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UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

HUMAN RESOURCES  
DIVISION

JUNE 24, 1981

B-133044

Vice Admiral J. William Cox, MC, USN  
Surgeon General  
Bureau of Medicine and Surgery  
Department of the Navy

Dear Admiral Cox:

Subject: [Duplications in Navy Recruit Medical Screening  
Should Be Eliminated] (HRD-81-115)

A recent GAO survey of military recruit medical screening and processing activities indicated that Navy and Marine Corps basic training centers are duplicating hearing tests and physical examinations performed at Armed Forces Examining and Entrance Stations (AFEES). In addition to duplicating the AFEES hearing test at one training center, the Navy plans to purchase new equipment to expand this practice to all five training centers. Although we did not perform a comprehensive review, we believe that the duplications we noted should be eliminated and are making several recommendations to achieve that end.

We analyzed the military recruit medical screening and processing system from two perspectives--the physical examinations given to recruits at the AFEES, and the medical procedures performed later when recruits report to their basic training centers. Our primary focus was on the Department of the Navy because available data showed it performed more medical procedures at its basic training centers than did the Army or the Air Force.

We began work at the Military Enlistment Processing Command (MEPCOM), Fort Sheridan, Illinois, the joint service command responsible for directing AFEES' activities, to obtain background information concerning AFEES' operating procedures and processes for conducting recruit medical examinations. We also interviewed medical personnel at three AFEES, observed their procedures, and examined documents relating to their physical examination process.

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To obtain an understanding of how the physical examination processes at the basic training centers related to those of the AFEES, we talked to medical staff at all 15 basic training centers and visited three of the centers: Naval Training Center, Great Lakes, Illinois; Naval Training Center and Marine Corps Recruit Depot, San Diego, California. We interviewed officials and support personnel, observed medical processing procedures, and obtained applicable documents and operating instructions.

We also obtained documentation concerning DOD's hearing conservation program as it related to recruit medical processing. To do this, we contacted officials at the Navy Environmental Health Center, Bureau of Medicine and Surgery (BUMED), the Army Environmental Hygiene Agency, and the Army Surgeon General's Office.

NAVY PLANS TO DUPLICATE AFEES HEARING TESTS AT ALL NAVAL AND MARINE CORPS BASIC TRAINING CENTERS

Hearing tests (audiograms) are given to all recruits as part of the AFEES physical examination. The Navy is duplicating the AFEES hearing test at the Naval Training Center, Great Lakes, and is planning to expand this practice to all training centers and recruit depots. We question the need for this duplication.

Navy's proposed policy

The Navy's regulation on occupational noise control and hearing conservation requires all personnel to receive a reference audiogram upon entry into naval service. It further states that the AFEES audiogram may not be used as a reference audiogram--the baseline audiogram used to periodically measure any subsequent hearing threshold shifts being experienced by persons working in noise-hazardous areas.

The Commanding Officer, Navy Environmental Health Center, informed us that the Navy's rationale for not using the AFEES audiograms as reference audiograms is based on three factors:

1. The results of an August 1971 limited study of AFEES audiograms for 100 Air Force recruits revealed that a high percentage of them were technically unsatisfactory.
2. The lack of a way to determine if recruits have been free of noise exposure for 15 hours prior to the AFEES test as required for valid reference audiograms.

3. The philosophy behind the AFEES audiograms is to establish that a recruit's hearing meets the minimum requirements for induction.

In November 1978, the Navy Environmental Health Center was directed to develop a pilot project at the Great Lakes center to determine the feasibility of including reference audiograms into the medical screening process at all centers and depots. The project began in March 1980.

In June 1980, we visited the Great Lakes Center and found that all recruits were being given audiograms on the first day of basic training. We were told that it took about 2-1/2 hours to give the test to a company of 84 recruits and that about 240 recruits were being tested daily.

In an August 27, 1980, status report, the Commanding Officer, Naval Regional Medical Center, Great Lakes, informed BUMED that 15,523 reference audiograms were performed from March 3, 1980, to July 31, 1980. In December 1980, BUMED informed us that there was no firm schedule at that time for extending this testing capability to the other centers and depots; however, preliminary estimates indicated that seven new multi-channel audiometers would have to be purchased and 12 technicians (at GS-4/5 levels) hired to provide the capability. During visits to the Great Lakes center and the Marine Corps Recruit Depot, San Diego, we were told that these centers expected to be performing reference audiograms on all recruits as soon as the pilot test was completed and official BUMED approval was received.

In contrast to the Navy's proposed policy, Army hearing conservation guidance states that the AFEES audiogram will, if available, be the reference audiogram for Army personnel. The Army's basic training centers may provide reference audiograms if the AFEES audiogram is lost or if there is reason to question it.

#### AFEES hearing test

The AFEES hearing test measures hearing threshold levels to detect any hearing loss that would disqualify a recruit from military service. It covers the same threshold frequencies required by the Navy hearing conservation program. Test results are recorded in the recruits' medical records which are sent to their basic training centers.

