

1.0 AVIATION PHYSICAL STANDARDS

Last Revised: Oct 2024

Last Reviewed: Sep 2023

1.1 INTRODUCTION

Aviation physical standards ensure the most qualified personnel are accepted and retained by Naval Aviation. The intent is to prevent medical, physical, or psychological conditions from adversely affecting flight performance, safety, or mission. Standards differ between applicants and designated personnel, and among different flying classes based on risk assessment. Applicant standards are the most rigorous to ensure candidates are capable of training completion and continued performance as a designated Naval Aviator in the demanding environment. Designated aviation standards ensure consistent flight performance, safety, and mission completion. Disqualification removes an individual based on risks associated with a medical condition, while waivers of policy allow retaining an individual based on careful risk assessment, risk control measures, and mission requirements. All conditions may be considered for waiver to preserve the aviator in the mission; however, certain conditions, treatments, and medications are generally not conducive to aviation service due to a likely adverse impact on health, safety, or mission completion. Careful risk assessment and mission consideration by the Aeromedical Officer are necessary to assure time and resources are applied appropriately in all cases, but especially where risks make the likelihood of a waiver negligible. Additional guidance can be found in the various sections of this ARWG and communication with NAMI is encouraged before expending resources, especially on cases where it would be clear to a designated Aeromedical Officer that the case is atypical and/or carries an elevated risk.

1.2 GENERAL REQUIREMENTS

Physical standards are published and maintained in the Manual of the Medical Department (MMD) Chapter 15. All applicants must meet general commissioning and/or enlistment standards in addition to aviation standards. If an applicant does not meet these standards, the applicant has a disqualifying defect and a waiver of standards is required. Designated personnel must remain fit for full duty and continue to meet the aviation standards published in the MMD. Any medical defect, disqualifying diagnosis, or chronic medication use requires a waiver of standards.

1.3 PURPOSE OF THIS GUIDE

The purpose of this guide is to offer the Flight Surgeon, Aeromedical Examiner, Aeromedical Physician Assistant, AVT, and aviator an additional resource to quickly and efficiently look up standards. The Aeromedical Reference and Waiver Guide (ARWG) is NOT an inclusive document, but only highlights and gives guidance for the most common diagnoses and standards. The MMD is the proper document to reference for disqualifying conditions and physical standards. Flight Surgeons, Aeromedical Examiners, Aeromedical Physician Assistants and AVTs should be intimately familiar with the MMD Chapter 15 and it is suggested that they have access to a copy when making Aeromedical dispositions.

1.4 CLASSES OF AVIATION PERSONNEL

Last Revised: Oct 2024

Last Reviewed: Sep 2023

Applicants, students, and designated aviation personnel are divided into the following three classes:

Class I: Naval Aviators and Student Naval Aviators (SNA). Designated Naval aviators are subdivided into three Medical Service Groups based upon the physical requirements of their specific flight duty assignment

Medical Service Group 1: Aviators qualified for unlimited or unrestricted flight duties

Medical Service Group 2: Aviators restricted from shipboard aircrew duties (include V/STOL) except helicopter

Medical Service Group 3: Aviators restricted to operating aircraft equipped with dual controls and accompanied on all flights by a pilot or copilot of Medical Service Group 1 or 2, qualified in the model of aircraft operated. A waiver to medical Service Group 3 includes pilot-in-command (PIC) authority unless PIC authority is specifically restricted.

Class II: Aviation personnel other than designated naval aviators or Student Naval Aviators including Naval Flight Officers (NFO), technical observers, Naval Flight Surgeons (NFS), Aerospace Medicine Specialists (AMS), Aeromedical Physician Assistant (APA), Aerospace Physiologists (AP), Aerospace Experimental Psychologists (AEP), Naval Aerospace Optometrists, Naval Aircrew (NAC) members, and Naval Aerial/ Aviation Observers (AO).

NOTE: Many squadrons have non-designated personnel that fly as a TFO, intelligence operator, cryptologic technician, or other duty that requires regular flying. If these individuals fly on a regular basis, receive flight pay, and/or have flight-related duties, or mission critical duties, assigned to them while flying, they shall be considered as Class II Naval Aircrew with regard to aeromedical standards and physical submission requirements. Consult with NAMI if their flight status is unclear. However, waiver requirements may be different in these individuals, and will be considered on a case-by-case basis depending on required physical and physiological training and their particular duties, aircraft, and mission.

Class III: Members in aviation related duty not requiring them to personally be airborne including Air Traffic Controllers (ATCs), flight deck, and flight line personnel.

Class IV: Members in aviation related duty not requiring them to personally be airborne including Unmanned Aerial Vehicle (UAV) operators.

Class V: Certain non-designated personnel selected for participation in duties involving flight. This includes En Route Care personnel, Mass Communication Specialists, Cryptologists, Intelligence personnel, Government and Civilian Agency personnel, and other non-aircrew personnel.

1.4.1 AVIATION PHYSICAL STANDARDS WNR CONDITIONS

Last Revised: Mar 2025

Last Reviewed: Mar 2025

In accordance with NAVADMIN 062/25 CHANGES TO AVIATION SPECIAL DUTY WAIVER PROCESSING, the following conditions shall be considered permanently disqualifying for aviation special duty applicants to eliminate the backlog of medical holds at Recruit Training Command and all other accession points. Submit to NAMI Code 53 HN as a permanent grounding package with a brief AMS referencing NAVADMIN 062/25.

