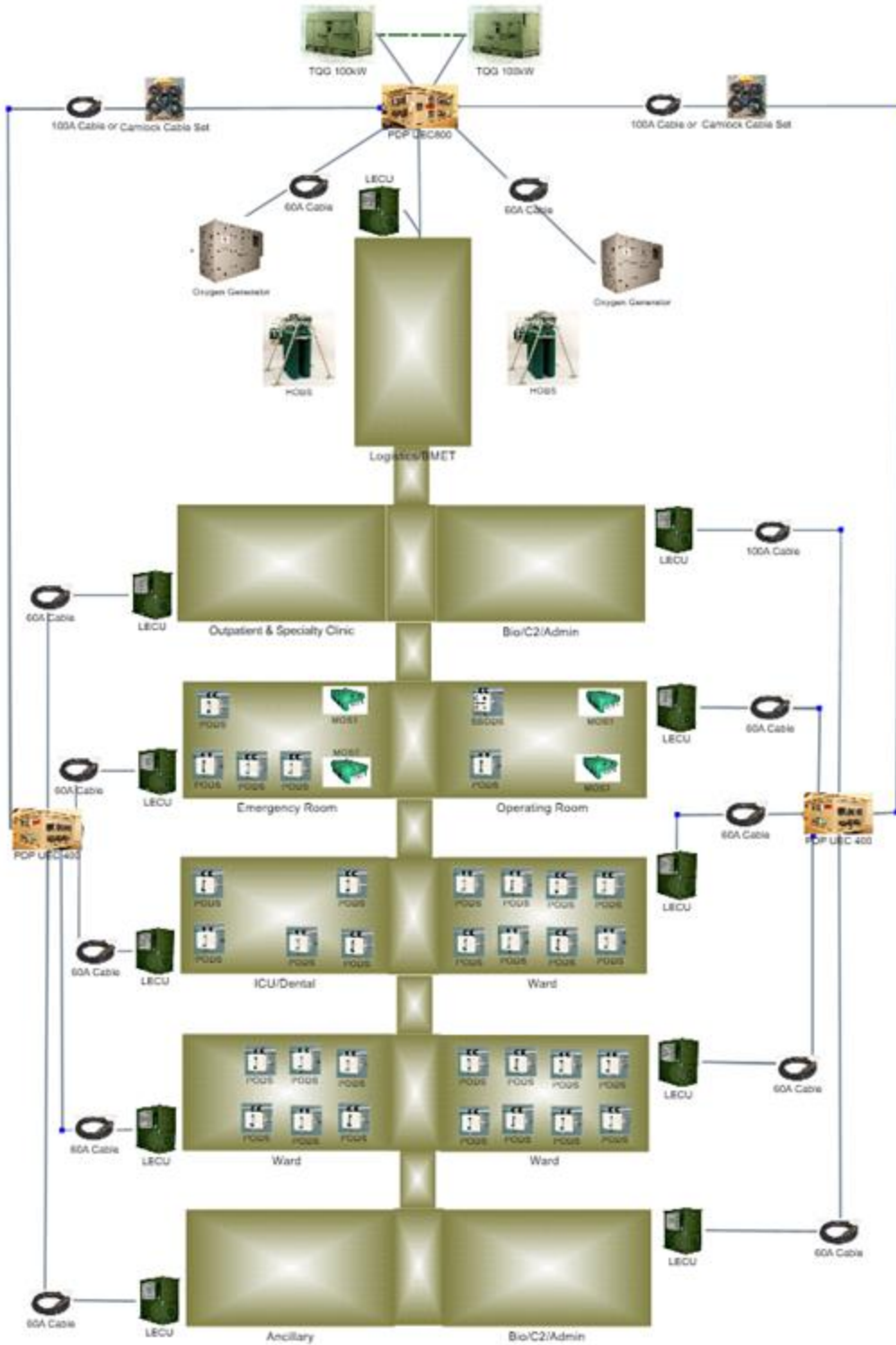
EMEDS+25 LAYOUT

Figure A9.1. EMEDS+25 Site Layout.



Attachment 10 EMEDS+25 POWER GRID

Figure A10.1. EMEDS+25 Power Grid.



Attachment 11

EMEDS+25 NETWORK CONFIGURATION

Figure A11.1. EMEDS+25 Network Configuration.



Attachment 12

EMEDS HRT LAB SUPPLIES AND TESTING CAPABILITIES

Table A12.1. EMEDS HRT Lab Supplies and Testing Capabilities.

