

Change 143
Manual of the Medical Department
U.S. Navy
NAVMED P-117

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To: Holders of the Manual of the Medical Department

1. **This Change** updates the title of MANMED Chapter 14, Special Activities, Section III from Aerospace/Operational Physiology Program to Naval Aerospace/Operational Physiology Program (NAOPP).

2. **Background**

a. Revised article 14-10, paragraph (2) to include a description of the role of the Aerospace Physiologist as an Operational Physiologist.

b. Revised article 14-11, subparagraph (2)(b), Operational Physiology Program which describes the purpose of the establishment of new operational physiology billets within the U.S. Marine Corps structure.

c. Changed the acronym for the Naval Aerospace/Operational Physiology Program from NAPP to NAOPP.

d. Added the term operational in all instances where Aerospace Physiologist is noted (i.e., Aerospace/Operational Physiologist vice Aerospace Physiologist).

e. Refined the Junior Officer Representative (JO Rep) election criteria to the Naval Aerospace Physiology Program Planning Committee (NAP³C), article 14-14, subparagraph (2)(d).

3. **Action**

a. Remove and replace the following with enclosure (1):

(1) Chapter 14, Special Activities cover page

(2) Chapter 14, Contents page

(3) Chapter 14, entire Section III, Aerospace/Operational Physiology Program.

b. Record this Change 143 in the Record of Page Changes.



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Chapter 14

Special Activities

TRANSPLANTATION SUPPORT

NAVY BLOOD PROGRAM

**NAVAL AEROSPACE/
OPERATIONAL PHYSIOLOGY
PROGRAM**

**CLINICAL LABORATORY AND
ANATOMIC PATHOLOGY SERVICES**

Chapter 14

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NAVAL AEROSPACE/OPERATIONAL PHYSIOLOGY PROGRAM

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14-10 Naval Aerospace/Operational Physiology Program (NAOPP)

(1) *Purpose.* The Bureau of Medicine and Surgery (BUMED) directs the NAOPP. This applies to all commands and personnel who administer or participate in the NAOPP or any of its elements.

(2) *Background.* BUMED established the NAOPP in 1978 to comply with the Chief of Naval Operations (CNO) task to provide support to the Aircrew Survivability Enhancement Program. Aerospace physiologists and their assistants had historically participated in the aeromedical/survival training of naval aviation personnel, and in the development and introduction of aircrew systems (particularly aircrew personal protective equipment). In the late 1970s, the role of the aerospace physiologist expanded to provide support to the Naval Aviation Safety Program, primarily through the establishment of the Aeromedical Safety Officer (AMSO) Program. The NAOPP provided the central management necessary to support these diverse functions. The Naval Aviation Physiology Program Planning Committee (NAP³C) was established in 1981 to provide a steering council of senior aerospace physiologists for strategic planning and program management. In 1994, the CNO appointed BUMED as the Training

Agent (TA) for the Naval Aviation Survival Training Program (NASTP). As the role of the Naval Aerospace Physiology expanded to human performance enhancement for non-aircrew personnel, the name was changed in 2007 to Naval Aerospace/Operational Physiologist and new billets with the Fleet Marine Force were established. This resulted in the addition of the Operational Physiology Program Element.

14-11 Mission and Elements of the NAOPP

(1) *Mission.* The mission of the NAOPP is to support operational readiness through education, training, aeromedical and human performance support, acquisitions, and research, development, testing and evaluation (RDT&E).

(2) *Program Elements.* The NAOPP consists of five major elements, each providing key support to the operational readiness of the Fleet.

(a) *NASTP.* The purpose of the NASTP is to prepare all prospective and designated aeronautical personnel, selected passengers, project specialists, and other authorized individuals in the aeromedical

aspects of flight and survival. These aspects include human factors and physiological threats related to the flight environment, physiological elements to enhance flight mission performance, mishap prevention, mishap and hostility survival, aircrew systems applications, and correct emergency egress and rescue procedures. NASTP requirements are CNO directed, BUMED is assigned as the TA. Implementation follows the BUMED NASTP Standard Operating Procedures (SOP) Manual. The NASTP includes Quality Assurance and Revalidation (QA&R) of the Naval Air Warfare Center Training Systems Division (NAWTSD) Orlando-managed NASTP training devices and associated equipment. A Training Management Team (TMT) is chartered to prioritize resources to meet Fleet training requirements.

