

AEROSPACE MEDICINE UTILIZATION FIELD (48XX)**Introduction**

The Aerospace Medicine Utilization Field covers the functions of program formulation, policy planning, direction, and professional participation pertinent to maintenance and improvement of health standards and aerospace medicine. Included in this field are aerospace medicine specialists, occupational medicine specialists, family practice specialists (flight surgeon), aerospace medicine physician, and preventive medicine specialist. Included in this field are the responsibilities for determination of physical and mental fitness of personnel for flying and for prevention, diagnosis, and treatment of diseases, disorders, and injuries peculiar to flight. This field also includes responsibilities for the development of plans and procedures covering the medical aspects of defense against nuclear, biological, and chemical warfare. Officers in this field command medical installations, units, or activities as stated in AFI 51-604, *Appointments to, and Assumption of, Command*.

AFSC 48A4, Staff
 AFSC 48A3, Qualified
 AFSC 48A1, Entry

AEROSPACE MEDICINE SPECIALIST

1. Specialty Summary. Develops and administers the aerospace medicine program; supervises, conducts medical examinations, and provides medical care for flyers, missile crews, and others with special standards of medical qualification. Directs evaluations of living and working environments within the Air Force community to detect and control health hazards and prevent disease and injury. Related DoD Occupational Group: 260123.

2. Duties and Responsibilities:

2.1. Supervises aerospace medicine program. Develops policies and procedures and prepares directives governing flight medicine, physical exams and standards, preventive medicine, and occupational medicine. Serves as the principal liaison with federal, state, and local agencies in matters related to aerospace medicine, preventive medicine, and occupational medicine. Establishes medical standards for flying and special operational personnel. Makes determinations on waivers of medical standards. Develops and directs training programs for aeromedical personnel.

2.2. Directs preventive medicine activities. Directs health education and control measures for preventable diseases and injuries. Assesses living and work environments to ensure healthy communities. Develops and implements research projects to control communicable and preventable diseases. Directs health promotion and fitness programs. Provides guidance on nutrition, food service sanitation, water supply safety, sewage and waste disposal, immunizations, and other community health issues. Conducts or provides consultation for disease outbreak investigations and health services research.

2.3. Advises medical staff. Advises and educates medical and dental staff on treatment of flying and special operational personnel and preparation of patients for aeromedical evacuation. Provides medical oversight and guidance to bioenvironmental engineering, military public health, physiological training, and organizations. Provides epidemiological expertise for population-based services and evidence-based medical practice.

2.4. Directs occupational medicine support. Evaluate, assess, and fully characterize aerospace worker health in relation to aerospace operations, including selection and retention standards to maximize the ability to perform safely and efficiently. Determines frequency and scope of occupational medicine exams required by federal regulations and workplace exposures. Conducts and supervises placement and periodic health exams for employees. Establishes procedures to identify occupational hazards, to notify appropriate agencies of occupational diseases or injuries, and to investigate job related injuries or illness.

2.5. Directs flight medicine or physical examination section program. Examines personnel to determine fitness for flying and special duty, or to recommend continuance, removal, or return to flying status and aviation service.

2.6. Provides primary medical care for flyers and their families, to include preventive medicine, counseling, and family support unit. Manages disorders and injuries unique to flight. Serves as liaison between flying squadrons and other medical services. Provides aeromedical consultation to commanders at all levels.

2.7. Directs medical support to operational mission. Regularly participates in the flying mission. In-flight duties include evaluation of aircrew, aircraft, environment, and mission to provide feedback and guidance to line and medical staff. Develops and manages a mission-oriented preventive medicine program. Fully characterizes the operational environment as it relates to health and performance, providing recommendations to decrease risk, prevent mishaps, increase health, and enhance performance. Integrates medical and aviation knowledge to identify aeromedical research needs. Establishes policies and procedures for aircraft mishap and disaster response and managing casualties in aviation accidents and other disasters. Provides advice on air rescue and aeromedical evacuation. Serves on aircraft mishap investigation boards. Develops the aeromedical component of flying safety performance enhancement programs.

2.8. Directs medical support of contingency operations. Directs the planning and implementation of medical prevention, intervention and evacuation during contingency operations. Applies medical intelligence and uses available intelligence to optimize the effectiveness of deploying forces.

2.9. Functions as the advocate for the human operator in aerospace weapon systems. Fosters the identification of science, technology, and engineering needs and solutions. Directs the insertion of these needs and solution concepts into mission area and mission support plans to improve operator performance and mission capability.

