

Change 159
Manual of the Medical Department
U.S. Navy
NAVMED P-117

9 Jan 2017

To: Holders of the Manual of the Medical Department

1. **This Change**

a. Updates Section IV, Table of Contents.

b. Provides guidance for the initial and subsequent evaluation of fitness of general and aviation duty personnel and applicants requesting medical clearance to operate small unmanned aircraft systems (UAS). Specifically, this change provides exemption from flight physical requirements and permits local medical clearance for aviation duties for small UAS (Groups 1 and 2 as defined by OPNAVINST 3710.7U and commercial off-the-shelf models weighing less than 55 pounds).

c. Updates article 15-63 by adding clarifying guidance in the form of an amplifying note. Redirects the inquirer of UAS aircrew standards to the Manual of the Medical Department (MANMED) extension document: The U.S. Navy Aeromedical Reference and Waiver Guide (ARWG) and provides a link to the approved worksheet, NAVMED 6410/13 Unmanned Aircraft System (UAS) Physical Worksheet to assist Department of Defense (DoD) providers with the completion of UAS physicals.

2. **Background.** In 2013, physical standards and processing requirements were developed to address the growing need for UAS operators. UASs were categorized as Groups 1 through 5 based on weight and flight characteristics (normal operating altitude and airspeed). At that time, uncertainty existed as to the specific aeromedical risks related to each of the UAS Groups and types. As such, a generally conservative approach was used to create one standard flight physical submission requirement across all UAS types. These standards have been effective and functional, however accumulated evidence has suggested that the small UAS operators (Groups 1 and 2 and most small, commercial, off-the-shelf models) have different operational requirements, risks, and processing requirements when compared to the larger UAS aircraft. Additionally, the high number of these small UAS operators has required the rapid processing of correspondingly large numbers of flight physicals and waiver requests, often on short notice, leading to unnecessary operational delays. These issues associated with the current medical guidelines were raised by senior operational flight surgeons and Line operators. Subsequently, a Bureau of Medicine and Surgery (BUMED) review was formally requested by Commander, Naval Air Forces (CNAF) and the Deputy Commandant for Aviation and performed by the Naval Aerospace Medical Institute (NAMI) Aeromedical Advisory Council. In response, experts in aviation medicine have assessed and appropriately modified previous U.S. Naval UAS aeromedical accession and designation standards and requirements found in the MANMED and the ARWG.

3. **Action**

a. Remove pages 15-47 through 15-51 and replace with revised pages 15-47 through 15-51a.

b. Record this Change 159 in the Record of Page Changes.



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Section IV

SPECIAL DUTY EXAMINATIONS AND STANDARDS

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Purpose of Aeromedical Examinations

(1) Aviation medical examinations are conducted to determine whether or not an individual is both physically qualified and aeronautically adapted to engage in duties involving flight.

(2) Aviation physical standards and medical examination requirements are developed to ensure the most qualified personnel are accepted and retained by naval aviation. Further elaboration of standards, medical examination requirements, and waiver procedures are contained in the Aeromedical Reference and Waiver Guide (ARWG); (see <http://www.med.navy.mil/sites/nmotc/nami/arwg/Pages/AeromedicalReferenceandWaiverGuide.aspx>).

15-63

Classes of Aviation Personnel

(1) Applicants, students, and designated aviation personnel assigned to duty in a flying class and certain non-flying aviation related personnel defined below must conform to physical standards in this article. Those personnel are divided into four classes.

(a) **Class I.** Naval aviators and student naval aviators (SNA). For designated naval aviators, Class I is further subdivided into three Medical Service Groups based on the physical requirements for purposes of specific flight duty assignment:

(1) **Medical Service Group 1.** Aviators qualified for unlimited or unrestricted flight duties.

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

(3) **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 separate request is required to act as pilot-in-command of multi-piloted aircraft.

(b) **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 physiologists (AP), aerospace experimental psychologists (AEP), naval aerospace optometrists, naval aircrew (NAC) members, and other persons ordered to duty involving flying.

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

(d) **Class IV.** Unmanned Aircraft Systems (UAS) Operators. Active duty and DON/DoD-GS members in aviation-related duty not required to personally be airborne including: Air vehicle operators (AVO), sensor operators (SO), mission payload operators (MPO), and unmanned aircraft commanders (UAC).

