

## CHAPTER 7

# NAVAL HEALTH SURVEILLANCE AND STANDARDS OF FITNESS

## NAVAL HEALTH STANDARDS

**701.** The Naval Health Standards are attached at annexes C, D and E to this chapter. Annex C and annex D define the standards for all members, by category, both on allocation of category and during service; whilst annex E defines and codifies the Naval Health Standards. No deviation from these standards will be allowed without specific written authority of Director-General, Naval Health Services (DGNHS). Criteria for rejection on entry are stipulated in ADFP 701—*Recruit Medical Examination Procedures*.

**702.** The examination procedures and health standards for entry are contained in ADFP 701 and recorded on Form PM 165—*Medical History Questionnaire* and Form PM 166—*Entry Medical Examination Record*.

**703. Post Entry Medical Checks.** Within **10** working days of joining the new entry establishment, personnel who have not had a medical recorded on Form PM 165 are to have a medical check conducted and recorded on Form PM 360—*New Entry Medical Check* (**except for** Pitch Discrimination Test—on Form PM 6—*Specialist Referral and Report*):

- a. blood grouping,
- b. chest X-ray,
- c. colour perception standard,
- d. general physical check,
- e. Pitch Discrimination Test (Form PM 6),
- f. Hepatitis B Virus (HBV)/Hepatitis C Virus (HCV)/Human Immunodeficiency Virus (HIV) screening,
- g. manifest hypermetropia,
- h. serum pregnancy test for female members,
- i. visual acuity standard, and
- j. Vitalograph on submarine recruits.

**704. Blood Screening.** New entry personnel are to have their blood screened as follows:

- a. **Blood Grouping.** The type, Rhesus factor, laboratory and reference number is to be recorded on Form PM 360.
- b. **HIV I and II Antibodies.** Only the laboratory and date is to be recorded on Form PM 360.
- c. **HBV/HCV Screening.** The laboratory, date and results are to be recorded on Form PM 360.
- d. **Serum Pregnancy Test for Female Members.** The laboratory, date and results are to be recorded on Form PM 360.

**705. Colour Perception.** The member's colour perception is to be tested in accordance with annex I to this chapter, including trade test if applicable, and recorded on Form PM 364—*Colour Perception Test—Record—Navy*.

**706. General Physical Check.** A medical officer (MO) is to examine all new entries by having the member, stripped to basic undergarments, stand in a good light to determine there are no musculo-skeletal abnormalities. The MO is to ask the member whether they have suffered any significant accidents, illness or injury since their recruiting medical examination and any comments are to be recorded on Form PM 360.

**707. Pitch Discrimination Test.** A Pitch Discrimination Test is to be performed and recorded on Form PM 6.

**708. Manifest Hypermetropia.** The Visual Acuity is to be checked to ensure that the classification in accordance with annex E appendix 1 to this chapter, is recorded correctly, and that the member meets the standard for the category allocated. An entrant whose Visual Acuity falls within Standards 1 or 2 is to have a **+2.5 dioptre sphere** placed in front of each eye in turn. If they can still read the chart to the same line as before, Manifest Hypermetropia of more than 2.5 dioptres is present and their visual standard must be downgraded to **3 or below**. These personnel are to be referred to an ophthalmologist for confirmation of their visual standard.

**709. Visual Acuity Standard.** New entry personnel who do not attain the Visual Acuity requirements of Visual Standard 2 (VS 2) or who wear **spectacles/contact lenses** will have been examined by an ophthalmologist at recruiting level. New entry training establishments are nevertheless to **repeat** Visual Acuity testing at the time of posting in.

**710. Vitalograph on Submarine Recruits:** A vitalograph on submarine recruits is to be performed and results recorded on Form PM 360.

**711. Naval Identification Cards.** Following the Induction Medical Checks and Blood Type testing, a nominal list of personnel is to be forwarded to the issuing authority of Identification Cards. The nominal list is to be signed by a minimum rank of Medical Branch senior sailor certifying member's blood type, location and date of test.

## ROYAL AUSTRALIAN NAVY HEALTH EXAMINATIONS

**712.** Within the Royal Australian Navy (RAN) three main groups of health examinations are performed:

- a. periodical,
- b. occasional, and
- c. occupational health.

If, during the conduct of any health examination or medical survey, MO diagnose a significant condition, early consideration must be given to any effect this condition may have on fitness for posting, reenlistment, promotion or discharge.

## PERIODICAL HEALTH EXAMINATIONS

**713.** Periodical health examinations for members are to be conducted on the member's anniversary of birth and at the frequency indicated in accordance with annexes A and B to this chapter.

**714.** To provide flexibility for postings and leave, one calendar month either side of the due date will be permitted.

## OCCASIONAL HEALTH EXAMINATIONS

- 715.** Occasional health examinations will be conducted on or prior to:
- a. discharge from the Service including reversion of exchange personnel to own Service,
  - b. five yearly medical examinations,
  - c. flying as passenger in Defence Force jet aircraft (non-transport),
  - d. medical examination for Retention Benefit under Military Superannuation Benefits Scheme (MSBS),
  - e. officers posted in Command of Fleet units,
  - f. overseas posting,
  - g. posting to remote localities including homeported Minor War Vessel (MWV) at a remote locality,
  - h. posting to a sea going ship,
  - i. promotion to commissioned officer,
  - j. re-enlistment,
  - k. transfer branch/duty,
  - l. transfers between Services, and
  - m. undertaking strenuous physical courses,

Details of documentation required are specified at annexes A and B to this chapter.

**716. Short Term Duty.** When a member is posted to a sea going unit for Short Term Duty (TBILLET) there is no requirement for Form PM 197—*Supplementary Health Examination* to be completed more frequently than **annually**, provided that scrutiny of their Form PM 4—*Unit Medical Record* (UMR) indicates that there has been no significant illness or disability since the previous medical screening. The member's HBV/HCV/HIV status/immunisations/vaccinations are to be in date. Confirmation of this scrutiny and any other applicable information is to be annotated on Form PM 105—*Outpatients Clinical Record*. A member not satisfying the standards laid down in annexes A and B to this chapter may be required to be brought forward for Interim Medical Survey (IMS) in accordance with chapter 9. For members posted for Short Term Duty (TBILLET) as Commanding Officer (CO)/Executive Officer (XO) of a Fleet unit (see paragraph 769 for details).

**717.** Isometric standards have not been devised for males or females and it is recommended that instructors on Nuclear Biological Chemical Defence courses should pay particular attention to ensure that all personnel are physically capable of performing tasks that might be required of them in an emergency, eg lifting hatches and opening watertight doors, etc. People who are unable to perform such tasks **should not serve at sea** and are to be assessed on their fitness to serve in the RAN in accordance with DI(N) PERS 31-8—*Employment Standard Review Procedures*.

### Female Members

- 718.** Prior to posting to sea going billets female members are to:
- a. Have their Form PM 4 carefully scrutinised by a MO to determine:
    - (1) that the member satisfies the health standards required for the specific branch, and

- (2) the member has no past history of any significant menstrual or gynaecological disorders.
- b. Be examined by a MO and the examination recorded on Form PM 197. Any case of doubt regarding fitness for sea, is to be forwarded to Fleet Medical Officer (FMO) for decision.
- c. Be informed that the ship will not carry a wide range of oral contraceptives and that members taking such medications will need to obtain adequate supplies prior to embarkation.
- d. Be counselled that if they may be in the early stages of pregnancy, their state should be confirmed and, if **positive**, IMS is to be conducted. The early stages of pregnancy may present with potentially dangerous complications in a sea going environment, and consequently **a pregnant member is not to be posted to sea**. A member becoming pregnant during a sea posting is to be **landed within two weeks** or as soon as practicable of the diagnosis of pregnancy;
- e. Complete Form AB 815—*Advisory Statement by Female Members* (see annex R to this chapter).

**719.** If it is considered desirable for a member, who does not meet the medical standards of their branch, to proceed to sea but not perform certain specific duties of that branch, the full details are to be forwarded to FMO requesting a waiver of standards.

### **Gynaecological Examination**

**720.** In addition to periodic or occasional medical examinations prescribed elsewhere in this chapter, it is recommended that female members taking anovulants have **annual** gynaecological examinations (both manual and by speculum) including a Papanicolaou (PAP) smear and breast examination. This is to be recorded on Form PM 6. It is recommended that female members who are not taking anovulants have the PAP smear **biennially** up to the age of 35 and then **annually** thereafter. See ABR 1991, volume 2, chapter 141 for full details.

### **Chest X-rays**

**721.** Requests for routine chest X-rays may be raised by any medical branch member. Chest X-rays are to be undertaken as shown in annexes A and B to this chapter.

**722.** Except when **clinically indicated** chest X-rays are not to be repeated if there is a clear chest X-ray recorded **within the preceding 12 months**.

**723.** Routine chest X-ray details are to be recorded on Form PM 85—*Medical Examination Record*, Form PM 197, or Form PM 360 prior to transmission of these documents and within 14 days of examination.

**724.** Routine and diagnostic chest radiography on members who are pregnant, or likely to be pregnant can be safely performed at any time during pregnancy. Although not mandatory, basic shielding of the pelvis of pregnant women at all times is advised. See Surgeon General Australian Defence Force Health Policy Directive (SGADF HPD) 223—*Radiography in Women of Child-bearing Age* for full details.

### **Hepatitis B Virus/Hepatitis C Virus/Human Immunodeficiency Virus Testing**

**725.** The following are RAN testing requirements arising from Australian Defence Force (ADF) policy as detailed in SGADF HPDs:

- a. **On Entry.** All recruit entrants are to be HBV/HCV/HIV tested **as soon as possible** after arrival at the initial training establishment.
- b. **Sea Posting.** Members serving at sea are to be **HIV negative**. A negative test is considered current for **three** years.

- c. **Civilian Personnel.** Civilian personnel embarking in HMA ships are not to be routinely tested. There may rarely be a destination country requirement for testing.
- d. **Transiently Embarked ADF Personnel.** There is no RAN requirement for ADF personnel transiently embarked in HMA ships not leaving Australian waters to be tested.
- e. **Overseas Travel.** Personnel posting overseas are to be HIV tested as follows:
  - (1) for courses (other than the United States of America (USA)) or duty to be HIV tested **within six months of departure.**
  - (2) **USA for Courses.** In all cases personnel are to be HIV tested **within three months of departure** (US SECNAVINST 4950.4/AFR 50-29-UPDATE, Section V, Medical and Dental Care, paragraph 10-45 refers). A certified true copy of the member's HIV result is to be forwarded within three months, and as soon as practicable to the United States Navy (USN), Australia Training Manager, Embassy of the United States of America, Moonah Place, Yarralumla, ACT 2600.
  - (3) **USA for Duty.** Personnel are to be HIV tested **within six months of departure.**

Testing is not necessary for brief overseas visits unless it is the requirement of the destination country. Advice regarding such requirements may be obtained from the Office of the Surgeon General, Australian Defence Force (OSGADF).

- f. **Sexually Transmitted Disease (STD) Surveillance.** On all occasions when STD serology testing is performed; HBV, HCV and HIV testing are also to be carried out. In the case of a ship on deployment, serum is to be frozen for routine testing on return to Australia. and
- g. **Voluntary Testing on Request.** Personnel who have been exposed to 'at risk' behaviour should be encouraged to undertake testing on a voluntary basis after counselling by a MO in accordance with HPD 210—*Counselling Requirements Associated with HIV Antibody Testing of Members of the ADF*. In particular noting the **average window period for sero-conversion is 12 weeks.**

**726. Testing Procedure.** All routine HBV, HCV and HIV testing is to be performed by the Pathology Department, Balmoral Naval Hospital (BNH). Samples are to be sent to BNH either by Royal Australian Air Force (RAAF) or commercial sources. Any queries are to be directed to Manager Pathology Services, BNH. Should any of the above tests be conducted at an alternate Pathology Department, the results are to be forwarded to ADF Health Records—Navy with accurate and complete service particulars annotated on the report.

**727. Reporting Procedure.** Results of tests performed will be notified directly to the member's ship or establishment by BNH. These results are to be allocated an enclosure number. The original is to be forwarded to DGNHS for enclosure in the member's Central Medical Records (CMR) and the duplicate filed in the members UMR.

**728.** A 'Medical-in-Confidence' listing of HBV, HCV and HIV test results for the ships' company will be provided by ADF Health Records—Navy every three months or on request. The listing will be forwarded double enveloped and addressed 'TO BE OPENED BY THE COMMANDING OFFICER ONLY'. The list is to be kept on a 'limited access' file and destroyed as classified material when an updated Report is received. These lists are evidence of the ships' company having been screened for HBV, HCV and HIV and may be used to satisfy 'authorised officials' of foreign countries if required.

**729. Annual HIV Testing of USN/United States Marine Corps (USMC) Personnel Assigned to Australia.** All USN/USMC personnel assigned overseas are to have annual HIV tests performed. The RAN has agreed to perform these HIV tests as required for USN/USMC personnel posted to billets in Australia. The individual USN/USMC members will be notified by the United States (US)

Defense Attache Office, Canberra when HIV testing is required. Following notification, the individual member will report to the nearest RAN health facility for testing. All blood samples are to be forwarded to BNH for testing. Annex Q to this chapter details the exact procedure to be followed for HIV testing of USN/USMC personnel.

## AIRCREW MEDICAL EXAMINATIONS

**730. Aircrew Selection.** Prior to commencement of flying training a full medical examination is to be performed in accordance with the standards and procedures prescribed in ADFP 701, chapter 9.

**731. Annual Examination.** All aircrew in receipt of flying pay are to be examined **annually**. An in-date aircrew medical will be sufficient for sea posting provided scrutiny of Form PM 4 indicates that there has been no significant illness or disability since the previous medical screening. Where Form PM 4 scrutiny indicates a problem which may interfere with the sea posting, then a full medical examination is to take place prior to the sea posting.

**732.** The standards shown at annex D to this chapter are to be met by all aircrew. Any member who does not meet the requisite standard is to be made 'temporarily unfit to fly' (At or Bt as necessary) until such time as the standards are attained. Attention is to be paid to the requirements for Air Medical Boards detailed in chapter 9. Aircrew flying medical categories are detailed at chapter 9 annex B.

**733.** When an aircrew member is found on examination to have a defect in vision, they are to be referred to an ophthalmic specialist for advice as to whether corrective flying spectacles/contact lenses are a practicable solution for the defect. Upon receipt of the report from the specialist, a copy of Form PM 6 is to be forwarded to DGNHS. This is to be accompanied by a report by the CO as to whether it is considered that the member should be retained for flying duties. When a member is recommended for retention in such duties, the report is to contain details of their flying experience.

**734. Corrective Spectacles for Aircrew.** Aircrew are entitled to be issued **two** pairs of clear and **two** pairs of tinted lenses, except for aircrew who routinely use a helmet when flying and are only entitled to **one** pair of tinted corrective spectacles. See SGADF HPD 221—*Optical Aids* for full details.

**735. Contact Lenses for Aircrew.** Aircrew may be issued with **soft** contact lenses in lieu of one pair of clear corrective spectacles. The issue of contact lenses to aircrew requires specific action and full details are contained in SGADF HPD 221.

**736.** The wearing of corrective flying spectacles/contact lenses **must be approved** by DGNHS. The member is to be reviewed by a ophthalmologist every **12 months**.

**737.** The flying medical category is to be endorsed 'with corrective spectacles or contact lenses'. Whenever corrective flying spectacles are supplied, the member is to take their flying helmet and face mask to the supplier to ensure correct fitting.

**738. Periodical Medical Examinations.** Aircrew are to be examined on the following additional occasions (Form PM 85):

- f. Before an officer or sailor is permitted to resume flying duties after a period on the Sick List or in hospital, which, in the opinion of the MO or Phase 4 MEDICAL trained sailor of the ship or establishment, may have caused them to fall below the prescribed standard of medical fitness.
- g. After an accident when the Squadron Commander, or the MO, considers that the occupants of the aircraft, even if apparently uninjured, may be suffering, or may later suffer, from the effects of the accident (*see also* ABR 1991, volume 2, chapters 74 and 75).
- h. When an officer or sailor selected for training as aircrew has not commenced their flying training at an elementary flying school, or at any other place of flying instruction within **six months** of a previous medical examination for fitness for flying.

- i. When a member of aircrew is to appear before an Aircrew Medical Board.
- j. Prior to proceeding overseas for exchange service or flying courses.
- k. **Annually** in accordance with annexes A and B to this chapter.

#### **Authority to Examine Aircrew**

**739.** Annual and occasional aircrew medical examinations are normally to be carried out by naval MO experienced in Aviation Medicine (AM) at NAS NOWRA or wherever squadrons/flights are deployed. Whenever experienced AM naval MO are unavailable to conduct these examinations, the services of RAAF MO may be utilised.