Aviation Special Duty Waiver Waiver Not Recommended Conditions

All Classes

Cardiology

- Atrial fibrillation
- Coronary artery disease (any)

Dermatology

- Psoriasis requiring systemic agents
- Dermatitis requiring systemic agents

Endocrinology

- Diabetes (All types)

Gastroenterology

- Crohn's Disease
- Ulcerative Colitis

Hematology

- Sickle Cell Disease

Infectious Disease

- HIV

Pulmonary

- Asthma (active)
- Pneumothorax with structural abnormality

Orthopedics

- Retained Spine Hardware
- Severe Scoliosis (>40 degree)
- Absence of upper or lower extremity
- Grade III Spondylolisthesis
- Scheuermann's Kyphosis
- Ankylosing Spondylitis

ENT

Meniere's disease

Active, undiagnosed or non-specific recurrent vertiginous disorder

Severe or profound hearing loss at 500-2000Hz

Mental Health

Intellectual Developmental Disorders

Autism Spectrum Disorder

Schizophrenia Spectrum and Other Psychotic Disorders

Bipolar and Related Disorders

Depressive Disorders with psychotic features

Recurrent Depression

Personality Disorders

Voyeuristic Disorder

Exhibitionistic Disorder

Frotteuristic Disorder

Pedophilic Disorder

Ophthalmology

Moderate or Severe Color Vision Deficiency

Keratoconus (suspected, forme fruste, frank) or corneal ectatic disease

Best corrected visual acuity out of standards for aviation class

Glaucoma (any type)

Posterior or Recurrent Uveitis

Central Serous Retinopathy (CSR/CSCR)

Pigment Dispersion Syndrome (when presenting with iris transillumination defects or elevated intraocular pressure)

Retinal Detachments

Class II

All conditions listed above, and additionally:

Chronic sinusitis with nasal polyps (active disease)

Otosclerosis with history of stapedotomy

Superior semicircular canal dehiscence syndrome (symptomatic or untreated)

Depth perception out of standards (except fixed wing aircrew)

Class I

All conditions listed above, and additionally:

Bicuspid Aortic Valve

Phorias out of standards

1.5 CLASS I STANDARDS

Last Revised: Feb 2017

Last Reviewed: Sep 2023

Aeronautically Adapted (AA): Designated personnel must remain Aeronautically Adapted. If member is Not Aeronautically Adapted (NAA), the psychiatric block should be checked abnormal with appropriate comments. Refer to MMD 15-67 for disposition of aviators found NAA.

Valsalva: Must demonstrate ability to equalize middle ear pressure.

Self Balance Test (SBT): Must pass.

Dental: Must have no defect which would react adversely to changes in barometric pressure (Type I or II dental examination required).

Laboratory Testing:

Urinalysis: Must have normal values. Specifically must be negative for glucose, albumin/protein, and blood.

HIV Testing: Must be negative or documented that it was drawn.

Hematocrit: Males 40-52%. Females 37-47%. If values are outside of this range refer to ARWG for proper evaluation and disposition.

Lipid Panel: There are no standards at this time. This does not mean the flight surgeon can ignore these values. Individuals with hyperlipidemia should have documented evaluation, counseling, and treatment in accordance with standard medical guidelines.

Fecal occult blood testing: Required annually at age 50 and older or if personal or family history dictates. Digital rectal exam is not required.

EKG: Disqualifying conditions are:

1. Ventricular tachycardia defined as three consecutive ventricular beats at a rate greater than 99 beats per minute.
2. Wolff-Parkinson-White syndrome or other pre-excitation syndrome predisposing to paroxysmal arrhythmias.
3. All atrioventricular and intraventricular conduction disturbances, regardless of symptoms.
4. Other EKG abnormalities consistent with disease or pathology and not explained by normal variation.

Blood Pressure: Systolic must be less than 140 mm Hg and Diastolic less than 90 mm Hg. If a single measurement is outside of this range, a 3-5 day blood pressure check must be completed. The average of the 3-5 day blood pressure check must fall within the above standards.

Pulse Rate: Shall be determined in conjunction with blood pressure. If the resting pulse is less than 45 or over 100, an electrocardiogram shall be obtained. A pulse rate of less than 45 or greater than 100 in the absence of a significant cardiac history and medical or electrocardiographic findings shall not in itself be considered disqualifying.

Distant Visual Acuity:

1. Service Group 1, 20/100 or better each eye uncorrected, corrected to 20/20 or better each eye.
2. Service Group 2, 20/200 or better each eye uncorrected, corrected to 20/20 or better each eye.
3. Service Group 3, 20/400 or better each eye uncorrected, corrected to 20/20 or better each eye.

The first time distant visual acuity of less than 20/20 is noted a manifest refraction (not cycloplegic) shall be performed recording the correction required for the aviator to see 20/20 in each eye (all letters correct on the 20/20 line).

Refractive limits: Refractions will be recorded using minus cylinder notation. There are no limits. However, anisometropia may not exceed 3.50 diopters in any meridian.

Near Visual Acuity: Must correct to 20/20 in each eye using either the AFVT or standard 16 Snellen or Sloan notation nearpoint card. Bifocals are approved.

Oculomotor Balance:

1. No uncorrected esophoria more than 6.0 prism diopters.
2. No uncorrected exophoria more than 6.0 prism diopters.
3. No uncorrected hyperphoria more than 1.50 prism diopters.
4. Tropia or Diplopia in any direction of gaze is disqualifying.

Field of Vision: Must be full.

Color Vision: Must pass any one of the following two tests:

1. PIP color plates (Any red-green screening test with at least 14 diagnostic plates; see manufacturer instructions for scoring information) randomly administered under Macbeth lamp: scoring plates 2-15, at least 12/14 correct.
2. Computer-Based Color Vision Testing: must achieve a passing grade on an approved and validated Computer-Based Color Vision Test.

(Note: All color vision tests will be administered as delineated in the NAMI Aeromedical Reference and Waiver Guide, Chapter 12.2. The Farnsworth Lantern (FALANT) was discontinued 31 Dec 2016. The FALANT or Optec 900 may be considered for selective aviators who were designated before 31 December 2016. Passing scores: 9/9 correct on the first trial or, if any are missed, at least 16/18 correct on the combined score of the second and third trials.)

Depth Perception: Only stereopsis is tested. Must pass any one of the following three tests:

1. AFVT: at least A – D with no misses.
2. Stereo booklet (Titmus Fly or Randot): 40 arc second circles.
3. Verhoeff: 8/8 correct on the first trial or, if any are missed, 16/16 correct on the combined second and third trials.

Intraocular Pressure: Must be less than or equal to 22 mm Hg. A difference of 5 mm Hg or greater between eyes requires an ophthalmology consult, but if no pathology noted, is not considered disqualifying.