3. Specialty Qualifications:

- 3.1. Knowledge. Fulfillment of education and experience requirements satisfies this requirement.
- 3.2. Education. For entry into this specialty, it is mandatory to possess a doctor of medicine degree or a doctor of osteopathy degree from an approved school of medicine or osteopathy, a Master's degree or equivalent in public health, and completion of a residency in a clinical specialty at a hospital acceptable to the Surgeon General, HQ USAF.
- 3.3. Training. For award of AFSC 48A1, completion of a primary course in aerospace medicine and an approved residency in aerospace medicine is mandatory.
- 3.4. Experience. For award of AFSC 48A3, a minimum of 12 months of experience as a flight surgeon is mandatory.
- 3.5. Other. The following is mandatory as indicated:
 - 3.5.1. For award of AFSC 48A3, it is mandatory to possess an aeronautical rating of Flight Surgeon, Senior Flight Surgeon, or Chief Flight Surgeon.
 - 3.5.2. For award of AFSC 48A3, it is mandatory to be board eligible in Aerospace Medicine.

AFSC 48G4 Staff
 AFSC 48G3 Qualified
 AFSC 48G1 Entry

GENERAL MEDICAL OFFICER (GMO), FLIGHT SURGEON
(Changed 30 Apr 13, Effective 26 Nov 12)

1. Specialty Summary. Administers the Aerospace Medicine Program; conducts medical examinations and provides medical care for flyers, missile crews, and others with special standards of medical qualification. Evaluates living and working environments to detect and control health hazards and prevent disease and injury within the Air Force community. Related DoD Occupational Group: 260101.

2. Duties and Responsibilities:

2.1. Provides aerospace medicine support. Implements policies and procedures and prepares directives governing flight medicine, preventive medicine, and occupational medicine. Serves as liaison with federal, state, and local agencies in matters related to aerospace medicine, preventive medicine, and occupational medicine. Follows medical standards for flying and special operational personnel and submits recommendations on waivers of medical standards. Develops programs to ensure a fit force for worldwide deployments. Participates in training programs for aeromedical personnel.

2.2. Provides preventive medicine support. Directs health education and control measures for preventable diseases and injuries. Determines adequacy of living and work environments. Conducts health promotion and fitness programs. Provides advice on nutrition, food service, sanitation, water supply, safety, sewage and waste disposal, immunizations, and health education.

2.3. Advises medical staff. Advises medical and dental staff on treatment of flying and special operational personnel and preparation of patients for aeromedical evacuation. Provides medical advice and guidance to bioenvironmental engineering, military public health, physiological training, and organizations.

2.4. Provides occupational medicine support. Participates in the process of determining frequency and scope of occupational medicine exams required by federal regulations and workplace exposures. Conducts and supervises placement and periodic health exams for employees. Identifies occupational hazards and notifies appropriate agencies of occupational diseases and job related injuries or illness.

2.5. Conducts medical examinations of personnel with special standards of medical care. Examines personnel to determine fitness for flying and special duties, or to recommend continuance, removal, or return to flying status and aviation service.

2.6. Provides and organizes medical care for flyers and special operational personnel and their families, to include preventive medicine, counseling, and family unit support. Manages disorders and injuries unique to flying operations. Serves as liaison between flying squadrons and medical services.

2.7. Provides medical support to operational mission and serves as staff advisor to flying squadron commander. Regularly participates in flying mission. Inflight duties include evaluation of aircrew, aircraft, environment, and mission to provide feedback and guidance to line and medical staff. Develops and manages an aggressive preventive medicine program, including education of flying and special operational personnel in healthy life styles. Establishes procedures for aircraft mishap and disaster response, and managing casualties in aviation accidents and other disasters. Provides advice on air rescue and aeromedical evacuation. Serves on aircraft mishap investigation boards. Participates in flying safety and aircrew enhancement programs.

2.8. Provides medical support during contingency operations. Conducts medical prevention, intervention, and evacuation activities during contingency operations. Gathers and utilizes medical intelligence to provide optimal medical support to deployed forces.

3. Specialty Qualifications:

3.1. Knowledge. Fulfillment of education and experience requirements satisfies this requirement.

3.2. Education. For entry into this specialty, it is mandatory to possess a doctor of medicine degree or a doctor of osteopathy degree from an approved school of medicine or osteopathy, and complete 1 year of graduate medical education in a training program fully accredited by a recognized national accrediting agency acceptable to the Surgeon General, HQ USAF.

