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PREVENTIVE AND AEROSPACE MEDICINE
(PAM) TEAMS

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PURPOSE: The Air Force Tactics, Techniques, and Procedures (AFTTP) 3-42 series of publications is the primary reference for medical combat support capability. This document, AFTTP 3-42.23, provides tactics, techniques, and procedures (TTP) for the Preventive and Aerospace Medicine (PAM) Teams. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with AFPD 37-1, *Information Management* and AFMAN 37-123, *Management of Records* and disposed of in accordance with the *Air Force Records Disposition Schedule* (RDS) located at <https://webrims.amc.af.mil>.

APPLICATION: This publication applies to all Air Force military and civilian personnel (including Air Force Reserve Command [AFRC] and Air National Guard [ANG] units and members). The doctrine in this document is authoritative but not directive.

SCOPE: This TTP for Air Force Preventive and Aerospace Medicine (PAM) Team describes the team's capability, employment, deployment, and redeployment. PAM Teams will be deployed to meet specific requirements for all types of military missions. The PAM Team is designed to prevent Disease and Non-Battle Injuries (DNBI) which may have a significant impact on mission accomplishment in contingency operations. The PAM team will assess the health risk associated with environmental and occupational health hazards. The team will also evaluate the safety and vulnerability of local food/water sources, perform initial/basic Nuclear, Biological, and Chemical (NBC) and emergency response, perform epidemiological risk assessments, evaluate local medical capabilities, perform vector/pest risk assessment and determine the adequacy of local billeting and public facilities and provide medical intelligence. The team will provide medical input to the lay-down of installation facilities, particularly food, waste, characterization of water quality, billeting, and medical and sanitation facilities at forward operating locations.

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Chapter 1

INTRODUCTION

1.1. Introduction. The Preventive and Aerospace Medicine Team (PAM) provides the personnel and equipment required to prevent aerospace, occupational, environmental, and public health risk factors from having a catastrophic/detrimental impact on mission effectiveness. The team also recommends strategies to commanders and deployed personnel for countermeasures against environmental and physiological stressors in order to enhance mission effectiveness. This TTP implements the relevant PAM mission and tactics, techniques and procedures (TTP) defined in AFTTP 3-42.2, Casualty Prevention, and AFTTP 3-42.7, Aerospace Medical Contingency Ground Support System.

1.2 Background. Diseases and non-battle injuries (DNBI) have consistently impacted the mission capability of fighting forces throughout the world and throughout history. Physiologic stressors such as heat, cold and circadian rhythm disturbances have negatively impacted human performance. DNBI mission impact can be minimized through effective preventive medicine programs. Placing preventive medicine assets in a separate Unit Type Code (UTC) allows them to be deployed as early as possible to work with Expeditionary Combat Support (ECS) or Lead Mobility Wing (LMW) agencies to ensure preventive aspects of food, water, field sanitation, and waste management are considered during the contingency location setup. This also ensures flexibility for disaster response if PAM is sent with a Small, Portable Expeditionary Aeromedical Rapid Response (SPEARRR) Team or as a stand-alone asset.

1.3. Threat. Because of the wide variety of possible operating locations and potential adversaries, a broad range of air and ground threats can be expected. These threats include a mix of tactical ballistic missiles, precision-guided munitions, anti-personnel/vehicle mines, chemical and biological weapons, remotely piloted/unmanned aerial vehicles, nuclear radiation/fallout, radiological dispersal devices, terrorists, special operations forces, and general-purpose offensive ground forces. Natural or man-made disasters and non-combatant evacuation operations contain a high risk of illness and injury to deployed forces and the local population. The PAM team addresses the full spectrum of biological events, both induced and endemic, including those introduced accidentally as a result of military operations involving mass transiting of military personnel, civilians, and refugees through areas with degraded civil and sanitary infrastructure. In this setting there is also an increased potential for non-battle injuries. Additional environmental stressors imposed by 24-hour operations, harsh environmental conditions, and austere shelter and work conditions pose further threats.

Chapter 2

DESCRIPTION

2.1. Mission/Tasks. The PAM Team's mission is to identify, prevent, and monitor DNBI. Implementing programs to perform health threat/risk assessment, communicating environmental and occupational health risks to commanders, conducting health hazard surveillance, health hazard control and mitigation of effects can prevent DNBI.

2.1.1. Health Threat/Risk Assessment. Health Threat/Risk Assessment is the process of recognition, evaluation, and assessment of the health threats, risks, and environmental quality associated with a deployment. It includes the gathering of medical intelligence data covering endemic diseases, illnesses, local flora and fauna, performance of risk assessments of occupational, environmental, and public health risks, and performing vulnerability and survivability analyses of food and water systems. It also includes, but is not limited to evaluating the military health threat from conventional and Chemical, Biological, Radiological, and Nuclear (CBRN) weapons effects; evaluating the human consequences of natural or man-made disasters; and evaluating the public health threat from disease vectors and possible contamination sources as in Military International Quarantine (MIQ) operations. Assessment of the local medical capabilities, and tactical positioning and orienting of key assets such as medical and sanitation facilities and food and water sources must also be accomplished. The team has a limited capability to perform nuclear, biological, and chemical (NBC) hazard risk assessments. Medical NBC surveillance capability is much more robust when augmented with the Medical NBC Team personnel UTC (FFGL1) and equipment UTC (FFGL7).

2.1.2. Health Hazard Surveillance. Health Hazard Surveillance is the ongoing process of evaluating and assessing aeromedical, occupational, environmental, public health, and other potential hazards to ensure protective measures continue to be effective. It also includes evaluating and protecting against newly identified health hazards. This process consists of gathering and analyzing medical intelligence reports and data, disease and injury rates, laboratory analyses results, and epidemiological studies' findings; performing industrial hygiene (IH) and environmental monitoring; and performing food, water and sanitation evaluations. The PAM team may conduct NBC surveillance at the medical facility; although when not augmented with a medical NBC team, it will have limited detection equipment and will provide NBC risk assessment guidance/expertise to the installation commander. The PAM team provides disease outbreak investigation capabilities. Surveillance includes the collection, analysis, and documentation of data necessary for long-term monitoring and epidemiological assessment of conditions potentially related to the deployment. During sustainment operations, the team will conduct occupational facility risk assessments. Health surveillance data will be tracked in Global Expeditionary Medical Surveillance System (GEMS) and reported weekly to the Theater Epidemiology Team, Air Force Forces Surgeon General (AFFOR/SG), and Joint Task Force Surgeon General (JTF/SG) per theater policy.

2.1.3. Health Hazard Control and Mitigation of Effects are the actions taken to protect personnel or eliminate/mitigate identified occupational, environmental, and public health

hazards. Prophylaxis and control are accomplished by a variety of measures, such as education, immunizations, prophylactic medications, engineering controls, modification of tactics and procedures, use of personal protective equipment (PPE), critical event debriefings, and re-deployment briefings. Protection of personnel includes education and training, behavior modification, and also includes immunizations, helmets, PPE, etc. Injury control strategies will be developed to include human factor analyses and techniques to aid in mishap prevention. The PAM team will provide clinical, occupational, preventive medicine, aeromedical services, and primary care capabilities to diagnose and treat illness and injuries caused by hazardous exposures. At full capability, PH will also conduct in-theater immunization tracking for ongoing immunization programs at deployed sites. Access to preventive experts and specialized intervention/mitigation teams via high technology communication capabilities are critical to identifying, monitoring, evaluating, and controlling contingency hazards.

