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SECRETARY OF THE AIR FORCE**



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Aerospace Medicine

SQUADRON MEDICAL ELEMENTS

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This instruction implements AFD 48-1, *Aerospace Medical Program*, and AFD 11-4, *Aviation Service*. It provides guidance and establishes procedures for the operation and deployment of Squadron Medical Elements in support of their assigned squadrons and the overall Aerospace Medicine Program. This publication applies to active duty, Air Force Reserve Command (AFRC) and Air National Guard (ANG) members and units. Due to their unique structure and mission, this AFI does not apply to AFSOC aerospace medicine personnel. They are governed by AFSOCI 48-101, *Special Operations Aerospace Medical Operations*. Maintain and dispose of records created as a result of processes prescribed in this publication in accordance with AFMAN 37-139, *Records Disposition Schedule*.

Chapter 1

FUNCTIONAL AREA RESPONSIBILITIES

1.1. HQ USAF.

1.1.1. HQ USAF/DP

1.1.1.1. Establishes Squadron Medical Element manpower policies. Procures and allocates Squadron Medical Element (SME) manpower.

1.1.1.2. Maintains liaison with the Surgeon General (HQ USAF/SG) on medical training, supply issues and operational utilization of SMEs.

1.1.2. HQ USAF/SG

1.1.2.1. Develops and maintains standardized medical training for all SME personnel.

1.1.2.2. Maintains liaison with HQ USAF/XO on issues concerning SME medical utilization and Concept of Operations (CONOPS).

1.2. AFMOA. The Commander, Air Force Medical Operations Agency (AFMOA) provides medical oversight and guidance to the USAF SME program. .

1.3. MAJCOM.

1.3.1. MAJCOM/XP. Maintains liaison with the MAJCOM/SG on medical training, supply issues and operational utilization of SMEs.

1.3.2. MAJCOM/DOT. Ensures the flying training instruction includes indoctrination guidance for SME personnel.

1.3.3. MAJCOM/SG (Major Command Surgeon).

1.3.3.1. (Except ARC) coordinates with AFPC to place appropriate medical personnel in SME manpower positions.

1.3.3.2. Supplements this instruction to support MAJCOM-specific mission requirements, if required.

1.3.3.3. Monitors and evaluates SME training requirements.

1.3.3.4. Provides Aerospace Medicine Program policy support and staff assistance.

1.4. Wing Commander

1.4.1. Identifies operational requirements for medical support.

1.4.2. Prioritizes use of scarce medical resources when medical and operational commanders cannot resolve conflicting requirements.

1.4.3. Operations Group CC.

1.4.3.1. Maintains liaison with home station medical unit leadership on the proper use of SME personnel.

1.4.3.2. Ensures assigned SME flight surgeons meet all requirements for flying.

1.5. Flying/Operational Squadron Commander.

1.5.1. Serves as commander and reporting official for the SME flight surgeon, and the first endorsing official on enlisted performance reports written by the SME flight surgeon on enlisted SME personnel.

1.5.1.1. The individual's squadron of assignment has UCMJ authority in accordance with current applicable directives. The SGP, with advice as needed from the senior medical treatment facility (MTF) 4N0, has the authority to initiate disciplinary action (e.g. Letters of Counseling or Reprimand) if required. The squadron chain of command will be notified in such cases.

1.5.1.2. SME personnel will compete for quarterly and annual awards within their unit of assignment.

1.5.2. Provides all administrative (e.g. orderly room) functions for assigned SME personnel to include personnel actions in the Military Personnel Data System (MILPDS). Approves all ordinary leave, emergency leave, UCMJ and other personnel actions.

1.5.3. Ensures required SME training, supplies and equipment are provided if required for direct operational support.

1.5.4. Maintains a supply account with medical unit Medical Logistics (SGSL) and purchases medical supplies for Flight Surgeon deployment kits.

1.5.5. Prepares orders and arranges for funding of deployments or TDYs in direct support of flying operations (e.g. aircraft-specific training, survival training, mishap investigations). May fund continuing medical education (CME) training if in the best interests of the individual and the unit.

