

**BY ORDER OF THE
SECRETARY OF THE AIR FORCE**

AIR FORCE POLICY DIRECTIVE 48-1

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Aerospace Medicine

AEROSPACE MEDICINE ENTERPRISE



COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This Policy Directive (PD) establishes policy for the Aerospace Medicine Enterprise (AME). The AME consists of all health service activities that directly support execution of the Air Force (AF) mission. These health service support areas include aviation, occupational, environmental, and operational medicine; industrial hygiene; public health; force health readiness and protection; medical support to the nuclear enterprise; human performance enhancement, sustainment, and optimization; medical response to aviation and operational mishaps, and chemical, biological, radiological, or nuclear (CBRN) events. This PD implements DoD Directive (DoDD) 6200.04, *Force Health Protection*; DoDD 6490.02E, *Comprehensive Health Surveillance*; and the policy in DoD Instruction (DoDI) 6130.03, *Medical Standards for Appointment, Enlistment, or Induction in the Military Services*; DoDI 6465.1, *Hemoglobin S and Erythrocyte Glucose-6-Phosphate Dehydrogenase Deficiency Testing Program*; and DoDI 6490.07, *Deployment-Limiting Medical Conditions for Service Members and DoD Civilian Employees*. It is consistent with the policy in AFPD 91-3, *Occupational Safety and Health*. This publication applies to the regular Air Force and the Air Reserve Component. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through the appropriate chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force (AF) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afrims/afrims/afrims/rims.cfm>.

SUMMARY OF CHANGES

This PD is updated to reflect changes in policy dealing with Aerospace Medicine. The “Aerospace Medicine Program” has been renamed “The Aerospace Medicine Enterprise” to distinguish the overall enterprise from the individual Aerospace Medicine programs. The six major Aerospace Medicine Programs are identified and defined. Human performance sustainment, optimization, and enhancement are defined. Subsequent supporting guidance to this PD should be linked to the four effects-based mission areas and the six major Aerospace Medicine programs.

1. Policy. The AME will:

1.1. ***Promote and Sustain a Healthy and Fit Force:*** The AME will provide specific specialty care required to ensure the success and safety of specific operators and missions including, but not limited to, aviators (manned and remotely piloted aircraft), astronauts, missileers, air traffic controllers, personnel enrolled in the Personnel Reliability Program, select combat mission ready cyberspace personnel, and certain weapons systems operators. This expertise will further include proactive safety activities and event-driven investigations for those weapons systems and programs.

1.2. ***Prevent Illness and Injury:*** The AME will provide activities and expertise crucial to casualty prevention and optimizing the safety and health of AF personnel in the performance of their duties in any circumstance or location. The modern workplace can be a complex environment that poses a variety of health risks to AF members and their families. AME personnel will conduct threat analyses, develop mitigation strategies, advise leadership, and educate members. AME personnel will plan and execute specific programs to identify and mitigate health risks, including but not limited to those associated with food and water, environment, physical factors, fatigue, communicable diseases, injury, and Chemical, Biological, Radiological, or Nuclear (CBRN) exposures and to document potential exposure to those risks. Additionally, AME personnel will oversee and execute an effective occupational and industrial health services program, to include mission tailored screening and examinations that enhance protection of AF personnel from illness or injury related to their workplace. The AME will employ similar principles and expertise in contingency planning and operations to assist in identification and mitigation of risks to enhance force protection and sustain effectiveness. AME personnel will have appropriate security clearance to provide these services to classified missions and personnel at their location.

1.3. ***Restore Health:*** The AME will provide operational health care that includes, but is not limited to: casualty care and management, routine health care, and clinical services for families under any circumstance required of the mission and in compliance with Air Force Policy Directive 44-1, *Medical Operations*. The AME will provide specific expertise in the planning and execution of medical responses to mishaps, operational incidents, and mass casualties, and it will provide professional expertise to ensure the safety and appropriateness of aeromedical evacuation of patients.

1.4. ***Optimize and Sustain Human Performance:*** Air Force personnel are the most important and valuable resource for the AF. The Airman is a human weapon system requiring total life-cycle support and maintenance. The AME becomes a force multiplier by focusing on human performance in addition to health care as a primary means of supporting

the line of the AF. Accordingly, the AME will provide advocacy and consultative support to ensure the early integration of human considerations into the system acquisition process to enhance human/system design, reduce future life cycle costs, and optimize total system (human-hardware-software) performance. The AME will research and employ objective occupation selection criteria, evidenced-based medical standards, and the tools and techniques necessary to sustain the levels of individual physical and cognitive performance planned for and expected of the human components of weapon systems. The AME will also provide expertise to educate workers and leadership to design human-centered work practices and solutions that ensure worker safety, community health, and environmental protection during the development and employment of systems.

1.4.1. The human weapon system construct leads to three interrelated human performance areas defined as follows:

1.4.1.1. **Human Performance Sustainment** covers accession through separation/retirement with the goal of maintaining target performance levels throughout an Airman's career while minimizing adverse health effects. Preventive medicine is a major contributor to performance sustainment because physical and mental health is a necessary precursor for performance. Accordingly, performance sustainment encompasses health service support functions.