2.1.4. Medical NBC Operations. A summary of installation NBC defense-related tasks is provided at Attachment 2. PAM team members will assist the Medical NBC (MNBC) team as necessary to accomplish these tasks when an NBC event occurs. Similarly, MNBC team members will assist the PAM team when not engaged in NBC activities. Additionally, PAM teams may use the MNBC Team's detection equipment to perform monitoring at the deployed medical facility. Although the MNBC team chief reports to the PAM team chief, staffing may be shifted between the two teams as the mission dictates.

2.1.5. Management of Contagious Casualties. In the current environment it may become necessary for the PAM team to deal with contagious casualties. In this situation, the PAM team must ensure both staff and patients are given the proper personal protective equipment. If the PAM team is deployed in a stand alone capability, the team chief is responsible for coordinating with the expeditionary wing commander to locate isolation space to separate the contagious casualties from the rest of the base population. The PAM team will require immediate support from a higher level medical facility as soon as possible. The AFFOR Surgeon will make a decision as to whether to transport patient or continue to isolate and treat in-place.

2.2. Description/Capabilities.

2.2.1. Overview. The PAM Team consists of nine (9) personnel broken into 3 Unit Type Codes (UTCs) and supported by two equipment UTCs to provide expertise throughout the spectrum of preventive medicine activities. The increments can be deployed together or in stages. The first (FFGL2) and second (FFGL3) increments provide the initial capability. The third increment (FFGL4) provides expanded capabilities and sustainment for extended operations, when the population at risk is between 3,000 and 6,500, or in support of an Expeditionary Medical Support ((EMEDS) +10 or +25). The FFGL5 is an equipment-only package that provides Advance Echelon (ADVON) equipment and is normally deployed with the FFGL2. The FFGL6 provides infrastructure and additional equipment in support of a stand-alone PAM Team.

Figure 2.1. PAM Team Composition and Increments.

PAM Team Composition and Increments

<i>UTC</i>	<i>Increment</i>	<i>Composition</i>
FFGL2	ADVON Team	RAM (048A3), PHO (043H3), BEE (043E3A), IDMT (4N071C)
FFGL3	PAM Basic	1xBE Tech (4B071), 1xPH (4E071)
FFGL4	PAM Sustainment	2xBE Tech (4B051), 1xPH (4E051)
FFGL5	Portable Equipment	Initial capability used by FFGL2 and/or FFGL3
FFGL6	Sustainment Equipment	Full equipment package (Alaska tent w/ECU)

The first increment (FFGL2) of the PAM team is designed to deploy with a Wing or Air Expeditionary Force (AEF) ADVON element, with an EMEDS Basic, or as part of a SPEARR Team. For any sustained operation, particularly if numbers exceed 3,000 personnel, all personnel increments (FFGL2/3/4) of the PAM Team should be deployed. All members of the PAM Team bring unique talents and experiences to the field; therefore increments should deploy either together or in close succession. The 1st, 2^d, and 3^d, increments (FFGL2/3/4) will be equipped for a sustained operation. The shelter for the PAM Team is included with the fifth increment (FFGL6). In certain operations, such as an AEF or LMW, only the first (FFGL2) and/or second (FFGL3) increment personnel may be needed for the mission. The 3^d increment (FFGL4) can operate in conjunction with the 1st and 2^d increments out of an EMEDS +10. This TTP refers to the PAM Team as one organic unit consisting of any and all increments of the team which may be deployed to the bed-down location. The team equipment for the first and second increments is located on equipment UTC FFGL5. A vehicle of opportunity is required at the deployed location to provide the team with the necessary mobility to carry out its diverse mission. This ECS requirement needs to be coordinated with the deployed Transportation Squadron Commander (through the EMEDS Commander).

2.2.2. Aerospace Medicine Specialist (RAM) (48A3). The Aerospace Medicine Specialist (RAM) (48A3) is normally the most experienced/senior flight surgeon at the bed-down location and is specialty trained in Aerospace Medicine. The RAM implements, directs and leads a coordinated base aerospace medicine program. He/she is the chief advisor to the Director of Base Medical Services (DBMS) and Wing staff on aeromedical issues. The RAM and the Independent Duty Medical Technician (IDMT) provide initial limited medical care pending arrival of additional EMEDS providers. The Aerospace Medicine Specialist may be substituted on rare occasions with a Residency Trained Flight Surgeon (48R3) only with written MAJCOM/SG approval. Attachment 3 lists the Aerospace Medicine Specialist carry-on items. The primary functions of the Aerospace Medicine Specialist are:

2.2.2.1. Establish first contact with local health care authorities, Joint, Coalition, and Host Nation, to arrange cross-coverage, evacuation, and referral procedures.

2.2.2.2. Assess local medical capabilities.

2.2.2.3. Validate medical intelligence from Armed Forces Medical Intelligence Center (AFMIC) (with Public Health (PH)).

2.2.2.4. Establish contact and access to aeromedical evacuation system and serve as Air Evacuation (AE) consultant to the DBMS.

2.2.2.5. Provide assessment of local disease threat (with PH).

2.2.2.6. Recommend and implement medical countermeasures to disease and Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) threats.

2.2.2.7. Assess medical aspects of occupational/environmental health risk exposures and recommend controls and surveillance measures in conjunction with Bioenvironmental Engineering (BE) and PH, including baseline reviews and occupational illness injury investigations.

2.2.2.8. Conduct on site work area industrial hygiene surveys with BE and PH.

2.2.2.9. Assume functional leadership role of Squadron Medical Elements (SMEs) to coordinate a base flight medicine program ensuring comprehensive coverage for all flying missions.

2.2.2.10. Local POC for the theater AFFOR Chief of Flight Medicine relating to Flight Medicine policy matters.

2.2.2.11. Medical input to the base support plan, developing local plans for aircraft mishap response, and mass casualty response.

2.2.2.12. Arrange In-flight Emergency (IFE) coverage.

2.2.2.13. Arrange and coordinate aircraft mishap response/investigation.

2.2.2.14. Analyze and compile weekly disease reports (with PH).

2.2.2.15. Provide medical care to ADVON personnel.

2.2.2.16. Medical preceptor for IDMT.

2.2.2.17. Accomplish site survey for EMEDS BASIC and Air Force Theater Hospital (AFTHs) (with BEE and PH).

2.2.2.18. Oversee consolidated SME after action report.

2.2.2.19. Brief Operations Group and Squadron commanders on aeromedical mission concerns with input on Circadian Rhythm/fatigue, G-tolerance, heat/cold stress, and any other aeromedical flying safety issues.

2.2.3. Bioenvironmental Engineering. A Bioenvironmental Engineer (BEE) (043E3A) and three bioenvironmental engineering (BE) technicians (1x4B071, 2x4B051) provide expertise in water quality, water distribution system analysis, occupational health, radiation safety, waste management (biological, refuse, and human waste), hazardous material incidents, and hazardous material management. Overall, the BEE performs health risk assessments in the environment, occupational setting, and battlespace. Additionally, the BEE is responsible for Air Force Occupational Safety and Health (AFOSH) compliance as determined applicable by the theater surgeon. The BEE is equipped (via FFGL5/6) with water, soil, air and physical hazard analysis instruments. The deployment of the PAM Team (FFGL2) will have a BE officer (with basic equipment and supplies in the FFGL5) arriving first, a BE technician (4B071) with FFGL3, and two BE technicians (4B051) arriving with the FFGL4 personnel UTC. Attachment 5 lists the BE carry-on items.