EMEDS HRT Lab Capabilities	
Blood Gases	Potential Hydrogen (pH), Carbon Dioxide Partial Pressure (PCO ₂), Oxygen Partial Pressure (PO ₂), Total Carbon Dioxide (TCO ₂), Bicarbonate (HCO ₃), Base Excess (BE), Oxygen Saturation (sO ₂)
Chemistries/Electrolytes	Glucose (Glu), Sodium (Na), Potassium (K), Ionized Calcium (iCa)
Hematology	Hematocrit (Hct), Hemoglobin (Hgb)
Emergency Transfusion	No ABO/Rh or crossmatch capabilities Up to 50 units of Group O PRBC only (type-specific not available) Emergency whole blood collection Note: Pre-screened Walking Donor Program required. Consult the Area Joint Blood Program Office representative on theater requirements for maintaining a walking donor program.
Urine Based Analyses	Beta Human Chorionic Gonadotropin (BHCG) Drug Screen (Qualitative): Phencyclidine (PCP), Benzodiazepines (BENZO), Cocaine (COC), Amphetamine (AMP), Tetrahydrocannabinol (THC), Opiates (OPI), Barbiturates (BARB), Tricyclic Antidepressants (TCA) Urine or Saliva Ethyl Alcohol: Qualitative Kit Urinalysis, (Macroscopic Only, No Centrifuge): Test Glucose, Bilirubin, Ketone, Specific Gravity, Blood, PH, Protein, Urobilinogen, Nitrite, Leukocytes
Cardiac Analyses	Cardiac Troponin I (cTnI), Creatine Kinase Muscle and Brain (CK-MB), Myoglobin
Miscellaneous Analyses	KOH Preps, Direct Preps Occult Blood D-Dimer Monospot Rapid Strep

Note: EMEDS HRT lab testing is limited to waived and moderate complexity testing to include provider performed microscopy.

Attachment 13

EMEDS+10 LAB SUPPLIES AND TESTING CAPABILITIES

Table A13.1. EMEDS+10 Lab Supplies and Testing Capabilities.

EMEDS+10 Lab Capabilities	
Blood Gases	Potential Hydrogen (pH), Carbon Dioxide Partial Pressure (PCO ₂), Oxygen Partial Pressure (PO ₂), Total Carbon Dioxide (TCO ₂), Bicarbonate (HCO ₃), Base Excess (BE), Oxygen Saturation (sO ₂)
Chemistries/Electrolytes	Glucose (Glu), Sodium (Na), Potassium (K), Ionized Calcium (iCa), Chloride (Cl), Anion Gap, Urea Nitrogen (BUN), Creatinine (Crea)
Hematology	<p>White Blood Cells (WBC): Neutrophils NE%/NE#, Lymphocytes LY%/LY#, Monocytes MO%/MO#, Eosinophils EO%/EO#, Basophils BA%/BA#</p> <p>Red Blood Cells: Hemoglobin (HGB), Hematocrit (HCT), Mean Corpuscular Volume (MCV), Mean Corpuscular Hemoglobin (MCH), Mean Corpuscular Hemoglobin Concentration (MCHC), RBC Distribution Width (RDW)</p> <p>Platelet: Mean Platelet Volume (MPV), Plateletcrit (PCT), Platelet Distribution Width (PDW)</p>
Emergency Transfusion/Limited Blood Banking	<p>ABO/Rh and abbreviated crossmatch capabilities</p> <p>No antibody identification or antigen typing</p> <p>Mixed group/type PRBC (up to 50 units)</p> <p>FFP (limited quantities) storage and thawing</p> <p>Emergency whole blood collection</p> <p>Note: Pre-screened Walking Donor Program required. Consult the Area Joint Blood Program Office representative on theater requirements for maintaining a walking donor program.</p>
Coagulation Tests	ProThrombin Time (PT), Partial Thromboplastin Time (PTT)
Urine Based Analyses	<p>Human Chorionic Gonadotropin (HCG)</p> <p>Drug Screen (Qualitative): Phencyclidine (PCP), Benzodiazepines (BENZO), Cocaine (COC), Amphetamine (AMP), Tetrahydrocannabinol (THC), Opiates (OPI), Barbiturates (BARB), Tricyclic Antidepressants (TCA)</p> <p>Urine or Saliva Ethyl Alcohol: Qualitative Kit</p>

EMEDS+10 Lab Capabilities	
	Urinalysis (Microscopic and Macroscopic Test): Glucose, Bilirubin, Ketone, Specific Gravity, Blood, PH, Protein, Urobilinogen, Nitrite, Leukocytes
Cardiac Analyses	Cardiac Troponin I (cTnI), Creatine Kinase Muscle and Brain (CK-MB), Myoglobin
Miscellaneous Analyses	Fibrin Degradation Products/D-Dimer (from EMEDS HRT) KOH Preps, Direct Preps, Rapid Strep Occult Blood Monospot Malaria, Thick and Thin Smears Grams Stain Cell Counts, Cerebral Spinal Fluid, Other Fluids and Aspirates

Attachment 14

EMEDS+25 AND AFTH LAB SUPPLIES AND TESTING CAPABILITIES

Table A14.1. EMEDS+25 and AFTH Lab Supplies and Testing Capabilities.

