

**BY ORDER OF THE COMMANDER
AIR EDUCATION AND TRAINING
COMMAND**

**AIR EDUCATION AND TRAINING
COMMAND INSTRUCTION 48-102**

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Aerospace Medicine

***MEDICAL MANAGEMENT OF
UNDERGRADUATE FLYING TRAINING
STUDENTS***



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This instruction implements AFPD 48-1, *Aerospace Medicine Enterprise*. It establishes procedures and assigns responsibility for the medical management of US and foreign personnel entered into undergraduate flying training (UFT) programs, including personnel undergoing the medical flight screening (MFS) program and the Security Assistance Training Program (SATP). It applies to all AETC units conducting undergraduate aircrew training for both officer and enlisted aircrew members. It does not apply to Air Force Reserve Command, Air National Guard, or medical units of other US Armed Services.

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SUMMARY OF CHANGES

This is a major revision and must be reviewed. The entire AETCI has been reorganized and edited for continuity. References to 19 AF have been removed. The section on airsickness management has been completely overhauled; medical hold is now referred to as training delay—medical, IAW AFI 41-210; administrative hold requirements have been streamlined.

Section A—Medical Standards and Certification Authorities

1. Air Force Instruction 48-123, *Medical Examination and Standards* (AFI 48-123) establishes the medical standards for all USAF undergraduate flying training programs.

1.1. All student aviators will be managed under the same administrative medical requirements for USAF student aviators (for example physiological training, airsickness management, sick-call procedures, and administrative hold procedures), except as noted in this AETCI. AF Form 1042, *Medical Recommendation for Flying or Special Operational Duty* will document medical grounding and clearance to fly recommendations.

2. Other US Armed Forces (or Joint Aviator Training).

2.1. All student aviators must meet the physical standards of their parent service, regardless of where training is conducted. Initial waivers of physical standards required prior to the start of training must be granted by the parent service. Students must arrive to AETC UFT locations with a certified physical examination, current by parent-service directives.

2.2. An initial clearance to fly, AF FORM 1042, will be issued following review of history/medical records and based on the parent service's physical examination and certification.

2.3. Physical examinations performed during the student tour of duty will be conducted in accordance with the administrative procedures of the USAF. The medical standards of the parent service will apply.

2.4. Any new or permanent disqualifying condition or defect discovered during the tour of duty will be submitted through AETC/SGP, to the parent-service waiver authority, and, if necessary, to AFMSA/SG3P for waiver determination.

3. Non-US Pilot Training Program Students.

3.1. Students will have evidence of a parent-nation medical exam and clearance in their health record, such as a North Atlantic Treaty Organization (NATO) medical statement. The USAF will accept preexisting conditions waived by the parent nation unless there is serious concern about health or safety.

3.2. An initial clearance to fly, AF FORM 1042 will be issued following review of history/medical records and based on the parent nation's physical examination and certification. Routine temporary medical groundings will be processed in the same manner as for USAF students and as noted in this AETCI (see 3.4).

3.3. Physical examinations performed during the tour of duty will be conducted in accordance with the administrative procedures of the USAF. The medical standards of the parent nation shall apply.

3.4. For non-US students, the local flight surgeon will coordinate medical disqualifications from flying training and groundings exceeding 30 days through AETC/SGP, who will coordinate with AFMSA/SG3PF and the appropriate parent-nation liaison at AETC/IA/AFSAT.

4. Security Assistance Training Program (SATP) Students.

4.1. Unless the student has been previously medically certified for FC I, IA or III, the 559 MDG/SGPF (DLI), JBSA Lackland AFB TX, will accomplish a FC I, IA or III medical examinations on each SATP student scheduled for UFT.

4.2. These examinations should be accomplished early in the language training period to permit review and certification by AETC/SGPS before the student goes to flying training. These examinations are valid for 48 months from the date they are certified.

Section B—Arrival to Flying Training and Initial Clearance

5. Clearance Authority. The base flight surgeon issues an initial clearance to fly AF FORM 1042 following normal findings, including non-US students with valid physicals and waivers from their home country.