2.2.3.1. Site Location. PAM Team BE personnel assist the Base Civil Engineer (CE) in the selection of the bed-down site location and perform source selection and water vulnerability studies to identify potential sources of water system contamination. BE personnel perform environmental reconnaissance of the site to test for sources of pollution and evidence of field contamination; collect and interpret data to assess potential adverse health effects on deployed personnel; and identify local or regional sources of pollution that may impact the deployment site.

2.2.3.2. Environmental Monitoring. PAM Team BE personnel collect site samples to establish health risk baseline information on the environmental media (soil, air, water, vegetation, etc.) using operational risk management tools (ORM) and risk assessment paradigms and risk assessment modeling techniques. Practices established by the Environmental Health Site Assessment (EHSA) protocol must be used. Performing an evaluation according to this protocol and documenting potential exposures with surveillance data in GEMS meets the requirements set forth by Presidential Review Directive-5 (PRD-5). BE team members also identify requirements for periodic monitoring on the site and evaluate impacts on health and environment resulting from mission operations. BE personnel on the PAM Team conduct thermal stress monitoring at the deployment site, in order to establish proper work/rest cycles. Finally, BE personnel on the PAM team may perform medical NBC team functions in support of the MNBC team as the mission dictates.

2.2.3.3. Drinking Water. PAM Team BE personnel are responsible for drinking water surveillance at the deployed site, and must perform appropriate potable water quality monitoring to minimize the risk of waterborne illness to deployed personnel. The types and frequency of drinking water quality monitoring is dependent on theater commander and theater surgeon policy, as well as geographically specific threat conditions. At a minimum, the PAM team will determine if the drinking water-quality meets specific theater guidance through knowledge of the water source and system, as well as sampling and analysis. This will include source water sampling, bottled water selection/approval, and treatment process selection. When the Air Force publishes water quality standards for a deployed environment, those standards will be used as well. In addition, BE personnel must work closely with contracting and services to ensure all bottled water

sources are approved. Finally, the BEE is responsible for coordinating and leading the water vulnerability assessment.

2.2.3.4. Occupational and Environmental Health Risk Assessment. PAM Team BE personnel identify, evaluate, control, and document occupational and warfighting operations where hazardous conditions and materials are present, and recommend exposure controls based upon the hazard risk. BE personnel develop plans for control and use of hazardous substances.

2.2.3.5. Emergency Response. PAM Team members respond to emergencies, and provide commanders with a risk assessment to ensure the safety of responders. The PAM team has some sampling, analysis, and monitoring capability. PAM team members should assist the fire department and CE with hazardous material emergency response planning. Planning should include potential releases of toxic industrial chemicals/materials not only from DoD assets, but also the local community.

2.2.3.6. Radiation. PAM Team BE personnel assist and advise on monitoring and contamination control actions during nuclear weapons or radiological accidents and incidents, and assist in establishing an initial contamination control station (CCS). BE personnel monitor work areas and personnel involved with the storage, use and disposal of ionizing and non-ionizing radiation sources and generation devices.

2.2.3.7. Exposure Documentation. BE personnel on the PAM Team will use the most current version of the Theater Occupational Module (TOM) of GEMS to document environmental, occupational, and warfighting exposures. This data should be communicated to Commanders.

2.2.3.8. Other. The PAM team BEE may also augment the MNBC team when demand for passive defense measures increases beyond the ability of the MNBC team. This workload sharing is illustrated in Section 4.2.

2.2.4. Public Health. A Public Health Officer (PHO) (043H3) and two technicians (1x4E071, 1x4E051) provide expertise in food inspection, food facility sanitation, medical intelligence, disease and injury surveillance, vector surveillance, field sanitation evaluation, and field occupational health education. The deployment of the PAM Team will have the Public Health Officer (with minimum basic equipment and supplies) arriving first (with FFGL2), and the two technicians (4E071, 4E051) arriving with FFGL3 and FFGL4, respectively. Attachment 4 lists the PHO carry-on items.

2.2.4.1. Site Selection. Public Health (PH) PAM Team members make appropriate recommendations to site commanders relating to site selection/preparation. PH personnel evaluate facility placement on the site in relation to the potential for public health threats, and sanitation concerns. PH also address health threats during initial stages of the deployment.

2.2.4.2. Medical Intelligence and Disease Surveillance. PH is responsible for monitoring local area disease threats through liaison with other preventive medicine activities in the

theater, including host nation, as well as maintaining liaison with other medical intelligence sources. PH personnel develop and maintain a DNBI surveillance system for the bed-down location. PH personnel analyze and report the data collected and ensure vector-borne disease potential is identified and proper preventive measures are put into place. PH personnel identify and report any changes in disease threat and recommend any new preventive measures.

2.2.4.3. Food Safety and Security. PH oversees food safety at the bed-down location from procurement to consumption. PH coordinates with the US Army Preventive Medicine Personnel, Contracting, Services, SF, OSI, and other base agencies, as well as food owners and facility supervisors. PH will ensure food is procured from safe sources, is properly stored and handled after procurement, and food handling during preparation and serving follows principles that decrease the risk of food-borne illness. PH assists food owners and responsible base agencies with food/water security, including vulnerability assessment and mitigation.

2.2.4.4. Occupational and Environmental Health. PH works with BE and other PAM team members to ensure occupational and environmental health prevention programs (including hearing conservation) are developed and maintained throughout the deployment. PH will investigate any potential occupationally related illnesses/injuries and recommend appropriate preventive action.

2.2.4.5. Health Education and Consultation. As warranted and/or requested, PH will provide to commanders, supervisors, and personnel health education/training and/or consultation on DNBI prevention topics such as: field sanitation and hygiene; local disease and environmental threats and countermeasures; workplace threats; personal protective equipment; heat and cold stress; food safety and security; and counter-bio-warfare/terrorism. At full PAM capability (FFGL2/3/4), PH will verify immunization status of personnel using Air Force Complete Immunizations Tracking Application (AFCITA).

2.2.4.6. Outbreak investigation. Using epidemiological methods, PH investigates any outbreak (e.g., food-borne illness, communicable disease, etc.) and recommends measures to mitigate the outbreak and prevent future occurrences.

2.2.5. IDMT. The IDMT (4N071C) primarily performs patient examination and treatment procedures at remote sites and deployed locations in the absence of an assigned licensed provider within the scope of care as defined in AFMAN 44-158, USAF IDMT Medical and Dental Treatment Protocols. The IDMT enhances the PAM capabilities by providing/expanding team cross-functionality.

2.2.5.1. The IDMT may also augment the following BE functions: medical investigation of occupational accidents/injuries, reproductive health program, shop surveys, HAZCOM consideration, physical stresses, case file management, waste water collection, treatment and disposal, water chlorine residual/PH testing, bacteriological testing, monitoring swimming pools and natural bathing areas.