Hearing (ANSI 1969):

| Frequency (Hz) | Better Ear (dB) | Worse Ear (dB) |
|----------------|-----------------|----------------|
| 500 | 35 | 35 |
| 1000 | 30 | 30 |
| 2000 | 30 | 50 |
| | | |

1.6 STUDENT NAVAL AVIATOR APPLICANT (SNA) STANDARDS

Last Revised: April 2016

Last Reviewed: Sep 2023

All applicants for pilot training must meet Class I standards except as follows:

Visual Acuity, Distant and Near: Uncorrected visual acuity must not be less than 20/40 each eye, correctable to 20/20 each eye using a Sloan letter, crowded, eye chart (**Goodlite**). Vision testing procedures shall comply with those outlined on the Aerospace Reference and Waiver Guide Physical Exams section.

Refractive Limits: If uncorrected distant visual acuity is less than 20/20 either eye, a manifest refraction must be recorded for the correction required to attain 20/20. If the candidate's distant visual acuity is 20/20, a manifest refraction is not required. Total myopia may not be greater than -1.50 diopters in any meridian, total hyperopia no greater than +3.00 diopters in any meridian, or astigmatism no greater than -1.00 diopters. The astigmatic correction shall be reported in minus cylinder format.

Cycloplegic Refraction: This is required for all candidates to determine the degree of spherical ametropia. The refraction should be performed to maximum plus correction to obtain best visual acuity. Due to the effect of lens aberrations with pupil dilation, visual acuity or astigmatic correction, which might disqualify the candidate, should be disregarded if the candidate meets the standards for visual acuity and astigmatism with manifest refraction. A cycloplegic refraction should be performed at least 30 minutes after instillation of 2 gtts (5 minutes apart) 1% cyclopentolate.

Slit Lamp Examination: Required, and must demonstrate no pathology.

Dilated Fundus Examination: Required, and must demonstrate no pathology.

Hearing (ANSI 1969) :

| Frequency (Hz) | Decibel (dB) |
|----------------|--------------|
| 500 | 25 |
| 1000 | 25 |
| 2000 | 25 |
| 3000 | 45 |
| 4000 | 55 |

Anthropometrics and Height/Weight: Please refer to [NASC Anthropometrics Website](#)

Dental Readiness: All Applicants must be Dental Class 2 or better.

1.7 DESIGNATED NAVAL FLIGHT OFFICER (NFO) STANDARDS

Must meet Class I standards, except as follows:

Visual Acuity, Distant and Near: No limit uncorrected. Must correct to 20/20 each eye.

Refraction: No limits.

Oculomotor Balance: No obvious heterotropia or symptomatic heterophoria (NOHOSH).

Depth Perception: Not required.

Dental Readiness: All Applicants must be Dental Class 2 or better.

1.8 APPLICANT STUDENT NAVAL FLIGHT OFFICER STANDARDS

Last Revised: March 2015

Last Reviewed: Sep 2023

Must meet Class I standards, except as follows:

Visual Acuity, Distant and Near: No limit uncorrected. Must correct to 20/20 each eye. If the AFVT or Goodlite letters are used, a score of 7/10 on the 20/20 line constitutes meeting visual acuity requirements.

Refractive Limits: Manifest refraction must not exceed +/-8.00 diopters in any meridian (sum of sphere and cylinder) with astigmatism no greater than -3.00 diopters. Refraction must be recorded in minus cylinder format. Must have no more than 3.50 diopters of anisometropia in any meridian.

Oculomotor Balance: NOHOSH.

Depth Perception: Not Required.

Slit Lamp Examination: Required, and must demonstrate no pathology.

Hearing: Same as SNA Applicant.

Dental Readiness: All Applicants must be Dental Class 2 or better.

Anthropometrics and Height/Weight: Please refer to [NASC Anthropometrics Website](#)

1.9 DESIGNATED: NAVAL FLIGHT SURGEON, NAVAL AEROMEDICAL PHYSICIAN ASSISTANT, NAVAL AEROSPACE PHYSIOLOGIST, NAVAL AEROSPACE EXPERIMENTAL PSYCHOLOGIST, AND NAVAL AEROSPACE OPTOMETRIST STANDARDS

Must meet Class I standards, except as follows:

Visual Acuity, Distant and Near. No limit uncorrected. Must correct to 20/20 each eye. If the AFVT or Goodlite letters are used, a score of 7/10 on the 20/20 line constitutes meeting visual acuity requirements.

Refractive Limits. No limits.

Oculomotor Balance. NOHOSH.

Depth Perception. Not Required.

1.10 APPLICANT: NAVAL FLIGHT SURGEON, NAVAL AEROMEDICAL PHYSICIAN ASSISTANT, NAVAL AEROSPACE PHYSIOLOGIST, NAVAL AEROSPACE EXPERIMENTAL PSYCHOLOGIST, AND NAVAL AEROSPACE OPTOMETRIST STANDARDS

All applicants must meet SNA Applicant standards except as follows:

Visual Acuity, Distant and Near: No limit uncorrected. Must correct to 20/20 each eye. If the AFVT or Goodlite letters are used, a score of 7/10 on the 20/20 line constitutes meeting visual acuity requirements.

Refraction. No limits.

Depth Perception. Not Required

1.11 DESIGNATED AND APPLICANT NAVAL AIRCREW (FIXED WING) STANDARDS

Must meet Class I standards except as follows.

Visual Acuity, Distant and Near: No limit uncorrected. Must correct to 20/20 each eye. If the AFVT or Goodlite letters are used, a score of 7/10 on the 20/20 line constitutes meeting visual acuity requirements.

Refraction: No limits.

Oculomotor Balance: NOHOSH.

Depth Perception: Not required.

Hearing: Designated must meet Class I standards. Applicants must meet SNA Applicant standards.

1.12 DESIGNATED AND APPLICANT NAVAL AIRCREW (ROTARY WING) STANDARDS

Must meet Class I standards, except as follows:

Visual Acuity, Distant and Near. Must be uncorrected 20/100 or better, each eye corrected to 20/20. If the AFVT or Goodlite letters are used, a score of 7/10 on the 20/20 line constitutes meeting visual acuity requirements.

Refraction. No limits.

Oculomotor Balance. NOHOSH.

Hearing. Designated must meet Class I standards. Applicants must meet SNA applicant standards.