6. Clearance Requirements. Students will arrive to AETC UFT locations with a current physical examination certified by the USAF (see AFI 48-123), the student's parent-service medical authority or the parent nation's medical authority. Local flight surgeons should coordinate any discrepancies with AETC/SGPS.

6.1. Each individual reporting to Medical Flight Screening (MFS) should possess a current FC I/II medical examination. Exception will be those students scheduled to obtain their FC I/II examination at United States Air Force School of Aerospace Medicine (USAFSAM) in conjunction with MFS.

6.2. USAF students inprocessing for UFT will have a current FC I, IA, II and/or III (as appropriate) medical examination on record. The examination must be current within 48 months prior to starting UFT. The student must have a current Preventive Health Assessment (PHA) in addition to the certified Initial Flying Class exam. An initial certification examination does not exempt active duty applicants from accomplishing their required PHA while awaiting training.

6.2.1. Those students attending Initial Flight Screening (IFS) must possess a valid Federal Aviation Administration (FAA) Third-Class medical certificate.

6.3. Specialized undergraduate pilot training (SUPT) and U.S. ENJJPT students must have a current, certified FC I examination on record, meet FC I standards for entry into SUPT or ENJJPT at inprocessing, and pass the MFS examination at USAFSAM.

6.3.1. Each student will obtain a PHA FC I physical examination prior to beginning active flying in SUPT.

6.4. Undergraduate Combat System Officer Training (UCT) students must have a current, certified FC I or IA examination on record and meet FC IA medical standards prior to beginning active flying in UCT.

6.5. Remotely Piloted Aircraft (RPA) pilot students must have a current, certified FC II examination on record and meet FC II medical standards prior to beginning active flying in RPA training. RPA students must pass the appropriate MFS examination at USAFSAM.

6.6. Career Enlisted Aviator (CEA) students must have a current, certified FC III examination on record and meet FC III medical standards prior to beginning active flying training.

7. Operational Medication Ground Testing Program. All USAF UFT students will undergo approved medication ground testing per USAF/SG. For protocols and documentation requirements, reference AFI 48-149, *Flight and Operational Medicine program*, and Official Air Force Aerospace Medicine Approved Medications Guide.

8. PHA. All USAF and non-US active duty members will have an annual PHA accomplished IAW AFI 44-170, *Preventive Health Assessment* and AFI 48-123.

Section C—Grounding Management of Flying Training Students

9. Grounding Management. All joint and non-US student aviators will be managed under the same administrative medical requirements for USAF student aviators. AF FORM 1042 will document medical grounding (duty not including flying or DNIF) and clearance to fly recommendations.

9.1. The local flight surgeon will manage all short-term medical groundings up to 30 days via standard AF programmatic guidance.

9.2. All student groundings should be promptly and carefully coordinated with the instructor cadre and squadron leadership.

10. Training Delay—Medical.

10.1. Students will be placed in Training Delay—Medical (TDM) status only when their medical condition does not resolve after 30 days. TDM status in such cases is effective on the 31st day of DNIF. Coordination between local SGP and line leadership is critical.

10.2. Students with remedial or temporarily medically disqualifying conditions may be kept in TDM status up to 3 months. Refer to AETCI 36-2205, Vol 1, *Formal Flying Training Administration and Management*, for administrative procedures for delays greater than 3 months.

10.3. Students who must remain in TDM status for periods greater than 6 months up to 12 months must be approved IAW AETCI 36-2205, Vol 1. Use AIMWTS to disqualify students who are permanently removed from training for medical reasons, or to request a waiver if needed prior to returning to UFT.

11. Medical Requirements before Graduating from UFT. Local Base SGP will establish procedures to ensure students complete all medical requirements for currency before they depart the UFT base. Graduated students should not depart a UFT base in a medically disqualified status unless there has been coordination with receiving base SGP and AETC/SGP.

