

Aeromedical Technical Bulletin

Department of the Army Civilian (DAC) and Civilian Contract Air Traffic Controller (ATC) Medical Examination Qualification Standards

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AEROMEDICAL CONCERNS: The duties of an ATC require a certain level of health status or fitness based on the nature of the position- duties involving a high degree of responsibility toward the public in view of their control of aircraft at and in the vicinity of military and civilian airfields.

GENERAL: This aeromedical technical bulletin will serve a guide for the conduct of the Air Traffic Controller Medical Examination (ATCME for DAC and Civilian Contract ATCs. The ATCME may be completed by a flight surgeon or aeromedical physicians assistant (APA) from any branch of military service and will be completed annually for all DAC/Civilian contract ATC. Per reference 3 listed below, medical standards for DAC and contract civilians are outlined in the OPM manual.

This ATB implements the occupational health standards for DAC/Civilian ATCs as outlined by the Office of Personnel Management (OPM). Current OPM standards address both application and retention for ATCs. These standards do not provide any specific means to apply those standards nor do they outline any process to waiver medical conditions or continued medical treatment for continued safe execution of ATC duties. Aeromedical Summaries (AMS) and waiver requests for those conditions not meeting current application or retention standards will be processed per current USAAMA policy. Review of cases requiring waiver from the OPM standards involving DAC or civilian contract ATCs will include consideration of the very low likelihood of deployment to austere environments or stationing away from regular medical care. These AMS/ waiver requests will be prepared, submitted and processed as outlined in AR 40-501 and the Flight Surgeon Administrative Guide. Aeromedical Policy letters will serve as guides for evaluation of these conditions but evaluation as completed by the DAC/Civilian Contract ATCs regular health care providers may be used by the FS/APA to complete the aeromedical summary for waiver.

FAA PHYSICALS: FAA physicals for either category of ATC are not required by DA or the FAA and will not be accepted by the United States Army Aeromedical Activity (USAAMA) as certification of medical fitness. Any DAC or Civilian contract ATC who pursues a FAA certificate does so at their own expense unless specifically covered by their contract.

DA FORM 4186 (Upslip): A DA Form 4186, Medical Recommendation for Flying Duty, signed by a flight surgeon of any military service must be completed as part of the ATCME and serves as a recommendation to the local airfield commander of the individual's medical fitness for execution of ATC duties. A FAA examination or certificate for DAC or civilian ATCs will not be accepted or processed by USAAMA for this requirement. Flight surgeons

will not accept an FAA physical or issue DA Form 4186 based on presentation of an FAA examination or certificate. Failure to comply with the annual requirement for an ATCME or current, valid DA Form 4186 may result in medical disqualification.

ATC Medical Examinations :There are two broad categories of ATCME. They are:

1. **Initial ATCME**—Performed for initial employment purposes. They are valid for up to 18 months from the date of examination.
2. **Retention ATCME**—Performed on ATC once already trained or in service. This is performed for re-certification for DAC and civilian ATC on an annual basis. It is generally valid for 12 months and is synchronized with the ATC’s birth month.

For birth month alignment of the ATCME, see the Flight Surgeon Administrative Guide.

FORMS: The initial and retention ATCMEs are performed on DD Forms 2807-1 and 2808. The ATCME may be submitted in hard copy or electronically to USAAMA using the EFSO.

OPM Standards : *The text below is extracted verbatim from Section IV-B of the Operating Manual for Qualification Standards for General Schedule Positions (p.IV-B-272)*

<http://www.opm.gov/qualifications/index.htm>

Initial Employment: Applicants for initial employment to air traffic control specialist positions must meet the following requirements. (Unless otherwise indicated, these requirements are identical for all specializations.)

A. *Eye*

1. *Visual Acuity*

- a. *Terminal and Center Positions*--Applicants must demonstrate distant and near vision of 20/20 or better (Snellen or equivalent) in each eye separately. If glasses or contact lenses are required, refractive error that exceeds plus or minus 5.50 diopters of spherical equivalent or plus or minus 3.00 diopters of cylinder is disqualifying. The use of orthokeratology or radial keratotomy methods is not acceptable for purposes of meeting this requirement. The use of contact lenses for the correction of near vision only or the use of bifocal contact lenses for the correction of near vision is unacceptable.
- b. *Flight Service Station Positions*--Applicants must demonstrate distant and near vision of 20/20 or better (Snellen or equivalent) in at least one eye. If glasses or contact lenses are required, a refractive error in at least one eye that exceeds plus or minus 8.00 diopters of spherical equivalent will necessitate an ophthalmological consultation to establish absence of ocular pathology that could interfere with visual function. The use of contact lenses for the correction of near vision only or the use of bifocal contact lenses for the correction of near vision is unacceptable.