1.13 CLASS III PERSONNEL NON-DISQUALIFYING CONDITIONS

Class III personnel must meet standards for aviation personnel, but within those limitations, the following conditions are not considered disqualifying:

1. Hematocrit between 38.0 and 39.9 percent in males or between 35.0 and 36.9 percent in females, if asymptomatic.
2. Seasonal allergic rhinitis unless requiring regular use of antihistamines or medications causing drowsiness.
3. Nasal or paranasal polyps
4. Chronic sinus disease, unless symptomatic and requiring frequent treatment.
5. Lack of valsalva or inability to equalize middle ear pressure.
6. Congenital or acquired chest wall deformities, unless expected to interfere with general duties.
7. Mild chronic obstructive pulmonary disease.
8. Pneumothorax once resolved.
9. Surgical resection of lung parenchyma if normal function remains.
10. Paroxysmal supraventricular dysrhythmias, after normal cardiology evaluation, unless symptomatic.
11. Cholecystectomy, once resolved.
12. Hyperuricemia.
13. Renal stone once passed or in stable position.
14. Internal derangements of the knee unless restricted from general duty.
15. Recurrently dislocating shoulder.
16. Scoliosis, unless symptomatic or progressive. Must meet general standards.
17. Kyphosis, unless symptomatic or progressive. Must meet general standards.
18. Fracture or dislocation of cervical spine.
19. Cervical fusion.
20. Thoracolumbar fractures.
21. History of craniotomy.
22. History of decompression sickness.
23. Anthropometric standards do not apply.
24. No limits on resting pulse if asymptomatic.

1.14 DESIGNATED AND APPLICANT AIR TRAFFIC CONTROLLER STANDARDS (MILITARY AND DEPARTMENT OF THE NAVY CIVILIANS)

Last Revised: March 2014

Last Reviewed: Sep 2023

Military must meet the standards in Chapter 15, Section III (Physical Standards); civilians shall be examined in military MTFs, by a Naval Flight Surgeon (or Aeromedical Examiner or Aeromedical Physician Assistant), and must meet the general [requirements for Civil Service employment as outlined in the Office of Personnel Management, Individual Occupational Requirements for GS-2152: Air Traffic Control Series](#). Both groups have the following additional requirements:

Phorias: NOHOSH.

Depth Perception: Not required.

Slit Lamp Examination: Required for applicants only. Must demonstrate no pathology.

Intraocular Pressure: Must meet Class I standards.

Color Vision: Must meet Class I standards.

Hearing: Applicants must meet SNA applicant standards. Designated must meet Class I standards.

Department of the Navy Civilian ATCs:

1. There are no specific height, weight, or body fat requirements.
2. When a civilian who has been ill in excess of 30 days returns to work, a formal flight surgeon's (or Aeromedical Examiner or Aeromedical Physician Assistant) evaluation shall be performed prior to returning to ATC duties. DD2992 shall be used to communicate clearance for ATC duties to the commanding officer.

1.15 CRITICAL FLIGHT DECK PERSONNEL STANDARDS (DIRECTOR, SPOTTER, CHECKER, NON-PILOT LANDING SAFETY OFFICER AND HELICOPTER CONTROL OFFICER, AND ANY OTHER PERSONNEL SPECIFIED BY THE UNIT COMMANDING OFFICER)

Frequency of screening is annual. Waivers of physical standards are determined locally by the senior medical department representative and commanding officer. No BUMED or NAVPERSCOM submission or endorsement is required. **Must meet the standards in Chapter 15, Section III (Physical Standards), except as follows:**

Visual Acuity, Distant and Near: No limits uncorrected. Must correct to 20/20. If the AFVT or Goodlite letters are used, a score of 7/10 on the 20/20 line constitutes meeting visual acuity requirements.

Field of Vision: Must have full field of vision.

Depth Perception: Must meet Class I standards.

Color Vision: Must meet Class I standards.

1.16 NON-CRITICAL FLIGHT DECK PERSONNEL STANDARDS

This paragraph includes all personnel not defined as critical. Frequency of screening is annual. Waivers of physical standards are determined locally by the senior medical department representative and commanding officer. No BUMED or NAVPERSCOM submission or endorsement is required. **Must meet the standards in Chapter 15, Section III (Physical Standards) except as follows:**

Visual Acuity, Distant and Near: No limits uncorrected. Must correct to 20/40 or better in one eye, 20/30 or better in the other.

NOTE: Because of the safety concerns inherent in performing duties in the vicinity of turning aircraft, flight line workers should meet the same standards as their flight deck counterparts.

1.17 PERSONNEL WHO MAINTAIN AVIATOR NIGHT VISION SYSTEMS STANDARDS

Personnel, specifically those aircrew survival equipment men (USN PR or USMC MOS 6060) and aviation electrician's mates (USN AE or USMC MOS 64xx), assigned to duty involving maintenance of night vision systems, or selected for training in such maintenance, shall be examined annually to determine visual standards qualifications. Record results in the member's health record. **Waivers are not considered. Standards are as follows:**

Distant Visual Acuity: Must correct to 20/20 or better in each eye and correction must be worn. If the AFVT or Goodlite letters are used, a score of 7/10 on the 20/20 line constitutes meeting visual acuity requirements.

Near Visual Acuity: Must correct to 20/20.

Depth Perception: Not required.

Color Vision: Must meet Class I standards.

Oculomotor Balance: NOHOSH.

1.18 CLASS IV PERSONNEL: PHYSICAL STANDARDS FOR APPLICANT AND DESIGNATED, ACTIVE DUTY AND DON/DOD-GS PERSONNEL THAT OPERATE UNMANNED AIRCRAFT SYSTEMS (UAS)

Last Revised: Oct 2020

Last Reviewed Sep 2023

***Reference:** MANMED Chapter 15, Article 15-63

***Note:** (Civilian Contract Operators must abide by their individual contracts)

UAS Groups: Unmanned Aircraft Systems (UAS) are assigned to UAS Groups 1, 2, 3, 4, and 5 based on the aircraft's physical (gross weight) and flight (normal operating altitude and airspeed) characteristics according to OPNAVINST 3710.7 series (NATOPS). The assigned UAS Group is based on the UAS physical or flight attributes consistent with the highest numbered UAS Group. The aeromedical submission requirements are based on the assigned UAS Group.

All UAS Groups: Personnel performing any UAS operation must have no medical condition present, which may incapacitate an individual suddenly or without warning. Personnel may not perform any UAS operations while using medication whose known common adverse effect or intended action(s) affect alertness, judgment, cognition, special sensory function or coordination. This includes both over the counter and prescription medications. All personnel that operate UAS aircraft must meet general duty accession standards IAW MANMED Chapter 15, Section III, and the additional requirements below.