In 1978, MEPCOM recognized that the audiometers being used by the AFEES were becoming obsolete and began to purchase new computer-controlled audiometers (microprocessors) as replacements for older audiometers. As of October 1980, 43 of the 69 AFEES had received microprocessors. Ultimately, about \$700,000 will be spent to equip the AFEES with the new audiometers.

Two of the AFEES we visited were using the newer microprocessors. The microprocessors provide highly accurate digital readouts of hearing threshold levels. The audiometers being replaced are considered far less accurate than the microprocessors. The microprocessors are programmed to test different hearing levels. Unlike the older audiometers, they possess error-detection capabilities that make it difficult for examinees to hide any hearing deficiencies. Audiometric technicians we talked to said that they are very efficient and easy to use.

#### Observations

Implementation of the current Navy policy regarding reference audiograms will require additional personnel, equipment, and result in higher recruit training costs. The Navy should not perform reference audiograms at its basic training centers. The Navy should--as the Army does for its recruits--recognize the AFEES' audiograms as reference audiograms for all Navy and Marine Corps recruits.

With the new microprocessors, AFEES audiograms should be as valid as could be obtained at the training centers. These new state-of-the-art audiometers should provide the accurate and reliable reference audiograms which, according to the Navy, had not been available in the past.

We believe that the factors the Navy relied on in deciding not to use the AFEES' audiograms as reference audiograms were largely unfounded. The Air Force recruit study referred to was extremely limited in scope, and it was conducted nearly a decade ago when the AFEES were using audiometers which have been or are being replaced. Secondly, the Navy's need to assure recruit freedom from noise for 15 hours seems unrealistic since recruits at training centers are just as likely to be exposed to noise as those tested at an AFEES. Finally, the AFEES' hearing tests cover the same frequencies the Navy's hearing conservation program requires, and should be able to serve as reference audiograms for the Navy just as well as they do for the Army.

DUPLICATE PHYSICAL EXAMINATIONS AT NAVY  
AND MARINE CORPS BASIC TRAINING CENTERS

The Navy is performing extensive physical examinations at the three Naval training centers and the Marine Corps recruit depot, San Diego. The centers perform physicals on recruits entering special programs, and the depot performs them on all recruits. In many respects, these examinations duplicate procedures performed earlier at the AFEES. The Army and Air Force basic training centers generally do not duplicate the AFEES physical examination, nor does the Marine recruit depot at Parris Island.

Naval training centers

Naval training centers' physical examinations duplicate many of the AFEES physical examination procedures for recruits entering special programs, such as submarine and nuclear field duty. The training centers perform about 1,300 physical examinations monthly as shown below.

Special Physical Examinations

<u>Naval training center</u>	<u>Approximate number of special physicals per month</u>
San Diego	550
Great Lakes	300
Orlando	<u>450</u>
Total	<u>1,300</u>

At the San Diego center, these examinations were given to 22 percent of its recruits in fiscal year 1980. Center personnel told us that about 95 percent of the recruits receiving these physicals were guaranteed entry into a special program by Navy career counselors stationed at the AFEES. The rest apply for special programs after arrival at the training centers.

We observed the special physical examinations given at the San Diego center and found that they duplicated many portions of the AFEES' physical examinations. They consisted of (1) a record review by a staff of six screeners (five military, one civilian), (2) a temperature, ear, throat, and chest sound check by a corpsman, (3) a heart, lungs, and gland check by a physician's assistant, and (4) an examination for hernia, hemorrhoid and other problems by a physician. All of these procedures were performed during the

AFEES physical examination. The center was even re-doing the medical history and medical examination forms already completed at the AFEES.

The Navy's own guidance appears to favor having only one physical examination. For example, the Manual of the Medical Department 1/ states:

"\* \* \* Submarine candidates are required to establish their physical fitness for this duty at the time they apply for submarine training. As amplified by current directives, each candidate need have only one examination, properly recorded and supported by necessary ancillary studies and consultation reports." (Under-scoring supplied)

The Manual also explains that standards for acceptance into the submarine service are the same as those for general duty; however, special attention is to be given to several medical conditions. The AFEES examination covers most of these conditions.

In addition, the Navy manual applicable to nuclear field duty 2/ indicates that a properly recorded and supported physical examination within the previous 6 months can be used in whole or in part as a substitute for a current examination at the discretion of the cognizant medical officer. It also provides that examinations conducted more than 6 months previously may be updated, rather than completely repeated. It explains that a physical examination conducted for one purpose is valid for any other purpose within a prescribed period, if it is of the proper scope. If the examination is deficient in scope, only tests and procedures needed to meet the additional requirements need be accomplished, the results recorded and signed by a medical officer.

#### Observations

The Naval training centers should perform only those procedures that were not performed at the AFEES. We believe that, if it were possible for the AFEES to perform the special program physical examinations in their entirety, substantial savings in

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1/Manual of the Medical Department, U.S. Navy, Chapter 15, Physical Examination, Article 15-29, Submarine Personnel.