3.3. Training. For award of AFSC 48G1, completion of a primary course in aerospace medicine is mandatory IAW AFI 48-149, *Flight and Operational Medicine Program (FOMP)* as outlined in Initial Qualification Training (IQT).

3.4. Experience. For award of AFSC 48G3, designated Fully Mission Capable (FMC) IAW AFI 48-149 as outlined in Mission Qualification Training (MQT).

3.5. Other. For award of AFSC 48G3, the following are mandatory as indicated:

3.5.1. Possess an aeronautical rating of Flight Surgeon, Senior Flight Surgeon, or Chief Flight Surgeon.

3.5.2. MTF/SGP certification and MAJCOM/SGP approval.

AFSC 48R4, Staff
 AFSC 48R3, Qualified
 AFSC 48R1, Entry

RESIDENCY TRAINED FLIGHT SURGEON **(Changed 30 Apr 13, Effective 26 Nov 12)**

1. Specialty Summary. Administers the aerospace medicine program; conducts medical examinations and provides medical care for flyers, missile crews, and others with special standards of medical qualification. Evaluates living and working environments to detect and control health hazards and prevent disease and injury within the Air Force community. Related DoD Occupational Group: 260101.

2. Duties and Responsibilities:

2.1. Provides aerospace medicine support. Implements policies and procedures and prepares directives governing flight medicine, preventive medicine, and occupational medicine. Serves as liaison with federal, state, and local agencies in matters related to aerospace medicine, preventive medicine, and occupational medicine. Follows medical standards for flying and special operational personnel and submits recommendations on waivers of medical standards. Develops programs to ensure a fit force for worldwide deployments. Participates in training programs for aeromedical personnel.

2.2. Provides preventive medicine support. Directs health education and control measures for preventable diseases and injuries. Determines adequacy of living and work environments. Conducts health promotion and fitness programs. Provides advice on nutrition, food service sanitation, water supply safety, sewage and waste disposal, immunizations, and health education. Conducts or provides consultation for disease outbreak investigations and health services research.

2.3. Advises medical staff. Advises medical and dental staff on treatment of flying and special operational personnel and preparation of patients for aeromedical evacuation. Provides medical advice and guidance to bioenvironmental engineering, public health, physiological training, and other organizations. Provides epidemiological expertise for population-based health services and evidence-based medical practice.

2.4. Provides occupational medicine support. Participates in the process of determining frequency and scope of occupational medicine exams required by federal regulations and workplace exposures. Conducts and supervises placement and periodic health exams for employees. Identifies occupational hazards, notifies appropriate agencies of occupational diseases, and job related injuries or illnesses.

2.5. Conducts medical examinations of personnel with special standards of medical care. Examines personnel to determine fitness for flying and special duties, or to recommend continuance, removal, or return to flying status and aviation service.

2.6. Provides and organizes medical care for flyers and special operational personnel and their families, to include preventive medicine, counseling, and family unit support. Manages disorders and injuries unique to flying operations. Provides specialty consultation to aeromedical staff. Serves as liaison between flying squadrons and medical services. Provides continuing comprehensive health maintenance and medical care to entire family regardless of sex, age, or type of problem. Directs outpatient and inpatient care and service.

2.7. Provides medical support to operational mission and serves as staff advisor to flying squadron commander. Regularly participates in the flying mission. Inflight duties include evaluation of aircrew, aircraft, environment, and mission to provide feedback and guidance to line and medical staff. Develops and manages an aggressive preventive medicine program, including education of flying and special operational personnel in healthy life styles. Establishes procedures for aircraft mishap and disaster response, and managing casualties in aviation accidents and other disasters. Provides advice on air rescue and aeromedical evacuation. Serves on aircraft mishap investigation boards. Participates in flying safety and aircrew performance enhancement programs.

2.8. Provides medical support during contingency operations. Conducts medical prevention, intervention and evacuation activities during contingency operations. Gathers and utilizes medical intelligence to provide optimal medical support to deployed forces. Develops support mechanisms for family members of deployed personnel. Integrates their primary medical specialty with an understanding of aviation and contingency medicine to identify research needs in support of Air Force operations.

3. Specialty Qualifications:

3.1. Knowledge. Fulfillment of education and experience requirements satisfies this requirement.

3.2. Education. For entry into this specialty, it is mandatory to possess a doctor of medicine degree or a doctor of osteopathy degree from an approved school of medicine or osteopathy.