UAS Physical Worksheet (NAVMED 6410/13):

<http://www.med.navy.mil/directives/Pages/NAVMEDForms.aspx>

UAS Group 1 and 2: Personnel that operate UAS Group 1-2 aircraft require a medical screening exam maintained locally. An applicant or designated qualification exam for UAS Group 1-2 only, can be completed locally by a qualified medical provider. The UAS Physical Worksheet must be completed locally, maintained locally, and uploaded into the DoD Electronic Health Record. Disqualifying conditions must be documented. Waiver consideration and approval for UAS Group 1-2 is accomplished by the local command and documented. Therefore, waiver recommendation and approval for UAS Group 1-2 can be completed locally. The UAS Physical Worksheet can also be uploaded with a NAMI submission as part of a Class I (Pilot) or Class II (NFO, Aircrew) physical/waiver if that qualification is also required and maintained.

UAS Group 3, 4, and 5: Personnel that operate UAS Group 3-5 aircraft require a complete Class IV flight physical with submission to NAMI as required. Waiver requests must be electronically submitted to NAMI and local waiver approval is not authorized. The UAS Physical Worksheet is to be completed and uploaded with the electronic submission to NAMI. An applicant physical must be electronically submitted to NAMI as a long-form with an Aeromedical Summary when required for waiver requests. UAS Group 3, 4, 5 designated physicals can be submitted to NAMI as electronic short form physicals in accordance with MANMED.

Designated Class I and II Aviators: Personnel that operate UAS aircraft who also have and continue to maintain a Class I (Pilot) or Class II (NFO, Aircrew) designation must follow physical qualification and submission requirements for their Class I or II physical if intended to be maintained. NAMI submissions must be for the Class I or Class II physical with clear notation regarding additional UAS Operator duties. The UAS Physical Worksheet must be uploaded to the associated AERO electronic physical and aeromedical summary. A member qualified (or a granted waiver) for Class I or II with a current upchit, must complete the UAS Physical Worksheet and attach to the appropriate electronic Physical and AMS. UAS Group 1 and 2 Operator Applicants can maintain this worksheet locally and upload to AERO for submission with subsequent physicals. UAS Group 3, 4, and 5 Operator Applicants must complete the UAS Physical Worksheet and upload it to a UAS Applicant Physical for electronic submission to NAMI. For designated UAS Operators with Class I or II designation, electronically submit the Class I or Class II physical to NAMI as required with the UAS Operator Duties clearly described in the physical and AMS.

All personnel that operate UAS aircraft must meet general duty accession standards IAW MANMED Chapter 15, Section III, and the following Additional Requirements:

Vision:

1. **Visual Acuity, Distant and Near:** No limit uncorrected. Must correct to 20/20 or better each eye. If the AFVT or Sloan Letter Crowded Chart is used, a score of 7/10 on the 20/20 line constitutes meeting visual acuity requirements.
 - a. The following visual corrections are not considered disqualifying (NCD):
 - (1) Non-surgical Corrections:
 - (a) Eye glasses
 - (b) Contact lenses
 - b. Corneal Refractive Surgery is considered disqualifying – Waiver applications may be considered IF the individual meets the parameters noted in the Aeromedical Reference & Waiver Guide, Chapter 12.15. The following are the only types of CRS considered for waivers:
 - (a) Photorefractive Keratectomy (PRK)
 - (b) Laser Sub-Epithelial Keratomileusis (LASEK)
 - (c) Laser-Assisted In-situ Keratomileusis (LASIK)
 2. **Color Vision:** A validated PIP test at 12/14 (or better); or a passing grade on an approved and validated Computer-Based Color Vision Testing (CBCVT). All color vision tests will be administered as delineated in the NAMI Aeromedical Reference and Waiver Guide, Chapter 12.2. (The FALANT Test 9/9 or 16/18 may be considered for designated aviators who were designated before 31 December 2016).
 3. **Oculomotor Balance:**
 - a. No esophoria more than 6.0 prism diopters
 - b. No exophoria more than 6.0 prism diopters
 - c. No hyperphoria more than 1.5 prism diopters
 - d. Tropia or Diplopia in any direction of gaze is disqualifying
 4. **Field of Vision:** Must be full

5. **Depth Perception:** Only stereopsis is tested. Must pass any one of the following three tests:
 - a. AFVT: at least A-D with no misses
 - b. Stereo booklet (Titmus Fly or Randot): 40 arc second circles
 - c. Verhoff: 8/8 correct on the first trial or if any are missed, 16/16 correct on the combined second and third trials

6. **Intraocular Pressure:** Must be less than or equal to 22 mmHg. A difference of 5 mmHg or greater between eyes requires an ophthalmology consult, but if no pathology is noted, is not considered disqualifying.

Pregnancy: UAS/UAV personnel who are pregnant will fall under the same guidelines as Class III Air Traffic Control personnel.

1.19 CLASS V PERSONNEL: MISSION SPECIALISTS AND OTHER NON-AIRCREW PERSONNEL

Background. CNAF-M 3710-7 identifies naval personnel engaged in duty involving flight who are not in a special duty flight status, as needing medical evaluation and clearance, per NAVMED P-117. However, NAVMED P-117 does not contain physical standards, administrative processes, or aeromedical clearance requirements for this new class of aviation personnel. Class V personnel are naval personnel who are required to fly as mission specialist (MS) non-aircrew, but who have not been designated as aviation personnel in a special duty flight status. This class includes naval personnel under review or in receipt of orders for:

1. Duty involving flying crewman (DIFCREW), duty involving flight as a technical advisor (DIFTECH), or temporary duty involving flight (DIFTEM) to perform mission specialist (MS) duty while being airborne.

2. MS aircrew includes any mission essential non-career aircrew personnel who perform specific skills or provide capabilities that Class II personnel would not typically be expected to perform or do not have the training to perform. MS includes non-career aircrew ratings of Cryptologist, Mass Communication Specialist, and others for enlisted personnel, and En Route Care provider, intelligence, and others for officers and enlisted personnel.