Section D—Special Considerations

12. Visual Acuity Problems. Rule out progressive ocular pathology on students whose visual acuity and refraction is significantly changed from the previous examination or found to exceed flying class standards.

12.1. If a student's vision and refraction are confirmed to be within flying class standards without progressive ocular pathology, qualify the student locally for flying duty and continuation of training.

12.2. Submit students whose vision and refraction exceed flying class standards, or who have an aeromedically significant vision problem, to AETC/SGP for medical review and disposition.

12.3. Vision screening information will not invalidate prior vision waivers or exceptions to policy, but will be used to provide students with appropriate corrective lenses before initiation of the flying phase of training, unless a new vision condition is noted.

12.4. Order aviator lenses for students with substandard visual acuity needing correction under the "downed pilot" priority category using the Department of Defense (DoD) optical fabrication laboratory's Spectacle Request and Transmission System (SRTS). The SRTS can provide same-day processing and ship back to the requesting location in 24-48 hours. At the discretion of the medical treatment facility (MTF) commander, one pair of lenses may be purchased locally to reduce the DNIF time. Use local civilian procurement as the last alternative. MTFs must ensure these lenses meet current Air Force safety standards. Individuals who have had substantial deterioration of their visual acuity since their Flying Class I examination will be fully re-evaluated to rule out underlying pathology.

13. Contact Lens Use. UFT students are authorized to use soft contact lenses in accordance with AFI 48-123, if the following criteria are met:

13.1. Students must be experienced with approved lenses in order to qualify for use of soft contact lenses. An "experienced" user is defined as someone who has worn approved contact lenses problem-free for at least 6 months. Use of soft contact lenses in UFT will be voluntary.

13.2. Pilot candidates are not authorized to wear contact lenses within 30 days prior to reporting to the MFS.

14. Pregnancy. Aerospace medicine physicians must brief each incoming female student on the consequences pregnancy would have on her flying training.

15. airsickness (Does not apply to IFS/RFS).

15.1. airsickness is an active (vomiting) or significant passive (disabling or disruptive nausea) maladaptive coping response to specific environmental conditions that can differ from individual to individual. In most cases, airsickness is of brief duration and is related to multi-axial accelerations, pulling Gs, and unfamiliar factors (looking for new landmarks, new flight patterns, new flight profiles, spatial disorientation, etc.). airsickness is a common problem for student fliers, and it often interferes with progression through UFT. Most students adjust to the flying environment quickly, but others require help to overcome airsickness. Recommendations to help students prevent and manage airsickness include early

intervention with education, training, and, if necessary, pharmacological and physiologic therapy.

15.2. The Airsickness Management Program (AMP) provides Team Aerospace with the necessary tools to aggressively manage airsickness in UFT students. Timely, coordinated efforts between the flight surgeon, aerospace physiologist, and flying supervisors are vital to the success of this program. The goal is to restore the student's confidence and thereby his/her ability to continue training, using any or all methods at the team's disposal. Additional administrative guidance pertinent to the management of airsickness is found in the appropriate volume of AETCI 36-2205, Vol 1. The airsickness management program will be reviewed in the weekly Flight Medicine Working Group, or other appropriate forum. Send a copy of your AMP worksheet to AETC/SGP monthly.

15.2.1. During the academic phase of training, a flight surgeon, aerospace physiologist, or an aerospace physiology technician (under the supervision of a flight surgeon or aerospace physiologist), will brief UFT students on airsickness before they participate in flight or simulator training. This briefing will cover the provisions of AETCI 36-2205, Vol 1, as well as the causes of airsickness, and provide details on strategies to prevent, manage, and treat airsickness.