Equivalentents in Near Visual Acuity Notations Standard Test Chart: 14/14
Snellen Metric: 0.50M
Jaeger: J-1
Metric: 6/6

2. *Color Vision*--For all specializations, applicants must demonstrate normal color vision.
 3. *Visual Fields*
 - a. *Terminal and Center Positions*--Applicants must demonstrate a normal central visual field, i.e, the field within 30 degrees of the fixation point, in each eye. They must also demonstrate a normal peripheral visual field, i.e., the field of vision beyond the central field that extends 140 degrees in the horizontal meridian and 100 degrees in the vertical meridian, in each eye.
 - b. *Flight Service Station Positions*--Applicants must demonstrate a normal central field of vision, i.e., the field within 30 degrees of the fixation point, in at least one eye.
 4. *Intraocular Pressure*--For all specializations, if tonometry reveals either intraocular pressure greater than 20 mm of mercury, or a difference of 5 or more mm of mercury intraocular pressure between the two eyes, ophthalmological consultation is required to rule out the presence of glaucoma. If a diagnosis of glaucoma is made, or if any medication is routinely required for control of intraocular tension, the applicant is disqualified.
 5. *Phorias*
 - a. *Terminal and Center Positions*--If an applicant demonstrates greater than 1-1/2 prism diopters of hyperphoria or greater than 10 prism diopters of esophoria or exophoria, evaluation by a qualified eye specialist is required. If this evaluation determines that bifoveal fixation and vergence-phoria relationships sufficient to prevent disruption of fusion under normal working conditions are not present, the applicant is disqualified.
 - b. *Flight Service Station Positions*--Applicants must demonstrate the absence of diplopia in the cardinal fields of gaze.
 6. *Eye Pathology*--For all specializations, if examination of either eye or adnexa reveals any form of glaucoma or cataract formation, uveitis, or any other acute or chronic pathological condition that would be likely to interfere with proper function or likely to progress to that degree, the applicant is disqualified.
 7. *Chronic Eye Disease*--For all specializations, an applicant with any chronic disease of either eye that may interfere with visual function is disqualified.
 8. *Ocular Motility*--For terminal and center specialist positions, applicants must demonstrate full extraocular motility.
 9. *History of Eye Surgery*--For all specializations, a history of ocular surgery requires ophthalmological consultation. If consultation indicates that the condition that necessitated surgery could interfere with the visual function necessary for performance as an air traffic control specialist, the applicant is disqualified. A history of radial keratotomy is disqualifying.
- B. *Ear, Nose, Throat, Mouth*
1. Examination must show no outer, middle, or inner ear disease, either acute or chronic, unilateral or bilateral.
 2. Examination must show no active disease of either mastoid.
 3. Examination must show no unhealed perforation of either eardrum.
 4. Examination must show no deformity of either outer ear that might interfere with the use of headphones of the applied or semi-inserted type.

5. Examination must show no disease or deformity of the hard palate, soft palate, or tongue that interferes with enunciation. The applicant must demonstrate clearly understandable speech, and an absence of stuttering or stammering.
6. Applicants must demonstrate, by audiometry, no hearing loss in either ear of more than 25 decibels in the 500, 1000, or 2000 Hz ranges and must demonstrate no hearing loss in these ranges of more than 20 decibels in the better ear, using ISO (1964) or ANSI (1969) standards. Hearing loss in either ear of more than 40 decibels in the 4000 Hz range may necessitate an otological consultation. Incipient disease processes that may lead to early hearing loss will be cause for disqualification.

C. *Cardiovascular*

1. No medical history of any form of heart disease. Must demonstrate absence of heart disease to clinical examination, including resting and post-exercise electrocardiogram.
2. Blood pressure levels no greater than the appropriate values as shown below:

<i>Age</i>	<i>Maximum Reclining Blood Pressure</i>	
	<i>Systolic</i>	<i>Diastolic</i>
20 to 29	140	90
30 to 39	150	90
40 to 49	150	100
50 & over	160	100

3. Must demonstrate to X-ray no evidence of increase in heart size beyond normal limits.
4. An applicant under any form of treatment for any disease of the cardiovascular system is disqualified.