Personnel who have the rare opportunity to fly in naval aircraft for any reason, but who do not have orders stating duty involving flight or duty in a flight status, are not considered Class V personnel. They will continue to follow the requirements in CNAF-M 3710-7 and obtain a selected passenger physical using a OPNAV 3710/18 Clearance for Non-Military/Non-Aircrew Personnel To Fly In USN/USMC Aircraft. (See Section 1.20)

Class V personnel are required to initially receive a long form flight physical as described in NAVMED P-117. The initial long form flight physical will be submitted to the Naval Aerospace Medical Institute per NAVMED P-117. After the initial long form physical, Class V personnel will be evaluated annually using NAVMED 6410/10 only while on orders for duty involving flight regardless of age. Aeromedical clearance is not required for Class V personnel when not on orders involving flight as they are not career-designated aircrew. If five (5) years have elapsed since the initial flight physical or if there is a break in flight orders, Class V personnel will receive a long form physical before commencing duty involving flight with any new flight orders. Waivers of Class V physical standards will be considered on a case-by-case basis. The examining provider should consider individual assigned platform, flight environment, occupational duties, physical requirements, and mental and physical stressors when considering waiver recommendations.

Class V personnel must meet the standards in subparagraphs below to be recommended for a flight duty status, by receiving an aeromedical clearance on a DD Form 2992 Medical Recommendation for Flying or Special Operational Duty. Class V personnel do not necessarily have to meet the standards for all aviation personnel in reference P-117 article 15-84 but the applicable general duty retention standards for all Service members do apply.

The examination requirements and physical standards for Class V aviation personnel are:

(a) Vision.

1. **Distant Visual Acuity (DVA).** DVA will be tested using the Armed Forces Vision Tester (AFVT) or Snellen eye chart. The standard for DVA is 20/50-0 best corrected in one eye. There are no uncorrected DVA standards for Class V.
2. **Near Visual Acuity (NVA).** No standard for uncorrected but must carry near vision correction if worse than 20/50-0. NVA that is not able to be corrected to 20/50-0 in each eye is considered disqualifying (CD). Test by using either the AFVT or the standard 16-inch Snellen letter near point cards. Bifocals are approved.
3. **Refraction.** Refractions will be recorded using minus cylinder notation. No standard applies unless determined by the examining provider.
4. **Depth Perception.** No standard. No exam or documentation required.
5. **Oculomotor Balance.** Any obvious strabismus on clinical exam (esotropia, exotropia, or heterotropia) or symptomatic phoria is CD. In the absence of these findings, examiner can document “No obvious heterotropia or symptomatic heterophoria” (NOTOSP, historically NOHOSH).
6. **Color Vision.** No standard. No exam or documentation required.
7. **Intraocular Pressure.** Tested by non-contact tonometry or applanation tonometer (Goldmann). A pressure reading of greater than 22 mm Hg in either eye, or a difference of greater than 4 mm Hg between both eyes, requires an ophthalmology or optometry consult to assess.

(b)Hearing. Evaluation is performed yearly by screening audiogram. If screening results in hearing outside of the standards, a conventional pure-tone audiogram is needed to confirm. The physical standard is based on three frequencies (Hz) with decibel (dB) limits for the better and worse ear: at 500 Hz, no worse than 35dB in either ear; at 1000 Hz, no worse than 30 dB in either year; at 2000 Hz, no worse than 50dB in one ear and 30 dB in the other. Hearing outside of these values is CD.

TABLE 1

| Frequency | Better Ear | Worse Ear |
|-----------|------------|-----------|
| 500 HZ | 35 dB | 35 dB |
| 1000 HZ | 30 dB | 30 dB |
| 2000 HZ | 30 dB | 50 dB |

(c) Tympanic Membrane (TM). Direct visualization of the TM with otoscope and documentation of normal Eustachian tube function is required. Current perforation of the tympanic membrane is CD.

(d)Electrocardiogram (ECG). A 12-lead ECG is required for all comprehensive aviation medical examinations, along with documentation of a same day pulse and blood pressure. An ECG interpreted as normal sinus rhythm, or another accepted variant identified in reference (c) is not considered disqualifying. Reference (c) is available at:www.med.navy.mil/Navy-Medicine-Operational-Training-Command/Naval-Aerospace-Medical-Institute/Aeromedical-Reference-and-Waiver-Guide/.

(e)Dental. Dental defects and disease are CD if the condition would react adversely to changes in barometric pressure and the member performs duties in a flight environment where this applies. Class V personnel should have an up-to-date type II dental exam prior to their aviation medical examination, but dental class alone is not disqualifying for flight status and does not prohibit issuing a DD 2992 Medical Recommendation for Flying or Special Operational Duty.

(f)Weight. Weight is to be measured by calibrated scale with clothing on. Individual MS platform assignment determines weight standards. Class V personnel must be able to board, perform duties, and emergency egress through all hatches to be considered physically qualified. Since this physical standard is for safety based on aircraft platform, waiver authority resides with the squadron's commanding officer.

1.20 SELECTED PASSENGERS, GOVERNMENT AND CIVILIAN AGENCY PERSONNEL, AND OTHER NON-AIRCREW PERSONNEL

When there is a requirement or opportunity for Federal Government agency personnel, civilian agency personnel, or non-designated, non-aircrew personnel (selected passengers) to fly in a U.S. Navy (USN) or United States Marine Corps (USMC) aircraft, certain Naval Aviation Survival Training Program (NASTP) training is required per Commander, Naval Air Forces (CNAF) M-3710.7 series, Chapter eight (8). To complete the required NASTP training and safely fly in a military aircraft, physical standards must be met depending on the aircraft model and its aviation life support systems. An Aerospace Medical Provider (AMP) or Aviation Medical Examiner (AME) must examine personnel prior to participation in training and flight, in order to determine aeromedical safety of flight for the model aircraft assigned.

This aviation medical examination is comprised of, at a minimum, completing the components found on the appropriate Naval Operations (OPNAV) 3710/18 form and an entry made in their electronic health record, if applicable. The extent of the physical examination should primarily focus on the circulatory system, musculoskeletal system, nervous system (coordination and equilibrium), respiratory system, psychiatric stability, and specifically document corrected visual acuity in each eye and evidence of Eustachian tube patency. The specific flying duties and operational environment may require additional evaluation components at the discretion of the AMP or AME. The examiner must attempt to determine not only the individual's physical qualification to fly in a particular aircraft or mission, but also the physical qualification to undergo all required physical and physiological training associated with the flight environment. No individual will be found fit to fly unless fit to undergo the training required in CNAF M-3710.7 series, for the aircraft and mission. Once the required NASTP training is complete, personnel have valid aeromedical clearance to fly for one year from date of exam. Where personnel may fly in USN and USMC aircraft on a recurring basis, their aeromedical clearance should be adjusted to expire on the last day of their birth month. Consult CNAF M-3710.7 series and the ARWG for additional information.