2.2.5.2. The IDMT may also augment the following PH functions: epidemiology, medical entomology, food safety program, rabies control, inspection of public gathering places (barber shops, dorms, etc), communicable disease prevention/monitoring, vulnerability assessment and site surveys, food inspections, local medical facilities evaluation, vector and pest risk assessment, local billeting and public facilities hygiene assessment, and environmental risk assessment.

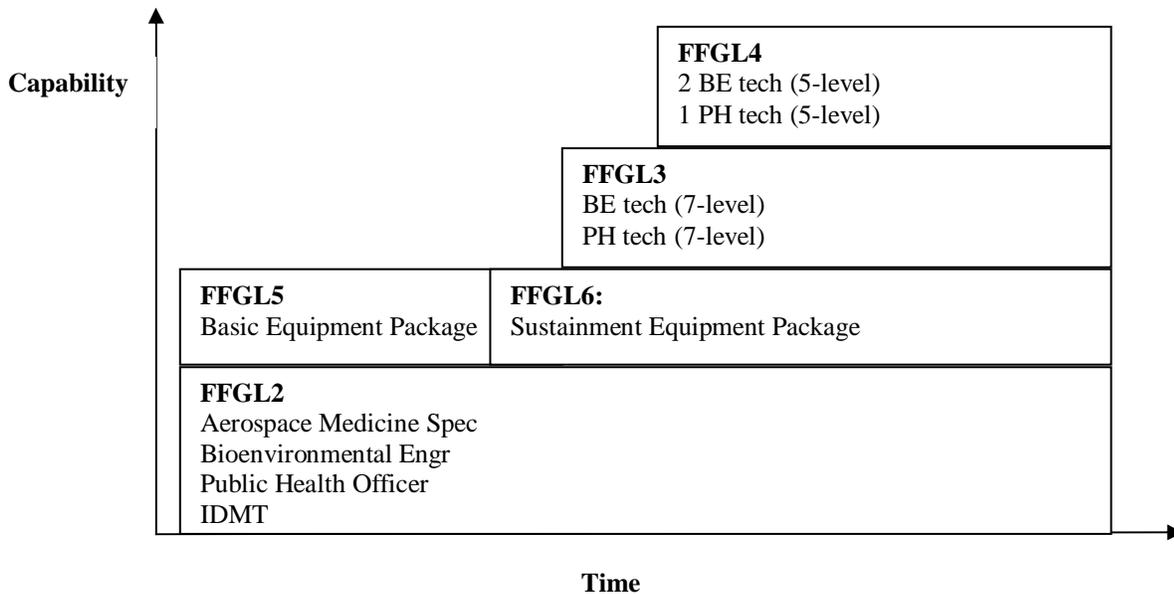
2.2.6. Incremental Deployment of the PAM Team, if required, should be accomplished as:

2.2.6.1. First Increment (FFGL2, PAM ADVON): Aerospace Medicine Specialist (48A3), Public Health Officer (43H3), IDMT (4N071C), and Bioenvironmental Engineering Officer (43E3). This increment is normally deployed with FFGL5, PAM ADVON Equipment. This equipment will be on the official LOGDET and palletized. If commercial transportation is used, the individual equipment containers can be checked as luggage.

2.2.6.2. Second Increment (FFGL3): One BE technician (4B071) and one PH technician (4E071). This increment is normally deployed with FFGL6, PAM Infrastructure/Sustainment Equipment. The package includes one Alaska shelter tent with an ECU.

2.2.6.3. Third Increment (FFGL4): One PH technician (4E051), and two BE technicians (4B051).

Figure 2.2. PAM Teams.



Chapter 3

OPERATIONS

3.1. Pre-Deployment.

3.1.1. The PAM Team is exercised and inventoried as part of its maintenance, training and inventory requirements for deployment readiness. Personnel assigned to mobility positions for the personnel package UTC must be familiar with the PAM Team operation and its capability.

3.1.2. Team members (specifically the PHO, as the medical intelligence officer) must become aware of their deployment location as soon as possible in order to prepare medical intelligence and initiate the EHSA.

3.2. Deployment/Re-Deployment.

3.2.1. One PAM Team (one or all increments) is normally deployed for each contingency bed-down location. A PAM Team is required for all types of contingencies, including combat operations and small-scale contingency operations (humanitarian, peacekeeping, joint service exercises, etc.). The full PAM team is designed to support a bed-down location of up to 6,500 personnel. The team is deployed as early as possible to assist the ECS in site selection and development to ensure that health and environmental factors are taken into account. The team is the first medical presence at the bed-down location, unless a Global Reach Laydown (GRL) team is already in place. The team is critical to ensuring the safe local procurement of food and water sources. The team is normally deployed in advance of an EMEDS footprint; however, it may be deployed to a location where EMEDS support will not be available. The PAM Team is also important during the sustainment and employment phases of all operations to ensure the health and safety of the deployed force.

3.2.2. The PAM Team provides preventive medicine programs for the contingency location throughout the contingency and will generally be one of the last medical assets redeployed.

Chapter 4

COMMAND AND CONTROL RELATIONSHIPS

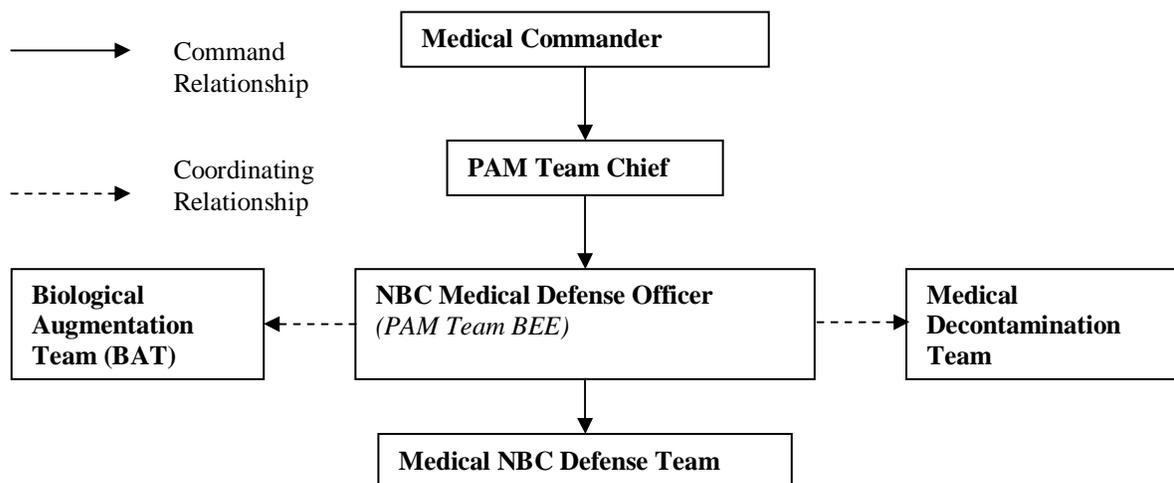
4.1. Introduction. The PAM team's senior officer is the team chief. The team chief reports to the wing or detachment commander until the arrival of the EMEDS Basic CC. The PAM Team chief reports to the DBMS. Although SME flight surgeons are under Operational Control (OPCON) of their squadron commanders, they will be medically supervised by the PAM Team Flight Surgeon who will coordinate their interaction with the medical group and other components of the theater medical system.