D. *Neurological*

1. No medical history or clinical diagnosis of a convulsive disorder.
2. No medical history or clinical diagnosis of a disturbance of consciousness without satisfactory medical explanation of the cause.
3. No other disease of the nervous system that would constitute a hazard to safety in the air traffic control system.
4. An applicant under any form of treatment, including preventive treatment, of any disease of the nervous system, is disqualified.

E. *Musculoskeletal*

1. No deformity of spine or limbs of sufficient degree to interfere with satisfactory and safe performance of duty. Certain limitations of range of motion may be acceptable for certain specific options or positions, in which case acceptance of limitations will be noted specifically for that position or option only.
2. No absence of any extremity or digit or any portion thereof sufficient to interfere with the requirements for locomotion and manual dexterity of the position being sought. Acceptance of limitations for employment for a specific option or position will be noted for that option or position only.
3. No condition that predisposes to fatigue or discomfort induced by long periods of standing or sitting.

F. *General Medical*

1. No medical history or clinical diagnosis of diabetes mellitus.
2. Must possess such a body build as not to interfere with sitting in an ordinary office armchair.
3. Must have no other organic, functional, or structural disease, defect, or limitation found to indicate clinically a potential hazard to safety in the air traffic control system. A pertinent history and clinical evaluation, including laboratory evaluations, will be obtained, and when clinically indicated, special consultations or examinations will be accomplished.

G. *Psychiatric*

No established medical history or clinical diagnosis of any of the following:

1. A psychosis;
2. A neurosis; or
3. Any personality or mental disorder that clearly demonstrates a potential hazard to safety in the air traffic control system. Determinations will be based on medical case history (including past, social, and occupational adjustment) supported by clinical psychologists and board-certified psychiatrists, including such psychological tests as may be required as part of medical evaluation.

H. *Substance Dependency*

A history, review of all available records, and clinical and laboratory examination will be utilized to determine the presence or absence of substance dependency, including alcohol, narcotic, and non-narcotic drugs. Wherever clinically indicated, the applicant must demonstrate an absence of these on any clinical or psychological tests required as part of the medical evaluation.

Retention Requirements: The physical requirements in this section apply to: (1) air traffic control specialists in the center and terminal specializations who are actively engaged in the separation and control of air traffic, (2) immediate supervisors of air traffic control specialists actively engaged in the separation and control of air traffic, and (3) air traffic control specialists in the station specialization who regularly perform flight assistance services.

Employees occupying the types of positions described above must requalify in an annual medical examination, usually given during the employee's month of birth. Controllers incurring illness, injury, or incapacitation at any time between the annual examinations must be medically cleared before returning to air traffic control duty. Examinations, including laboratory tests and consultations, will be accomplished to the extent required to determine medical clearance for continued duty. New employees are required to meet the retention requirements by examination during the first 10 months of service.

Employees who are found to be not physically or emotionally qualified for air traffic control duties at any time will be subject to reassignment to a position for which they are fully qualified, retirement for disability if eligible, or separation from the service.

To be medically qualified for retention, an air traffic control specialist must meet the following requirements. (Unless otherwise indicated these requirements are identical for all specializations.)

A. *Eye*

Retention requirements for vision and eye conditions are identical to the requirements for initial hire.

B. *Ear, Nose, and Throat*

1. *Ear Disease; Equilibrium*

- a. *Terminal and Center Positions*--Must demonstrate no chronic disease of the outer or middle ear, unilateral or bilateral, that might interfere with the

comfortable, efficient use of standard headphone apparatus or that might interfere with accurate perception of voice transmissions or spoken communications. Must have no ear disease that might cause a disturbance of equilibrium.

- b. *Flight Service Station Positions*--Must demonstrate no chronic disease of the outer or middle ear, unilateral or bilateral, that might interfere with accurate perception of voice transmissions or spoken communications. Must have no ear disease that might cause a disturbance of equilibrium.
2. *Mastoid*--No active disease of either mastoid.
3. *Eardrum Perforation*--Must demonstrate no unhealed perforation of either eardrum.
4. *Speech*--Must have no interference with enunciation, and must have clear speech free of stuttering or stammering.
5. *Hearing Loss*--No hearing loss in either ear of more than 30 decibels in either the 500, 1000, or 2000 Hz ranges. No loss in these ranges greater than 25 decibels in the better ear. Non-static hearing loss in either ear of greater than 50 decibels in the 4000 Hz range will require an otological consultation.