1.4.1.2. **Human Performance Optimization** seeks to achieve the most efficient use of limited human resources by comprehensively integrating Airmen with organizational and technical systems. It goes well beyond human-machine interface design and involves deliberate planning to efficiently leverage Airmen through the process of Human Systems Integration (HSI). This area aligns both line and medical resources and objectives.

1.4.1.3. **Human Performance Enhancement** enables Airmen to operate beyond currently achievable and sustainable performance thresholds. It is chiefly accomplished through science and technology initiatives that range across the spectrum from intra-human (e.g., biotechnology and pharmacology) to extra-human (e.g., hardware and software) in accordance with acceptable standards of medical practice and ethics.

2. These four key mission effects are accomplished through effective management of six major Aerospace Medicine programs:

2.1. **Flying, Operational, and Special Duty Program:** The purpose of the Flying, Operational, and Special Duty Personnel Program is to optimize the health and sustain the performance of aviation (manned and unmanned), missile, nuclear, select combat mission ready cyberspace, weapon system operators, and special duty personnel in support of the operational mission of the Air Force.

2.2. **Occupational and Environmental Health (OEH) Program:** The purpose of the AF OEH program is to protect military and civilian employee health while enhancing combat and operational capabilities.

2.3. **Force Health Readiness Program:** The purpose of the Medical Force Protection program is to ensure a healthy and fit force and to maximize operational readiness and performance.

2.4. Community Health Program: The purpose of the Community Health Program is to protect the military, dependents and beneficiary civilian populations from infectious and communicable diseases, food borne illnesses, and environmental hazards that may adversely impact the health of the community and degrade operational performance.

2.5. Human Performance Sustainment Program: The purpose of the Human Performance Sustainment Program is to sustain the performance of Airmen, whether in the face of enemy conflict, environmental threats and stressors, or advancing age. AME personnel will provide feedback and lessons learned on human performance shortfalls and/or emerging threats to those organizations and agencies responsible for Human Performance Optimization and Enhancement.

2.6. Emergency Response/Disaster Management Program: The purpose of the Emergency Response and Disaster Management program is the timely and professional emergency response to aviation, operational, mass casualty, and CBRN events to minimize adverse health consequences and preserve operational capabilities.

3. Management of the Aerospace Medicine programs to achieve objectives and desired effects will follow established principles of program management:

- 3.1. Establish clear objectives and goals
- 3.2. Define tasks and responsibilities necessary to achieve objectives
- 3.3. Specify clear and reasonable timelines
- 3.4. Ensure accountability
- 3.5. Measure effectiveness of reaching the objectives and desired effects
- 3.6. Redirect local plans, policy, and practices as needed to better achieve desired effects

4. Subsequent supporting guidance should be linked to these four effects and six major Aerospace Medicine programs as well as present and future Air Force Medical Service (AFMS) enabling capabilities.

5. As an AFMS *enabling capability*, the AME ensures that expertise is provided to establish and maintain pertinent, mission orientated education programs and provides a full range of consultation services in support of the four desired effects. Members of the AME will be trained to high levels of technical skill, and will be specifically trained in risk analysis, communication skills and operational risk management. Selected AME personnel will be specifically trained in systems acquisition including research and development activities and programs.

6. Responsibilities:

- 6.1. The Assistant Secretary of the Air Force for Manpower and Reserve Affairs (SAF/MR) serves as an agent of the Secretary and approves all policies concerning the AFMS.
- 6.2. The Surgeon General (AF/SG) maintains the authority for medical program oversight.

Michael B. Donley
Secretary of the Air Force

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

DoDD 6200.04, *Force Health Protection*, October 9, 2004.

DoDD 6490.02E, *Comprehensive Health Surveillance*, October 21, 2004.

DoDI 6130.03, *Medical Standards for Appointment, Enlistment, or Induction in the Military Services*, April 28, 2010.

DoDI 6465.1, *Hemoglobin S and Erythrocyte Glucose-6- Phosphate Dehydrogenase Deficiency Testing Program*, July 29, 1981.

DoDI 6490.07, *Deployment-Limiting Medical Conditions for Service Members and DoD Civilian Employees*, February 5, 2010.

AFPD 91-3, *Occupational Safety and Health*, September 27, 1993.

AFPD 40-2, *Radioactive Materials (Non-Nuclear Weapons)*, March 15, 2007.

AFPD 44-1, *Medical Operations*, September 1, 1999.

Adopted Form

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AF—Air Force

AFDD—Air Force Doctrine Document

AFPD—Air Force Policy Directive

AME—Aerospace Medicine Enterprise

AFMS—Air Force Medical Service

CBRN—Chemical, Biological, Radiological, or Nuclear

HSI—Human Systems Integration

OEH—Occupational and Environmental Health

PD—Policy Directive

RDS—Records Disposition Schedule