**740.** Where a MO is not borne, Phase 4 trained medical sailors are authorised to apply Flying Medical Categories At or Bt (see chapter 9 annex B) if doubt exists as to a member's fitness to fly (annex G to this chapter details the Temporary Restrictions due to medical/dental reasons). Normally reinstatement of 'fitness to fly' will follow review by a MO, but, in strictly self limiting conditions and if a MO is not available, the Phase 4 trained medical sailor may remove the 't' classification.

**741.** On every occasion an aircrew member is examined by, or consults a MO or Phase 4 trained medical sailor, the member is to be given a 'certificate' signed by the MO or Phase 4 trained medical sailor stating whether or not the member is 'fit to fly' and, if 'unfit', given an approximate duration of the members' unfitness to fly. When certified 'fit to resume flying activities' a Form PM 105—*Outpatient Clinical Record* is to be signed by the MO or Phase 4 trained medical sailor.

#### **Aviation Physiology Indoctrination and Refresher Courses**

**742.** All RAN aircrew undergo aviation physiology training during basic aircrew training at RAAF establishments. Subsequent refresher training with endorsement of their flying logbook is to be undertaken every two to four years.

**743.** The refresher training is to be arranged with RAAF Richmond by the Squadron CO or Base Flying Safety Officer for the appropriate aircraft type.

### **HELO CONTROL OFFICER/FLIGHT DECK OFFICER**

**744. Selection.** Prior to commencement of training, Helo Control Officers (HCO)/Flight Deck Officers (FDO) candidates are to have a health examination in accordance with annex A to this chapter. Full details on selection is contained in ABR 5419—*Ship Helicopter Operations Manual* volume 1 chapter 4.

**745. Periodic Medical Examinations.** All HCOs/FDOs are to be examined at the frequency shown in annex A to this chapter.

### **FLIGHT DECK MARSHALL**

**746. Selection.** Prior to commencement of training, Flight Deck Marshall (FDM) candidates are to have a health examination in accordance with annex B to this chapter. Full details on selection is contained in ABR 5419 volume 1 chapter 4.

**747. Periodic Medical Examinations.** All FDMs are to be examined at the frequency shown at annex B to this chapter.

## MEDICAL EXAMINATION OF DIVERS—CLEARANCE AND SHIPS

### 748. General information for MO:

- a. A high standard of physical and mental fitness is required for diving. In addition to excluding major disqualifying medical conditions examining MO should identify and give careful consideration to minor chronic, recurring or temporary mental or physical illness which may distract the diver and cause the diver to ignore factors concerned with the diver's own and others safety. The diver's past or projected employment will influence the scope of certain items in the medical examination. The opinion on fitness to dive should always be formed on the whole of the medical examination.
- b. Particular attention must be paid to past medical and diving history. Any doubt in either of these areas should be clarified by obtaining further details to enable a correct evaluation of their significance. The diver should be asked specifically for details of any current medication. A member with a history of alcohol or drug abuse is **automatically permanently unfit** for clearance diving (CD).
- c. Exposure to pressure shall not form part of the medical examination except in cases where minimal compression is required to establish ability to confirm patency of the eustachian tubes.
- d. Medical standards for RAN divers are detailed at annex J to this chapter.
- e. The final authority on medical aspects of fitness to dive is DGNHS on the advice of the Officer-in-Command (OIC) Submarine and Underwater Medicine Unit (SUMU).

### Medical Examination Prior to Selection for Diving Training

**749.** Prior to undertaking any familiarisation dive or being exposed to any increase in ambient pressure, and before the application for diving course is forwarded, a full diving medical examination is to be conducted in the candidate's ship or establishment. This medical examination is **valid for 12 months**. It should be noted that Colour Perception Standard One is required for the CD Branch. The following is also to be carried out:

- a. A further medical examination, which can be carried out by a Phase 4 trained medical sailor or Underwater Medicine trained sailor, is to be conducted **seven days** prior to commencement of the course, to exclude acute conditions such as upper respiratory tract infections and blocked eustachian tubes which constitute temporary unfitness for diving. The result of this examination is to be recorded on Form PM 105.
- b. The Form PM 4 and enclosures of each candidate is to be taken by hand by the officer or sailor to SUMU before the commencement of course (*see also* paragraphs 628 to 634).
- c. All candidates will be finally examined at SUMU prior to starting their course. This examination is to be recorded on Form PM 6 and is to include perusal of UMR, examination of ears, nose and throat, a clinical examination of the chest, respiratory function test and an audiogram to 8000 Hz, in those cases where this was not possible in the candidate's parent ship or establishment.
- d. All diving personnel, **except** ships' divers are to have long bone and joint X-ray examinations (*see annex M* to this chapter) during their initial diving training course. These X-rays are to be retained by SUMU (*see* paragraph 651).
- e. Mandatory medical criteria for 'rejection from diving' are detailed at annex K to this chapter and **are absolute**.

- f. **Foreign Advanced Diving Course.** The medical fitness prerequisites for participants selected for the Foreign Advanced Diving Course are contained in paragraph 758.

### Annual Examinations

**750.** All divers must have medical examinations on their birthday, at the frequency shown at annexes A and B to this chapter. Where practicable all clearance divers should be examined at SUMU.

**751.** On the occasion of the **biennial medical**, all qualified divers are to be tested for their proficiency in cardio-pulmonary and general resuscitation. The test is to include the setting up and use of the Oxy-viva and the Manley Adaptor. The fact that testing has taken place and an acceptable level of proficiency has been achieved is to be recorded at Box 67 of Form PM 85 and in an appropriate place in the diver's personal Logbook.

**752.** In the event of a diver not being able to achieve the required periodic fitness standards, they are to be advised on methods of improving their fitness and then reexamined in **three months**. In the event of a failure on re-examination, the diver is to be brought forward for IMS to determine 'fitness for further diving'. In the case of CDs, the members of the Medical Board is to include the Officer in Charge, School of Underwater Medicine (SUM), or a MO experienced in Underwater Medicine.

**753.** In addition to the details which are recorded on the medical form, the results of the examination will be recorded in the diver's Logbook together with dates of chest, long bone and joint X-rays. The examining MO is to cause an entry to be made in the Logbook as to the fitness of the diver. Any restrictions that the MO may wish to impose must be clearly indicated and explained to the diver.

### 754. Special Investigations:

- a. **Pulmonary Function Tests.** (See annex L to this chapter.) All divers must have **annual** pulmonary function tests to establish Forced Expiratory Volume (FEV) at one second and Forced Vital Capacity (FVC), as part of the periodic medical examination. An FVC of **less than 3.5 litres** or an FEV(1)/FVC ratio of **less than 75 per cent** at the initial medical examination **and 70 per cent** at subsequent examinations **are causes for rejection** unless further pulmonary function testing reveals no abnormalities.
- b. **X-rays:**
- (1) **Chest X-ray.** A large plate postero-anterior chest X-ray shall be performed as detailed at annexes A and B.
  - (2) **Long Bone and Joint X-rays.** CDs, are to undergo an X-ray examination of long bones and joints:
    - (a) **initially**, during the Clearance Diving qualification course and prior to commencing diving to a depth exceeding 30 metres; and
    - (b) on **cessation** of active diving by the member;
  - (3) With respect to conduct of divers' X-rays:
    - (a) results of all bone and joint X-ray examinations are to be recorded in Form OM 101—*Diver's Logbook* and the X-ray examination report (Form PM 6) retained in the diver's Form PM 4;
    - (b) all CDs' X-rays (chest, long bone and miscellaneous) are to be retained by SUM (see paragraph 650);

- (c) Form PM 6 (Request for X-ray) should be clearly endorsed 'Diver's Long Bone X-ray Investigations'; and
  - (d) procedure for long bone surveys is detailed at annex M to this chapter.
- c. **Urine.** Examination of the urine is to be performed by accepted dipstick techniques. Any evidence of abnormality, particularly any glycosuria or albuminuria, is to be fully investigated.
- d. **Electrocardiogram (ECG) Examination.** ECG examinations are to be conducted if clinically indicated. The advice of OIC SUMU should be sought in conjunction with the periodic medical examination.
- e. **Audiometry.** Biannual audiometric examination is to be carried out. Audiometry is also to be conducted in cases where there is a recent history of significant noise exposure, aural barotrauma, decompression sickness affecting the ear, or change in hearing. Candidates for diving must be HS1. HS2 is acceptable in trained divers. Any deterioration in auditory acuity is to be referred for ear, nose and throat (ENT) specialist opinion.
- f. **Exercise Tolerance Test.** See annex J, serial 6 (c) to this chapter.
- g. **Sharpened (Tandem) Rombergs Test.** Sharpened (Tandem) Rombergs Test is to be recorded as a stable standing time over a period of 240 seconds, ie 4 x 60 seconds (annex J appendix 1 to this chapter refers) record on Form PM 85.

## EXAMINATION PRIOR TO DIVING

**755.** The Diving Officer is to ensure that all divers who do not dive at least every **three months**, prior to commencing a diving operation, be in possession of a certificate noting they are 'fit to dive'. On every occasion a diver is examined by, or consults a MO or medical sailor (UM), they are to be given a certificate signed by that medical person stating whether or not they are fit to dive. If the diver is 'unfit to dive' they are to be given an approximate duration of their unfitness to dive. When certified fit to resume diving activities a Form PM 105 is to be signed by the MO, Phase 4 trained medical sailor, or medical sailor (UM).

**756.** Medical examination is to be performed on the following occasions:

- a. Any illness or injury requiring a medical opinion and resulting in inability to dive for a period exceeding **seven days**, but **less than** 28 days, shall require such reexamination as is considered necessary by the MO and should be recorded on Form PM 105.
- b. At any time a diver has been declared 'Temporarily Medically Unfit to dive' for a period **exceeding** 28 days the diver is to be medically examined before being permitted to dive, and this is to be recorded on Form PM 85.
- c. In ships and establishments where diving is carried out at infrequent intervals, ie minimum monthly diving not being attained for two months in succession, the diver is to be medically examined before the commencement of diving practice or operation, and this is to be recorded on Form PM 6. This examination is to be conducted by a Leading Seaman Medical or higher who is qualified in UM and is to include an examination of medical documents, ENT and respiratory functions.

- d. If due to detached diving operations the special investigations detailed in paragraph 754 may not be conveniently carried out, a diver may dive subject to operational requirement and the remainder of the medical examination being satisfactory. In these cases the special investigations must be performed at the first available opportunity.
- e. **Implants.** In order to avoid possible dysbaric osteonecrosis, hyperbaric effects on healing bony fractures and possible diagnostic difficulties in managing cases of musculo-skeletal decompression sickness, the following restriction will apply to all divers in the RAN. **All divers** with any internal metal fixture greater than minor digit or tendon wiring, are to be considered '**unfit to dive**' until the implant is removed. Individual cases of difficulty, such as divers with complete joint prostheses, are to be referred by IMS to DGNHS for decision with respect to diving fitness.
- f. **Explosive Ordnance Implications.** Modern explosive ordnance often employs sophisticated circuitry in the detonating mechanism, which is responsive to small changes in the local earth magnetic field. The metals used in internal fixation of orthopaedic conditions may have a significant effect on local magnetic fields, particularly the larger plates, and K-nails used in long bone fractures. Metal plates and wires used in digits may significantly affect local magnetic fields around the fingers which are used in the delicate defusing of modern explosive weapons.
- g. The exact electromagnetic characteristics of internal metal fixateurs are not yet known, although individual assessment facilities are available through government scientific establishments. Pending the results of in-vitro E-M trials and assessment of the more commonly used metal implants, the following restrictions will apply to diving personnel involved in the defusing and use of minewarfare explosive ordnance. All divers with any metal implant are to be considered 'unfit for ordnance related duties', until the implant has been removed. In the event that an extremely specialised diver has a special requirement to remain associated with ordnance related duties, then special arrangements are to be made through DGNHS to have the diver assessed for in-vivo magnetometric sensitivity. The results of the assessment will be reviewed by DGNHS and the member's diving and ordnance fitness individually notified.

**757.** If there is any doubt as to a diver's psychological competence to dive, the diver must not be permitted to enter the water until an assessment of the diver's capability has been carried out by a MO experienced in UM. If appropriate the opinion of a Consultant Psychologist and/or Psychiatrist is to be obtained.

## **MEDICAL FITNESS—FOREIGN ADVANCED DIVING COURSE**

**758.** The medical fitness prerequisites for participants selected for the Foreign Advanced Diving Course are:

- a. be tested for HBV, HCV and HIV and their immune status be known **prior** to commencement of diving; and
- b. the accompanying medical documentation **must** include the actual chest X-ray (CXR) films, the CXR report being deemed insufficient. *See also* paragraph 749.

## **PERMANENT UNFITNESS FOR DIVING**

**759.** If a diver becomes '**permanently** medically unfit for diving', the diver must relinquish their diving qualification. Permanent unfitness on medical grounds is the decision of DGNHS on the recommendation of a Board of IMS. Where possible a MO who has experience in UM should be on the Board.

## **SUBMARINE SERVICE—MEDICAL EXAMINATION OF APPLICANTS AND SERVING SUBMARINE BRANCH PERSONNEL**

**760.** This section covers medical standards and examination requirements for applicants and members of the Submarine Service.

**761.** Annex N to this chapter details the medical standards and guidance for performing medical examinations for Service and civilian personnel.

### **Initial Examination**

**762.** On initially volunteering for Submarine Service, applicants are to undergo a full medical/dental examination at their parent ship/establishment supporting health facility, eg Fleet units without a MO will use the facilities of the medical guard posted for the week. The member's health records are to be scrutinised and the member questioned for any history of seasickness, respiratory illness, including wheeze, and difficulty clearing ears, eg in aircraft or while snorkelling. **Any evidence of other than a trivial problem is to be considered grounds for permanent medical rejection from the Submarine Service.** Examination to be performed in strict accordance with annexes A and B to this chapter. Doubtful cases should be discussed with the Squadron Medical Officer.

**763.** Where equipment is not available for special examinations, eg Vitalograph, arrangements may be made for these examinations to be completed at other Service establishments or civil institutions as appropriate. The examinations are to be performed prior to the Form PM 85 being signed by the MO.

**764.** The above examinations are intended to prevent applicants who are obviously unsuited to the submarine environment or the demands of the Submarine Escape Training Facility (SETF) being selected and thus avoid the high cost involved in travel and training. It is therefore essential that examinations and standards be **strictly** conducted and applied as detailed at annex N to this chapter.

**765.** On successful completion of the medical and dental examinations a signal is to be sent to DEFNAV CANBERRA stating:

**'SUBJECT TO SATISFACTORY RECOMPRESSION CHAMBER TEST ABOVE NAMED MEMBER MEDICALLY FIT FOR SUBMARINE SERVICE'.**

### **Second Examination at Submarine and Underwater Medicine Unit**

**766.** Following successful completion of initial selection criteria, applicants will be placed on a submarine service volunteers list to await posting to HMAS PLATYPUS. On successful completion of the medical examination requirements, HMAS PLATYPUS or HMAS STIRLING are to arrange for SETF examination and transfer of documents to SETF by hand, of the course member.

**767.** On posting to HMAS PLATYPUS the following examinations will be conducted by the SUMU at HMAS PENGUIN:

- a. Examination on Form PM 6 to ensure that medical standard requirements have been met at the initial examination and that the applicant is fit to undergo recompression chamber test.
- b. Recompression chamber dive to 30 metres maintaining a slow descent for the first 10 metres. Record test result on Form PM 6.

## AUSTRALIAN SUBMARINE RESCUE VEHICLE REMORA SERVICE—MEDICAL EXAMINATION OF PERSONNEL

**768.** All Defence personnel who undertake travel in the Australian Submarine Rescue Vehicle (ASRV) REMORA are required to undergo the following:

- a. A medical examination within seven days of the scheduled travel. The initial examination is to be recorded on Form PM 85. This PM 85 will remain **valid for three years**.
- b. Must comply with the requirements of a RAN submarine medical examination, with no contraindications to exposure to increased ambient pressure. Annex N to this chapter details the medical standards and guidance for performing the examination.
- c. On completion of the medical examination and if applicable, a Form PM 101—*Medical or Dental Fitness Advice* is to be completed and the words quote 'Fit to travel in ASRV' unquote are to be inserted in the 'Other Comments' box. The box quote 'Full Duty' unquote is to be also ticked. The original Form PM 101 (Unit Copy) is to be forwarded to the ASRV Supervisor prior to any travel being undertaken. The duplicate and triplicate copies are to be destroyed. and
- d. Following the initial examination in subparagraph 768.a. above, the member is to be re-examined **within seven days** of each scheduled travel/exercise and this is to be recorded on Form PM 6. This examination can be conducted by a Skill Grade 4 medical sailor and is to include an examination of the member's medical records, ENT and respiratory functions. On completion of the examination and if applicable, a Form PM 101 is to be completed as stated in subparagraph 768.c. above. This medical examination is **valid for** seven days or the length of the ASRV exercise.