15.2.2. At the first episode of airsickness, the flight surgeon should perform a thorough medical evaluation. If no underlying medical cause is found, determine if the proper preventive measures learned in the academic phase were followed. Review all academic phase resources, if necessary. Consider early pharmacological intervention in situations where a student's prior history of air or motion sickness is identified, or where he or she manifests unusually high anxiety levels not believed to be associated with manifestation of apprehension (MOA). Refer to the most recent *Official Air Force Aerospace Medicine Approved Medications* guide for approved treatment options. Pharmacological therapy is given 1 to 2 hours prior to flight for three consecutive flights. Refer to the appropriate volume of AETCI 36-2205, Vol 1 for guidance on which flights medical therapy is authorized.

15.2.3. UFT students who continue to be airsick will receive progressive relaxation training and may continue or begin pharmacologic therapy at the discretion of the flight surgeon. If a student gets airsick while on medication, ground-test the student with the medication prior to the next flight to rule out the potential for medication-induced nausea. At each base, available qualified personnel will teach relaxation training by demonstrating breathing techniques, providing biofeedback, and using imagery skills. Personnel may use personal instruction and/or audiovisual media to accomplish this training.

15.2.4. After three or more airsickness episodes, students should receive physiologic adaptation with the Barany chair IAW AFI 11-403, *Aerospace Physiological Training Program*, and any local OIs. A refresher spin in the Barany chair is recommended with any additional airsickness episode. If for any reason a student has missed several days of flying, a refresher spin should be given prior to flying. Concurrently, flight surgeons should begin to examine the student's motivation to continue training. This may require frank discussions with instructors and squadron leadership. Individuals who maintain safe aircraft control during active or passive episodes of airsickness without the need for

IP intervention should be assessed as having high motivation and generally encouraged to continue in training. Consider involving mental health to evaluate for MOA as indicated.

15.2.5. For UPT students, the use of medication to treat airsickness is prohibited beginning five sorties prior to their initial T-6A solo sortie and remains so until graduation. Treatment is limited to psychological and physiologic interventions. For other UFT students, close collaboration between the flight surgeon and the student's instructors/supervisors will determine a course of action and what constitutes a reasonable trial of interventions and failure of the program.

15.2.6. Student aviators who relapse after successful adaptation due to a period away from flying (DNIF, emergency leave, etc.), should continue in training with the expectation that re-adaptation will occur more rapidly the second time.

15.2.7. Students with refractory airsickness should be eliminated from flying training administratively for lack of adaptability (See [Paragraph 20](#)). Student aviators with persistent airsickness need not be eliminated for airsickness alone unless it prevents the aviator from satisfactorily accomplishing his or her duties, or is associated with an MOA or some organic or psychiatric cause.

16. G-Intolerance. Students experiencing recurring difficulties meeting training objectives due to the effects of G forces will be evaluated jointly by the flight surgeon, aerospace physiologist, and flying squadron supervisors. The student will be placed in DNIF status during the evaluation. If a medical condition is suspected of diminishing the student's G-tolerance or G-endurance, a medical waiver will be required for continued flying duties. A healthy student unable to perform satisfactorily under G forces despite appropriate physical strength training and repeat centrifuge training will be handled administratively.

17. Ejection Seats. A student whose weight is not within ejection seat weight standards will be placed on DNIF status and evaluated to rule out underlying medical conditions. Unless the condition is secondary to a medical problem, refer students to their squadron commander for appropriate administrative action until their weight is corrected.

Section E—Elimination From UFT Programs

18. Overview. Categories under which students may be withdrawn from UFT programs are listed in AETCI 36-2205, Vol 1. Medical disenrollment takes precedence over the other categories. Paragraphs 19 through 22 provide further information about student elimination.

19. Medical Deficiency (Does not apply to IFS/RFS).

19.1. Thoroughly evaluate any medical condition that renders a student incapable of meeting training requirements and standards. Prepare a current Aeromedical summary via the Aeromedical Information Management Waiver Tracking System (AIMWTS) that addresses the medical condition and recommends waiver or disqualification.

19.2. Withhold disenrollment action for medical deficiency until AETC/SGP certifies the medical disqualification. Additionally, AETC/SGP will determine medical qualification for other flying classes.

