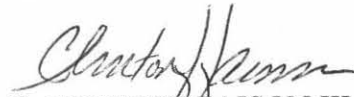


Change 155
Manual of the Medical Department
U.S. Navy
NAVMED P-117

1 Feb 2016

To: Holders of the Manual of the Medical Department (MANMED)

1. **This change** revises MANMED Chapter 15, Section IV, article 15-109.
2. **Summary of Changes**. The following changes were inadvertently left out of MANMED Change 151:
 - a. Article 15-109, paragraph (1)(b)(6), removed Goodlite and replaced it with Sloan letter crowded eye chart.
 - b. Article 15-109, paragraph (1)(b)(9), removed Verheoff.
3. **Action**
 - b. Remove pages 15-98 and 15-99 and replace with like-numbered page.
 - c. Record this Change 155 in the Record of Page Changes.


C. FORREST FAISON III
Chief, Bureau of
Medicine and Surgery

15-109**Landing Craft Air
Cushion (LCAC)
Medical Standards**

(1) The presence of any of the following will be considered disqualifying for all LCAC duties:

(a) Ears, Nose, and Throat and Hearing

(1) Seasonal aero-allergic disease of such severity to prevent normal daily activity (frequent bouts of sinus infection, nasal obstruction, ocular disease, etc.) not controlled with oral or nasal medication.

(2) Recurrent attacks of vertigo or Meniere's syndrome or labyrinthine disorders of sufficient severity to interfere with satisfactory performance of duties uncontrolled with medication.

(3) Chronic, or recurrent motion sickness, uncontrolled with medication.

(4) Untreated sleep apnea with cognitive impairment or daytime hypersomnolence. Nasal continuous positive airway pressure treatment may be permissible if it does not impact the function or safety of the vessel, unit, or crew.

(5) Tracheal or laryngeal stenosis of such a degree to cause respiratory embarrassment on moderate exertion.

(6) Unaided hearing loss which adversely effects safe and effective performance of duty in the Surface Fleet/LCAC environment.

(7) **Hearing Test.** An audiogram is required for all LCAC applicants. It will be performed within 90 days of reporting to the assigned assault craft unit, and annually thereafter. Audiometric loss in excess of the following limits for each frequency disqualifies the LCAC applicant. Designated crew members already assigned to a craft shall be NPQ with waiver consideration.

TABLE - MAXIMUM HEARING LOSS (ANSI 1969)

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

(8) **Equilibrium.** Use the self-balancing test (SBT). The examinee stands erect, without shoes, with heels and large toes touching. The examinee then flexes one knee to a right angle, closes the eyes then attempts to maintain this position for 15 seconds. The results of the test are recorded as "steady," "fairly steady," "unsteady" or, "failed." Inability to pass this test for satisfactory equilibrium disqualifies the candidate.

(b) Eyes and Vision

(1) Any ophthalmologic disorder that causes, or may progress to, significantly degraded visual acuity beyond that allowed in Section III of this Chapter.

(2) Any disorder which results in the loss of depth perception or diminished color vision.

(3) Night blindness of such a degree that precludes unassisted night travel.

(4) Glaucoma, with optic disk changes, not amenable to treatment.

(5) A history of refractive corneal surgery. Photorefractive keratectomy and laser in situ keratomileusis are permitted for the surface warfare community if vision is stable for at least 6 months post procedure. Radial keratotomy is disqualifying but may be waived. Intracorneal ring implants are not approved and are disqualifying.

(6) **Distant Visual Acuity.** Determine visual acuity by using a 20 foot eye lane with standard Sloan letter crowded eye chart letters and lighting. The Armed Forces Vision Tester (AFVT) is an acceptable alternative. If corrective lenses are necessary for LCAC duty, the LCAC crew personnel must be issued the approved lens-hardened eye wear for proper interface with operational headgear (i.e., aviation frames/gas mask). A spare pair of corrective lenses must be carried at all times during operations.

(a) For Class I and IA personnel student applicants, minimum distant visual acuity shall be no less than 20/100 uncorrected each eye and correctable to 20/20 each eye. For previously designated Class I and Class IA personnel, minimum distant visual acuity shall be no less than 20/200 uncorrected each eye and correctable to 20/20 each eye.

(b) For Class II personnel, there are no uncorrected limits, but shall correct following the standards in article 15-35. If correction is necessary for LCAC personnel, corrective lenses shall be worn at all times during LCAC operations.

(7) Near Visual Acuity. Either the AFVT or the near vision testing card shall be used to test near vision. A minimum near visual acuity of 20/200 in each eye, correctable to 20/20, is acceptable. For Class II there are no uncorrected limits. If correction is necessary, corrective lenses shall be worn at all times during LCAC operations.

(8) Refraction. Refraction of the eyes is required on the initial screening examination if the applicant requires corrective lenses to meet visual acuity standards.

(a) For Class I and IA personnel, acceptable limits are +/- 6.0 diopters in any meridian. Cylinder correction may not exceed 3.0 diopters.

(b) Class II applicants shall meet accession standards for refraction (article 15-35).

(9) Depth Perception. This test should be performed using a Stereopter or, if unavailable, the AFVT lines A-D for Class I and lines A-C for Class IA and II. Pass-Fail standards per article 15-85(1)(d) shall be followed. Normal depth perception (aided or unaided) is required. If visual correction is necessary for normal depth perception, corrective lenses must be worn at all times during LCAC operations.

(10) Oculomotor Balance. The vertical and lateral phoria may be tested with the horopter or with the AFVT. Any lateral phoria greater than 10 prism diopters is disqualifying (greater than 6 prism diopters requires an ophthalmologic evaluation). Any vertical phoria greater than 1.5 prism diopters is disqualifying and requires an ophthalmologic consultation, for Class II, no obvious heterotopias or symptomatic heterophoria (NOHOSH) is acceptable.

(11) Inspection of the Eyes. Follow guidelines within article 15-85(1). The examination must include a fundoscopic examination. Any pathological condition that might become worse, interfere with the proper wearing of contact lenses or functioning of the eyes under fatigue, night vision goggle use or LCAC operating conditions shall disqualify all LCAC crew candidates.

(12) Color Vision. After 31 December 2016, all applicants for LCAC duty involving actual control or navigational observation duties must achieve at least 10 out of 14 on the Pseudo-Isochromatic Plates (PIP). Personnel who were selected for actual control or navigational observation duties before the end of 2016 can continue to demonstrate adequate color vision by scoring 9/9 on the FALANT.

(13) Night Vision. Any indicators or history of night blindness disqualifies the applicants due to the importance of night vision and night vision supplemental to LCAC operations.

(14) Field of Vision. Fields should be full to simple confrontation. Any visual field defect should receive ophthalmologic referral to pursue underlying pathology.

(15) Intraocular Tension. Schiottz, non-contact (air puff), or applanation tonometry must be used to measure intraocular tension. Tonometric readings consistently above 20 mm Hg in either eye, or a difference of 5mm Hg between the two eyes, should receive an ophthalmologic referral for further evaluation. This condition is disqualifying until an ophthalmologic evaluation, including formal visual field determination has been completed.

(c) Lungs and Chest Wall

(1) Active asthma.

(2) Chronic or recurrent bronchitis that requires repeated medical care.

(3) Chronic obstructive pulmonary disease, symptomatic with productive cough, history of recurrent pneumonia and/or dyspnea with mild exertion.

(4) Active Tuberculosis (see BUMED-INST 6224.8 series).

(5) Respiratory compromise as a result of hypersensitivity reaction to foods, e.g., peanuts, shell fish.