1.5.6. Provides individual equipment items, including flight gear and deployment bags. Maintains SME mobility folders and tracks all mobility requirements.

1.5.7. Coordinates requirements for medical support with the medical unit. Conflicting requirements or priorities for SME personnel are addressed at the lowest level possible between medical and operational unit leadership, and elevated to higher levels, as needed, for resolution.

1.5.8. Utilizes SME in all operational aerospace medicine support areas (e.g. human performance enhancement, life support, safety, Operational Risk Management).

1.5.9. Briefs SME personnel on unit mission, deployment vulnerability and squadron inclusion in contingency plans.

1.5.10. Encourages flight surgeon flying as much as possible. Flying rapidly builds bonds between unit members and their flight surgeon, allows easy accessibility to medical advice outside the clinic and engages the flight surgeon in all aspects of the unit.

1.6. Medical Unit Commander.

1.6.1. Provides or arranges for all required medical training (e.g. CPR, ACLS, ATLS, NREMT, Disaster Team training). Provides and monitors all necessary OJT.

1.6.2. Maintains liaison with home station wing and operations group leadership on the proper use of SME personnel.

1.6.3. Provides professional supervision of medical personnel.

1.6.4. Ensures required SME training, supplies and equipment are provided as required for provision of home station medical care. This includes funding and preparing orders for CME training equivalent to all other providers on the medical staff (CME funding not applicable to ANG and AFRC).

1.6.5. Ensures appropriate level of medical support is provided to operational units, both at home station and deployed, using both SME and medical unit resources. If flying squadron requires medical support that cannot be met with local resources, coordinates with MAJCOM and Aerospace Expeditionary Forces (AEF) Center to obtain appropriate medical support.

1.6.5.1. Ensures proper support of the Chief of Aerospace Medicine (SGP) in the management of non-deployed SME physicians and technicians.

1.6.6. Ensures that deployed SMEs collocated with or in proximity to the fixed medical unit are identified and provided 24-hour communication access to medical unit resources. Ensures that these SMEs are provided timely medical intelligence or local area threat data as it is received and are provided physical and personnel resources to support critical medical needs or emergencies should they arise. Evaluates the credentials of and grants clinical privileges IAW AFI 44-119 to deployed SMEs seeking to use fixed medical unit facilities. Provides secure repository for credentials information and other medical documents furnished by the SME.

1.7. Medical Unit Chief of Aerospace Medicine (SGP). Provides senior flight surgeon support to:

1.7.1. Assist SME physician with planning and conducting mission-specific medical training.

1.7.2. Assign duties to and monitor job performance of all SME Flight Surgeons and 4N0 technicians in the medical unit when they are not deployed.

1.7.3. Balance requirements and resources to ensure that deployed operational requirements, home station aerospace medicine programs, and flying squadron in garrison missions are optimally supported.

1.7.4. SGP has ultimate responsibility, in consultation with the Senior 4N0, for SME technician completion of all required task and knowledge items identified in the 4N0 Career Field Education and Training Plan (CFETP) and the Master Task List (MTL) for SMEs.

1.7.5. Address conflicting requirements or priorities for SME personnel at the lowest level possible between medical and operational unit leadership. Elevate to higher levels as needed for resolution.

1.8. Senior Medical Unit 4N0 Aerospace Medical Services Technician.

1.8.1. Is responsible for professional development, and career progression for all SME technicians.

1.8.1.1. Works with the SGP to ensure that "traditional" 4N0's newly assigned to SME positions, with no previous aerospace medicine experience, work predominately in flight medicine to assure they obtain the relevant aeromedical skills.

1.8.1.1.1. Works with the SGP to ensure SME technicians complete all required task and knowledge items identified in the 4N0 Career Field Education and Training Plan (CFETP) and the Master Task List (MTL) for SMEs.

1.8.1.2. Works with the SGP to ensure SMEs (non-IDMTs) receive annual training that meets the annual training requirements of Independent Duty Medical Technicians (IDMTs) IAW AFI 44-103.

1.8.1.3. Coordinates training and inservices to meet the requirements for NREMT-B recertification.

1.8.2. Provides recommendations to the SGP on movement of technicians into and out of SME positions and assignment of medical unit duties based on the needs of the flying squadron, medical unit, and individual development.