## OFFICERS POSTED IN COMMAND OF FLEET UNITS

**769.** Upon notification of posting to command of a Fleet unit or upon posting as XO of a Major Fleet Unit, members are to be medically examined in accordance with annex A to this chapter. Major Fleet Units are designated as those ships belonging to the following classes AGS, AGT, AO, AOR, DDG, DE, FFG, FFH, LPA, LSH, and SM. This examination **must be completed prior to** the promulgation of a posting to the CO/XO Designate course which is required to be undertaken prior to assuming command. This medical examination is to be conducted by a naval MO of the rank of Lieutenant Commander or above. When a member is posted in command of a Fleet unit or as XO of a major Fleet unit for **Short Term Duty** (TBILLET), they also are to be medically examined in accordance with annex A to this chapter.

**770.** Whenever this medical examination precedes the date of the COs/XOs posting by more than three months, the officer is to be **reviewed** by a MO within one month prior to the date of assuming command. The MO is to certify on Form PM 6 that 'the officer has suffered no recent morbidity' which would alter their medical fitness to assume command. Any cases of doubt should be directed to the FMO.

**771.** Upon completion of the initial Command medical examination, the member's UMR is to be forwarded to Maritime Headquarters (Attention: Fleet Medical Officer) for confirmation of medical fitness for command. FMO is to forward 'Confirmation of Fitness' in writing to DNOP to allow posting action to occur.

**772. Annual Examinations.** COs/XOs, thereafter, are to be medically examined **annually** as detailed in annex A to this chapter. The first medical examination after assuming command may be omitted if the anniversary of the date of birth is no more than six calendar months after the command (designate) medical examination. The annual medical examination of COs of major Fleet units is to be conducted by a MO of at least the rank of Lieutenant Commander.

## NOMINATION FOR PROMOTION TO COMMISSIONED OFFICER

**773.** Prior to being nominated to Navy Headquarters as an Officer Candidate, the member is to be examined to ensure that the health standards for the particular branch applied for are met. Examination is to be performed in accordance with annex B to this chapter.

## MEDICAL FITNESS FOR PROMOTION

**774.** A **medical examination** prior to a member's promotion to higher rank is **not required**.

**775.** A member's 'medical fitness for promotion' will be based upon the medical category in which they are placed. Members in Categories 1 to 4 on or before the last day of the month preceding the selection and authorisation of promotions in Navy Headquarters **will be eligible medically for promotion**. For personnel in **Categories 5 to 8**: for officers see DI(N) PERS 52-2—*Reporting and Promotion System Officers, Warrant Officers and Officer Candidates* and for sailors see ABR 10—*Sailors' Career Management Manual* chapter 6. For personnel allocated Weight Standard Three see DI(N) PERS 31-24—*Management of Overweight Personnel in the RAN*.

## HEALTH EXAMINATION PRIOR TO EXTENSION OF ENLISTMENT UNTIL RETIRING AGE OR FOR A FIXED PERIOD

**776.** Before an application for 'Extension of Enlistment Until Retiring Age or for a Fixed Period' is forwarded to Navy Headquarters the member is to be examined to ensure that the Health Standards at annex D to this chapter are met. The examination is to be performed in accordance with annex B to this chapter and:

- a. Members who have had a health examination using Form PM 85 within the preceding 12 months are to have a health check recorded on Form PM 197. The form is to be endorsed by a MO certifying the member has suffered no significant injury or illness in the interim and is considered 'fit for re-enlistment'.
- b. If the member meets the Health Standards at annex D and is in Posting Category 1 to 4, Form PE 12—*Extension of Enlistment Until Retiring Age or for a Fixed Period* may be endorsed as 'medically fit to re-engage'. If the presiding MO has any doubts on the member's fitness, then Form PM 85 (both copies) with suitable annotation is to be forwarded to ADF Health Records—Navy for decision.

## RE-ENLISTMENT POLICY FOR MEMBERS IN POSTING CATEGORIES 5 TO 8 OR BELOW RE-ENLISTMENT STANDARDS FOR THEIR BRANCH

**777.** The following is the re-enlistment policy for members in Posting Categories 5 to 8, or below the Re-enlistment Standards for their branch:

- a. Members who are in Posting Categories 5 to 8 or below Re-enlistment Standards are not to be presumed to be 'medically fit for re-enlistment' **until confirmed** by DGNHS. In these cases the Form PM 85, both copies with suitable notation, including the period of time member wishes to re-enlist, in Box 67, is to be forwarded under separate cover of Form PM 384 annotated 'for decision for re-enlistment'. The member's final date of effective service (date member would proceed on final leave if they were to be discharged) is also to be noted in Box 67 of Form PM 85. DGNHS will return the duplicate Form PM 85 endorsed as 'medically fit' or 'medically unfit' for re-enlistment.
- b. Form PE 12 for members specified in subparagraph 776.b. above, are not to be endorsed as 'medically fit', until DGNHS decision is received. The statement 'temporarily medically unfit for re-enlistment pending DGNHS' decision' is to be provided for inclusion in the format signal in accordance with ABR 10.

## CIVILIAN PERSONNEL EMBARKING IN HMA SHIPS

**778.** The policy and procedures to ensure that civilian personnel embarking in HMA Ships are of a satisfactory medical standard are contained in DI(N) PERS 31–22—*Health Screening of Civilian Personnel Embarking in HMA Ships/Submarines*. Any case of doubt regarding fitness for sea, is to be forwarded to FMO for decision.

**779. Female Personnel.** Prior to going to sea, female personnel are to have a health screening in accordance with DI(N) PERS 31–22. They should also be advised that the ship will not carry a wide range of oral contraceptives and that members taking such medications will need to obtain adequate supplies prior to embarkation.

### Civilians on Submarines and Attending Submarine Escape Training Facility

**780. Carriage of Civilians on Submarines and Attending SETF for Escape Training.** Annex N appendix 6 to this chapter details the Medical Standards for the carriage of civilians on submarines and attending SETF training.

**781.** Medical examinations for the carriage of civilians on submarines and for civilians attending SETF for Escape Training are also detailed in DI(N) PERS 31–22.

## HEALTH EXAMINATION FOR POSTING OVERSEAS

**782.** All members posted overseas are required to be medically examined **twice** prior to departure as follows:

- a. on receipt of posting order, and
- b. not earlier than **seven days** before departure.

**783.** They are also to be assessed to determine whether they have any **medical management requirements** which may not be available especially if it is to an overseas 'remote area' posting. The major determinant of which localities are considered 'remote' is the access **at that locality** to specialist medical, surgical or paramedical services. If the availability of services at a locality are in doubt, advice is to be obtained from the Chief Staff Officer (Health Services) or from the OSGADF.

**784.** Medical management requirements which may render a member 'unfit to serve overseas' include:

- a. requirement for elective surgery;
- b. incomplete convalescence from surgery including post-operative reviews and physiotherapy;
- c. planned specialist or other medical reviews associated with IMS schedules;
- d. chronic or recurrent disabilities (especially orthopaedic, gynaecological or psychiatric) which require further specialist review or treatment; and
- e. members who are Weight Standard Three **are not eligible** for overseas postings.

**785.** The member's health records are to be scrutinised for evidence of previous psychological/welfare problems or alcohol abuse, which might cause problems whilst serving overseas. Any evidence of such potential problem is to be signalled (Medical-in-Confidence) to DGNHS who will initiate any necessary action.

**786.** The medical examination is to be performed in accordance with annexes A and B to this chapter. If the member is found to be **medically unfit** for overseas posting, a signal is to be sent to Navy Headquarters **immediately**. Members who have had a health examination using Form PM 85 within the **preceding six months** are to have a health check recorded on Form PM 197. The form is to be endorsed by a MO certifying the member has suffered no significant injury or illness in the interim and is considered 'fit for overseas duty'.

**787.** Where a member is to be accompanied by their dependents at public expense, arrangements for medical and dental examination are to be forwarded to Navy Headquarters by signal.

**788.** The **second** medical examination is to be recorded on Form PM 197 annotating Box 5 'Second Overseas Medical'. The following endorsement is to be included in Box 25: 'This member of the RAN has no communicable disease detected. HIV screening test (dated) is negative.' **One copy of Form PM 197 is to be given to the member.** A signal is to be sent to Navy Headquarters only in cases where a member **is found to be unfit** for posting overseas.

**Note:** Whilst serving in **Papua New Guinea**, the requirement for routine or periodic medical examinations for RAN personnel will be waived. Observing that the interval between examinations of such personnel may exceed two years, the provisions of paragraphs 784-6 assume even greater importance. At these examinations medical officers are to look critically at any condition which might reasonably be expected to flare up during this interval and to advise accordingly.

**789. Medical Equipment Sets, Individual, Foreign Service (MESIFS).** Members posted for overseas service in remote areas where medical treatment is unavailable or of an inferior standard to that normally available in Australia may request to be issued MESIFS. Members are to be advised at the time of their initial medical, that it is their own responsibility to apply for issue of MESIFS. *See also* chapter 10 in this manual and ADFP 703—*Management Procedures for Medical and Dental Materiel*, chapter 12 for full details.

### Dependants

**790.** Medical and dental examination of a member's dependants is **not compulsory**, but under normal circumstances it will be necessary if a family member is to qualify for the financial assistance to provide medical care under the provisions of INDMAN 1—*Manual of Salaries and Conditions of Service for the Permanent Forces—Conditions Relating to Overseas Service*, volume 4, chapter 37.

**791.** Where a member's dependants elect to be medically and dentally examined, the member is to make appropriate arrangements before departure details are finalised. These examinations will normally be performed by Service medical/dental officers. However, in extenuating circumstances, eg remote localities or family inability to attend a Service establishment, examinations may be performed by a Government MO or general practitioner as authorised by a Service medical/dental officer.

**792.** The purpose of these medical/dental examinations is to determine whether the dependant is suffering from any medical/dental disability which is likely to involve continuing and lengthy treatment while that dependant is overseas. In any case of doubt as to fitness to proceed overseas advice is to be sought from DGNHS.

**793.** The dependants medical/dental examination, if performed, is to be recorded on Form PM 6, **NOT** allocated an enclosure number and the duplicate copy enclosed in the serving member's Form PM 4. The original Form PM 6 is to be forwarded to DGNHS. An examination report by a MO other than from Service sources is to be photocopied and included in the member's Form PM 4. The original report is to be forwarded to DGNHS.

## ARMY PERSONNEL POSTED TO HMA SHIPS

**794.** Army personnel are to be category Fit Everywhere prior to being posted to one of HMA ships.

**795.** Prior to posting a member is to be examined by an Army Medical Board. The Medical Board Report is to be forwarded to the FMO for perusal and confirmation of member's fitness.

**796.** Army personnel on a long term posting, (ie in excess of 12 months) are subject to a 'Periodic Medical Board' (PMB) **within two months** of the anniversary of the date of enlistment:

- a. **triennially**—under 35 years of age, and

- b. **annually**—35 years and over.

**797.** The medical examination to be recorded on:

- a. Form PM 166—*Entry Medical Examination Record*, and
- b. Form PM 285—*ECG Request and Report* if 35 years of age and over.

The UMR is to be held when a PMB is conducted. The CMR may be obtained should the Board require it.

**798.** The requirement for a chest X-ray will be waived if the member has had a clear chest X-ray within the **preceding 12 months**. The date and result of this X-ray is to be recorded on Form PM 166.

**799.** A statement of the member's 'fitness to continue their present posting' is to be annotated on Form PM 166. Naval medical criteria for service at sea apply.

**800. Female Personnel.** Prior to going to sea, female personnel are to be examined by a MO and have determined that they have no past history of any significant menstrual or gynaecological disorders. A statement of the member's 'fitness for sea' is to be annotated on Form PM 166. They are to:

- a. be advised that the ship will not carry a wide range of oral contraceptives and that members taking such medications will need to obtain adequate supplies prior to embarkation;
- b. be counselled that if they may be in the early stages of pregnancy, their state should be confirmed and, if positive, be advised that the early stages of pregnancy may present with potentially dangerous complications in a seagoing environment, and consequently the person should not go to sea; and
- c. complete Form AB 815 (*see annex R to this chapter*).

**801.** All members are to undergo **annual** dental examination. This examination is to be recorded on Form PM 344—*Dental Clinical Record*.

**802. Army Health Documentation.** When treating Army personnel in RAN Health Facilities, the **duplicate** health documentation is to be forwarded to DGNHS for onforwarding to relevant Army authorities.

## ROYAL AUSTRALIAN AIR FORCE PERSONNEL POSTED TO HMA SHIPS

**803.** RAAF personnel are to be category/mustering A4, G2, or Z1 prior to being posted to one of HMA ships.

**804.** Prior to posting a member is to be examined by a RAAF Medical Board. The Medical Board Report is to be forwarded to the FMO for perusal and confirmation of the member's fitness.

**805.** RAAF personnel on a long term posting (ie in excess of 12 months) are subject to a Periodic Medical Examination (PME) **within one month** of the member's birth date:

- a. Aircrew—**annually**, and
- b. all other personnel—**five yearly**.

**806.** The medical examination is to be recorded on RAAF Form PM 128—*Medical Examination Record—Serving Member*. The Personal Medical Record is to be held when a PME is conducted.

**807.** The requirement for a chest X-ray may be waived if the member has had a clear chest X-ray within the **preceding 12 months**. The date and result of this X-ray is to be recorded on Form PM 128.

**808.** A statement of the member's fitness to continue their present posting is to be annotated on the Form PM 128. Naval medical criteria for service at sea apply.

**809. Female Personnel.** Prior to going to sea, female personnel are to be examined by a MO and have determined that they have no past history of any significant menstrual or gynaecological disorders. A statement of the member's 'fitness for sea' is to be annotated on Form PM 166. They are to:

- a. be advised that the ship will not carry a wide range of oral contraceptives and that members taking such medications will need to obtain adequate supplies prior to embarkation;
- b. be counselled that if they may be in the early stages of pregnancy, their state should be confirmed and, if positive, be advised that the early stages of pregnancy may present with potentially dangerous complications in a seagoing environment, and consequently the person should not go to sea; and
- c. complete Form AB 815 (see annex R to this chapter).

**810.** All members are to undergo **annual** dental examination. This examination is to be recorded on Form PM 344.

**811. RAAF Health Documentation.** When treating RAAF personnel in RAN Health Facilities, the duplicate health documentation is to be forwarded to DGNHS for onforwarding to relevant RAAF authorities.

## **HEALTH EXAMINATIONS PRIOR TO TERMINATION OF SERVICE (DISCHARGE), TRANSFERS BETWEEN SERVICES AND REVERSION OF EXCHANGE PERSONNEL TO OWN SERVICE**

### **Termination of Service (Discharge)**

**812.** Prior to terminating service with the RAN the member is responsible for obtaining a full health examination **three months prior** to their discharge date (see chapter 9 for discharge of members in restricted posting categories). This examination is to be performed in accordance with annexes A and B to this chapter. However, the RAN is not required to make the member **dentally fit** for discharge. Health documentation is to be dealt with in accordance with chapter 6. Each form is to be endorsed 'discharge'.

**813.** Where a member is proceeding on leave prior to discharge and will not be available for the medical examination within the specified three months, they are to have a medical examination including discharge documentation **completed prior to leaving their parent unit**. The member is to nominate an ADF health facility where they will present for medical examination **approximately one month** prior to the actual date of discharge. Health records are to be forwarded by the unit where the member is serving to the 'nominated facility', and when the member presents, Form PM 197 is to be raised to verify that the member's medical condition **has not changed** since the date of discharge examination. To ensure that nominated facilities are aware of members who will be their responsibility for healthcare in these circumstances, a locally produced Minute pro forma in compliance with annex F to this chapter is to be despatched with the Form PM 4 by the parent unit.

**814.** In **extenuating** circumstances where the member cannot attend the nominated ADF health facility for the second medical examination as detailed in paragraph 7-113 above, approval is to be sought from DGNHS for the member to be seen by an Army Local Medical Officer (LMO) or their local General Practitioner (GP). Form PM 197 is to be raised and forwarded to the member who is

to give it to their LMO or GP, to verify that the member's medical condition **has not changed** since the date of discharge examination. Any accounts for this service are to be forwarded to the parent unit for payment action.

### Transfers between Services

**815.** The transfer between Services for all ranks will be effected without the requirement for Resignation or Discharge. The health service requirements for the transfer between Services are contained in DI(G) PERS 38-1 (NAVY PERS 40-3)—*Movement of Personnel between the Services*.

### Reversion of Exchange Personnel to Own Service

**816.** Prior to terminating their service with the RAN, the member is responsible for obtaining a full health examination **three months prior** to their discharge date and return to their own Service (see chapter 9 for discharge of members in restricted posting categories). This examination is to be performed in accordance with annexes A and B to this chapter. However, the RAN is not required to make the member **dentally fit** for discharge. Health documentation is to be dealt with in accordance with chapter 6. Each form is to be endorsed 'Discharge—reversion to own Service'.