4.2. Global Reach Laydown Team. The GRL deploys with the Tanker Airlift Control Element (TALCE) and does not CHOP (**change of operational control**) to the theater Combatant Commander. The GRL is operationally controlled (OPCON) by USTRANSCOM (which is delegated to AMC). When deployed, the GRL will normally arrive before the PAM team and provide initial force health protection and clinical support to TALCE personnel. The GRL will also redeploy with the TALCE regardless of whether base medical support is established. The PAM team and the GRL should work closely during this transitional period to achieve a hand-off of information and surveillance data.

4.3. Chain of Command. The MNBC team, if collocated with the PAM team, will report to the PAM team chief. This command relationship allows the PAM team chief to leverage this additional resource while affording the flexibility to enhance the MNBC team's resources as needed. Due to the inherent relationships among the PAM Team, Biological Augmentation Team (BAT), Wartime Medical Decontamination Team (WMDT), and MNBC Teams, strong coordination among these teams is required.

Figure 4.1. Recommended Chain of Command.

(The Medical Facility Commander can modify as necessary)



4.4. Continuity. The PAM team must ensure that a logical filing system is established and maintained to ensure solid continuity. Additionally, PRD-5 requires documentation of wartime

exposures. GEMS/TOM is the primary tool for tracking exposures to potentially harmful agents, methods of detection, and information on activities associated with the exposure. Therefore, it is critical that occupational and operational exposures are recorded in GEMS/TOM. The theater surgeon will normally set policy for recurring updates of the data. The PAM team must also transition this data to the replacement PAM team at the end of the rotation or transitional period.

Chapter 5

INTELLIGENCE/NATIONAL AGENCY/SPACE SUPPORT

5.1. Medical intelligence/information is the responsibility of the medical intelligence officer (MIO) (the Public Health Officer). It is disseminated to line agencies and personnel as prescribed by the DBMS and/or Site Commander's policy. The Medical Intelligence Officer relies on multiple information sources for medical intelligence, including Armed Forces Medical Intelligence Center (AFMIC) and line intelligence personnel. He/she is responsible for collecting and disseminating the medical intelligence information as appropriate, as well as recommending to leadership courses of action the information may suggest.

5.2. In addition to the MIO, other PAM team members should monitor medical intelligence on the Secret Internet Protocol Router Network (SIPRNET), if available, in their respective areas of concern.

Chapter 6

COMMUNICATIONS/COMPUTER SYSTEMS SUPPORT

6.1. Communication Systems. When necessary the PAM ADVON Team may deploy with an International Maritime Satellite (INMARSAT). The FFGL6 is equipped with five programmable land mobile radios. Radios can be programmed to the same frequency as SMEs and the EMEDS by organic programmer capability. Access to DSN, STU-III, landlines and SIPRNET is required (if deployed conditions permit) to enhance PAM Team efficiency and expedite dissemination of information. DSN modem access is required to forward medical epidemiological information to the Theater Epidemiology Team, JTF/SG, and AFFOR/SG. Information system access will be provided through connection to the Theater Battle Management Core System.

6.2. Computer Systems. Notebook computers with CD-ROM drives and data/fax modems, are essential tools for reference sources, disease surveillance, and hazard surveillance documentation. This hardware also provides communicative ability for reporting and information requests. A portable printer is required to generate information for dissemination and hard copies of reports, and is included in the equipment package. Ethernet cards provide “real time” reporting to higher staff agencies once the ECS has established satellite communication links. Software to support applications is under continuing development and revision and will be forwarded to all PAM Teams to optimize operational effectiveness. All classified data gathering, transmission, etc., must be completed on a system with the appropriate classification level. While the PAM team currently does not deploy with classified computer systems, they must coordinate the use of a classified system with IN or CEX to complete the classified portions of the water vulnerability assessment and other classified documents.

6.3. Data Management. The PAM team shall input, document, track, and report all patient encounters, epidemiological data/trends, and environmental health site assessments, potential and actual occupational exposures in GEMS. The data shall be transmitted to permanent repositories such as AFIOH and CHPMM on a frequency determined by the theater surgeon. Also, GEMS data will be used to generate reports by location and person for individual medical records. This is the AF tool used to execute PRD-5 requirements.

Chapter 7

INTEGRATION AND INTEROPERABILITY

7.1. Introduction. The PAM Team interacts with base operations, contracting, services, civil engineer, and all medical UTCs at the contingency location to ensure effective preventive medicine programs and considerations are in place to minimize the mission impact of DNBI.

7.2. Expeditionary Medical Support. For the AEF mission, the PAM Team must be integrated into an Expeditionary Medical Support (EMEDS) package and will work for the EMEDS commander. The EMEDS Basic is a 25-person medical package designed for rapid deployment to support up to 3,000 people of an AEW/AEG for 7 days without resupply.

7.2.1. EMEDS preventive medicine support initially will be provided by the Medical Component of the four-person PAM ADVON Team (FFGL2) (Aerospace Medicine Specialist, Bioenvironmental Engineering Officer, IDMT, and the Public Health Officer). The PAM ADVON Team must be qualified to evaluate the safety and vulnerability of local food and water sources, perform epidemiological risk assessment, evaluate local medical capabilities, perform vector/pest risk assessment, determine adequacy of local billeting and public facilities, provide medical intelligence, and perform an environmental health site assessment. They will recommend locations for the medical facilities and address infrastructure needs such as water and waste disposal. They will provide medical input into the proper lay-down of food, waste, and sanitation facilities at forward operating locations for control of disease vectors. It is imperative that they work closely with Civil Engineer Squadron and Services/Contracting in the initial ADVON survey, lay-down, and food and water contracting. They must ensure that an adequate site is secured for EMEDS Basic and for future expansion. The PAM ADVON will provide urgent medical care and stabilization of AEF ADVON personnel prior to the arrival of additional medical assets.

7.2.2. Follow-on preventive medicine support (FFGL3) will consist of a Bioenvironmental Engineering technician (7-level) and a Public Health technician (7-level). Further preventive medicine support for the EMEDS+10 and larger medical assets will be supported by FFGL4 personnel.

7.2.3. Unless the PAM team is deployed independently of EMEDS, the PAM team will operate out of the EMEDS or SPEARR shelter. A stand-alone PAM team can be deployed earlier if the scenario dictates.

7.2.4. All personnel assigned to EMEDS must be multifunctional performing other EMEDS tasks. For example, the IDMT may be required to provide clinical support to the EMEDS clinic. The primary responsibility of the RAM is to direct the implementation of the Aerospace Medicine Program, encompassing all aspects of preventive medicine. He/she will also assist in providing primary care medical coverage at the EMEDS, or other appropriate deployed medical facility. The RAM will help develop a mass casualty response plan. Other PAM team members will be assigned disaster response roles, as determined by the DBMS.

7.2.5. The PAM Team will provide limited NBC detection capability for the medical treatment facility area, when a Medical NBC Team (or equivalent asset) is not providing support in this area. Such a scenario may develop when the medical unit is separate from the rest of the base, the base is large and base-level NBC reconnaissance manpower is limited, or the medical unit is deployed in a near-stand-alone fashion with only limited ECS. All 43E3 and 4BOX1 members of the PAM Team must be proficient in basic NBC surveillance techniques. The PAM team should be familiar with *AFMAN 10-2501, "Full Spectrum Threat Response,"* and *AFMAN 10-2602, "Nuclear, Biological, Chemical and Conventional Defense Operating Standards,"* which describes the Counter Chemical Warfare Concept of Operations. The PAM team should be able to execute medical defense countermeasures to include directing the Medical Decontamination Team, accounting for base sectoring; recommending NBC operating procedures when the CP-EMEDS is located within a contamination zone; determining contamination times based on persistency data; conducting occupational surveillance for personnel located within and transiting contamination zones; performing NBC surveillance; and conducting post-attack environmental monitoring.