1.8.2.1. SME technician assignment within the MTF should be based upon the following priority:

1.8.2.1.1. Ensuring the SME technicians are trained in all tasks/duties as an SME and complete Readiness Skills Verification (RSV) tasks

1.8.2.1.2. Ensuring SME flight surgeons have technician support when seeing patients in the Flight Medicine Clinic.

1.8.2.2. These recommendations must be coordinated with the flying squadron and medical unit leadership. Questions may be addressed to the MAJCOM Functional Manager or the Career Field Manager, as appropriate.

1.9. SME Responsibilities.

1.9.1. When not deployed, SME personnel will serve as an integral part of the home station Aeromedical Team, performing the same flight surgeon and technician duties (e.g. on-call and Emergency Room coverage, records reviews, exercises) as non-SME flight surgeons and aeromedical enlisted personnel. Duties and responsibilities include all those required to accomplish the Aerospace Medicine Program as outlined in AFI 48-101, *Aerospace Medical Operations* and the 4N0X1 CFETP.

1.9.2. SME personnel are, first and foremost, members of the medical community and should strive to provide outstanding support to their flying squadron while maintaining integration with the home station medical unit.

1.9.3. Enlisted SME personnel will maintain required skills as noted in their CFETP. SMEs with IDMT, certification, (SEI 496), will meet rotational and medical skills maintenance training as required for continued IDMT certification IAW AFI 44-103 for the duration of their assignment as an SME. All 5 and 7 skill level 4N0X1s identified for assignment to an SME position, will attend the J3AZY4N071-006, Medical Service Craftsman—Independent Duty Medical Technician course not more than one year following selection of assignment as an SME.

1.9.3.1. Failure from the IDMT course at Sheppard AFB, or failure to maintain rotational and clinical training skills, will be grounds to remove a member selected or occupying an SME position.

1.9.3.2. When fiscal or local clinical limitations exist, the senior 4N0X1 may waive the requirements of paragraph 1.9.3. only to the extent necessary to successfully accomplish the mission. In these cases, written approval from the MAJCOM 4N0 Functional Manager will be obtained and kept in the member's 6-Part Training Folder. Every effort should be made to obtain the necessary training to maintain IDMT skills proficiency.

Chapter 2

ADMINISTRATIVE MANAGEMENT

2.1. Manpower Authorizations.

2.1.1. Typical SME composition is determined as shown in most current Air Force Manpower Standard 5310A:

2.1.1.1. One Flight Surgeon, AFSC 48XX.

2.1.1.2. Two enlisted medical technicians. Ideally, there should be one 7-level and one 5-level technician assigned. An experienced and otherwise qualified 3-level may be assigned, with MAJ-COM concurrence, if no other personnel are available or appropriate.

2.1.1.3. At least one SME technician position will carry the IDMT Special Experience Identifier (SEI 496) no later than 1 Oct 05. Because IDMTs are specific to the Active Duty Component, the ARC will substitute for IDMTs as appropriate.

2.2. Performance Reporting.

2.2.1. The reporting official for the SME flight surgeon will normally be the flying squadron commander. The SME flight surgeon's Officer Performance Report (OPR) will flow up the operational review chain. If both the medical unit commander and the line commander concur, the rater can be the immediate supervisor in the medical unit. The report would then return to the line chain for first and second level endorsement and review.

2.2.1.1. The medical unit Chief of Aerospace Medicine will provide a Letter of Evaluation (LOE) or suitable formal input to the flying squadron commander that will accompany the SME flight surgeon's OPR throughout the rating and review chain. This LOE will reflect the flight surgeon's duty performance in support of the overall Aerospace Medicine program, with emphasis on activities within the medical unit. If the OPR originates in the medical chain of command, then the line commander should prepare an LOE on the performance of the SME in squadron activities.