### Disciplinary/Administrative Discharge

**817.** When a member is recommended for 'Disciplinary/Administrative Discharge' or 'Discharge—Retention Not in the Interest of the Navy (RNIN)', they are to have a health examination performed **immediately** using Form PM 85. This is to ensure that any existing illness/disability receives the appropriate management prior to actual discharge. See ABR 10 for complete details on the procedures to be taken.

### Fitness for Transfer to Other Services or the Australian Naval Reserve

**818.** Members are to be advised that fitness for discharge from the RAN does not signify fitness for transfer to Army, RAAF or re-entry into the RAN or entry into the Australian Naval Reserve (ANR). Entry health standards for all Services are detailed in ADFP 701. Personnel transferring to the ANR are to meet the following health standards:

- a. Be posting Category 1, 2 or 3 at the time of their discharge and meet the appropriate re-engagement standards for their category as contained at annex D.
- b. Permanent Naval Forces (PNF) members joining the ANR in billets which require posting Category 1 or special fitness levels (submarines, divers, aircrew) must satisfy the appropriate re-engagement standards.
- c. Members who are Weight Standard Three may transfer to the ANR provided they are in posting Category 1 to 3 and satisfy the appropriate re-engagement standard.
- d. ANR personnel may transfer between components of the ANR and the PNF providing they are in posting Categories 1, 2 or 3 and have a medical examination in accordance with annexes A to D to this chapter.
- e. Personnel who are posting Category 4 to 8 are not considered fit for transfer/entry to the ANR. Any cases of doubt are to be forwarded to DGNHS for decision.

**819.** PNF personnel transferring to ANR without broken service on discharge are to have Form PM 85 notated 'Discharge from PNF, transfer to ANR'. The examining MO is to determine whether the person is fit for ANR service and if fit endorse part one of Form PE 6—*Form of Engagement (Sailor)/Appointment (Officer)* under the *Defence Act 1910*, including members current medical category.

## AUSTRALIAN NAVAL RESERVE

**820.** Members of the ANR including General Reserve, Ready Reserve and Standby Reserve are to meet the same health standards and examination procedures as PNF personnel. The standards for entry are contained in ADFP 701. For re-enlistment in the Reserves the standards are laid down at annex D, appendixes 1 and 2. The standards for entry from ANR to PNF are contained in annex D to this chapter.

**821.** If further assessment or treatment of any medical condition found at examination is required, this is to be undertaken at the applicant's expense, unless specialist consultation is required as stated at annexes A and B of this chapter. Members transferring from RAN to RANR must be posting Category 1, 2 or 3. If not, a waiver may be sought from DGNHS if considered appropriate. There is to be **no automatic enlistment** in the ANR, if below posting Category 3 even if 'fit for discharge from the RAN'.

### Periodic Health Examinations Prior to Service

**822.** Periodic health examinations of members, including aircrew, submariners, divers and members over 40 years of age are to be conducted on the anniversary of the member's birth, and at the frequency indicated at annexes A and B to this chapter, as for PNF personnel. Re-enlistments are to be examined as for PNF personnel using health standards at annex D to this chapter.

### Continuous Full-time Service

**823.** Prior to undertaking a period of Continuous Full-time Service (CFTS), ANR personnel are to have a medical examination conducted. The examination is to be conducted as soon as possible after initial notification that a member may be posted. The examination is to be recorded on Forms PM 85 and PM 183—*Health Examination Questionnaire* and members are to be Category 1, 2 or 3 and meet the health standards for reengagement. Personnel who will be employed in occupations requiring special screening are to be assessed in accordance with PNF standards. Members on CFTS are to be periodically examined at the frequency indicated at annexes A and B to this chapter.

### Medicals for Periodic Postings to Annual Continuous Training, Non Continuous Training or Ready Reserve Time

**824.** Prior to commencing a period of Annual Continuous Training (ACT), Non Continuous Training (NCT) or Ready Reserve time ANR personnel are to have a medical examination conducted. Personnel who are Standby Reserves and undertake regular periods of service are required to have a medical examination prior to commencing each period of ACT, CFTS, regular NCT greater than five days a month, and on transfer to the General Reserve. The examination, using Forms PM 85 and PM 183 is to be conducted as soon as notification of posting is received. If the member has had a full medical examination recorded on Form PM 85 within the previous 12 months only the Health Questionnaire (at annex S to this chapter) need be completed. If a health problem is identified on the questionnaire a full medical using Form PM 85 is to be conducted by a Service MO. Navy Headquarters is to be advised by signal if a member is found to be unfit to undertake a period of Reserve service.

**825.** Medical examinations are to be performed at the most convenient location in order of preference:

- a. naval establishment,
- b. Defence Force Health Centre,
- c. other Service establishment, and
- d. Commonwealth MO.

### Remote Area Medicals

**826.** Should the member live in an area remote from Service or Commonwealth health facilities then the medical examination in the first instance is to be completed by the member's GP using the questionnaire at annex S and the pro forma at annex T to this chapter. The questionnaire and pro forma are to be forwarded by the staff of the Reserve Administration Centre (RAC) to the member's nominated GP and when returned, assessed by RAC health staff to determine if the member is fit for service. If there are any doubts about the fitness of the person then a full medical examination by a Service MO is to be conducted. If no RAC health staff are borne or there are cases of further doubt, then the questionnaire and pro forma are to be forwarded to the DGNHS for decision. RACs are to process any accounts for the payment of the medical examination conducted by the member's GP.

### TRANSFER OF BRANCH OR DUTY

**827.** To ensure that the Health Standards for the proposed 'branch' or 'duty' are met the health records (UMR) are to be examined by a MO, with reference to the criteria at annex C to this chapter. A full medical examination is to be performed in the following cases:

- a. when there is no Form PM 85 medical in the **preceding two years**; or
- b. when there is insufficient information in the health record (UMR), or when specific information is required to allow the determination of fitness, eg transfer to CD, submarines or aircrew.

**828.** If a member is in Posting Category 5 to 8 it is quite likely that they will not be considered fit for transfer of branch. Cases of doubt regarding eligibility despite posting category or health standard are to be referred to SGADF for decision. In certain cases SGADF may apply the standards for serving members (annex D to this chapter) to the proposed transfer. Fitness for Transfer of Branch or Duty is to be notified to Navy Headquarters (Attention: DNOP/DSCM) by either Minute or signal as appropriate.

### MEDICAL FITNESS FOR POSTING TO REMOTE LOCALITY INCLUDING HOMEPORTED MINOR WAR VESSELS AT REMOTE LOCALITIES OR SEAGOING SHIP

**829.** Instructions for the conduct of 'occasional medical examinations' prior to posting to **remote localities including homeported MWVs at remote localities and/or seagoing ship** are contained in paragraph 715 above and annexes A and B.

#### Remote Localities including Homeported Minor War Vessels at Remote Localities

**830.** All members posted to a remote locality including a homeported MWV at a remote locality are required to be medically examined twice prior to taking up their posting as follows (*see also* paragraphs 7-138, 7-147 to 7-149):

- a. on receipt of posting order, and
- b. not earlier than seven days before departure for the remote locality or homeported MWV at a remote locality.

**831.** A full medical examination (Form PM 85) is to be carried out by a MO. **All** personnel over 40 years of age must have an ECG completed. For personnel posted to homeported MWV at a remote locality, a blood sample for HIV screening test is to be taken and all immunisations and vaccinations are to be brought up to date. Members who have had a health examination using Form PM 85 within the **preceding twelve months** are to have a health check recorded on Form PM 197. The form is to be endorsed by a MO certifying the member has suffered no significant injury or illness in the interim and is considered 'fit for posting to a remote locality'.

**832.** The member's health records are to be scrutinised for evidence of previous psychological/welfare problems or alcohol abuse, which might cause problems in remote localities or homeported MWVs at a remote locality. Any evidence of such potential problem is to be signalled (Medical-in-Confidence) to DGNHS who will initiate any necessary action.

**833. Immediately** following the health examination a signal is to be sent to Navy Headquarters where a member (and where applicable their dependants), is identified as being **unfit** for posting to remote locality and/or homeported MWV at a remote locality.

**834.** The **second** medical examination is to be recorded on Form PM 197 annotating Box 5 'Second Remote Locality Medical and/or Second Medical for Posting to a Homeported MWV at a Remote Locality'.

**835.** All members prior to posting to a **remote locality including homeported MWVs at a remote locality** are to be assessed to determine whether they have any **medical management requirements** which may not be available in that posting. See paragraph 7-138 for details.

**836.** The major determinant of which localities are considered 'remote' is the access **at that locality** to specialist medical, surgical or paramedical services. If the availability of services at a locality is in doubt, advice is to be obtained from the Command or relevant Senior MO responsible for that locality, or from SGADF.

**837.** The following establishments including homeported MWVs at these establishments are to be considered as 'remote localities':

- a. HMAS CAIRNS;
- b. HMAS COONAWARRA; and
- c. Naval Communications Station, HAROLD E. HOLT.

**838. Medical Management Requirements.** The Medical Management Requirements which may render a member 'unfit to serve in a remote locality or homported MWV at a remote locality or seagoing ship' include:

- a. requirement for elective surgery;
- b. incomplete convalescence from surgery including post-operative reviews and physiotherapy;
- c. planned specialist or other medical reviews associated with IMS schedules; and
- d. chronic or recurrent disabilities (especially orthopaedic, gynaecological or psychiatric) which require further specialist review or treatment.

**839. Dependants.** The medical and dental examination of a member's dependents for a remote locality is **not compulsory**, but under normal circumstances it would be advisable.

**840.** Where a member's dependants elect to be medically and dentally examined, the member is to make appropriate arrangements before departure details are finalised. These examinations will normally be performed by Service medical/dental officers. However, in extenuating circumstances, eg remote localities or family inability to attend a Service establishment, examinations may be performed by a Government MO or GP as authorised by a Service medical/dental officer.

**841.** The purpose of these medical/dental examinations is to determine whether the dependant is suffering from any medical/dental disability which is likely to involve continuing and lengthy treatment while that dependant is in a remote locality. In any case of doubt as to fitness to proceed on posting then advice is to be sought from DGNHS.

**842.** The dependant's medical/dental examination, if performed, is to be recorded on Form PM 6, **NOT** allocated an enclosure number and the duplicate copy enclosed in the serving member's Form PM 4. The original Form PM 6 is to be forwarded to DGNHS. An examination report by a MO other than from Service sources is to be photocopied and included in the member's Form PM 4. The original report is to be forwarded to DGNHS.

### **Seagoing Medical**

**843.** If a Form PM 85 has not been completed in the past five years for those personnel under 40 years of age or in the past 12 months for those personnel over 40 years of age then a full medical examination (Form PM 85) is to be carried out by a MO. Otherwise Form PM 197 signed by a Phase 4 trained medical sailor or MO is to be completed. The seagoing medical examination is valid for the duration of the sea posting. In those cases where a member is ashore for a duration of less than three months, no re-examination is required. *See also* paragraphs 7–138, 7–147 to 7–149.

**844.** All members prior to posting to a seagoing ship are to be assessed to determine whether they have any **medical management requirements** (see paragraph 7–138 above) which may render them unfit for that posting. HIV/Hepatitis screening (noting subparagraph 725.b. above) and all immunisations and vaccinations are to be brought up-to-date.

**845.** The member's health records are to be scrutinised for evidence of previous psychological/welfare problems or alcohol abuse, which might cause problems in remote localities/seagoing ships. Any evidence of such potential problem is to be signalled (Medical-in-Confidence) to DGNHS who will initiate any necessary action.

### **Application of Medical Standards for Sea Service**

**846. Authority for Determination of Medical Fitness for Sea Service.** The FMO acts on behalf of the Maritime Commander Australia as the final authority for determination of medical fitness for sea service.

### **Sea Service—Proscribed Medical Conditions**

**847.** Certain 'proscribed medical conditions' render a member, 'prima facie', unfit for sea service. A comprehensive list of 'proscribed conditions' will be promulgated in due course. In the interim, guidance on conditions which do not permit sea service are contained at Annex P to this chapter. These are to be rigidly adhered to unless an FMO waiver is granted.

**848.** Personnel with a 'proscribed medical condition' **are not to be allowed** to proceed to sea without FMO approval.

**849.** COs are responsible for ensuring that ship's health service personnel, or those of the supporting establishment, peruse the health records of **all** members on joining. Should a member be found to have a 'proscribed condition', the matter is to be referred to the FMO at the earliest opportunity. FMO may grant a waiver, direct that an IMS be conducted, or direct the member to be landed without IMS, depending on the circumstances.

## **MEDICAL EXAMINATION PRIOR TO UNDERTAKING STRENUOUS PHYSICAL COURSES**

**850.** On occasions members of the RAN are posted to courses involving strenuous, and sometimes extreme, periods of physical exercise, often under adverse climatic conditions. It is very important that personnel nominated for such courses are physically fit enough to fully participate from the beginning of the course, and not rely on 'getting fit during the first few days/weeks'. These courses may be Inter-Service, such as the RAAF Combat Survival Course, or Expedition Training Courses conducted by the RAN.

**851.** Personnel nominated for such courses are to be examined by a MO and the results recorded on Form PM 197. The examination is to include an Exercise Tolerance Test result (annex J to this chapter) and the member's height/weight and body fat percentage statistics are to

be within the Standards. If there is any doubt about the member's physical fitness to undertake a course involving strenuous physical exercise from the outset, they are to be referred to the Physical Training Instructor (PTI), for an assessment of their physical fitness. The PTI is to be requested to test the member for all round aerobic physical fitness to a sensible level suitable for the intended course.

**852.** If there is any doubt about the member's medical or physical fitness, and there is insufficient time to train adequately before the commencement of the course, the member **is not to proceed** on the course, and appropriate follow-up action initiated.

### **MEDICAL EXAMINATION ASSESSMENT PROCEDURES FOR RETENTION BENEFIT UNDER MILITARY SERVICE BENEFIT SCHEME**

**853.** For the purposes of eligibility for award of the Retention Benefit under MSBS the member must be certified 'medically fit to continue to serve'. Further details can be obtained in INDMAN 1, volume 1, chapter 11.

**854.** This certification is to be completed on Form AB 867—*Retention Benefit—Acceptance or Non Acceptance*, part B, section 3 by the examining MO. This MO is:

- a. to undertake a review of the member's UMR (Form PM 4), and
- b. to undertake a clinical examination if appropriate to the member's circumstances.

**855.** In any event a clinical examination is to be undertaken if the member has not had an examination by a MO in the previous six months. If an examination is necessary, the reason for examination and clinical details are to be recorded on Form PM 197 for inclusion in the member's health records.

**856.** As a guide for MO as to the meaning of 'medically fit to continue to serve':

- a. the medical assessment is to be made on **current** clinical status;
- b. members who are in the process of FMS are to be certified 'unfit pending SGADF determination on FMS'; and
- c. members whose current clinical and/or IMS status suggests a reasonable probability of FMS action ensuing, are to be certified 'unfit pending determination by SGADF' and IMS or FMS documentation is to be initiated as soon as practicable.

**857.** All personnel who are not covered by subparagraphs 7-156.b. and c. above are to be certified 'fit to continue to serve'.

### **FIVE YEARLY MEDICAL**

**858.** In those cases where a member has not had a Form PM 85 completed in the preceding five years, a full medical examination is to be conducted on Form PM 85 including ECG. See annexes A and B to this chapter for full details.

### **PASSENGER IN DEFENCE FORCE JET AIRCRAFT (NON-TRANSPORT)**

**859.** Prior to any member flying as a passenger in a Defence Force jet aircraft (non-transport) a medical examination is to be performed and recorded on Form PM 105. Particular attention is to be paid to the examination of cardio-vascular, respiratory systems and eustachian tube patency. Any history of spinal injury is to preclude a member from such flying. Attention should be given to the effects of 'G' forces encountered whilst flying in such aircraft. All such flights are to be limited to a maximum altitude of 30 000 feet ASL.

## FOREIGN MILITARY SERVICE—HEALTH REQUIREMENTS

**860.** When appointed for Foreign Military Service the particular health screening examination/requirements will be advised. Further information is to be obtained from the Health Intelligence Section, SGADF. Paragraphs 782–93 also apply.

## BLOOD TYPE ON NAVAL IDENTIFICATION CARDS

**861. New Entries.** Following the Induction Medical Checks and Blood Type testing, a nominal list of personnel is to be forwarded to the issuing authority of Identification Cards. The nominal list is to be signed by a minimum rank of Medical Branch senior sailor certifying member's blood type, location and date of test. See also paragraph 711 above.

**862. Current Members.** Blood typing is to be transcribed from the member's Form PM 4 to a typed statement which is to be forwarded to the issuing authority of Identification Cards when a member's card is for renewal/replacement of lost or damaged card. The statement is to be signed by a minimum rank of Medical Branch senior sailor certifying member's blood type, location and date of test.