If civilian personnel are not eligible for care through the Military Health System, they must obtain the required OPNAV 3710/18, "Clearance for Nonmilitary/Nonaircrew Personnel to Fly in USN/USMC Aircraft" labs and studies through their own healthcare provider and bring the results when presenting for the AMP or AME examination and aeromedical determination. A copy of the signed OPNAV 3710/18 shall be provided to those personnel for their private medical records.

1.21 NAVAL AVIATION WATER SURVIVAL TRAINING INSTRUCTORS (NAWSTI) AND RESCUE SWIMMER SCHOOL TRAINING PROGRAMS STANDARDS

Applicants, designated and instructor rescue swimmers must meet the general standards outlined in MMD Chapter 15, Section III. In addition, the following standards apply:

Visual Acuity, Distant and Near:

1. **Applicant Surface Rescue Swimmer.** No worse than 20/100 uncorrected in either eye. Must correct to 20/20 each eye.
2. **Designated Surface Rescue Swimmer.** No worse than 20/200 uncorrected in either eye. Must correct to 20/20 each eye.
3. **Naval Aviation Water Survival Training Program Instructor.** No limits uncorrected. Must correct to 20/20 in the better eye, no less than 20/40 in the worse eye.
4. **All categories.** If the AFVT or Goodlite letters are used, a score of 7/10 on the 20/20 line constitutes meeting visual acuity requirements.

Psychiatric: Because of the rigors of the high risk training and duties they will be performing, the psychological fitness of applicants must be carefully appraised by the examining physician. The objective is to elicit evidence of tendencies which militate against assignment to these critical duties. Among these are below average intelligence, lack of motivation, unhealthy motivation, history of personal ineffectiveness, difficulties in interpersonal relations, a history of irrational behavior or irresponsibility, lack of adaptability, or documented personality disorders.

Any examinee diagnosed by a psychiatrist or clinical psychologist as suffering from depression, psychosis, manic-depression, paranoia, severe neurosis, severe borderline personality, or schizophrenia will be recommended for disqualification at the time of initial examination.

Those personnel with minor psychiatric disorders such as acute situational stress reactions must be evaluated by the local medical officer in conjunction with a formal psychiatric evaluation when necessary. Those cases which resolve completely, quickly and without significant psychotherapy can be found fit for continued duty. Those cases in which confusion exists, review by the TYCOM force medical officer for fleet personnel or BUMED, M3F1 for shore-based personnel. Any consideration for return to duty in these cases must address the issue of whether the service member, in the opinion of the medical officer and the member's commanding officer, can successfully return to the specific stresses and environment of surface rescue swimmer duty.

1.21 APPLICANT CHECKLIST

Last Revised: Jan 2021

Last Reviewed: May 2024

| | SNA | SNFO | Student: NFS,NAP NAEP, NAO ,NAPA | AC (Rotary Wing) | AC FW | ATC | UAS | |
|---|--|--|--|------------------------|-----------------|-----------------------------|-------------------|--|
| CXR | At accession or <3yr old | | | <3yr | <3yr | <3yr | <3yr | |
| Dental | Type I or II and Class I or 2 | | | | | | | |
| Labs | ALL LABS ARE REQUIRED WITHIN 90 DAYS OF PHYSICAL DATE | | | | | | | |
| Urine | Occult blood, Protein and Glucose by dipstick, Specific gravity | | | | | | | |
| Serology | | | | | | | | |
| Chems | Cholesterol, HDL, LDL, Triglyceride, Fasting Blood Sugar | | | | | | | |
| Other Labs | HCT, HIV, Sickle Cell, G6PD | | | | | | | |
| HCT | Males: 40-52 Females: 37-47 | | | | | | | |
| EKG | MUST BE DONE WITHIN 12 MONTHS OF PHYSICAL DATE SIGNED & UPLOADED TO AERO | | | | | | | |
| Anthropometrics | Must meet OPNAVINST 3710.37A guidelines | | | | | | | |
| WEIGHT (See HT-WT charts) | Must meet Navy and Marine Corps weight and body fat standards. Weight cannot be <103 lbs or >245 lbs. | | | | | NAVY STD | NAVY STD | |
| BP (Sitting) | <140/90 | <140/90 | <140/90 | <140/90 | <140/90 | <140/90 | <140/90 | |
| Pulse (Sitting) | <100, >45 | <100, >45 | <100, >45 | <100, >45 | <100, >45 | <100, >45 | <100, >45 | |
| DVA uncorr w/ corr | ≤20/40-0 20/20-0 | No Limit 20/20 | No Limit 20/20 | ≤20/100 20/20 | SEE SPECIAL | No Limit 20/20 | No Limit 20/20 | |
| NVA uncorr w/ corr | ≤20/40 20/20 | None 20/20 | None 20/20 | ≤20/100 20/20 | None 20/20 | None 20/20 | None 20/20 | |
| Slit Lamp Exam | Required | | | | | | | |
| Field of vision | Full | Full | Full | Full | Full | Full | Full | |
| REFRACTION Total Ref error astigmatism anisometropia | *Cyclo/Manifest +3.00/-1.50 +/-1.00 3.50 | Manifest +/-8.00 +/-3.00 3.50 | No Limit on refractive error. Record on exam | | | | | |
| Phoria | Eso ≤6, Exo ≤6 Hyper ≤1.5 | No Obvious heteroTropia Or Symptomatic heteroPhoria (NOTOSP / NOHOSH) | | | | | SAME AS SNA | |
| Color | PIP must pass with 12 or more correct of 14 plates; or a passing score on an approved computerized color vision test | | | | | | SAME AS SNA | |
| Depth | AFVT A-D Verhoeff 8/8 RANDOT or Titmus to ≤40 sec of arc | DEPTH PERCEPTION TESTING IS NOT REQUIRED | NOT REQUIRED | SAME AS SNA | NOT REQUIRED | NOT REQUIRED | SAME AS SNA | |
| IOP | ≤ 22 mm Hg and must be no more than 4 mm Hg difference between eyes | | | | | | | |
| Audiogram | ALL APPLICANTS MUST MEET SNA HEARING STANDARDS 500HZ 25db 1000 HZ 25db 2000 HZ 25db 3000 HZ 45db 4000 HZ 55db | | | | | | | |
| Special | **Comeal Mapping (topography/ Pentacam) required | Passing 7/10 on 20/20 line is considered 20/20 for Class 2, 3, and 4 applicants Enlisted Naval Aircrew (NAC) >20/100 uncorrected shall be PQ for fixed wing only. | | | | Reading Aloud Test Required | | |
| **SNA Topography | SNA applicants must have corneal mapping performed (topography or Pentacam) to rule out ectatic disease (i.e. keratoconus): If irregular pattern or the INFERIOR:SUPERIOR (I/S) ratio in central 6 mm of cornea (3mm above, 3 mm below center) is > 1.5, submit to NAMI for review. | | | | | | | |
| *SNA Refraction | (1) Manifest refraction is required only for SNAs who are NOT 20/20 -0 on Goodlite in each eye. (2) All SNAs require cycloplegic (1% cyclopentolate) refraction to assure ≤ +3.00 D sphere only. NOTE: there is NO standard for astigmatism (CYL) or Visual Acuity on cyclo refract. | | | | | | | |
| Fleet Accessions | Physical exam must have been completed within 12 months | | | | | | | |
| NFO to Pilot transition | Must meet SNA standards Physical exam must be within 12 months unless specified otherwise in announcement | | | | | | | |