(b) **Operational Physiology Program.** The purpose of the Operational Physiology Program is to provide specialized consultation, assistance, technical liaison, evaluations, training and recommendations directly to and working directly with Marine Expeditionary Forces. Operational Physiologists generally serve in the Operations, Training, or Safety Departments.

(c) **AMSO Program.** The purpose of the AMSO Program is to provide specialized consultation, assistance, technical liaison, evaluations, training, and recommendations directly to and working directly with the Navy and Marine Corps aviation community. AMSOs serve multifaceted roles within safety, operations, and training departments.

(d) **Fleet Air Introduction and Liaison of Survival Aircrew Flight Equipment (FAILSAFE) Program.** The NAVAIR-sponsored FAILSAFE Program augments and facilitates the introduction of new and modified items of Aviation Life Support Equipment (ALSS) to Fleet aviation. The FAILSAFE program interfaces with all facets of aircrew system acquisition including: requirements identification; design research; development; testing and evaluation; Fleet introduction; modifications; maintenance; training (maintainers and users); life cycle support; and use. A memorandum of understanding exists between BUMED and NAVAIR governing the program.

(e) **System Acquisitions and RDT&E.** System acquisitions and RDT&E is supported by NAOPPs in aircrew system requirements, human performance, operational readiness, and survival systems arenas.

Aerospace/operational physiologists are detailed to medical research centers/facilities, Naval Air Systems Commands, HQMC Aviation Weapon System Requirements Branch, and line communities.

14-12

Implementation and Management of the NAOPP

(1) **Implementation.** The mission is accomplished by means of:

(a) Management and implementation of the components of the NAOPP in compliance with CNO (N98) and Commander Naval Air Forces policies through AMSOs, aerospace safety corpsmen (AMSCs), and aerospace/operational physiologists and their assistants at aviation survival training centers (ASTCs) throughout the Navy and Marine Corps.

(b) Support of aeromedical and aircrew systems acquisition and RDT&E programs.

(c) Professional and technical career development of officers, enlisted personnel, and civilians assigned to support the NAOPP. Naval aerospace/operational physiologist officer career progression goals are established and available, as is a formalized BUMED-approved Aerospace/Operational Physiologist Internship Program for mentoring first tour officers.

(d) A BUMED NASTP standard operating procedures manual and Job Qualification Requirements (JQR) for all training evolutions/devices have been established and are in place ensuring safe implementation of high risk training.

(e) Established NASTP safety, standardization, training quality assessments, and QA&R Program of inspections for all ASTCs.

(f) Support to human performance enhancement, force preservation, and mishap prevention through training and education.

(2) **BUMED Management.** The NAOPP is managed by the Director, Aerospace/Operational Physiology.

14-13 Responsibilities of the NAOPP

(1) **Chief, BUMED.** BUMED is assigned as the NAOPP manager and by CNO as the NASTP TA. To fulfill responsibilities it shall:

(a) Coordinate the implementation of training requirements with the CNO, Commandant of the Marine Corps, Commander Naval Air Forces, and Naval Air Systems Command.

(b) Sanction training, prioritize the major claimant's requirements, and expedite programs for all NAOPP elements.

(c) Act as the central point of contact in matters pertaining to NAOPP program policy and safety.

(d) Approve the curricula developed for training aerospace/operational physiologists and aerospace physiology technicians.

(e) Assign a specialty leader for matters pertaining to the personnel required to support the NAOPP including acquisition, education, officer and enlisted billet distribution, and officer billet nominations.

(f) Advise Commander, Naval Air Forces on the impact of new systems and technology on aircrews in areas such as night vision devices, laser devices and weapons, chemical, biological, and radiological threats, Gravity-Tolerance Improvement Program, anthropometry, etc.

(2) **Naval Survival Training Institute (NSTI)** is assigned training responsibilities by BUMED and is assigned by OPNAV as the NASTP course curriculum model manager. To fulfill these responsibilities, NSTI shall:

(a) Develop and issue policies and procedures for safe and efficient implementation of the NASTP.