3.3. Training. The following are mandatory as indicated:

3.3.1. For award of AFSC 48R1, completion of a primary course in aerospace medicine IAW AFI 48-149, *Flight and Operational Medicine Program (FOMP)* as outlined in Initial Qualification Training (IQT).

3.3.2. Completion of a residency (other than the USAFSAM Residency in Aerospace Medicine) at a residency training program fully accredited by a recognized national accrediting agency acceptable to the Surgeon General, HQ USAF.

3.4. Experience. For award of AFSC 48R3, designated Fully Mission Capable (FMC) IAW AFI 48-149 as outlined in Mission Qualification Training (MQT).

3.5. Other. For award of AFSC 48R3 the following are mandatory as indicated:

3.5.1. Possess an aeronautical rating of Flight Surgeon, Senior Flight Surgeon, or Chief Flight Surgeon.

3.5.2. MTF/SGP certification and MAJCOM/SGP approval.

AFSC 48V4, Staff
 AFSC 48V3, Qualified
 AFSC 48V1, Entry

PILOT-PHYSICIAN

1. Specialty Summary. Performs functions of the aerospace medicine physician as well as integrated functions of a dual-rated pilot-physician in the aerospace system. Residency trained pilot-physicians may also function as specialists. Provides expert guidance from operational and medical experiences and training as a pilot. Conducts research on aerospace systems, missions, and crews. Provides operational relevance to researchers. Serves as a full time consultant during the design, testing, manufacture, and operational implementation of new aerospace systems and subsystems. Recommends deployment and employment strategies of aerospace resources to line and medical commanders to optimize deployment and employment of aerospace resources. Conducts aeromedical and aviation training for line and medical personnel. Administers aerospace medicine program. Related DoD Occupational Group: 260101.

2. Duties and Responsibilities:

- 2.1. Plans and prepares flying mission. Pilots aircraft and commands crew.
- 2.2. Conducts research on aerospace systems and subsystems to optimize their function and safety. Publishes findings. Consultant to other researchers. Provides operational insight and relevance to research.
- 2.3. Serves as a consultant to line and medical commanders on aerospace medicine support, integrated limits of the man-machine system, and human performance factors and medical aspects of the operational employment of aerospace systems.
- 2.4. Serves as a member of the design team for items related to human performance optimization and limits during the development of new aerospace systems, including cockpit layout, anthropometrics, aircraft and human performance capabilities, chemical-biological warfare considerations, systems design and automation, and stores design and delivery tactics.
- 2.5. Provides operational issues training to medical service personnel. Provides medical issues training to operators, including spatial disorientation, nutrition, fatigue, illusions, and other limits of human performance. Provides advice to optimize crew members' abilities to accomplish USAF missions. Actively mentors aerospace medicine personnel at all levels.
- 2.6. Provides critical inputs to Air Force science and technology needs to enhance war fighter performance. Supports the human weapon system concept through advancement of operator performance enhancement and sustainment.
- 2.7. Provides aerospace, occupational, and preventive medicine support. Advises medical staff. Conducts medical examinations of personnel with special standards of medical care. Provides primary medical care for flyers and their families, and obtains medical consultations. Provides medical support to operational mission and serves as staff advisor to flying squadron commanders. Provides medical support during contingency operations.

3. Specialty Qualifications:

- 3.1. Knowledge. Fulfillment of education, training, and other requirements satisfies this requirement.
- 3.2. Education. For entry into this specialty, it is mandatory to possess a doctor of medicine degree or a doctor of osteopathy degree from an approved school of medicine or osteopathy and successfully complete 1 year of graduate medical education in a clinical specialty at a hospital acceptable to the Surgeon General, HQ USAF.
- 3.3. Training. Not used.
- 3.4. Experience. For award of AFSC 48V3, the following are mandatory:
 - 3.4.1. Successfully pass a check ride in a USAF aircraft system as a pilot.
 - 3.4.2. Upgrade to qualified must be approved by the pilot-physician program manager.
- 3.5. Other. For entry into this specialty and award of AFSC 48V1, the following are mandatory:
 - 3.5.1. Possess USAF aeronautical ratings of Flight Surgeon, Senior Flight Surgeon, or Chief Flight Surgeon and Pilot, Senior Pilot, or Command Pilot.
 - 3.5.2. Minimum of 3 years and 500 hours of operational flying experience.
 - 3.5.3. Must be selected by the pilot-physician selection board according to the provisions of AFI 11-405, *Pilot Physician Program*.