Note: Class I SNA/Class 2 SNFO and all other Aviation Applicants:

*SNA Applicants – submission must have a complete Military Optometry SNA Cycloplegic Eye Exam, CXR results, Physician signed EKG uploaded to AERO Encounter for review.

*SNFO and all other Applicants – submission must have a complete Military Optometry eye exam, CXR Results, Physician signed EKG uploaded to AERO Encounter for review

1.22 DESIGNATED CHECKLIST

Last Revised: Oct 2024

Last Reviewed: Oct 2024

| | SG I | SG II | SG III | NFO, NFS NAP, NAEP, NAO, NAPA, Class V (MS) | A/C ROTARY WING USN/USMC | A/C FIXED WING USN/USMC | ATC | UAS |
|---------------------|--|---|---|---|--------------------------------------|-------------------------------|------------------------------|------------------------------|
| DVA (SEE NOTE) | 20/100 OR BETTER CORR TO 20/20-0 | 20/200 OR BETTER CORR TO 20/20-0 | 20/400 OR BETTER CORR TO 20/20-0 | NO LIMIT CORR TO 20/20 Class V - 20/50 best eye | 20/100 OR BETTER CORR TO 20/20 | NO LIMIT CORR TO 20/20 | NO LIMIT CORR TO 20/20 | NO LIMIT CORR TO 20/20 |
| NVA | NO LIMIT PROVIDED CORRECTABLE TO 20/20. MUST CARRY NEAR CORRECTION IF WORSE THAN 20/40. | | | | | | | |
| REF ERROR | NO LIMIT ON REFRACTION. PERFORM MANIFEST ON DVA >20/20 | | | | | | | |
| PHORIAS | 6.0 ESO 6.0 EXO 1.5 HYPER | | | No Obvious heteroTropia Or Symptomatic heteroPhoria (NOTOSP / NOHOSH) | | | | SAME AS SG1 |
| DEPTH PERCEPTION | MUST PASS ONE OF: AFVT A-D, VERHOEFF 8/8 OR 16/16, RANDOT AND TITMUS ≤40 SEC OF ARC | | | NOT REQUIRED | SAME AS SG1 | NOT REQUIRED | NOT REQUIRED | SAME AS SG1 |
| COLOR VISION | PIP must pass with 12 or more correct of 14 plates; or a passing score on an approved computerized color vision test. (FALANT: 9/9 or 16/18 for mbrs designated before 31 DEC 2016). No standard for Class V. | | | | | | SAME AS SG1 | SAME AS SG1 |
| IOP | Must be ≤ 22mmhg and no more than 4 difference between eyes. Perform on all examinations | | | | | | | |
| ECG | Required Every 5 years at ages 25, 30, 35, 40 till age 50 then annually on all aviation duty physical exams. The Q5 year EKG is required to be signed and uploaded to PE in AERO. | | | | | | | |
| URINE | EVERY FIVE YEARS: OCCULT BLOOD, PROTEIN, AND GLUCOSE BY DIPSTICK | | | | | | | |
| BLOOD TESTS | AS CLINICALLY INDICATED: HIV EVERY FIVE YEARS: HCT, CHOLESTEROL, HDL, LDL, TRIGLYCERIDES, FASTING BLOOD SUGAR | | | | | | | |
| CXR | REQUIRED ONLY WHEN CLINICALLY INDICATED | | | | | | | |
| B/P | SITTING ONLY REQUIRED. MUST BE LESS THAN 140/90 | | | | | | | |
| PULSE | MUST BE <100 AND >45, IF <45 DOCUMENT APPROPRIATE CARDIO RESPONSE TO EXERCISE | | | | | | | |
| AUDIO | FREQ | BETTER EAR | 35DB | WORSE EAR | | | | |
| | 500HZ | 30DB | 35DB | | | | | |
| | 1000HZ | 30DB | 30DB | | | | | |
| | 2000HZ | | 50DB | | | | | |
| SPECIAL | <p>Interservice Transfer: Physical exams must be less than one year old, and must be sent to BUMED M3F1 for commissioning endorsement before aviation determination can be made.</p> <p>NFO to Pilot transition program: Refer to SNA standards</p> | | | | | | | |
| NOTE | DVA of 20/20 in Class 1 personnel is 20/20 with zero misses on 20/20 line. DVA of 20/20 in Class 2, 3, and 4 personnel is considered 20/20 with up to 3 misses on 20/20 line (7/10). All aviation personnel must wear their corrective lenses if needed to meet class vision standards. If uncorrected DVA is worse than 20/100, they must carry an extra pair of spectacles. Members who wear contact lenses to fly must also carry backup spectacles that correct vision to 20/20. | | | | | | | |