C. *Cardiovascular*

1. *Heart Disease*
 - a. *Terminal and Center Positions*--No history or symptomatic form of heart disease or any form requiring therapy.
 - b. *Flight Service Station Positions*--No symptomatic form of heart disease.
2. *Disturbance of Rhythm; Other Abnormality; EKG*--Must demonstrate no disturbance of rhythm or other cardiac abnormality on clinical examination, including resting, and when clinically indicated, post-exercise electrocardiography.
3. *Blood Pressure*--Retention requirements are identical to the requirements for initial hire.
4. *Heart Size*--Must have no increase in heart size beyond normal limits.

D. *Neurological*

Retention requirements are identical to the requirements for initial hire.

E. *Musculoskeletal*

Retention requirements are identical to the requirements for initial hire.

F. *General Medical*

1. *Diabetes Mellitus*
 - a. *Terminal and Center Positions*--An employee who has an established clinical diagnosis of diabetes mellitus will be evaluated for continued duty based upon the degree of control of the disease. Whether by diet alone, or diet and hypoglycemic drugs, control that results in the absence of symptoms and the absence of complications of the disease or the therapy may be considered as satisfactory control. A controller with diabetes mellitus who cannot demonstrate satisfactory control over specified and observed periods of 48 hours is not cleared for duty involving active air traffic control.
 - b. *Flight Service Station Positions*--An employee who has an established clinical diagnosis of diabetes mellitus will be evaluated for continued duty based upon the degree of control of the disease. Whether by diet alone, or diet and hypoglycemic drugs, control that results in the absence of symptoms and the absence of complications of the disease or the therapy may be considered as satisfactory control.

2. *Body Configuration*--Must possess such a body build as not to interfere with sitting in an ordinary office armchair.
3. *Other Medical Conditions*--Must have no other organic, functional, or structural disease, defect, or limitation found to indicate clinically a potential hazard to safety in the air traffic control system. A pertinent history and clinical evaluation, including laboratory screening, will be obtained, and when clinically indicated, special consultations and examinations will be accomplished.

G. *Psychiatric*

1. *Psychotic Disorder*--No established medical history or clinical diagnosis of a psychosis.
2. *Mental, Neurotic, or Personality Disorder*--No neurosis, personality disorder, or mental disorder, that clearly indicates a potential hazard to safety in the air traffic control system. Determinations will be based on medical case history (including past, social, and occupational adjustment) supported by clinical psychologists and board-certified psychiatrists, including such psychological tests as may be required as part of medical evaluation.
3. *Alcoholism and/or Alcohol Abuse*--No clinical diagnosis of alcoholism or alcohol abuse, since these constitute a hazard to safety in the air traffic control system. A history and clinical evaluation, including laboratory evaluation (when indicated) will be accomplished to determine the presence or absence of alcohol addiction, dependency, habituation, abuse, or use.
4. *Addiction, Dependency, Habituation, or Abuse of Dangerous Drugs*--No clinical diagnosis of addiction, habituation, dependency, or abuse of any narcotic or non-narcotic drug, since these constitute a threat to safety in the air traffic control system. A history and clinical evaluation, including laboratory evaluation (when indicated), will be accomplished to determine the presence or absence of drug addiction, dependency, habituation, abuse, or use.

ATCME CHECKLIST: The following is a checklist to assist in completing the required items for both the initial employment and retention ATCMEs for DAC/Civilian ATC.

DD form 2807-1, Report of Medical History, will be completed as for all other classes of ATCME and will be submitted annually.

Table 1: Summary of DD Form 2808, Jul 2001

	Initial Employment	Retention
1-16. Admin Data	Y	Y
17-29, 31,33-36,38-40. Clinical Exam Note: Only certain sites are required	Y	Y
45b. Urine Glucose	N	(1)
50. Drugs	(2)	(3)
51. Alcohol	(3)	(3)
57. Pulse	Y	Y
58a. Blood Pressure - Only one reading req.	Y	Y
61. Distant Vision	Y	Y
62. Manifest Refraction	(4)	(4)
63. Near Vision	Y	Y
64. Heterophorias	Y	Y
Cover Test / Cross-cover	Y	Y
Near Point Convergence	Y	Y
66. Color Vision	Y	Y
67. Depth Perception	Y	Y
68. Field of Vision	Y	Y
70. IOPs	Y	Y
71a. Audiometer	Y	Y
72a. Reading Aloud Test	Y	Y
73. Notes		
Additional Lab: Fasting Glucose	N	(1)
73. Notes (cont.)		
ECG	Y (5)	Y
CXR	Y	(3)
Aeronautical Adaptability (formerly known as ARMA)	(6)	(6)
74a. Qualification	Y	Y
77. Summary of Defects	Y	Y
78. Recommendations	Y	Y
81a-84b. Examiner names and signatures	Y	Y

Notes:

(1) For retention examinations only, ATCs with a diagnosis of Diabetes Mellitus will undergo the FBS and urine glucose to demonstrate satisfactory control.