7.2.6. A PAM Team can be deployed with an EMEDS and Squadron Medical Elements to provide preventive and aerospace medicine support at a deployed site where there is no service requirement for surgical stabilization or medical holding (inpatient) capability. In this case, the surgical and holding support may be readily available from other locally available sources, but not necessarily on the air base.

7.3. Communication/Liaison Interoperability.

7.3.1. The PAM Team establishes communication/liaison and works in cooperation with other services' preventive medicine UTCs.

7.3.2. The PAM Team requires 2-way communication with the Theater Epidemiology Team (FFHA1)(when deployed), the Infectious Disease Team (FFHA2) (when deployed), the Biological Augmentation Team (FFBAT), and the Medical NBC (FFGL1) Team. In addition, BE personnel are dependent upon the theater-level reference laboratory for technical advice and assistance in shipping samples, obtaining analyses and results, and resupply. The PAM Team reports weekly DNBI stats to the Theater Epidemiology Team, AFFOR/SG, and JTF/SG per theater policy.

7.3.3. The PAM Team establishes procedures for gathering all reportable DNBI data with all medical assets at the bed-down location.

Chapter 8

SECURITY

8.1. Operations. All aspects of COMSEC and OPSEC are implemented and enforced.

8.2. Physical. In addition to the physical security provided by the ECS, the PAM Team will implement all safeguard measures during Force Protection Conditions (FPCON) events. The PAM Team shelter is not chemically/biologically hardened. PAM Team Members will deploy with standard personal protective equipment as directed by the OPORD. PAM team members will be trained in the use of small arms and can be issued small arms for self-protection, if required. PAM Team members will adhere to LOAC requirements.

Chapter 9

TRAINING

9.1. PAM Team members must attend the Contingency Preventive Medicine course or have equivalent training or experience. ACC, as MEFFPAK for PAM, will review and determine if courses or exercises meet this requirement. PAM team members should attend other appropriate United States Air Force School of Aerospace Medicine (USAFSAM) or similar courses to prepare them to operate field preventive medicine programs. Courses include: Global Medicine, Team Aerospace Operational Solutions, Operational Epidemiology, Combat Casualty Care Course, Advanced Trauma Life Support, Advanced Cardiac Life Support, and Operational Entomology, and EMEDS Basic course. Additional courses relevant to the PAM mission offered by other services—such as the US Army chemical/biological warfare courses, or US Navy preventive medicine courses—are also recommended. PAM members assigned to LMWs normally are trained annually at the Air Mobility Warfare Center in LMW operations as part of the Deployed Support Group Commanders course. PAM Team members should also obtain base-level training on forklift operations, vehicle operations, Night-Vision Goggle (NVG) use, and basic cargo handling to the greatest extent possible.

9.2. The PAM Team is exercised at least annually, usually in conjunction with the annual inventory, or wing-level exercise such as an ORE or ORI. Cross-functional training includes familiarization with triage and emergency medical procedures, environmental and industrial analysis, and epidemiological investigation and reporting. When the PAM Team is linked to an AEF, it should exercise with the complete EMEDS team to ensure cross-functionality of skills and integration of tasks.

9.3. BE and Public Health personnel will maintain patient care training (BLS, buddy care, patient movement) sufficient to allow them to augment the flight surgeon, IDMT, and other medical personnel in the event of a mass casualty.

Chapter 10

LOGISTICS

10.1. The PAM Team is designed to be logistically compact and lightweight to allow early entry at a bed-down location.

10.2. The PAM ADVON Team is totally dependent upon ECS for all vehicles, billeting, sanitation, SIPRNET access, food, water and messing facilities. A small generator for emergency power is provided if the FFGL6 package is employed; however, ECS is required for day-to-day power generation (including all fuel requirements). The ECS should provide support and maintenance of the PAM Team's infrastructure. ECS will be required to provide work space if the PAM team is deployed independent of the SPEARR or EMEDS.

10.3. Upon deployment, the team requires transportation to function effectively. Specifically, the team will require access to a general-purpose all-terrain vehicle. A second general-purpose, full-size vehicle is required during initial site buildup and once the deployed site has reached full operability. This will assist the PAM team in on/off-base assessments and emergency response.

10.4. The PAM Team may be responsible for a limited number of patients who may not be evacuated immediately. PAM Team personnel will obtain the necessary food and water for these patients from ECS sources. This may be limited to field rations in an austere environment, but may also be provided by a food service facility. The PAM Team chief will make arrangements with ECS early in the deployment for provision of food and water for the patients.

ATTACHMENT 1**GLOSSARY OF TERMS***Abbreviations and Acronyms*

ADVON	Advance Echelon
AE	Air Evacuation
AEF	Air Expeditionary Force
AEG	Air Expeditionary Group
AEW	Air Expeditionary Wing
AFFOR	Air Force Forces (component of a unified or specified command)
AFIOH	Air Force Institute for Operational Health
AFMIC	Armed Forces Medical Intelligence Center
AFOSH	Air Force Occupational Safety and Health
AFRC	Air Force Reserve Command
AFTH	Air Force Theater Hospital
AMC	Air Mobility Command
ANG	Air National Guard
BE	Bioenvironmental Engineering
BEE	Bioenvironmental Engineer
BLS	Basic Life Support
BW	Biological Warfare
CBRN	Chemical, Biological, Radiological, and Nuclear
CBRNE	Chemical, Biological, Radiological, Nuclear, and Explosive
CCA	Clinical Case Analysis
CCS	Contamination Control Station
CE	Civil Engineer
CEX	Civil Engineering Readiness
CHPMM	Center for Health Promotion and Preventive Medicine
COMSEC	Communications Security
CONOPS	Concept of Operations
CONUS	Continental United States
CP-EMEDS	Chemically Protected Expeditionary Medical Support
DBMS	Director of Base Medical Services
DNBI	Disease/Non-Battle Injury
DOC	Designated Operational Capability
DoD	Department of Defense
DSN	Defense Switch Network
ECU	Environmental Control Unit
EHSA	Environmental Health Site Assessment