- Annexes:**
- A. Medical Examination Requirements for Commissioned Officers
  - B. Medical Examination Requirements for Other Ranks
  - C. Health Standards for Members of the Royal Australian Navy on Allocation of Category
  - D. Health Standards for Serving Members and Reenlistment
  - E. Health Standards for the Royal Australian Navy—Codes and Definitions
  - F. Medical Examination Prior to Discharge
  - G. Aircrew—Medical and Dental Fitness—Temporary Restrictions on Flying Due to Medical and Dental Reasons
  - H. General Consideration for Conduct of All Health Examinations
  - I. Procedure for Testing Colour Perception
  - J. Medical Standards for Royal Australian Navy Divers
  - K. Mandatory Medical Criteria for Rejection from Diving
  - L. Standard Method of Spirometry
  - M. Procedure for Long Bone Survey
  - N. Guide for Performing Medical Examinations for Submarine Service (including Civilians)
  - O. Temporary Restrictions on Diving Due to Medical and Dental Reasons
  - P. Sea Service—Proscribed Medical Conditions
  - Q. Annual Human Immunodeficiency Virus Testing of United States Navy/United States Marine Corps Personnel Assigned To Australia
  - R. Advisory Statement by Female Members
  - S. Annual Continuous Training Health Questionnaire
  - T. Letter Pro Forma to be Forwarded to Local General Practitioner from Officer in Command Local Reserve Administration Cell

## MEDICAL EXAMINATION REQUIREMENTS FOR COMMISSIONED OFFICERS

SERIAL	DOCUMENTATION	PM 70	PM 85	PM 86	PM 139	PM 197	PM 285	PM 344	HIV TEST	CHEST X-RAY	VITALOGRAPH	LONG BONE X-RAYS	ENT REVIEW & VALSALVA MANOEUVRE	EXERCISE TOLERANCE TEST	SHARPENED ROMBERG TEST	BLOOD SUGAR LIPID PROFILE & LIFE STYLE COUNSELLING
	<b>PRESELECTION MEDICAL FOR:</b>															
1	AIRCREW		YES	YES	YES		YES	NOTE 2		NOTE 1	YES		YES			
2	SUBMARINERS		YES	YES	YES		NOTE 12	NOTE 2		NOTE 3	YES		YES			
3	DIVERS		YES		YES		YES	NOTE 2		NOTE 1	YES	YES NOTE 11	YES	YES	YES	
4	HELO CONTROL OFFICERS/FLIGHT DECK OFFICER		YES		YES		NOTE 12	NOTE 2		NOTE 1	YES		YES			
	<b>PRIOR TO POSTING TO:</b>															
5	CO/XO MAJOR FLEET UNIT (NOTE 8)		YES NOTE 4		YES		NOTE 12	NOTE 2	YES	NOTE 5			VALVALSA ONLY			
6	SEA (NOTE 8)		NOTE 7			NOTE 4 AND NOTE 7	NOTE 12	NOTE 2	YES	NO						
7	REMOTE LOCALITIES INCLUDING MWVs AT A REMOTE LOCALITY		YES NOTE 4 AND NOTE 15			NOTE 4 AND NOTE 13	NOTE 12	NOTE 2	NOTE 14	NO						
8	OVERSEAS (1ST MEDICAL)		YES NOTE 4 AND NOTE 15		YES		NOTE 12	NOTE 2	NOTE 6	NOTE 6						
9	OVERSEAS (2ND MEDICAL)					YES				NO						
10	STRENUOUS PHYSICAL COURSE					YES	NOTE 12			NO				YES		
11	SHORE (DISCHARGE/CFTS)	YES	YES		YES		NOTE 12	NOTE 2		NOTE 1						
	<b>PERIODIC/OCCASIONAL MEDICALS FOR:</b>															
12	AIRCREW		ANNUAL		ANNUAL		YES	NOTE 2		NOTE 5	YES		VALSALVA ONLY		YES	
13	DIVER		2 YRLY		2 YRLY		NOTE 12	NOTE 2		6 YRLY	2YRLY		VALSALVA ONLY	YES	YES	
14	HELO CONTROL OFFICERS/FLIGHT DECK OFFICER		2 YRLY		3 YRLY		NOTE 12	NOTE 2		NOTE 5			VALSALVA ONLY			
15	CO/XO MAJOR FLEET UNITS		ANNUAL		ANNUAL		NOTE 12	NOTE 2		NOTE 5			VALSALVA ONLY			
16	SUBMARINERS		3 YRLY		3 YRLY		NOTE 12	NOTE 2		6 YRLY	3 YRLY		3 YRLY			

SERIAL	DOCUMENTATION	PM 70	PM 85	PM 86	PM 139	PM 197	PM 285	PM 344	HIV TEST	CHEST X-RAY	VITALOGRAPH	LONG BONE X-RAYS	ENT REVIEW & VALSALVA MANOEUVRE	EXERCISE TOLERANCE TEST	SHARPENED ROMBERG TEST	BLOOD SUGAR LIPID PROFILE & LIFE STYLE COUNSELLING
17	SETF		NOTE 9		YES		AGE 35+	NOTE 2		NOTE 3	YES		YES		YES	
18	EXTENSION OF SERVICE		YES		YES		NOTE 12	NOTE 2		NOTE 5						
19	MATURE AGE (ATTAINING 40 YRS OF AGE)		YES		YES		YES	NOTE 2		NOTE 1						YES
20	PERIODIC MATURE AGE (40+)		2 YRLY		2 YRLY		NOTE 10	NOTE 2		NOTE 5						2 YRLY
21	MSBS EXAMINATION					YES				NOTE 5						
22	FIVE YEAR MEDICAL (NOTE 16)		YES		YES		YES	NOTE 2		NOTE 5						

**Notes:**

1. X-ray is not required if previous chest film was clear and is less than 12 months old.
2. Dental examination not required if the member was made Dentally Fit in the previous 12 months.
3. Full Inspiration/Expiration Chest X-ray is to be taken within 12 months of SETF training and prior to submarine selection.
4. A thorough review of the member's Health Records is to be undertaken, with an appropriate examination. All elective surgery to be completed prior to posting. See chapter 7 with regard to (WRT) Overseas/Remote Locality/Sea Postings.
5. X-ray required only if member is a smoker or has smoked in the previous eight years.
6. Only required if an 'entry requirement' of host country. USA requires mandatory HIV testing—negative test result—for courses within **preceding three months**; posting for duty—within **preceeding six months**.
7. Form PM 85 to be completed if no Form PM 85 recorded in previous five years (**Reserves**—see paragraphs 712–19) otherwise Form PM 197 signed by a MO/Phase 4 medical sailor will suffice.
8. Female personnel to complete 'Advisory Statement by Female Members' which is at annex R to this chapter.
9. If a Form PM 85 has been done in the 12 months prior to undertaking SETF, a Form PM 6 as outlined at chapter 7, annex N, appendix 3 may be performed by the personnel listed at chapter 7, annex N, appendix 2 within the three months prior to undertaking SETF.
10. All personnel over 40 years of age must have a Form PM 85 completed including ECG provided one was not completed in the last 12 months, otherwise Form PM 197 signed by MO will suffice.
11. See chapter 7, Annex M. Ship's divers do not require Long Bone Surveys.

12. All personnel over 40 years of age must have an ECG completed.
13. **Seven days** prior to departure, member to have Form PM 197 signed by MO completed.
14. Personnel posted to homported MWVs at a remote locality are to have HIV screening test completed.
15. Members who have had a health examination using Form PM 85 within the **preceding twelve months** are to have a health check recorded on Form PM 197. The form is to be endorsed by a MO certifying the member has suffered no significant injury or illness in the interim and is considered 'fit for overseas duty and/or remote locality'.
16. See chapter 7, paragraph on 'Five Yearly Medical' for full details.

<b>FORMS:</b>	PM 70	Statement of a member on discharge from the RAN	PM 152	Report of Examination by ENT Specialist
	PM 85	Medical Examination Record	PM 197	Supplementary HealthExamination
	PM 86	Report of Eye Examination	PM 285	ECG Request and Report
	PM 139	Audiogram and ENT Specialist Report	PM 344	Dental Clinical Record

### MEDICAL EXAMINATION REQUIREMENTS FOR OTHER RANKS

SERIAL	DOCUMENTATION	PM 70	PM 85	PM 86	PM 139	PM 197	PM 285	PM 344	HIV TEST	CHEST X-RAY	VITALOGRAPH	LONG BONE X-RAYS	ENT REVIEW & VALSALVA MANOEUVRE	EXERCISE TOLERANCE TEST	SHARPENED ROMBERG TEST	BLOOD SUGAR LIPID PROFILE & LIFE STYLE COUNSELLING
	<b>PRESELECTION MEDICAL FOR:</b>															
1	AIRCREW		YES	YES	YES		YES	NOTE 2		NOTE 1	YES		YES			
2	SUBMARINERS		YES	YES	YES		NOTE 19	NOTE 2		NOTE 3	YES		YES			
3	DIVERS		YES		YES		YES	NOTE 2		NOTE 1	YES	NOTE 17	YES	YES	YES	
4	PROMOTION TO OFFICER		YES	NOTE 7	YES		NOTE 19			NOTE 5						
5	FLIGHT DECK MARSHALLER		YES		YES		NOTE 19	NOTE 2		NOTE 1	YES		YES			
	<b>PRIOR TO POSTING TO:</b>															
6	SEA (NOTE 13)		NOTE 12		NOTE 9	NOTE 4 AND NOTE 12	NOTE 19	NOTE 2	YES	NO						
7	REMOTE LOCALITIES INCLUDING MWVs AT A REMOTE LOCALITY		YES NOTE 4 AND NOTE 21			NOTE 4 AND NOTE 18	NOTE 19	NOTE 2	NOTE 20	NO						
8	OVERSEAS (1ST MEDICAL)		YES NOTE 4 AND NOTE 21		YES	NOTE 19	NOTE 19	NOTE 2	NOTE 11	NOTE 6						
9	OVERSEAS (2ND MEDICAL)					YES				NO						
10	STRENUOUS PHYSICAL COURSE					YES	NOTE 19			NO				YES		
11	SHORE (DISCHARGE/CFTS)	YES	YES		YES		NOTE 19	NOTE 2		NOTE 1						
	<b>PERIODIC/OCCASIONAL MEDICALS FOR:</b>															
12	AIRCREW		ANNUAL		ANNUAL		YES	NOTE 2		NOTE 5	YES		VALSALVA ONLY		YES	
13	DIVER		2 YRLY		2 YRLY		NOTE 19	NOTE 2		6 YRLY	2 YRLY		VALSALVA ONLY	YES	YES	
14	ELECTRONIC WARFARE SAILOR		3 YRLY		3 YRLY		NOTE 19	NOTE 2		NOTE 5	3 YRLY		3 YRLY		3 YRLY	
15	SUBMARINERS		3 YRLY		NOTE 10		NOTE 19	NOTE 2		6 YRLY	3 YRLY		3 YRLY		NO	
16	SETF		NOTE 14		YES		AGE 35+	NOTE 2		NOTE 3	YES		VALSALVA ONLY		YES	
17	FLIGHT DECK MARSHALLER		2 YRLY		3 YRLY		NOTE 19	NOTE 2		NOTE 5			VALSALVA ONLY			

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SERIAL	DOCUMENTATION	PM 70	PM 85	PM 86	PM 139	PM 197	PM 285	PM 344	HIV TEST	CHEST X-RAY	VITALOGRAPH	LONG BONE X-RAYS	ENT REVIEW & VALSALVA MANOEUVRE	EXERCISE TOLERANCE TEST	SHARPENED ROMBERG TEST	BLOOD SUGAR LIPID PROFILE & LIFE STYLE COUNSELLING
18	RE-ENLISTMENT (SEE NOTE 8)		NOTE 16		NOTE 16		NOTE 19	NOTE 2		NOTE 5						
19	MATURE AGE (ATTAINING 40 YRS OF AGE)		YES		YES		YES	NOTE 2		NOTE 1						YES
20	PERIODIC MATURE AGE (40+)		2 YRLY		2 YRLY	NOTE 15	NOTE 19	NOTE 2		NOTE 5						2 YRLY
21	TRANSFER OF BRANCH		YES		YES		NOTE 19	NOTE 2		NOTE 5						
22	MSBS EXAMINATION					YES				NOTE 5						
23	FIVE HEARLY MEDICAL (NOTE 22)		YES		YES		YES	NOTE 2		NOTE 5						

**NOTES:**

1. X-ray is not required if previous chest film was clear and is less than 12 months old.
2. Dental examination not required if the member was made Dentally Fit in the previous 12 months.
3. Full Inspiration/Expiration Chest X-ray is to be taken within 12 months of SETF training and prior to submarine selection.
4. A thorough review of the member's Health Records is to be undertaken, with an appropriate examination. All elective surgery to be completed prior to posting. See chapter 7 WRT Overseas/Remote Locality/Sea Postings.
5. X-ray required only if member is a smoker or has smoked in the previous eight years.
6. X-ray required if entry requirement of host country.
7. Report of Ophthalmologist is only to be undertaken after the official selection board if required by Branch.
8. Use the specifications of Branch the member belongs to.
9. For Combat System Operator (CSO) sailors with UC duties only—examination to include Audiometry and Pitch Discrimination Testing.
10. For submariners with UC duties—examination to include Audiometry and Pitch Discrimination Testing. Other submariners require Audiometry only.
11. Required only if entry requirement of host country—USA requires mandatory HIV testing—negative test result—for courses within **preceding three months**; posting for duty—within **preceding six months**.

12. Form PM 85 to be completed if no Form PM 85 recorded in previous five years (**Reserves**—see paragraphs 712–19) otherwise Form PM 197 signed by a MO/Phase 4 medical sailor will suffice.
13. Female personnel to complete ‘Advisory Statement by Female Members’ which is at annex R to this chapter.
14. If a Form PM 85 has been done in the 12 months prior to undertaking SETF, a Form PM 6 as outlined at chapter 7, annex N, appendix 3 may be performed by the personnel listed at chapter 7, annex N, appendix 2 within the three months prior to undertaking SETF.
15. All personnel over 40 years of age must have a Form PM 85 completed including ECG provided one was not completed in the last 12 months, otherwise Form PM 197 signed by a MO will suffice.
16. If a Form PM 85 has been done in the preceding 12 months, then Form PM 197 signed by a MO will suffice.
17. Long Bone Surveys are to be conducted as outlined in chapter 7 subparagraph 754.b. and chapter 7, annex M. Ship’s divers do not require Long Bone Surveys.
18. **Seven days** prior to departure, member to have Form PM 197 signed by MO completed.
19. All personnel over 40 years of age must have an ECG completed.
20. Personnel posted to homported MWVs at a remote locality are to have HIV screening test completed.
21. Members who have had a health examination using Form PM 85 within the **preceding twelve months** are to have a health check recorded on Form PM 197. The form is to be endorsed by a MO certifying the member has suffered no significant injury or illness in the interim and is considered ‘fit for overseas duty and/or remote locality’.
22. See chapter 7 paragraph on ‘Five Yearly Medical’ for full details.

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<b>FORMS:</b>	PM 70	Statement of a member on discharge from the RAN	PM 15	Report of Examination by ENT Specialist
	PM 85	Medical Examination Record	PM 197	Supplementary Health Examination
	PM 86	Report of Eye examination	PM 285	ECG Request and Report
	PM 139	Audiogram and ENT Specialist Report	PM 344	Dental Clinical Record

**HEALTH STANDARDS FOR MEMBERS OF THE ROYAL AUSTRALIAN NAVY  
ON ALLOCATION OF CATEGORY**

1. The Health Standards for allocation to categories are attached at appendixes 1 and 2.
2. NO reduction in Health Standards for a category is permitted without the written authority from DGNHS.
3. Members must be Posting Category 1 to 4 to be fit for Transfer of Category. All others require DGNHS written approval.