(2) For initial applicants, the provisions of AR 600-85, Chapter 14 and Federal Acquisition Regulation (FAR) ,subpart 23.5 apply.

- (3) If clinically indicated.
- (4) Required if unaided near/distant vision is not 20/20.
- (5) For initial applicants must include resting and post-exercise electrocardiogram.
- (6) For initial or retention examinations, this will only be completed if there is evidence by medical history or clinical diagnosis by clinical psychologists and board –certified psychiatrists of a psychosis, neurosis, or any other personality or mental disorder that clearly demonstrates a potential hazard to safety in the air traffic control system.

- EKGs are required on all examinations and for initial require resting and post- exercise. If clinically indicated, the retention ATCME also requires a post-exercise study.
- Drug screening will done as listed above per regulatory guidance for initial applicants. For retention physicals, any questionable medical history or clinical findings should be referred to the local Alcohol and Substance Abuse Program office for evaluation.
- RAT will be performed annually to assess for understandable speech and no pattern of stuttering or stammering.
- CXR will be done on initial applicants to assess for any increase in heart size beyond normal limits.
- OPM standards will be used as the measure for vision testing and these standards are identical for initial and retention physicals. To assist the FS/APA in the conduct of visual testing the current vision ATBS located on the USAAMA website may be used as a guide: http://usasam.amedd.army.mil/_AAMA/technicalBulletins.htm

OPM/GS-2152 DAC/Civilian Contract ATC Standards Summary

Aeromedical Vision Standards						
Qualified if:		Corrected Visual Acuity, Q if better than:		Phorias, DQ if:		
Position	Spherical equiv. within +/- 5.50 diopters and Cyl within +/- 3.00 diopters	Distant	Near	Eso	Exo	Hyper
Terminal and Center		20/20 in each eye	20/20 in each eye	>10	>10	>1.5
Flt Srv Station	Spherical equiv. within +/- 8.00 diopters	20/20 in one eye	20/20 in one eye	Diplopia in any the cardinal fields of gaze		

Position	Visual Fields Q if:	IOP Q if:	Extra-Ocular Motility Q if:	Color Vision Q if:
Terminal and Center	Normal central and peripheral visual fields Full	< 21 mmHg and difference < 5 mmHg between eyes	Full	Normal Color Vision -- test unspecified
Flt Service Station	Normal central visual field in atleast one eye	< 21 mmHg and difference < 5 mmHg between eyes	Not Addressed	Normal Color Vision -- test unspecified

Aeromedical Audiology Standards						
<u>Applicants</u>						
Qualified if Equal or Better than:						
	500Hz	1000Hz	2000Hz	3000Hz	4000Hz	6000Hz
Either ear	25 dB	25 dB	25 dB	No std	40* dB (consult)	No std
Best ear	20 dB	20 dB	20 dB	No std	40* dB (consult)	No std
<u>Retention</u>						
Qualified if Equal or Better than:						
	500Hz	1000Hz	2000Hz	3000Hz	4000Hz	6000Hz
Either ear	30 dB	30 dB	30 dB	No std	50* dB (consult)	No std
Best ear	25 dB	25 dB	25 dB	No std	50* dB (consult)	No std

Laboratory Normal Values					
FBS	<126 mg% (see retention standards)				
			UA Drug Screen	Negative (Only required for initials)	

Age	Max. Recumbent SBP	Max. Recumbent DBP
20-29	140 mmHg	90 mmHg
30-39	150 mmHg	90 mmHg
40-49	150 mmHg	100 mmHg
50 & over	160 mmHg	100 mmHg

REFERENCES:

1. 5CFR339.202-303, January 1998.
2. AR 40-501, Standards of Medical Fitness, paragraph 4-33, September 2002.
3. OPM Qualification Standards for General Schedule Positions, GS 2152: Air Traffic Control Series.
4. Flight Surgeon Administrative Guide, USAAMA, March 2003.
5. AR 600-85, Army Substance Abuse Program, October 2001.