2.2.1.2. The medical unit commander (or his designee) will review the LOE prior to submission.

2.2.2. The reporting official of the enlisted SME can be the senior SME technician or SME flight surgeon. Decisions regarding how to set-up SME reporting chains must be coordinated with the line organization and should be consistent for all assigned SMEs. The SME technician's EPR will flow up the operational chain for further review and endorsement. The MDG superintendent in the MTF will review draft EPR for administrative correctness and may supply comments on content if warranted. The EPR will reflect the technician's duty performance in support of the line unit, the Aerospace Medicine program and duty assignment within the MTF.

2.3. Use of Personnel at Home Station.

2.3.1. When not deployed, the primary duty location for SME personnel (officer and enlisted) is the medical unit. In coordination with the line chain of command, the SME flight surgeon is responsible for duty to the SGP in the medical unit and the SME enlisted personnel are responsible to their SME flight surgeon and the SGP in turn.

2.3.2. The medical unit SGP, in coordination with the line chain of command, will assign and manage the professional duties of the SME personnel in the medical unit when the SMEs are not deployed. This includes the appropriate balancing of time spent in clinical and non-clinical duties.

2.3.3. All SME Flight Surgeons will maintain credentials with the medical unit and perform duties within the medical unit sufficient to warrant the awarding and maintaining of clinical privileges.

2.3.4. SME personnel should be encouraged to participate in both the flying squadron and medical unit activities such as commander's calls, social functions, etc. For administrative programs where it is not appropriate to do both (e.g. awards programs, orderly room functions, intramural sports), SME personnel will normally fall under their flying squadron.

2.4. Use of Personnel When Deployed.

2.4.1. In a contingency, the Air Force Forces (AFFOR) Surgeon, given the Joint Task Force (JTF) and Joint Forces Air Component Commander (JFACC) Surgeon's Concept of Operations (CONOPS) and/or requirements, will define the deployed medical capability, including SME assets, required to support each bed down location, based on risk, and with consideration to medical capabilities available from other USAF units, sister services, and the host nation. The AFFOR Surgeon will identify requirements for SME deployment to bed down locations with the supporting MAJCOM Chief of Aerospace Medicine (or equivalent), who will coordinate with the medical unit Chief of Aerospace Medicine, the operational squadron commander and the AEF Center. The final coordinated taskings will be communicated by the AFFOR Surgeon for formal tasking actions.

2.4.2. In a contingency to a location with a fixed or deployed medical unit or other in-place medical structure:

2.4.2.1. SMEs will often be tasked to support more than just their home-station squadron. The SME will be responsible to the medical leadership (deployed SGP, expeditionary medical squadron or group commander) to provide medical care and support the aerospace medicine program in the same manner as to the medical unit commander and SGP at home station. Depending on force structure, rank and experience, the SME flight surgeon may be tasked to serve as Director, Base Medical Services (DBMS). Taskings as the core medical provider for large-scale exercises (e.g. Red Flag) also fall into this category.

2.4.2.2. SMEs deployed to a location with a fixed medical unit must identify themselves to the medical unit commander or SGP. Clear lines of communication must be established and support requirements for the SME identified. If the SME will be using the fixed medical unit facilities (pharmacy, lab, or other services) the medical unit may require a credentials transfer brief and other administrative procedures to be performed.

2.4.3. In a contingency to a location without any other US military medical personnel:

2.4.3.1. The SME will receive policy guidance and professional support from the JTF, JFACC, or AFFOR Surgeon, depending on the mission's command relationship structure. SMEs will often be tasked to support more than just their home-station squadron. They may be tasked to perform duties and serve as the DBMS for that deployed location.

2.4.4. In a peacetime training environment:

2.4.4.1. Deployment of the SME flight surgeon and technicians for training deployments with their squadron should be encouraged. It represents an excellent opportunity to enhance familiarity

with unit aircraft, establish rapport, and develop a close working relationship and interpersonal bond between the SME personnel and their squadron. The focus of this deployment should be on unit support. The SGP will assure close coordination between the flying squadron and home station medical unit to ensure the needs of both organizations are met when assessing the participation of the SME in this type of deployment.

2.4.4.2. Communication requirements between the SME and the host medical unit as described in 2.4.2.2. also apply during a peacetime training deployment. However, the deployed SME should not be tasked to provide support to the host medical unit except in case of emergency.