- Appendixes:**
1. Health Standards for Allocation of Category—Officers
  2. Health Standards for Allocation of Category—Sailors
  3. Notes for Medical Officers Conducting Examination

**HEALTH STANDARDS FOR ALLOCATION OF CATEGORY—OFFICERS**

<b>OFFICERS</b> <b>(a)</b>	<b>VISUAL</b> <b>(b)</b>	<b>COLOUR PERCEPTION</b> <b>(c)</b>	<b>HEARING</b> <b>(d)</b>	<b>WEIGHT</b> <b>(e)</b>	<b>CARDIO-VASCULAR</b> <b>(f)</b>	<b>RESPIRATORY</b> <b>(g)</b>	<b>DENTAL</b> <b>(h)</b>	<b>REMARKS</b> <b>(i)</b>
<b>Seaman</b>								
Communication	VS3	CP1	HS1	WS2	CVS2	RS2	DS2	Note 3
Mine Countermeasures and Diving	VS3	CP1	HS1A	WS1	CVS1D	RS1	D S1D	Under age 30, Notes 3, 9, 8 <i>See also annex J</i>
Principal Warfare	VS3	CP1	HS1	WS2	CVS2	RS2	DS2	Note 3
Hydrographer	VS3	CP1	HS1	WS2	CVS2	RS2	DS2	Note 3
Navigation and AIO	VS3	CP1	HS1	WS2	CVS2	RS2	DS2	Note 3
Anti Submarine Warfare	VS3	CP1	HS1	WS2	CVS2	RS2	DS2	Note 3
<b>Aviation</b>								
Aircrew —Pilot	VS1A	CP1	HS1	WS1	CVS2	RS2	DS2	Note 1
—Observer	VS2A	CP1	HS1	WS1	CVS2	RS2	DS2	Note 1
Photographer	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
Safety Equipment	VS3	CP3	HS2	WS2	CVS2	RS2	DS2	
Helicopter Control/Flight Deck	VS6	CP2	HS1	WS2	CVS2	RS2	DS2	
<b>Engineering (includes Air)</b>								
Mechanical	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	Notes 3, 4
Weapons Electrical	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	Notes 3, 4
<b>Supply and Secretariat</b>								
Supply	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	Note 3
Legal	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	Note 3

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OFFICERS (a)	VISUAL (b)	COLOUR PERCEPTION (c)	HEARING (d)	WEIGHT (e)	CARDIO- VASCULAR (f)	RESPIRATORY (g)	DENTAL (h)	REMARKS (i)
<b>Health Services</b>								
Medical	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
Dental	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
Administration	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
Nursing	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
<b>Miscellaneous</b>								
Band	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
Chaplain	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
Ships Diver	VS3	CP2	HS1	WS1	CVS1D	RS1	DS1D	Notes 6, 8 ( < 30 years)
Work Study	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
Linguist	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
Ordnance Inspector	VS6	CP3	HS2	WS2	CVS2	RS2	DS 2	
Naval Police	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
Instructor	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	Note 3
Intelligence and Naval Control of Shipping	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
<b>Submarine Branch</b>								
All Seamen	VS3	CP1	HS1	WS1	CVS2	RS1	DS1S	Notes 6, 9, 8, 11, 13
Non Seamen	VS5	CP2	HS2	WS1	CVS2	RS1	DS1S	Notes 2, 6, 8, 11

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## HEALTH STANDARDS FOR ALLOCATION OF CATEGORY—SAILORS

SAILORS (a)	VISUAL (b)	COLOUR PERCEPTION (c)	HEARING (d)	WEIGHT (e)	CARDIO- VASCULAR (f)	RESPIRATORY (g)	DENTAL (h)	REMARKS (i)
<b>Seaman Branch</b>								
NPC	VS3	CP1	HS1	WS2	CVS2	RS2	DS2	Note 7
BM	VS2	CP1	HS1	WS2	CVS2	RS2	DS2	
CD	VS2	CP1	HS1A	WS1	CVS1D	RS1	DS1D	Notes 6, 8 <i>See also annex J</i>
CSO	VS3	CP1	HS1A	WS2	CVS2	RS2	DS2	Note 12
PT	VS3	CP1	HS1	WS1	CVS2	RS2	DS2	
CSO (MW)	VS2	CP1	HS1	WS2	CVS2	RS2	DS2	
MSC	VS3	CP1	HS1	WS2	CVS2	RS2	DS2	
<b>Aviation Branch</b>								
Air Crewman	VS2	CP2	HS1	WS1	CVSA1	RS2	DS1A	Note 5
ATA	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	
ATW/L	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	
PH	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	
ATC	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	
SAR	VS2	CP2	HS1	WS1	CVSA1	RS2	DS2	
Flight Deck Marshaller (FDM)	VS6	CP2	HS1	WS2	CVS2	RS2	DS2	
<b>Health Service Branch</b>								
MED	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
DEN	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	

AL7

SAILORS (a)	VISUAL (b)	COLOUR PERCEPTION (c)	HEARING (d)	WEIGHT (e)	CARDIO- VASCULAR (f)	RESPIRATORY (g)	DENTAL (h)	REMARKS (i)
<b>Communications</b>								
LIN	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	
CIS	VS3	CP2	HS2	WS2	CVS2	RS2	DS2	
Electronic Warfare (EW, EWO, EWP, EWS)	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	
EW (Aircrew)	VS6	CP2	HS1	WS2	CVSA2	RS2	DS1A	Note 5
<b>Supply and Secretariat Branch</b>								
WTR	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
SN, SV	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
CK	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
STD	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
<b>Miscellaneous</b>								
WS	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
AI	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
MUSN	VS6	CP3	HS2	WS2	CVS2	RS2	DS2	
Ships Diver	VS3	CP3	HS1	WS1	CVS1D	RS	DS1D	Notes 6, 8
<b>Engineering Branch (includes Air)</b>								
Mechanical (MT)	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	Note 4
Weapons Electrical (ETC, ETW, ETS, ETP)	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	Note 4
MTD	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	Note 10

AL7

7C2-2

SAILORS (a)	VISUAL (b)	COLOUR PERCEPTION (c)	HEARING (d)	WEIGHT (e)	CARDIO- VASCULAR (f)	RESPIRATORY (g)	DENTAL (h)	REMARKS (i)
<b>Submarine Branch</b>								
NPC	Under 25 years of age: VS3 (Note 14) 25 years or over: VS5	CP1	HS	WS1	CVS2	RS1	DS1S	Notes 6, 9, 8
CK		CP3	HS2	WS1	CVS2	RS1	DS1S	Notes 6, 8
ETP		CP2	HS2	WS1	CVS2	RS1	DS1S	Notes 4, 6, 8
ETS		CP2	HS2	WS1	CVS2	RS1	DS1S	Notes 4, 6, 8
MTP		CP2	HS2	WS1	CVS2	RS1	DS1S	Notes 4, 6, 8
EW		CP1	HS2	WS1	CVS2	RS1	DS1S	Notes 6, 8
SN		CP3	HS2	WS1	CVS2	RS1	DS1S	Notes 6, 8
STD		CP3	HS2	WS1	CVS2	RS1	DS1S	Notes 6, 8

## NOTES FOR MEDICAL OFFICERS CONDUCTING EXAMINATION

1. Height maximum 193 cm, minimum 163 cm Valsalva Position.
2. Non-seamen officers who undertake periscope watchkeeping duties required to achieve VS5 and CP1 by the use of periscope optics, ie capable of correction to 6/9, 6/9 by a spherical lens within a bracket of +5.00 DS to -2.00 DS, of which no more than 1.0 dioptre astigmatism in any plane is allowable. Any progressive pathological ophthalmic condition will disqualify. These parameters are to be verified by a consultant ophthalmologist prior to certifying the officer as 'visually fit for periscope watchkeeping duties'. Non-seamen officers selected for submarine training outside of these Visual Standards will be **ineligible** to perform periscope watchkeeping duties.
3. Officer candidates from 'sailor entry' must conform to the Health Standards for serving officers of their branch. Seaman candidates require ophthalmologist examination using Form PM 86—*Special Ophthalmology Examination*.
4. Requires 'trade test' for colour perception/discrimination (only if CP2).
5. No myopia allowed.
6. Applicants are to be reviewed by a Consultant ENT specialist, where clinically indicated, before acceptance. Any septal deviation or nasal obstruction, if present, must be minimal, and both tympanic membranes must be intact and mobile. The eustachian tubes must be patent (as tested by the Valsalva Manoeuvre).
7. Requires examination by ophthalmologist on Form PM 86 prior to minor war vessel bridge watchkeeping training.
8. Must have no unreasonable fear of confined spaces.
9. Requires ophthalmologist report Form PM 86 to ensure applicant meets 'VS3' and that there is no ocular muscular imbalance.
10. Motor transport driver personnel must have the medical standard to qualify for a NSW Class 4 driver's licence as they may be required to drive heavy vehicles such as buses or trucks. To qualify for a New South Wales Class 4 licence, an applicant must correct to 6/12 in each eye. Conditions such as 'insulin dependant diabetics' or 'epilepsy' preclude an applicant from obtaining this class of license.
11. Must have no more than one dioptre of astigmatism.
12. All personnel recruited as Combat System Operators (CSO) are to undergo pitch discrimination and attain HS1A. Sailors who fail this standard will be noted as unsuitable for CSO(S) streaming. HS1 is applied to CSO and CSO(EW) streams.
13. Seaman Officers keep periscope watches. The periscope allow for  $\pm 3$  dioptries spherical correction but no cylindrical correction, therefore, watchkeepers **must have** a visual standard where **no more** that  $\pm 3$  dioptries spherical correction and **no more** that  $\pm 1$  dioptre cylindrical correction is required.
14. Myopia (shortsightedness) tends to progress until age 25 **but rarely** deteriorates significantly after that age. The entry standard of VS3 allows for some deterioration in young members.

## HEALTH STANDARDS FOR SERVING MEMBERS AND REENLISTMENT

1. IT IS EMPHASISED THAT THE FOLLOWING HEALTH STANDARDS ARE ISSUED ONLY AS GUIDANCE TO HEALTH SERVICE PERSONNEL. THESE STANDARDS DO NOT TRANSCEND ANY SPECIFIC HEALTH CRITERIA LAID DOWN ELSEWHERE IN ABR 1991, VOLUME ONE.

2. The Health Standards for members serving in categories of the RAN are attached at appendixes 1 and 2.

3. These standards must be met when a member applies to reenlist in the Service.

4. No reduction of Health Standards is permitted for any category without the **written approval** of SGADF.

- Appendixes:**
1. Health Standards for Serving Members and Reenlistment—Officers
  2. Health Standards for Serving Members and Reenlistment—Sailors
  3. Notes for Medical Officers Conducting Examination

## HEALTH STANDARDS FOR SERVING MEMBERS AND REENLISTMENT—OFFICERS

OFFICERS (a)	VISUAL (b)	COLOUR PERCEPTION (c)	HEARING (d)	WEIGHT (e)	CARDIO- VASCULAR (f)	RESPIRATORY (g)	DENTAL (h)	REMARKS (i)
<b>Seaman Branch</b>								
Communication	VS5	CP1	HS3	WS2	CVS2	RS2	DS2	Notes 6, 8
Mine Countermeasures and Diving	VS5	CP1	HS3	WS1	CVS1D	RS1	DS1D	
Principal Warfare	VS5	CP1	HS3	WS2	CVS2	RS2	DS2	
Hydrographer	VS5	CP1	HS3	WS2	CVS2	RS2	DS2	
Navigation and AIO	VS5	CP1	HS3	WS2	CVS2	RS2	DS2	
Anti Submarine Warfare	VS5	CP1	HS2A	WS2	CVS2	RS2	DS2	
Aircrew	VS2A	CP1	HS3	WS1	CVSA1	RS2	DS1A	
<b>Aviation Branch</b>								
Photographer	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Safety Equipment	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Helicopter Control/Flight Deck	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	
<b>Engineering Branch (includes Air)</b>								
Mechanical	VS6	CP2	HS3	WS2	CVS2	RS2	DS2	
Weapons Electrical	VS6	CP2	HS3	WS2	CVS2	RS2	DS2	Note 4
<b>Supply and Secretariat Branch</b>								
Supply	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Legal	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Instructor	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	

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<b>OFFICERS</b> <b>(a)</b>	<b>VISUAL</b> <b>(b)</b>	<b>COLOUR PERCEPTION</b> <b>(c)</b>	<b>HEARING</b> <b>(d)</b>	<b>WEIGHT</b> <b>(e)</b>	<b>CARDIO-VASCULAR</b> <b>(f)</b>	<b>RESPIRATORY</b> <b>(g)</b>	<b>DENTAL</b> <b>(h)</b>	<b>REMARKS</b> <b>(i)</b>
<b>Health Service</b>								
Medical	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Dental	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Administration	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Nursing	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
<b>Miscellaneous</b>								
Band	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Chaplain	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Ships Diver	VS3	CP3	HS2	WS1	CVS1D	RS1	DS1D	Note 6
Work Study	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Linguist	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Ordnance Inspector	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Naval Police Coxswain	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Intelligence and Naval Control of Shipping	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
<b>Submarine Branch</b>								
All Seaman	VS5	CP1	HS2	WS2	CVS2	RS1	DS1S	Notes 6, 8, 10
Non Seaman	VS5	CP1	HS2	WS2	CVS2	RS1	DS1S	Notes 6, 8

AL7

7D1-2

(For information on Notes see annex A appendix 3 to this chapter.)

## HEALTH STANDARDS FOR SERVING MEMBERS AND REENLISTMENT—SAILORS

SAILORS (a)	VISUAL (b)	COLOUR PERCEPTION (c)	HEARING (d)	WEIGHT (e)	CARDIO- VASCULAR (f)	RESPIRATORY (g)	DENTAL (h)	REMARKS (i)
<b>Seaman Branch</b>								
NPC	VS5	CP1	HS3	WS2	CVS2	RS2	DS2	Note 7
BM	VS5	CP1	HS3	WS2	CVS2	RS2	DS2	
CD	VS2	CP1	HS2	WS1	CVS1D	RS1	DS1D	Notes 6, 8
CSO	VS6	CP1	HS3	WS2	CVS2	RS2	DS2	UC stream require HS2A
PT	VS5	CP1	HS3	WS1	CVS2	RS2	DS2	
CSO (MW)	VS5	CP1	HS3	WS2	CVS2	RS2	DS2	
MSC	VS5	CP1	HS3	WS2	CVS2	RS2	DS2	
<b>Aviation Branch</b>								
Air Crewman	VS3	CP2	HS3	WS1	CVSA1	RS2	DS1A	Note 5
ATA	VS6	CP2	HS3	WS2	CVS2	RS2	DS2	
ATW/L	VS6	CP2	HS3	WS2	CVS2	RS2	DS2	
PH	VS6	CP2	HS3	WS2	CVS2	RS2	DS2	
SAR	VS3	CP2	HS3	WS1	CVSA1	RS2	DS2	
ATC	VS6	CP2	HS3	WS2	CVS2	RS2	DS2	
Flight Deck Marshaller (FDM)	VS	CP2	HS2	WS2	CVS2	RS2	DS2	
<b>Health Service Branch</b>								
MED	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
DEN	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	

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SAILORS (a)	VISUAL (b)	COLOUR PERCEPTION (c)	HEARING (d)	WEIGHT (e)	CARDIO- VASCULAR (f)	RESPIRATORY (g)	DENTAL (h)	REMARKS (i)
<b>Communications</b>								
LIN	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	
CIS	VS5	CP2	HS2	WS2	CVS2	RS2	DS2	
Electronic Warfare (EW, EWO, EWP, EWS)	VS6	CP2	HS2	WS2	CVS2	RS2	DS2	
ROEW (Aircrew)	VS3	CP2	HS2	WS1	CVSA1	RS2	DS1A	Note 5
<b>Supply and Secretariat Branch</b>								
WTR	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
SV, SN	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
CK	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
STD	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
<b>Miscellaneous</b>								
WS	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
AI	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
MUSN	VS6	CP3	HS3	WS2	CVS2	RS2	DS2	
Ships Diver	VS3	CP3	HS2	WS1	CVS1D	RS2	DS1D	Notes 6, 8
<b>Engineering Branch (includes Air)</b>								
Mechanical	VS6	CP2	HS3	WS2	CVS2	RS2	DS2	
Weapons Electrical (ETC, ETW, ETS, ETP)	VS6	CP2	HS3	WS2	CVS2	RS2	DS2	Note 4
MTD	VS6	CP2	HS3	WS2	CVS2	RS2	DS2	Note 2

SAILORS (a)	VISUAL (b)	COLOUR PERCEPTION (c)	HEARING (d)	WEIGHT (e)	CARDIO- VASCULAR (f)	RESPIRATORY (g)	DENTAL (h)	REMARKS (i)
<b>Submarine Branch</b>								
NPC	Sailors (all cate- gories): VS5	CP1	HS2	WS2	CVS2	RS1	DS1S	Notes 6, 8
CK		CP3	HS2	WS2	CVS2	RS1	DS1S	
ETP		CP2	HS2	WS2	CVS2	RS1	DS1S	Notes 4, 8
ETS		CP2	HS2	WS2	CVS2	RS1	DS1S	Notes 4, 8
MTP		CP2	HS2	WS3	CVS2	RS1	DS1S	Note 8
RO		CP1	HS2	WS3	CVS2	RS1	DS1S	Note 8
SN		CP3	HS2	WS3	CVS2	RS1	DS1S	Note 8
STD		CP3	HS2	WS3	CVS2	RS1	DS1S	Note 8
UC		CP1	HS2	WS3	CVS2	RS1	DS1S	Note 8

## NOTES FOR MEDICAL OFFICERS CONDUCTING EXAMINATION

1. Must have no more than one dioptre of astigmatism.
2. MTD personnel must have the medical standard to qualify for a NSW Class 4 driver's license as they may be required to drive heavy vehicles such as buses and trucks. Conditions such as 'diabetes' or 'epilepsy' preclude an applicant from obtaining this class of license.
3. Officer candidates from sailor category must conform to the Health Standards for Serving Officers of their Branch. Seaman candidates require Ophthalmologist examination using Form PM 86.
4. Requires 'trade test' for colour perception/discrimination (only if CP2).
5. No myopia allowed.
6. Applicants are to be reviewed by a consultant ENT specialist, where clinically indicated, before acceptance. Any septal deviation or nasal obstruction, if present, must be minimal, and both tympanic membranes must be intact and mobile. The eustachian tubes must be patent (as tested by the Valsalva manoeuvre).
7. Requires examination by Ophthalmologist on Form PM 86 prior to minor war vessel bridge watchkeeping training.
8. Must have no unreasonable fear of confined spaces.
9. Members with HS3 will normally be fit for re-enlistment providing the 'hearing loss' does not jeopardise safe and satisfactory execution of their duties. Cases of doubt are to be referred to Surgeon General Australian Defence Force.
10. Seaman Officers keep periscope watches. The periscope allow for  $\pm 3$  dioptres spherical correction but no cylindrical correction, therefore, watchkeepers **must have** a visual standard where **no more** than  $\pm 3$  dioptres spherical correction and **no more** than  $\pm 1$  dioptre cylindrical correction is required.