19.3. Following receipt of the certified Aeromedical summary, complete an AF Form 422, *Notification of Air Force Member's Qualification Status*. Record the student's status,

whether he or she is qualified for further aircrew training, and note any other medical restrictions. Send the AF Form 422 and a copy of the certified AF Form 1042 to the student's squadron for completion of the disenrollment action.

19.4. Do not medically eliminate non-US students without decertification from their parent country. Send AETC/SGP a copy of all pertinent information for coordination. Discuss questionable cases with the parent country's flying liaison officer and AETC/SGP. When a question arises regarding a non-US student's capability to fly safely, the student may be temporarily grounded pending medical evaluation.

20. Lack of Adaptability.

20.1. Persistent airsickness. A UFT student who does not exhibit an ability to adapt to the aviation environment due to active airsickness prior to initial flight solo (SUPT and ENJJPT), prior to the student's eleventh T-6A sortie (UCT), or initial checkride (CEA) should be eliminated administratively for lack of adaptability unless an organic or psychiatric etiology requires medical disqualification.

20.2. Fear of flying. UFT students with a stated fear of flying must meet DSM criteria for phobia to be medically disqualified. Fear of flying is considered a lack of adaptability unless an organic or psychiatric etiology requires a medical disqualification action.

21. Manifestations of Apprehension (Does not apply to IFS).

21.1. MOA is defined as a state of psychological anxiety, apprehension, and/or physical impairment. A student may exhibit MOA through tension, anxiety, loss of appetite, sleeplessness, vague medical complaints, or airsickness.

21.2. The flight surgeon will interview a student with suspected MOA. In the absence of an underlying medical or psychiatric condition, the student's suitability for flying duty becomes an operational decision made by the line commander.

22. Procedures for Other Flying Training Disenrollments.

22.1. A flight surgeon will evaluate each student recommended for non-medical flying training disenrollment to ensure there are no medical contraindications for continued flying training. A student must be medically qualified for flying duty at the time of any nonmedical disenrollment.

22.2. If the student under review is on a medical waiver or is a member of an Aeromedical Consultation Service study group, the reviewing flight surgeon will notify AETC/SGP by memorandum after the student is disenrolled.

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

AFPD 48-1, *Aerospace Medicine Enterprise*, 23 August 2011
AFI 48-123, *Medical Examination and Standards*, 19 July 2012
AFI 48-149, *Flight and Operational Medicine Program*, 29 August 2012
AFI 11-403, *Aerospace Physiological Training Program*, 30 November 2012
AETCI 36-2205, Vol 1, *Flying Training Administration and Management*, 29 May 2009
AFMAN 33-363, *Management of Records*, 1 March 2008

Prescribed Forms

None.

Adopted Forms

Standard Form 600, *Medical Record – Chronological Record of Medical Care*
DD Form 2807-1, *Report of Medical History*
DD Form 2808, *Report of Medical Examination*
AF Form 422, *Notification of Air Force Member's Qualification Status*
AF Form 1042, *Medical Recommendation for Flying or Special Operational Duty*

Abbreviations and Acronyms

AETC/SGP—Chief, Aerospace Medicine
AETC/SGPS—Chief, Medical Standards Branch
AIMWTS—Aeromedical Information Management Waiver Tracking System
AMP—Airsickness Management Program
CEA—Career Enlisted Aviator
CSO—Combat Systems Operator
DNIF—duty not including flying
DSM—Diagnostic and Statistical Manual of Mental Disorders
ENJJPT—Euro-NATO joint jet pilot training program
FMWG—Flight Medicine Working Group
HIPAA—Health Insurance Portability and Accountability Act of 1996
IP—instructor pilot
IFS—Initial Flight Screening
MFS—Medical Flight Screening

MOA—manifestation of apprehension

PHA—preventive health assessment

RFS—RPA initial Flight Screening

SATP—Security Assistance Training Program

SUPT—Specialized Undergraduate Pilot Training

TDM—Training Delay—Medical

UCT—Undergraduate Combat Systems Officer Training

UFT—Undergraduate Flying Training