EMEDS+25 Lab Capabilities	
Microbiology	Throat, Urine, Wound, Blood, Skin, Stool, Sputum, Urethral, Eye, Nasal, and Cerebrospinal Fluid Cultures; Basic Identification and Sensitivities; Ova and Parasitic Concentration and ID/Trichrome Staining for Protozoa Anaerobic Culture, Very Basic; Growth and Grams Stain, No ID
Chemistries	Glucose (Glu), Sodium (Na), Potassium (K), Ionized Calcium (iCa), Chloride (Cl), Anion Gap, Alkaline Phosphatase (ALP), Alanine Aminotransferase (ALT), Aspartate Aminotransferase (AST), Amylase (AMY), Albumin (ALB), Total Protein (TP), Total Bilirubin (TBIL), Urea Nitrogen (BUN), Creatinine (CRE), Calcium (CA), Glucose (GLU), Uric Acid (UA), Gamma Glutamyl Transferase (GGT)
Complete Blood Count	White Blood Cells (WBC): Neutrophils NE%/NE#, Lymphocytes LY%/LY#, Monocytes MO%/MO#, Eosinophils EO%/EO#, Basophils BA%/BA# Red Blood Cells: Hemoglobin (HGB), Hematocrit (HCT), Mean Corpuscular Volume (MCV), Mean Corpuscular Hemoglobin (MCH), Mean Corpuscular Hemoglobin Concentration (MCHC), RBC Distribution Width (RDW) Platelet: Mean Platelet Volume (MPV), Plateletcrit (PCT), Platelet Distribution Width (PDW)
Emergency Transfusion/Limited Blood Banking	ABO/Rh and abbreviated crossmatch capabilities No antibody identification or antigen typing Mixed group/type PRBC (up to 50 units) FFP (limited quantities) storage and thawing Cryo and PLTS (limited quantities, if available in theater) Emergency whole blood collection Note: Pre-screened Walking Donor Program required. Consult the Area Joint Blood Program Office representative on theater requirements for maintaining a walking donor program.
Coagulation Tests	ProThrombin Time (PT), Partial Thromboplastin Time (PTT)
Urine Based Analyses	Human Chorionic Gonadotropin (HCG)

EMEDS+25 Lab Capabilities	
	<p>Drug Screen (Qualitative): Phencyclidine (PCP), Benzodiazepines (BENZO), Cocaine (COC), Amphetamine (AMP), Tetrahydrocannabinol (THC), Opiates (OPI), Barbiturates (BARB), Tricyclic Antidepressants (TCA)</p> <p>Urine or Saliva Ethyl Alcohol: Qualitative Kit</p> <p>Urinalysis (Microscopic and Macroscopic Test): Glucose, Bilirubin, Ketone, Specific Gravity, Blood, pH, Protein, Urobilinogen, Nitrite, Leukocytes</p>
Cardiac Analyses	Cardiac Troponin I (cTnI), Creatine Kinase Muscle and Brain (CK-MB), Myoglobin
Miscellaneous Analyses	<p>Fibrin Degradation Products/D-Dimer (from EMEDS HRT)</p> <p>KOH Preps, Direct Preps</p> <p>Occult Blood</p> <p>Monospot</p> <p>Rapid Strep</p> <p>Malaria, Thick and Thin</p> <p>Grams Stain</p> <p>Cell Counts, Cerebral Spinal Fluid, Other Fluids and Aspirates</p>

Note: See AFTTP 3-42.76 for more information on the ancillary lab specialty set for AFTHs.

Attachment 15

EMEDS COMMANDER PRE-DEPLOYMENT AND POST ARRIVAL CHECKLIST

Table A15.1. Pre-Deployment and Initial Operations Key Tasks.

Done	Task	Recommendations
	Pre-Deployment Activities	
	Establish lines of communication with EMEDS team members.	<p>Deploying members might not be stationed together. Establish a means to share information and build rapport.</p> <p>To the extent possible, meet with team members in person or virtually using secure communication methods as necessary.</p> <p>Document events, key resources, contact information, recall rosters, and other reference materials for continuity records.</p>
	Establish command structure.	Identify key leaders and establish a command structure. Ensure team members are aware of the chain of command and organizational structure.
	Review pre-deployment documentation.	Review pre-deployment documents, such as the warning order, operation order, deployment order, reporting instructions, and intelligence briefings. Review personnel rosters and cargo lists.
	Conduct personnel assessment.	Work closely with the medical readiness office and Personnel Support for Contingency Operations to verify that all assigned personnel are eligible for deployment and meet mission training, pre-deployment health screening, and immunization requirements.