2/NAVMED P-5055, Radiation Health Protection Manual, Chapter 2, Medical Examinations. Article 2-3, The Radiation Medical Examination.

personnel and recruit training costs could result. The Navy should coordinate with MEPCOM and the AFEES to eliminate duplicate medical processing procedures now taking place. Procedures, such as the physical examination and hearing tests, should be performed at the AFEES and not duplicated at the training centers.

Marine Corps Recruit Depot, San Diego

At the San Diego depot, all recruits are medically screened as required by the Navy. Navy medical policy gives broad guidance on the scope of examinations. It states that the examination shall be sufficiently thorough to insure that the recruit is free from communicable and infectious disease and physically fit to undergo military training. Such diagnostic, consultant, or hospitalization procedures as may be indicated are required to be used.

The San Diego depot and its counterpart, the Parris Island depot, differ widely in their interpretations of Navy policy. The San Diego depot gives each recruit an AFEES-type physical examination. San Diego depot records show that the number of physical examinations given to its recruits increased tremendously beginning in 1976, and has remained at a high level--about 25,000--ever since. In contrast the Parris Island depot does not duplicate the AFEES physical examination. Rather, it relies heavily on the AFEES examination and its initial medical screening process. Physical examinations are performed only when problems are noticed during the screening process.

A considerable medical processing time difference exists between the two depots. We observed that, at San Diego, medical processing took about 7 hours for about 180 recruits. In contrast, the senior medical officer at Marine Corps Recruit Depot, Parris Island, told us that it takes about 3 hours to process a similar sized group. The fact that the Parris Island depot performs significantly fewer complete physicals than the San Diego depot apparently accounts for the bulk of this time difference.

At the San Diego depot, recruit medical processing consisted of two essentially distinct segments--a screening and immunization process and a complete physical examination process. The physical examination segment consisted of many procedures which duplicated earlier AFEES examinations while the screening and immunization segment differed from AFEES' medical processing.

On the day of our visit to the San Diego depot, about 180 recruits were processed. The screening and immunization process, which took 3 hours, included such procedures as fitting for ear plugs, providing immunizations, and taking blood samples. Also,

the AFEES' medical forms were checked for completeness and accuracy, recruits were asked if they had failed to report any hidden medical problems at the AFEES, and any required procedures omitted at the AFEES were performed.

The physical examination process for the group of recruits was conducted by two physicians and took 3 hours and 15 minutes. It included checking recruits' heart and lungs, and examining them for hernia, hemorrhoids, rash, and other medical problems. This part of the medical screening process duplicated procedures performed earlier at the AFEES. Recruits with medical problems were subsequently sent to sick call. Sick call, which took 45 minutes, completed the medical processing.

### Observations

The San Diego Marine Corps Recruit Depot should provide--as does the Parris Island Depot--extensive physical examinations only in those instances where recruits are found during initial medical screening to have special physical problems. By doing so, the San Diego depot could complete all recruit medical screening within 3 to 4 hours instead of the 7 hours it now takes. Through the elimination of the duplicative processing procedures at the depot, recruits could be expected to return more quickly to training, and medical staff could be freed up for other duties.

### RECOMMENDATIONS TO THE SURGEON GENERAL

We recommend that you:

- [Use the AFEES' audiograms as reference audiograms for Naval recruits to the maximum extent practicable and cancel the Navy's plans to perform reference audiograms at recruit training centers as well as the ongoing program at Naval Training Center, Great Lakes.]
- [Officially recognize the AFEES' physical examinations as the only ones needed for entry into Naval service, including entry into special programs.]
- [Coordinate with MEPCOM officials to determine procedural modifications, if any, necessary to satisfy the Navy's requirements for special program physical examinations so they could be conducted at AFEES. If it is determined that the AFEES can perform the examination procedures necessary to satisfy the Navy's special program requirements, special program examinations now performed at the training centers should be discontinued.]

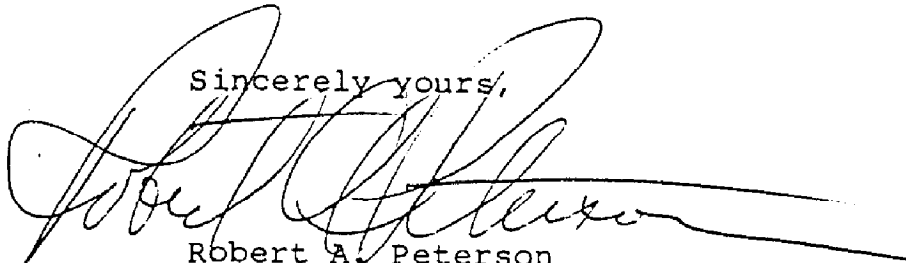


[-]Discontinue the duplicative portions of the medical screening process at the San Diego recruit depot.[-]

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We appreciate the cooperation and assistance your representatives provided us during our survey and would be glad to discuss these matters with you or them. We would appreciate being informed of actions you plan to take as a result of the matters discussed in this report.

Sincerely yours,

A large, stylized handwritten signature in black ink, appearing to read 'Robert A. Peterson', written over a horizontal line.

Robert A. Peterson  
Associate Director, Senior Level