## HEALTH STANDARDS FOR THE ROYAL AUSTRALIAN NAVY—CODES AND DEFINITIONS

1. The Health Codes and Definitions for the Health Standards of the RAN are attached at appendixes 1 to 7.

- Appendixes:**
1. Royal Australian Navy Visual Standards
  2. Royal Australian Navy Colour Perception Standards
  3. Royal Australian Navy Hearing Standards
  4. Royal Australian Navy Weight Standards
  5. Royal Australian Navy Cardio-vascular Standards
  6. Royal Australian Navy Respiratory Standards
  7. Royal Australian Navy Dental Standards

### ROYAL AUSTRALIAN NAVY VISUAL STANDARDS

SERIAL (a)	STANDARD CODE (b)	VISUAL ACUITY		REFRACTION LIMITS AND OTHER VISUAL PARAMETER LEVELS (e)																		
		UNAIDED (c)	CORRECTED (d)																			
1	VSA1	6/6 6/6	No correction	<p>Refraction to be performed under cycloplegic, eg cyclopentolate 1 per cent.</p> <p><b>Hypermetropia and Astigmatism:</b> (As measured by the power of correcting lenses necessary under cycloplegic) +1.75 dioptres in either eye of which not more than 0.75 dioptre may be astigmatism, eg +1.75 sph, or:</p> <p>+ 1.0                      or                      + 1.25 + 0.75 cyl    + 0.5 cyl</p> <p><b>Myopia:</b> No myopia nor myopic astigmatism is allowed.</p> <p><b>Accommodation:</b> (tested with Foster's Rule—RAAF gauge)</p> <table> <tr> <td>17–20 years</td> <td>10–11 cm</td> </tr> <tr> <td>21–25 years</td> <td>11–12 cm</td> </tr> <tr> <td>26–30 years</td> <td>13–14 cm</td> </tr> <tr> <td>31–35 years</td> <td>14–16 cm</td> </tr> <tr> <td>36–40 years</td> <td>16–20 cm</td> </tr> <tr> <td>40–45 years</td> <td>20–30 cm</td> </tr> <tr> <td>45–50 years</td> <td>30–60 cm</td> </tr> </table> <p><b>Convergence:</b> (tested with Foster's Rule) Near point of convergence to be 10 cm or less.</p> <p><b>Heterophoria:</b> (tested with Maddox Rod at six metres) Must not exceed:</p> <table> <tr> <td>Esophoria or Exophoria</td> <td>6 prism dioptres</td> </tr> <tr> <td>Hyperphoria</td> <td>1 prism dioptre</td> </tr> </table> <p><b>Strabismus:</b> (by Cover Test and Worth's Lights) Evidence of strabismus, wide latent deviation, lack of fusion shown by Worth's Lights, nil or slow recovery is cause for rejection.</p> <p><b>Fields of Vision:</b> The fields of vision should be normal as tested by perimetry.</p> <p><b>Disease of Eyes or Eyelids:</b> Any disease (acute or chronic) present at the time of examination will disqualify. Chronic conditions will disqualify permanently.</p>	17–20 years	10–11 cm	21–25 years	11–12 cm	26–30 years	13–14 cm	31–35 years	14–16 cm	36–40 years	16–20 cm	40–45 years	20–30 cm	45–50 years	30–60 cm	Esophoria or Exophoria	6 prism dioptres	Hyperphoria	1 prism dioptre
17–20 years	10–11 cm																					
21–25 years	11–12 cm																					
26–30 years	13–14 cm																					
31–35 years	14–16 cm																					
36–40 years	16–20 cm																					
40–45 years	20–30 cm																					
45–50 years	30–60 cm																					
Esophoria or Exophoria	6 prism dioptres																					
Hyperphoria	1 prism dioptre																					

7E1-2

SERIAL (a)	STANDARD CODE (b)	VISUAL ACUITY		REFRACTION LIMITS AND OTHER VISUAL PARAMETER LEVELS (e)																		
		UNAIDED (c)	CORRECTED (d)																			
2	VSA2	6/12 6/12	6/6 6/6	<p>Refraction to be performed under cycloplegic, eg cyclopentolate 1 per cent.</p> <p><b>Hypermetropia and Astigmatism:</b> (as measured by the power of correcting lenses necessary under cycloplegic) +2.25 dioptres in either eye of which not more than +0.75 dioptre may be astigmatism.</p> <p><b>Myopia:</b> No myopia nor myopic astigmatism allowed.</p> <p><b>Accommodation:</b> (tested with Foster's Rule—RAAF gauge)</p> <table> <tr> <td>17-20 years</td> <td>10-11 cm</td> </tr> <tr> <td>21-25 years</td> <td>11-12 cm</td> </tr> <tr> <td>26-30 years</td> <td>13-14 cm</td> </tr> <tr> <td>31-35 years</td> <td>14-16 cm</td> </tr> <tr> <td>36-40 years</td> <td>16-20 cm</td> </tr> <tr> <td>40-45 years</td> <td>20-30 cm</td> </tr> <tr> <td>45-50 years</td> <td>30-60 cm</td> </tr> </table> <p><b>Convergence:</b> (tested with Foster's Rule) Near point of convergence to be 10 cm or less.</p> <p><b>Heterophoria:</b> (tested with Maddox Rod at six metres) Must not exceed:</p> <table> <tr> <td>Esophoria or Exophoria</td> <td>6 prism dioptres</td> </tr> <tr> <td>Hyperphoria</td> <td>1 prism dioptre</td> </tr> </table> <p><b>Strabismus:</b> (by Cover Test and Worth's Lights) Evidence of strabismus, wide latent deviation, lack of fusion shown by Worth's Lights, nil or slow recovery is cause for rejection.</p> <p><b>Fields of Vision:</b> The fields of vision should be normal as tested by perimetry.</p> <p><b>Disease of Eyes or Eyelids:</b> Any disease (acute or chronic) present at the time of examination will disqualify. Chronic conditions will disqualify permanently.</p>	17-20 years	10-11 cm	21-25 years	11-12 cm	26-30 years	13-14 cm	31-35 years	14-16 cm	36-40 years	16-20 cm	40-45 years	20-30 cm	45-50 years	30-60 cm	Esophoria or Exophoria	6 prism dioptres	Hyperphoria	1 prism dioptre
17-20 years	10-11 cm																					
21-25 years	11-12 cm																					
26-30 years	13-14 cm																					
31-35 years	14-16 cm																					
36-40 years	16-20 cm																					
40-45 years	20-30 cm																					
45-50 years	30-60 cm																					
Esophoria or Exophoria	6 prism dioptres																					
Hyperphoria	1 prism dioptre																					

7E1-3

SERIAL (a)	STANDARD CODE (b)	VISUAL ACUITY		REFRACTION LIMITS AND OTHER VISUAL PARAMETER LEVELS (e)
		UNAIDED (c)	CORRECTED (d)	
3	VS1	6/9 6/9 or 6/6 6/12	6/6 6/6	<p>Refraction to be performed under cycloplegic, eg cyclopentolate 1 per cent.</p> <p><b>Hypermetropia and Astigmatism:</b> (As measured by the power of correcting lenses necessary under cycloplegic) Hypermetropia +2.5 dioptres in either axis in either eye, of which not more than 1.0 dioptre may be astigmatism. Myopia will disqualify if greater than -0.50 dioptre sphere or -1.0 dioptre cylinder (maximum of -1.0 dioptre in either axis in either eye).</p> <p><b>Heterophoria:</b> (tested with Maddox Rod at six metres) Must not exceed: Esophoria or Exophoria      6 prism dioptres Hyperphoria                      1 prism dioptre</p> <p><b>Strabismus:</b> (by Cover Test and Worth's Lights) Evidence of strabismus, wide latent deviation, lack of fusion shown by Worth's Lights, nil or slow recovery is cause for rejection.</p> <p><b>Fields of Vision:</b> The fields of vision must be normal to confrontation, or in cases of doubt, to perimetry.</p>
4	VS2	6/12 6/12	6/6 6/6	<p>Refraction to be performed under cycloplegic, eg cyclopentolate 1 per cent.</p> <p><b>Hypermetropia and Astigmatism:</b> (As measured by the power of correcting lenses necessary under cycloplegic.) Hypermetropia +2.5 dioptres in either axis in either eye, of which not more than 1.0 dioptre may be astigmatism. Myopia will disqualify if greater than -0.50 dioptre sphere or -1.0 dioptre cylinder (maximum of -1.0 dioptre in either axis in either eye).</p> <p><b>Heterophoria:</b> (tested with Maddox Rod at six metres) Must not exceed: Esophoria or Exophoria      6 prism dioptres Hyperphoria                      1 prism dioptre</p> <p><b>Strabismus:</b> (by Cover Test and Worth's Lights) Evidence of strabismus, wide latent deviation, lack of fusion shown by Worth's Lights, nil or slow recovery is cause for rejection.</p> <p><b>Fields of Visions:</b> The fields of vision must be normal to confrontation, or in cases of doubt, to perimetry.</p>
5	VS3	6/12 6/24	6/9 6/9	<p>Refraction to be performed under cycloplegic, eg cyclopentolate 1 per cent.</p> <p><b>Hypermetropia and Astigmatism:</b> (As measured by the power of correcting lenses necessary under cycloplegic.) Hypermetropia +5.0 dioptres in either axis in either eye. Myopia will disqualify if greater than -1.0 dioptre sphere or -1.0 dioptre cylinder in either axis in either eye.</p> <p><b>Heterophoria:</b> (tested with Maddox Rod at six metres) Must not exceed: Esophoria or Exophoria      6 prism dioptres Hyperphoria                      1 prism dioptre</p> <p><b>Strabismus:</b> (by Cover Test and Worth's Lights) Evidence of strabismus, wide latent deviation, lack of fusion shown by Worth's Lights, nil or slow recovery is cause for rejection.</p> <p><b>Fields of Vision:</b> The fields of vision must be normal to confrontation, or in cases of doubt, to perimetry.</p>

7E1-4

SERIAL (a)	STANDARD CODE (b)	VISUAL ACUITY		REFRACTION LIMITS AND OTHER VISUAL PARAMETER LEVELS (e)
		UNAIDED (c)	CORRECTED (d)	
6	VS4	6/24 6/24	6/9 6/12	<p>Refraction to be performed under cycloplegic, eg cyclopentolate 1 per cent.</p> <p><b>Hypermetropia and Astigmatism:</b> (As measured by the power of correcting lenses necessary under cyloplegic.) Hypermetropia +5.0 dioptres in either axis in either eye. Myopia will disqualify if greater than -1.0 dioptre sphere or -1.0 dioptre cylinder in either axis in either eye.</p> <p><b>Heterophoria:</b> (tested with Maddox Rod at six metres) Must not exceed: Esophoria or Exophoria      6 prism dioptres Hyperphoria                      1 prism dioptre</p> <p><b>Strabismus:</b> (by Cover Test and Worth's Lights) Evidence of strabismus, wide latent deviation, lack of fusion shown by Worth's Lights, nil or slow recovery is cause for rejection.</p> <p><b>Fields of Vision:</b> The fields of vision must be normal to confrontation, or in cases of doubt, to perimetry.</p>
7	VS5	6/60 6/60	6/9 6/9	<p>Refraction to be performed under cycloplegic, eg cyclopentolate 1 per cent.</p> <p><b>Hypermetropia and Astigmatism:</b> (As measured by the power of correcting lenses necessary under cyloplegic.) Hypermetropia +5.0 dioptres in either axis in either eye. Myopia will disqualify if greater than -3.0 dioptres in either axis in either eye (under 17 years), and if greater than -4.0 dioptres in either axis in either eye (17 years and over).</p> <p><b>Strabismus:</b> An alternating concomitant strabismus with small deviation is allowed provided the appearance is acceptable.</p> <p><b>Fields of Vision:</b> The fields of vision must be normal to confrontation, or in cases of doubt, to perimetry.</p>
8	VS6	3/60 3/60	6/12 6/12	<p>Refraction to be performed under cycloplegic, eg cyclopentolate 1 per cent.</p> <p><b>Hypermetropia and Astigmatism:</b> (As measured by the power of correcting lenses necessary under cyloplegic.) Hypermetropia +7.0 dioptres in either axis in either eye. Myopia will disqualify if greater than -5.0 dioptres in either axis in either eye.</p> <p><b>Strabismus:</b> An alternating concomitant strabismus with small deviation is allowed provided the appearance is acceptable.</p> <p><b>Fields of Vision:</b> The fields of vision must be normal to confrontation, or in cases of doubt, to perimetry.</p>

**ROYAL AUSTRALIAN NAVY COLOUR PERCEPTION STANDARDS**

<b>SERIAL (a)</b>	<b>STANDARD CODE (b)</b>	<b>DEFINITION (c)</b>	<b>TEST RESULT (d)</b>
1	CP1	Colour perception is normal	FALANT—PASS. Average less than one error per sequence of nine combinations over two runs.  PSEUDOISOCROMATIC PLATES—10 or better correct responses from 14 plates.
2	CP2	Colour perception is anomalous	FALANT—PASS. Average less than one error per sequence of nine combinations over two runs.  PSEUDOISOCROMATIC PLATES—Less than 10 correct responses from 14 plates.
3	CP3	Colour perception is defective	FALANT—FAIL. Average of more than one error per sequence of nine combinations, over two runs.

**ROYAL AUSTRALIAN NAVY HEARING STANDARDS**

SERIAL (a)	STANDARD CODE (b)	500 HZ (c)	1000 HZ (d)	2000 HZ (e)	4000 HZ (f)	8000 HZ (g)	REMARKS (h)  (Audiometers calibrated to ISO Standards)
1	HS1	15 dB	25 dB	25 dB	25 dB	–	WORST EAR
2	HS1A	25 dB	25 dB	25 dB	25 dB	35 dB	WORST EAR <b>PITCH DISCRIMINATION:</b> Attain a pitch discrimination of 30 Hz either side of a basic note of 1000 Hz.
3	HS2A	35 dB	35 dB	35 dB	35 dB	35 dB	WORST EAR <b>PITCH DISCRIMINATION:</b> Attain a pitch discrimination of 30 Hz either side of a basic note of 1000 Hz.
4	HS2	35 dB	35 dB	35 dB	50 dB	–	WORST EAR
5	HS3	Below 35 dB	Below 35 dB	Below 35 dB	Below 50 dB	–	Refer to Note 9, annex D appendix 3 to this chapter.

## ROYAL AUSTRALIAN NAVY WEIGHT STANDARDS

### Definitions of Royal Australian Navy Weight Standards

1. RAN Weight Standards are defined as follows:
  - a. Weight Standard One (WS1)—‘Acceptable’.  
Body Mass Index (BMI) not greater than 25 (*see also* Note 1).
  - b. Weight Standard Two (WS2)—‘Overweight’.  
BMI greater than 25 but not greater than 30 (*see also* Notes 1, 2 and 3).
  - c. Weight Standard Three (WS3)—‘Obese’.  
BMI greater than 30 (*see also* Note 3).

- Notes:**
1. If BMI is greater than 25 but not greater than 27, and body fat content is less than maximum, then WS1 is to apply.
  2. If BMI is between 27 and 30, WS2 is to apply irrespective of bodyfat content.
  3. If BMI is greater than 30, but body fat content is less than maximum, then WS2 is to apply.

### Body Mass Index

2. The National Health and Medical Research Council (NHMRC) has concluded that ‘Body Mass Index’ is the most appropriate criterion for predicting a healthy weight range. BMI is derived by dividing weight in kilograms by the square of height in metres, ie  $BMI = \text{Weight (kg)}/\text{Height (m)}^2$ . The NHMRC defines the ‘healthy weight range’ as BMI 20–24.9, ‘overweight’ as BMI 25–29.9 and ‘obese’ as BMI 30 or more.
3. The ‘Weight for Height Table’ is derived from BMI (by the formula ‘weight = height squared ? BMI’) which eliminates the need for repeated individual calculations of BMI.
4. A difficulty with BMI is that, because it is derived from weight and height measurements, a person with a broad frame or well developed musculature might be classified as ‘overweight’ if BMI were the sole criterion applied. For this reason members exceeding the BMI derived weight limit will be further assessed on the body fat content.