Done	Task	Recommendations
	Gather information on destination.	<p>Contact the AFFOR/SG office for current medical and environmental intelligence about the deployed location.</p> <p>Contact communications, intelligence, logistics, and security force units for information about the services and capabilities available. If available, obtain base support plans and area maps.</p> <p>Consult with public health staff for information on local health threats.</p> <p>Consult with global health engagement staff for information about the regional health structure, cultural considerations, language cards with common medical phrases and international symbols, and points of contact for the U.S. embassy, host nation military, and non-governmental agencies.</p>
	Review deployment schedules.	<p>The Deployment Control Center publishes a deployment schedule of events to prepare units, personnel, and cargo to meet required delivery dates in theater.</p> <p>Contact the medical readiness office for information on personnel chinks, troop commanders, and transportation schedules.</p>
	Coordinate ECS/BOS.	<p>Ensure that ECS/BOS needs are coordinated with the appropriate agencies before deployment. To the extent possible, coordinate with supplying units in advance to exchange contact information, communicate arrival times, and negotiate support.</p>
Initial Arrival and Early-Phase Activities		

Done	Task	Recommendations
	Assess existing medical capabilities at the operating location.	<p>Determine what level of health care and health care facilities already exist at the location.</p> <p>Determine which EMEDS components, other ground medical UTCs, and aeromedical evacuation resources are in place and the timeline for arrival of additional support.</p> <p>Determine what medical resources are available from other services and coalition forces.</p>
	Recommend site location.	<p>If necessary, find a location to house immediate clinical care (tent, building of opportunity) until the EMEDS infrastructure is in place.</p> <p>Recommend a proposed site for the EMEDS facility to the expeditionary wing or group commander based on input from civil engineers and bioenvironmental engineering. Consider security (central location), flight-line access, accessibility to the patient population, proximity to environmental hazards (flight-line noise, sewage plant, power, and communication lines), orientation to wind and weather patterns, and terrain.</p> <p>Identify areas for mass casualty triage, patient decontamination, and contagious casualty management.</p> <p>Be prepared to relocate as the base expands or operational conditions warrant. Consider alternate sites and have a relocation plan in place.</p>

Done	Task	Recommendations
	Secure essential services.	<p>Work with ECS/BOS resources to obtain food, water, shelter, and transportation for the medical staff. Secure power for the medical facility.</p> <p>If necessary, secure temporary refrigeration for medications, immunizations, and other medical supplies that require temperature control until the medical facility is set up.</p>
	Establish medical command and control.	<p>Identify and establish contact with the local and theater chain of command.</p> <p>Brief the expeditionary wing/group commander on medical assets and capabilities and understand the commander's expectations for health service support.</p> <p>Garner support for force health protection measures to maintain the health of deployed forces.</p>
	Determine force protection condition and security threat.	Consult with intelligence, security forces, and civil engineering to assess the security threat and obtain information on the current force protection condition, alarm signals and responses, shelter locations and procedures, and personal protective equipment requirements (mask, chemical gear, etc.).
	Account for equipment and supplies.	<p>Ensure that supplies and equipment required to establish medical capability have arrived. Pallets might be repacked during transit to maximize space, so packing lists on the outside of pallets might not reflect the actual contents.</p> <p>Medical logistics personnel are responsible for storing and safeguarding equipment and supplies.</p>

Done	Task	Recommendations
	Establish communications capability.	<p>Identify voice and data connectivity requirements and relay needs to base communications.</p> <p>Request support to establish Secret Internet Protocol Router Network (SIPRNET) and Non-classified Internet Protocol Router Network (NIPRNET) access.</p>
	Report arrival.	Contact the AFFOR/SG to report your arrival, current medical capability, limiting factors, and shortfalls. This should be accomplished automatically with the first situation report.
	Establish contact with squadron medical elements.	<p>Squadron medical elements belong to operational squadrons but can integrate into medical operations as appropriate for mission and manning considerations.</p> <p>Meet with the local flying unit commanders to determine their medical support needs and a command and control mechanism for coordinating medical services between the squadron medical element and the deployed medical unit.</p>
	Evaluate external care options.	<p>Determine the referral pattern for patients who require a higher level of care.</p> <p>Consult the AFFOR/SG's office or U.S. Embassy for information on local medical care options and patient movement policy.</p> <p>Consult the Patient Movement Requirements Center to clarify procedures on patient movement requests.</p> <p>Determine availability and access to medical support services in the area of responsibility (such as ancillary services, supplies) to augment services not available at the EMEDS facility. Global health engagement personnel can help assess local capabilities.</p>

Done	Task	Recommendations
	Assess need for specialty UTCs.	Forward recommendations and concerns to the theater AFFOR/SG if changes to the threat or mission require additional support from specialty UTCs.