2.4.5. SME technicians will not deploy without a flight surgeon unless:

2.4.5.1. They are IDMTs, or

2.4.5.2. They will be providing direct support to other specifically-identified providers at a deployed location. In such cases, the SME technician is responsible to the medical structure in the same manner as described above.

2.4.6. SME technicians who are IDMTs with an identified medical oversight channel may provide medical care within the limits of AFI 44-103 and applicable MAJCOM supplements.

2.4.7. Deployed technicians must be careful not to function beyond their scope of practice as described in the CFETP. Unless they are IDMTs, medical technicians are not authorized to independently treat patients or dispense medication.

2.5. Leaves, TDYs, and Details.

2.5.1. The SME flying squadron commander is the approval authority for leaves, TDYs, and assignment of details.

2.5.2. The flying squadron commander and the SME flight surgeon should not approve or task leaves, TDYs and base/squadron details for SME personnel without coordination with the medical unit.

2.5.3. The medical unit will not send SME personnel TDY or assign them duties outside the medical group without their commander's approval.

Chapter 3

SME QUALIFICATIONS AND TRAINING

3.1. Minimum Qualification for SME Flight Surgeons.

- 3.1.1. ACLS currency.
- 3.1.2. ATLS currency is strongly encouraged. MAJCOMs will establish their own policy.
- 3.1.3. Fully credentialed and clinically privileged to practice in flight medicine without supervision.
- 3.1.4. Medically qualified for worldwide duty. Due to their frequent deployment taskings, SME personnel should not carry an assignment limitation code that prevents worldwide deployment.
- 3.1.5. Certified as Medically Qualified for Flying Class II duties. Flight surgeons holding categorical waivers are considered medically qualified.
 - 3.1.5.1. Temporary medical suspensions from Duties Not Involving Flying (DNIF) or 4-T profile will not preclude the performance of clinical flight surgeon duties, but may prevent deployment.
- 3.1.6. Maintain currency in any other required operational training events, such as the RSV program.

3.2. Minimum Qualification for SME Medical Technician.

- 3.2.1. Possess current minimum certification as a Nationally Registered Emergency Medical Technician-Basic (NREMT-B).
- 3.2.2. Minimum entry-level physical profile is governed by AFI 36-2108.
- 3.2.3. Medically qualified for worldwide deployment.
- 3.2.4. AFRC personnel must hold a 5-skill level and current NREMT-B certification prior to performing SME duties in a deployed environment. MAJCOM SG may waive this requirement with justification on case-by-case basis.

3.3. Initial SME Qualification Training.

- 3.3.1. The flying squadron is responsible for orientation to the unit flying mission, deployment vulnerability and squadron inclusion in contingency plans.
- 3.3.2. The medical unit SGP is responsible for the orientation of the SME flight surgeon to the local medical mission and equipment. Areas which must be covered within the first 90 days of assignment of a flight surgeon to an SME position include:
 - 3.3.2.1. Air Transportable Clinic concept of operations and allowance standard (if applicable).
 - 3.3.2.2. EMEDS and other local medical readiness assemblages – concept of operations and allowance standards.
 - 3.3.2.3. Medical intelligence resources available, with emphasis on medical threats in potential deployment locations.
 - 3.3.2.4. Deployment sanitation, including billeting, food and water assessment.
 - 3.3.2.5. Basics of deployed medical command and control.