EMEDS	Expeditionary Medical Support
ECS	Expeditionary Combat Support
ECU	Environmental Control Unit
FPCON	Force Protection Condition
GEMS	Global Expeditionary Medical System
GRL	Global Reach Laydown
IDMT	Independent Duty Medical Technician
IFE	In-Flight Emergency
IH	Industrial Hygiene
IN	Intelligence
INMARSAT	International Maritime Satellite
IRT	Initial Response Team
JTF	Joint Task Force
LMW	Lead Mobility Wing
LOAC	Law of Armed Conflict
MANFOR	Manpower Force Element
MEFPAK	Manpower and Equipment Force Package
MIO	Medical Intelligence Officer
MIQ	Military International Quarantine
MISCAP	Mission Capability Statement
MITS	Military Immunization Tracking System
MNBC	Medical Nuclear, Biological, and Chemical
MOPP	Mission Oriented Protective Posture
MTF	Military Treatment Facility
NBC	Nuclear, Biological, and Chemical
NVG	Night Vision Goggles
OCONUS	Outside the CONUS
OPCON	Operational Control
OPORD	Operational Order
OPSEC	Operations Security
ORE	Operational Readiness Exercise
ORI	Operational Readiness Inspection
ORM	Operational Risk Management
OSI	Office of Special Investigations
PAM	Preventive and Aerospace Medicine (Teams)
PH	Public Health
PHO	Public Health Officer
POC	Point of Contact
PPE	Personal Protective Equipment
PRD	Presidential Review Directive
QNFT	Quantitative Fit Testing
RAM	Aerospace Medicine Specialist
SF	Security Forces
SIPRNET	Secret Internet Protocol Router Network
SME	Squadron Medical Element
SPEAR	Small, Portable Expeditionary Aeromedical Rapid Response

SRC	Survival Recovery Center
STE	Secure Telephone Equipment
STU-III	Secure Telephone Unit
TALCE	Tanker Airlift Control Element
TOM	Theater Occupational Module
TTP	Tactics, Techniques, and Procedures
USAFSAM	United States Air Force School of Aerospace Medicine
USTRANSCOM	United States Transportation Command
UTC	Unit Type Code
WMDT	Wartime Medical Decontamination Team
WMP-1	USAF War and Mobil Plan, Vol 1, Basic Plan (Annex F, Medical Service)

ATTACHMENT 2

INSTALLATION NBC DEFENCE-RELATED TASK SUMMARY

	CE Readiness UTCs	Medical – Medical NBC	Medical – PAM Team	Medical – Biological Augmentation Team (BAT)	Medical – Wartime Medical Decon Team
Pre - Attack	<p>Conduct NBC agent hazard analysis (identification, vulnerability and risk assessment)</p> <p>Determine NBC passive defense measures</p> <p>Set up/maintain NBC warning, reporting and notification network capabilities</p> <p>Provide advice to shelter teams</p> <p>Monitor CCA capability establishment</p> <p>Provide MOPP level recommendations to SRC Commander</p>	<p>Provide medically-related NBC defensive advice for hazard analysis</p> <p>Provide human health data on potential threat agents. Assist with development of NBC passive defense measures</p> <p>Team with BAT to determine BW sample handling procedures</p> <p>Advise CE Readiness on Health/Medical issues regarding MOPP Levels</p>	<p>Conduct food, water, disease, and industrial hazard vulnerability assessments</p> <p>Initiate medical surveillance to support early BW identification</p> <p>Provide QNFT as necessary</p> <p>Establish detection system at the medical facility</p> <p>Check ventilation in shelters; provide advice on medical aspects of shelters</p>	<p>Conduct lab analysis of clinical and environmental samples for pathogens</p> <p>Team with MNBC to determine sample handling and referral procedures</p>	<p>Establish patient decontamination capability at MTF</p> <p>Coordinate with medical facility commander, SME's, and Casualty Collection Points, to establish contaminated patient flow patterns</p> <p>Establish decontamination capability for medical equipment and vehicles</p> <p>Obtain base sectoring grid and connection to contamination status on base</p>
Trans Attack	<p>Provide advice on activation of warning and notification system</p> <p>Increase NBC attack vigilance</p>	<p>Shelter medical personnel and equipment</p> <p>Increase NBC attack vigilance</p>	<p>Shelter medical personnel and equipment</p>	<p>Shelter medical personnel and equipment</p>	<p>Shelter medical personnel and equipment</p>

Installation NBC Defense-Related Task Summary (Continued)

	CE Readiness UTC's	Medical – Medical NBC	Medical – PAM Team	Medical – Biological Augmentation Team (BAT)	Medical – Wartime Medical Decon Team
Post Attack	<p>Conduct tactical NBC reconnaissance to determine contamination footprint(s) and subservient operational protective measures</p> <p>Gather post attack information from SRC, UTC, and troops in the field</p> <p>Plot detailed NBC footprint contamination</p> <p>Plot NBC attacks for theater warning and reporting</p> <p>Advise SRC commander on operational aspects of NBC agents (e.g., persistency, contamination isolation & control)</p> <p>Provide MOPP-level recommendation (operational)</p> <p>Oversee CCA operations</p> <p>Oversee contamination control operations</p>	<p>Dispatch to identified NBC footprints for further identification and quantification of hazard concentrations and collection of samples (surveillance for health protection)</p> <p>Report field surveillance data to SRC and NBC Cell</p> <p>Identify groups of personnel in hazard areas (e.g., squadrons in contaminated sectors) and track exposure to NBC agents to meet PRD-5 requirements*</p> <p>Advise SRC commander on health effects and health risks of NBC agents</p> <p>Advise in support of reduced MOPP level recommendation (health/medical)</p> <p>Sample food and water for NBC contamination</p> <p>Conduct surveillance activities in reduced MOPP level sectors</p> <p>Conduct env. surveillance in support of health hazard assessment</p>	<p>Detect NBC agents at the deployed medical facility, report to SRC and NBC Cell</p> <p>Conduct epidemiological surveillance and report information obtained at MTF to SRC and NBC Cell</p> <p>Document individual exposure (other than NBC agents) (PRD-5 requirements)</p> <p>Assist MNBC team in advising SRC commander and collecting samples</p> <p>Sample food and water for force health protection.</p> <p>Assist MNBC Team in sampling food and water for NBC contamination</p>	<p>Perform lab analysis and identification for medical surveillance purposes, to include “silver standard” presumptive identification</p> <p>Report laboratory diagnostic information (including “silver standard” analysis) to SRC and NBC Cell</p> <p>Assist MNBC in preserving, packaging and shipping confirmatory BW agent samples</p>	<p>Perform Patient Decontamination</p> <p>Perform Medical vehicle, shelter and equipment decontamination as appropriate</p>

*Identify through footprint, using detection and surveillance data.

ATTACHMENT 3**FLIGHT MEDICINE REFERENCES AND RECOMMENDED CARRY-ON LIST****Joint Publications**

NA

Air Force and ACC Publications

ACCI 44-151, Medical Deployment Support
AFPD 37-1, Information Management
AFMAN 37-123, Management of Records
AFI 48-123, Medical Standards and Examinations
AFMAN 44-258, AF IDMT Medical and Dental Treatment Protocols
Army Field Manual 21-10.