(b) Develop and maintain NASTP curricula.

(c) Compile and analyze data relating to training workload and safety.

(d) Conduct annual safety, standardization, training quality assessments, and QA&R inspections of ASTCs.

(e) Provide professional training for enlisted (Corpsman) leading to designation aerospace medical/physiology technicians (NEC HM-8406/8409).

(3) Naval Aerospace Medical Institute (NAMI) is assigned aeromedical training responsibilities and shall:

(a) Provide professional training for officers leading to designation as an aerospace/operational physiologist (subspecialty 1836).

(b) Provide professional training for enlisted (Corpsman) leading to designation as aerospace medical/physiology technicians (NEC HM-8406/8409).

14-14 Naval Aerospace Physiology Program Planning Committee (NAP³C)

(1) **Purpose**

(a) Implement the principles and processes of continuous quality improvement within the NAOPP using participatory management tools. Specifically, the NAP³C shall serve as the executive steering council (ESC) for the NAOPP. Members shall serve as assigned by the NAOPP chairman.

(b) Improve communications within the subspecialty by serving as a conduit of information and status reports for programs and projects to the program manager and specialty leader.

(c) Refine career pathways for aerospace physiologists. Coordinate with commands in reviewing billet requirements, distribution of billets, and career progress offered by each billet. Provide counsel to the program manager and specialty leader on the personal and educational requirements, as well as the career development for all aerospace/operational physiologists. Periodically review the established career progression pathway for aerospace/operational physiologists.

(d) Review requirements for members requesting to pursue Duty Under Instruction (DUINS). This would include the number of aerospace/operational physiologists in Full-Time In-Service Training (FTIST) and Full-Time Out-Service Training

(FTOST), types of degrees considered appropriate, and recommendations to the DUINS Board, specialty leader, and program manager.

(e) Recommend standardized internship training requirements for first tour aerospace physiologists. Monitor and periodically review the Internship Program to ensure it is remaining responsive to the needs of the individuals, the NASTP, and the operational forces in developing high caliber Naval officers, Medical Service Corps (MSC) officers, and aerospace/operational physiologists.

(f) Make recommendations on the training and distribution of aviation physiology technicians (NEC HM-8406/8409). Review JQRs for all billets following the guidelines in OPNAVINST 1000.16 series.

(g) Provide criteria for screening applicants for the aerospace/operational physiology subspecialty, i.e., minimum educational requirements, levels of experience, etc., to the specialty leader.

(h) Assist program manager and specialty leader in the implementation and monitoring of the QA&R Program. Provide the program manager or TA with recommendations on the procurement, modification, and maintenance of all training devices used in the NASTP via the TMT.

(i) Advise and assist the program manager and specialty leader in the management of the NASTP.

(j) Establish criteria for the awards provided by the NAOPP and vote for recipients in recognition of superior contributions. Periodically review the established NAOPP awards criteria and selection process procedures.

(k) Provide input on any other issues concerning the NAOPP as requested by the program manager or specialty leader.

(2) **Membership.** The membership shall consist of senior aerospace/operational physiologists assigned to key billets within the NAOPP and a junior officer representative (JO Rep).

(a) All members are full voting members.

(b) The NAP³C members are designated as such by assignment by the NAOPP manager.

(c) The NAP³C chairman shall be the aerospace/operational physiologist assigned to BUMED as the NAOPP manager.

(d) The JO Rep shall be a lieutenant willing to serve (lieutenants in the internship program and outside the continental United States (OCONUS) billets are excluded). The ten senior aerospace/operational physiologist lieutenants shall elect this individual for a 2-year term. Votes may be tallied virtually by the incumbent JO Rep.

(3) **Meetings.** The NAP³C will meet formally at least twice annually (in person or virtually) and otherwise stay in communication via electronic means.

(a) These meetings will be held in conjunction with other regularly scheduled program meetings when possible.

(b) The JO Rep serves as the recording secretary for the committee and will submit the minutes to the Chairman for approval.

(c) Meeting minutes will be distributed to all active duty aerospace/operational physiologists and other interested parties as requested.