- 3.3.2.6. Contents of deployment kits and personal medical bags.
 - 3.3.2.7. Site selection for deployed billeting, feeding, waste disposal and medical facilities.
 - 3.3.2.8. Food and water vulnerability and security.
 - 3.3.2.9. Vector surveillance and control.
 - 3.3.2.10. Mishap and disaster response plans, checklists and equipment.
 - 3.3.2.11. Operation of mobile and base station radios.
 - 3.3.2.12. Contracting.
- 3.3.3. The SGP, in concert with the senior 4N0 in the medical unit, is responsible for scheduling and monitoring all SME technician training. Items **3.3.4.1.** through **3.3.4.12.** must be accomplished no later than 90 days after being assigned to a SME, unless previously accomplished, and properly documented in the member's training record.
- 3.3.4. Initial qualification training for SME technicians must include:
- 3.3.4.1. Intravenous therapy (I.V.) training and certification.
 - 3.3.4.2. Oxygen therapy training.
 - 3.3.4.3. Four-wheel-drive modular ambulance and flight line driving training (does not apply to ARC).
 - 3.3.4.4. Satisfactory experience performing occupational health and safety assessments of industrial shops, flightline facilities, and other base/site support operations.
 - 3.3.4.5. Training in assessing proper waste disposal techniques.
 - 3.3.4.6. Training in performing water sampling, analysis, and purification to establish proper water quality.
 - 3.3.4.7. Training in performing food safety and quality inspections to evaluate food handling and storage procedures.
 - 3.3.4.8. Training in site selection criteria for bare-base medical facility.
 - 3.3.4.9. Training in operating mobile and base station radios.
 - 3.3.4.10. Training in flight medicine clinic operations.
 - 3.3.4.11. Training in administration and tracking of immunizations.
 - 3.3.4.12. Training in Disease Injury and Surveillance, including use of current deployment medicine Disease Non- Battle Injury (DNBI) software such as GEMS or future iterations of similar software mechanisms of DNBI study.

3.4. Annual Clinical Medicine Training Requirements.

- 3.4.1. Maintenance of clinical skill sets, as well as regular and rigorous training for providing care in deployed austere/minimal medical facilities is to be made part of an annual training plan. Moreover, training for SMEs should be conducted at least monthly.
- 3.4.2. MAJCOM/SG may require additional specific training requirements.

3.5. Recurring Training.

3.5.1. If required, flight surgeons must recertify ACLS and ATLS in accordance with the applicable standards.

3.5.2. NREMT-B recertification is mandatory for all technicians assigned to SME positions and must be accomplished IAW the 4N0X1 CFETP.

3.5.3. Medical Unit Readiness Training (MURT) requirements must be accomplished IAW applicable directives. This requirement may be met by operational deployments during the preceding year. Training and/or credit for having met required training through deployment will be annotated in the SME's 6-part training folder.

GEORGE PEACH TAYLOR, JR., Lt General, USAF, MC, CFS
Surgeon General

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

AFPD 48-1, *Aerospace Medical Program*

AFI 48-101, *Aerospace Medical Operations*

AFSO CI 4-101, *Special Operations Aerospace Medical Operations*

Abbreviations and Acronyms

ACLS—Advanced Cardiac Life Support

ATLS—Advanced Trauma Life Support

AEF—Aerospace Expeditionary Force

AFFOR—Air Force Forces Surgeon

AFMOA—Air Force Medical Operations Agency

AFPC—Air Force Personnel Center

AFPD—Air Force Policy Directive

AFI—Air Force Instruction

AFRC—Air Force Reserve Command

AFSC—Air Force Specialty Code

AFSO CI—Air Force Special Operations Command Instruction

ANG—Air National Guard

ARC—Air Reserve Component

CC—Commander

CFETP—Career Field Education & Training Plan

CME—Continuing Medical Education

CONOPS—Concept of Operations

CPR—Cardio-Pulmonary Resuscitation

DBMS—Director, Base Medical Services

DNIF—Duties Not Including Flying

EMEDS—Expeditionary Medical Support

EPR—Enlisted Performance Report

HQ USAF/XO—Deputy Chief of Staff, Air and Space Operations

IAW—In Accordance With

IDMT—Independent Duty Medical Technician

IV—Intravenous

JFACC—Joint Forces Air Component Commander

JTF—Joint Task Force

LOE—Letter of Evaluation

MAJCOM—Major Command

MDG—Medical Group

MTF—Medical Treatment Facility

MTL—Master Task List

MURT—Medical Unit Readiness Training

NREMT—Nationally Registered Emergency Medical Technician

OJT—On-the-Job Training

OPR—Officer Performance Report

RSV—Readiness Skills Verification

SG—Surgeon General

SGP—Chief of Aerospace Medicine

SGSL—Medical Logistics

SME—Squadron Medical Element

TDY—Temporary Duty

UCMJ—Uniformed Code of Military Justice