Note: The physical qualification submission requirements and any associated waiver recommendations are now based on the assigned UAS Group as listed in OPNAVINST 3710.7U or for commercial, off-the-shelf, models by aircraft weight. While the physical standards across all of the UAS Groups remain the same, the physical exam processing requirements have changed appropriately to address operational requirements. UAS operators must be assessed and processed based on the highest UAS Group they are qualified to operate. UAS operators flying aircraft limited only to those of UAS Group 1 and 2 and small, commercial, off-the-shelf vehicles weighing 55 pounds or less may have their physicals performed by any qualified DoD medical provider and any associated waivers may be approved locally by individual unit commanders. The NAVMED 6410/3 UAS Physical Worksheet, and the ARWG continue to provide useful reference and guidance for all UAS classes. However, there are likely few conditions for the majority of the small UAS operators that may demand aeromedical standards above that of the general duty Sailor or Marine. In no case should an individual receive medical clearance with a medical condition present, which may incapacitate an individual suddenly or without warning. Further, personnel may not perform UAS operations while using any medication whose known common adverse effects or intended action(s) affect alertness, judgment, cognition, special sensory function or coordination. This includes both over the counter

and prescription medications. NAVMED 6410/3, which should be performed and included in the health record for all UAS classes, can be found at http://www.med.navy.mil/directives/Pages/NAVME_DForms.aspx.

(e) *All United States Uniformed Military Exchange Aviation Personnel.* As agreed to by the Memorandum of Understanding between the Services, the Navy will generally accept the physical standards of the military service by which the member has been found qualified.

(f) *Aviation Designated Foreign Nationals.* The North Atlantic Treaty Organization and the Air Standardization Coordinating Committee have agreed that the following items remain the responsibility of the parent nation (nation of whose armed forces the individual is a member):

(1) Standards for primary selection.

(2) Permanent medical disqualification.

(3) Determination of temporary flying disabilities exceeding 30 days.

(4) Periodic examinations will be conducted according to host nation procedures.

(5) If a new medical condition arises, the military flight surgeon providing routine care will determine fitness to fly based on the host nation's aviation medicine regulations and procedures. Temporary flying disabilities likely to exceed 30 days and conditions likely to lead to permanent aeromedical disqualification should be referred to the parent nation.

(6) More detailed information is located in the ARWG.

(g) Certain non-designated personnel, including civilians, may also be assigned to participate in duties involving flight. Such personnel include selected passengers, project specialists, and technical observers. The specific requirements are addressed in the ARWG and OPNAVINST 3710.7 series (Naval Air Training and Operating Procedures Standardization (NATOPS) General Flight and Operating Instructions) and shall be used to evaluate these personnel.

15-64

Authorized Examiners

(1) The aviation medical examination shall be performed by a medical officer who is authorized by the Chief, Bureau of Medicine and Surgery or by the proper authority of the Army or Air Force who has current clinical privileges to conduct such examinations.

15-65

Applicant, Student, and Designated Standards

(1) Physical standards for SNA become Class I standards at the time of designation (winging) or redesignation as SNA; prior to that point in time SNA applicant physical standards shall apply. Physical standards for student naval flight officer (SNFO) become designated NFO standards at the time of designation (winging) or redesignation as a SNFO; prior to that point in time NFO applicant physical standards shall apply. Physical standards for applicants to other Class II and III communities transition from applicant to "designated" upon completion of the aviation training pipeline/completion of the required syllabus as per NATOPS, NAVPERSCOM, or Headquarters, U.S. Marine Corps (HQ/USMC) guidance.

(2) Designation or redesignation as a student (SNA, SNFO, SNFS, etc.) shall not occur prior to certification of physical qualification (physically qualified (PQ) or not physically qualified (NPQ)/waiver recommended (WR)) favorable, BUMED endorsement of a naval aviation applicant physical examination), and favorable endorsement of anthropometric qualification by cognizant line authority.

15-66**Physically
Qualified (PQ) and
Not Physically
Qualified (NPQ)**

(1) *Physically Qualified (PQ)*. Describes aviation personnel who meet the physical and psychiatric standards required by their medical classification to perform assigned aviation duties.

(2) *Not Physically Qualified (NPQ)*. Describes aviation personnel who do not meet the physical or psychiatric standards required by their medical classification to perform assigned aviation duties. Aircrew who are NPQ may request a waiver of aeromedical standards. A waiver must be granted by NAVPERS-COM or HQ/USMC prior to a disqualified member assuming flight duties. See disposition of personnel found NPQ, article 15-79 below.

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