Other Supporting Information

4FOX1 SME Protocols; <http://www.sg.langley.af.mil> (Aerospace Medicine Menu Option) The AFSC
4FOX1 merged with AFSC 4NOX1 1 Nov 02
ASCC (Air Standardization Coordinating Community) 61/114/16 Prevention of Heat Casualties
during Air Operations in Hot Weather
Aircraft Mishap Investigation Handbook; Society of USAF Flight Surgeons Education and
Training Committee, P.O. Box 35387, Brooks AFB, TX. 78235
Control of Communicable Diseases Manual, Abram S. Benenson, Editor, Seventeenth Edition,
American Public Health Association, 2000
Emergency War Surgery; US Government Printing Office, Washington, DC 20402
Field Management of Chemical Casualties Handbook Medical Research Institute of Chemical
Defense Aberdeen Proving Ground, MD 21010-5425
Flight Surgeons Check List; Society of USAF Flight Surgeons Education and Training
Committee, P.O. Box 35387, Brooks AFB TX 78235
Guide to Antimicrobial Therapy (Current); Antimicrobial Therapy, Inc., 5910 North Central
Expressway, Suite 1955, Dallas, TX 75206
Management of Chemical Warfare Injuries (CD-ROM DN804039DR); Naval School of
Health Sciences
Medical Environmental Disease Intelligence and Countermeasure (CD-ROM DI-1810-207B-97);
Armed Forces Medical Intelligence Center, 1607 Porter Street, Fort Detrick, Frederick,
MD 21702-5004
Medical Management of Biological Casualties Handbook; US Army Medical Research Institute
of Infectious Diseases, Fort Detrick, Frederick, Maryland, 21702-5011
Medical Management of Chemical Casualties Handbook, Medical Research Institute of
Chemical Defense Aberdeen Proving Ground, MD 21010-5425
NBC Battle Chest Digital Training Materials (CD-ROM NBC REFO1, REFO2, & REFO3);
NBC Sciences Branch; FT. Sam Houston, TX 78234-6136
USAF SAM Flight Surgeon Guide, <http://wwsam.brooks.af.mil/af/Products.htm>
USARIEM Technical Note 91-2: Sustaining Health and Performance in the Desert: A Pocket

Guide to Environmental Medicine for Operations in SWA
Venomous Snakes of the Middle East Identification Guide–DSN-1810S-469-91

Other Supplies

Air Force Complete Immunizations Tracking Application (AFCITA)

GEMS Computer System Modules

Medical Surveillance Theater (MST) ASIMS file

PAM Team Training CD-ROM

SF 600 Forms

“The Ultimate Flight Surgeon” Reference CD-ROM

ATTACHMENT 4

PUBLIC HEALTH REFERENCES AND RECOMMENDED CARRY-ON LIST

Joint Publications

NA

Air Force and ACC Publications

AFPD 37-1, Information Management
AFMAN 37-123, Management of Records
AFMAN 44-156, Treatment of Biological Warfare Agent Casualties
Army Field Manual 21-10

Other Supporting Information

Control of Communicable Diseases Manual, Abram S. Benenson, Editor, Seventeenth Edition, American Public Health Association, 2000
FDA Food Code, US Dept of HHS (Available at <http://wwwsam.brooks.af.mil/html/food.htm>)
Electronic publications from the Armed Forces Pest Management Board Contingency Operations
Home Page: (<http://www.afpmb.org/coweb/index.htm>)
“Navy Pocket Guide to Malaria Prevention and Control”
“Contingency Pest Management Guide”
“Personal Protective Techniques Against Insects and Other Arthropods of Military Importance”
“Contracting Support on the Battlefield”
Guide to the Salvage of Chilled/Frozen Foods Exposed to Refrigeration Failure, 1997
(Available at <http://wwwsam.brooks.af.mil>)
Medical Management of Biological Casualties Handbook, US Army Medical Research Institute of Infectious Diseases, Ft Detrick MD ([http://www.nbc-med.org/SiteContent/Home Page](http://www.nbc-med.org/SiteContent/HomePage))
Medical Management of Chemical Casualties Handbook, US Army Medical Research Institute
USACHPPM TG 276, Ultimate Preventive Medicine CD-ROM Resource Set, March 2002
of Chemical Defense, Aberdeen Proving Ground MD, 1993
VETCOM Sources; available at <http://vets.amedd.army.mil/vetcom/index.html>

Other Supplies

Current MEDIC CD-ROM, AFMIC, (Latest Version)
CDC 52.13 Form, Investigation of a Foodborne Outbreak (Available at <http://wwwsam.brooks.af.mil>)
CDC 53.1 Form, Viral Hepatitis Case History
DD Form 2341, Report of Animal Bite–Potential Rabies Exposure

ATTACHMENT 5

**BIOENVIRONMENTAL ENGINEERING (BEE) REFERENCES AND
RECOMMENDED CARRY-ON LIST****Joint Publications**

NA

Air Force and ACC Publications

AFPD 37-1, Information Management
AFMAN 37-123, Management of Records

Other Supporting Information

Air Force Electronics Publications Library CD-ROM
Bioenvironmental Engineering Environmental Field Manual, Volume 2 (Pocket Reference Guide), February 2000, Air Combat Command, Langley AFB, VA
ESOH CAMP checklists: www.ecamp-online.net
Field Management of Chemical Casualties Handbook; Medical Research Institute Of Chemical Defense, Aberdeen Proving Ground, MD 21010-5425
Hazardous Material Control & Management/Hazardous Material Information System LR; AL/OEMB (Attn: Anna Willis, 2402 E Dr., Brooks AFB TX 78235-5114
Latest Edition TLVs and BEIs; American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Cincinnati, OH 45240-1634
Medical Management of Biological Casualties Handbook; US Army Medical Research Institute of Infectious Diseases, Fort Detrick, Frederick, Maryland, 21702-5011
Medical Management of Chemical Casualties Handbook; Medical Research Institute Of Chemical Defense, Aberdeen Proving Ground, MD 21010-5425
MERNBC Toolkit
North American Emergency Response Guidebook (NAERG96); ATTN: Jacki Love, Rev. 2/96, Office of Emergency Preparedness, 14th Street, NW, 8th Floor, Washington, DC 20009
OSHA CD-ROM, U.S. Department of Labor, Occupational Safety and Health Administration, Washington, DC 20210
Pocket Guide to Chemical Hazards; Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Publications Dissemination, Division of Standards Development and Technology Transfer, 4676 Columbia Parkway, Cincinnati, OH 45226-9966.
Tri-Service Pollution Prevention Resource CD-ROM; HQ AFCEE/EQ, 3207 North Road, Brooks AFB TX 78235-536
Ultimate PAM CD (latest version)
USACHPPM Technical Guide 244—"The Medical NBC Battlebook" (Latest Version)

Other Supplies

Map of Deployed Location,

ATTACHMENT 6**OPERATING CAPABILITY**

A6.1. INITIAL OPERATING CAPABILITY (IOC). The PAM team has attained IOC when the following tasks have been completed:

A6.1.1. PAM shelter is established and equipment is available for operational use.

A6.1.2. Screening assessment of the EHSA is complete.

A6.1.3. Communications are established with theater surgeon and other medical assets at bed-down location.

A6.1.4. Initial employee data from the personnel office is downloaded into GEMS.

A6.2. FULL OPERATING CAPABILITY (FOC). The PAM team has attained FOC when the following tasks have been completed:

A6.2.1. Radio, telephone, and internet access is established with theater surgeon, other medical assets, and line assets at bed-down location.

A6.2.2. The core-assessment of the EHSA is complete.

A6.2.3. Food and Water vulnerability assessment and contingency response plan are complete.

A6.2.4. A health risk assessment has been completed for all shops, occupational activities, and processes.

A6.2.5. A secure source of food/water is established.

A6.2.6. Medical Personnel are participating in the Force Protection Working Group (FPWG).

A6.2.7. Medical contingency response plans are established.

A6.2.8. Patient encounter data is being analyzed and forwarded to the theater surgeon.

A6.2.9. Methods of detection and tracking of potential exposures of harmful agents, environmental sample results, and information on activities is being documented in GEMS/TOM.