### Maximum Body Fat

5. The **upper limits** of body fat percentages are:
  - a. **Males:** under 30 years 22 per cent, 30–40 years 23 per cent and over 40 years 24 per cent; and
  - b. **Females:** under 30 years 30 per cent, 30–40 years 31 per cent and over 40 years 32 per cent.

**WEIGHT FOR HEIGHT TABLE  
(derived from BMI)**

<b>HEIGHT IN CM (without shoes)</b>	<b>WEIGHT IN KG</b>	
	<b>Weight Standard One MAXIMUM (BMI = 25)</b>	<b>Weight Standard Two MAXIMUM (BMI = 30)</b>
152	57.8	69.3
153	58.5	70.2
154	59.3	71.1
155	60.1	72.1
156	60.8	73.0
157	61.6	73.9
158	62.4	74.9
159	63.2	75.8
160	64.0	76.8
161	64.8	77.8
162	65.6	78.7
163	66.4	79.7
164	67.2	80.7
165	68.1	81.7
166	68.9	82.7
167	69.7	83.7
168	70.6	84.7
169	71.4	85.7
170	72.3	86.7
171	73.1	87.7
172	74.0	88.8
173	74.8	89.8
174	75.7	90.8
175	76.6	91.9
176	77.4	92.9
177	78.3	94.0
178	79.2	95.1
179	80.1	96.1
180	81.0	97.2
181	81.9	98.3
182	82.8	99.4
183	83.7	100.5
184	84.6	101.6
185	85.6	102.7
186	86.5	103.8
187	87.4	104.9
188	88.4	106.0
189	89.3	107.2
190	90.3	108.3
191	91.2	109.4
192	92.2	110.6
193	93.1	111.7
194	94.1	112.9
195	95.1	114.1

**Table 1**

## METHOD FOR ESTIMATING BODY FAT PERCENTAGE BY BODY CIRCUMFERENCE MEASUREMENT

6. Body Fat percentage estimations require the member to be stripped to underclothes. Measurements for female members are to be undertaken by female members of the medical staff, or by a suitably chaperoned MO.

7. The measurements are taken with the member standing, relaxed with feet slightly apart. The following body circumferences are carefully measured, using a standard metric tape measure. The tape measure is to be held firmly around the relevant body part, without indenting the skin:

- a. **Neck Circumference.** The neck circumference is to be measured at a point just below the larynx.
- b. **Abdominal Circumference.** The abdominal circumference is measured immediately about the level of the iliac crests, horizontally, with the members relaxed and in expiration. This level usually includes the navel. It is not the members's true waist measurement, which is often several centimetres smaller.
- c. **Biceps/Arm Circumference.** The biceps/arm circumference is taken from the right arm, fully extended and abducted, palm facing upwards. The tape is placed around the largest circumference of the biceps-triceps group of muscles.
- d. **Forearm Circumference.** The forearm circumference is taken with the right arm extended as for the biceps measurement, palm up. The tape is placed around the largest circumference of the forearm.
- e. **Thigh Circumference.** The thigh circumference is measured on the left thigh, standing with feet slightly apart, with the tape immediately below the left buttock crease, horizontally around the thigh.

**Note:** The left thigh and right arm are to be used for measurement unless orthopaedic conditions indicate otherwise. A line diagram of landmarks for guidance in taking the circumference measurements, is included in this appendix.

8. For males refer to the table in this appendix to calculate Body Fat Percentage from neck and abdomen measurements.

9. For females the measurements for each circumference are now converted to fat percentage points using the appropriate tables in this appendix. Each circumference has its own separate Table and set of point values. The five fat percentage points are now added together and correction factor of 54.60 is subtracted from the total value. The end result is the member's body fat percentage. The entire calculation of the body fat estimation is to be shown on the Form PM 105/Form PM 132/Form PM 85/Form PM 197, as well as the weight and height measurements, as follows:

### EXAMPLE OF FEMALE BODY FAT CALCULATION

		Points
Neck	36 cms	3.35
Abdomen	87 cms	13.63
Forearm	27 cms	27.16
Arm	29 cms	14.85
Thigh	72.5 cms	25.45
TOTAL POINTS		88.44
Minus Correction		-54.60
Estimated Fat % =		29.84%

## LANDMARKS FOR MEASURING CIRCUMFERENCES IN ESTIMATING BODY FAT PERCENTAGE

**Notes:**

1. Person standing, relaxed, with feet slightly apart.
2. Use the RIGHT arm and the LEFT thigh.
3. Arm measurements are taken at the thickest point of the biceps and forearm.
4. The tape measure should be held firm but not indent the skin significantly.

**PERCENTAGE BODY FAT PREDICTED IN MALES**

Abdomen (cm)	Neck (cm)																	Abdomen (cm)	
	33.0	34.0	35.0	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0	45.0	46.0	47.0	48.0	49.0		50.0
64.0	6.7	5.4	4.2	2.9	1.7	0.4													64.0
65.0	7.4	6.2	4.9	3.7	2.4	1.2													65.0
66.0	8.2	6.9	5.7	4.4	3.2	1.9	0.7												66.0
67.0	8.9	7.6	6.4	5.2	3.9	2.7	1.4	0.2											67.0
68.0	9.6	8.4	7.1	5.9	4.6	3.4	2.1	0.9											68.0
69.0	10.4	9.1	7.9	6.6	5.4	4.1	2.9	1.6	0.4										69.0
70.0	11.1	9.9	8.6	7.4	6.1	4.9	3.6	2.4	1.1										70.0
71.0	11.9	10.6	9.4	8.1	6.9	5.6	4.4	3.1	1.9	0.6									71.0
72.0	12.6	11.3	10.1	8.9	7.6	6.4	5.1	3.9	2.6	1.4	0.1								72.0
73.0	13.3	12.1	10.8	9.6	8.3	7.1	5.8	4.6	3.3	2.1	0.8								73.0
74.0	14.1	12.8	11.6	10.3	9.1	7.8	6.6	5.3	4.1	2.8	1.6	0.3							74.0
75.0	14.8	13.6	12.3	11.1	9.8	8.6	7.3	6.1	4.8	3.6	2.3	1.1							75.0
76.0	15.6	14.3	13.1	11.8	10.6	9.3	8.1	6.8	5.6	4.3	3.1	1.8	0.6						76.0
77.0	16.3	15.0	13.8	12.6	11.3	10.1	8.8	7.6	6.3	5.1	3.8	2.6	1.3	0.1					77.0
78.0	17.0	15.8	14.5	13.3	12.0	10.8	9.5	8.3	7.0	5.8	4.5	3.3	2.0	0.8					78.0
79.0	17.8	16.5	15.3	14.0	12.8	11.5	10.3	9.0	7.8	6.5	5.3	4.0	2.8	1.5	0.3				79.0
80.0	18.5	17.3	16.0	14.8	13.5	12.3	11.0	9.8	8.5	7.3	6.0	4.8	3.5	2.3	1.0				80.0
81.0	19.3	18.0	16.8	15.5	14.3	13.0	11.8	10.5	9.3	8.0	6.8	5.5	4.3	3.0	1.8	0.5			81.0
82.0	20.0	18.7	17.5	16.3	15.0	13.8	12.5	11.3	10.0	8.8	7.5	6.3	5.0	3.8	2.5	1.3	0.0		82.0
83.0	20.7	19.5	18.2	17.0	15.7	14.5	13.2	12.0	10.7	9.5	8.2	7.0	5.7	4.5	3.2	2.0	0.8		83.0
84.0	21.5	20.2	19.0	17.7	16.5	15.2	14.0	12.7	11.5	10.2	9.0	7.7	6.5	5.2	4.0	2.7	1.5	0.2	84.0
85.0	22.2	21.0	19.7	18.5	17.2	16.0	14.7	13.5	12.2	11.0	9.7	8.5	7.2	6.0	4.7	3.5	2.2	1.0	85.0
86.0	23.0	21.7	20.5	19.2	18.0	16.7	15.5	14.2	13.0	11.7	10.5	9.2	8.0	6.7	5.5	4.2	3.0	1.7	86.0
87.0	23.7	22.5	21.2	20.0	18.7	17.5	16.2	15.0	13.7	12.5	11.2	10.0	8.7	7.5	6.2	5.0	3.7	2.5	87.0
88.0	24.4	23.2	21.9	20.7	19.4	18.2	16.9	15.7	14.4	13.2	11.9	10.7	9.4	8.2	6.9	5.7	4.5	3.2	88.0
89.0	25.2	23.9	22.7	21.4	20.2	18.9	17.7	16.4	15.2	13.9	12.7	11.4	10.2	8.9	7.7	6.4	5.2	3.9	89.0
90.0	25.9	24.7	23.4	22.2	20.9	19.7	18.4	17.2	15.9	14.7	13.4	12.2	10.9	9.7	8.4	7.2	5.9	4.7	90.0
91.0	26.7	25.4	24.2	22.9	21.7	20.4	19.2	17.9	16.7	15.4	14.2	12.9	11.7	10.4	9.2	7.9	6.7	5.4	91.0
92.0	27.4	26.2	24.9	23.7	22.4	21.2	19.9	18.7	17.4	16.2	14.9	13.7	12.4	11.2	9.9	8.7	7.4	6.2	92.0
93.0	28.1	26.9	25.6	24.4	23.1	21.9	20.6	19.4	18.1	16.9	15.6	14.4	13.1	11.9	10.7	9.4	8.2	6.9	93.0
94.0	28.9	27.6	26.4	25.1	23.9	22.6	21.4	20.1	18.9	17.6	16.4	15.1	13.9	12.6	11.4	10.1	8.9	7.6	94.0
95.0	29.6	28.4	27.1	25.9	24.6	23.4	22.1	20.9	19.6	18.4	17.1	15.9	14.6	13.4	12.1	10.9	9.6	8.4	95.0

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7E4-5

Abdomen (cm)	Neck (cm)																		Abdomen (cm)
	33.0	34.0	35.0	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0	45.0	46.0	47.0	48.0	49.0	50.0	
96.0	30.4	29.1	27.9	26.6	25.4	24.1	22.9	21.6	20.4	19.1	17.9	16.6	15.4	14.1	12.9	11.6	10.4	9.1	96.0
97.0	31.1	29.9	28.6	27.4	26.1	24.9	23.6	22.6	21.1	19.9	18.6	17.4	16.1	14.9	13.6	12.4	11.1	9.9	97.0
98.0	31.8	30.6	29.3	28.1	26.8	25.6	24.3	23.1	21.8	20.6	19.3	18.1	16.8	15.6	14.4	13.1	11.9	10.6	98.0
99.0	32.6	31.3	30.1	28.8	27.6	26.3	25.1	23.8	22.6	21.3	20.1	18.8	17.6	16.3	15.1	13.8	12.6	11.3	99.0
100.0	33.3	32.1	30.8	29.6	28.3	27.1	25.8	24.6	23.3	22.1	20.8	19.6	18.3	17.1	15.8	14.6	13.3	12.1	100.0
101.0	34.1	32.8	31.6	30.3	29.1	27.8	26.6	25.3	24.1	22.8	21.6	20.3	19.1	17.8	16.6	15.3	14.1	12.8	101.0
102.0	34.8	33.6	32.3	31.1	29.8	28.6	27.3	26.1	24.8	23.6	22.3	21.1	19.8	18.6	17.3	16.1	14.8	13.6	102.0
103.0	35.5	34.3	33.0	31.8	30.5	29.3	28.0	26.8	25.5	24.3	23.0	21.8	20.5	19.3	18.1	16.8	15.6	14.3	103.0
104.0	36.3	35.0	33.8	32.5	31.3	30.0	28.8	27.5	26.3	25.0	23.8	22.5	21.3	20.0	18.8	17.5	16.3	15.0	104.0
105.0	37.0	35.8	34.5	33.3	32.0	30.8	29.5	28.3	27.0	25.8	24.5	23.3	22.0	20.8	19.5	18.3	17.0	15.8	105.0
106.0	37.8	36.5	35.3	34.0	32.8	31.5	30.3	29.0	27.8	26.5	25.3	24.0	22.8	21.5	20.3	19.0	17.8	16.5	106.0
107.0	38.5	37.3	36.0	34.8	33.5	32.3	31.0	29.8	28.5	27.3	26.0	24.8	23.5	22.3	21.0	19.8	18.5	17.3	107.0
108.0	39.2	38.0	36.7	35.5	34.2	33.0	31.7	30.5	29.2	28.0	26.7	25.5	24.2	23.0	21.8	20.5	19.3	18.0	108.0
109.0	40.0	38.7	37.5	36.2	35.0	33.7	32.5	31.2	30.0	28.7	27.5	26.2	25.0	23.7	22.5	21.2	20.0	18.7	109.0
110.0	40.7	39.5	38.2	37.0	35.7	34.5	33.2	32.0	30.7	29.5	28.2	27.0	25.7	24.5	23.2	22.0	20.7	19.5	110.0
111.0	41.5	40.2	39.0	37.7	36.5	35.2	34.0	32.7	31.5	30.2	29.0	27.7	26.5	25.2	24.0	22.7	21.5	20.2	111.0
112.0	42.2	41.0	39.7	38.5	37.2	36.0	34.7	33.5	32.2	31.0	29.7	28.5	27.2	26.0	24.7	23.5	22.2	21.0	112.0
113.0	42.9	41.7	40.4	39.2	37.9	36.7	35.4	34.2	32.9	31.7	30.4	29.2	27.9	26.7	25.5	24.2	23.0	21.7	113.0
114.0	43.7	42.4	41.2	39.9	38.7	37.4	36.2	34.9	33.7	32.4	31.2	29.9	28.7	27.4	26.2	24.9	23.7	22.4	114.0
115.0	44.4	43.2	41.9	40.7	39.4	38.2	36.9	35.7	34.4	33.2	31.9	30.7	29.4	28.2	26.9	25.7	24.4	23.2	115.0
116.0	45.2	43.9	42.7	41.4	40.2	38.9	37.7	36.4	35.2	33.9	32.7	31.4	30.2	28.9	27.7	26.4	25.2	23.9	116.0
117.0	45.9	44.7	43.4	42.2	40.9	39.7	38.4	37.2	35.9	34.7	33.4	32.2	30.9	29.7	28.4	27.2	25.9	24.7	117.0
118.0	46.6	45.4	44.1	42.9	41.6	40.4	39.1	37.9	36.6	35.4	34.1	32.9	31.7	30.4	29.2	27.9	26.7	25.4	118.0
119.0	47.4	46.1	44.9	43.6	42.4	41.1	39.9	38.6	37.4	36.1	34.9	33.6	32.4	31.1	29.9	28.6	27.4	26.1	119.0
120.0	48.1	46.9	45.6	44.4	43.1	41.9	40.6	39.4	38.1	36.9	35.6	34.4	33.1	31.9	30.6	29.4	28.1	26.9	120.0
121.0	48.9	47.6	46.4	45.1	43.9	42.6	41.4	40.1	38.9	37.6	36.4	35.1	33.9	32.6	31.4	30.1	28.9	27.6	121.0
122.0	49.6	48.4	47.1	45.9	44.6	43.4	42.1	40.9	39.6	38.4	37.1	35.9	34.6	33.4	32.1	30.9	29.6	28.4	122.0
123.0	50.3	49.1	47.8	46.6	45.3	44.1	42.8	41.6	40.3	39.1	37.8	36.6	35.4	34.1	32.9	31.6	30.4	29.1	123.0
124.0	51.1	49.8	48.6	47.3	46.1	44.8	43.6	42.3	41.1	39.8	38.6	37.3	36.1	34.8	33.6	32.3	31.1	29.8	124.0
125.0	51.8	50.6	49.3	48.1	46.8	45.6	44.3	43.1	41.8	40.6	39.3	38.1	36.8	35.6	34.3	33.1	31.8	30.6	125.0
126.0	52.6	51.3	50.1	48.8	47.6	46.3	45.1	43.8	42.6	41.3	40.1	38.8	37.6	36.3	35.1	33.8	32.6	31.3	126.0
127.0	53.3	52.1	50.8	49.6	48.3	47.1	45.8	44.6	43.3	42.1	40.8	39.6	38.3	37.1	35.8	34.6	33.3	32.1	127.0

Table 2

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**BODY FAT PERCENTAGE ESTIMATION (FEMALES)  
NECK CIRCUMFERENCE TO FAT PERCENTAGE POINTS TABLE**

<b>NECK cms</b>	<b>POINTS</b>
18	19.33
18.5	18.89
19	18.44
19.5	18
20	17.55
20.5	17.11
21	16.67
21.5	16.22
22	15.78
22.5	15.34
23	14.89
23.5	14.45
24	14
24.5	13.56
25	13.12
25.5	12.67
26	12.23
26.5	11.79
27	11.34
27.5	10.9
28	10.45
28.5	10.01
29	9.57
29.5	9.12
30	8.68
30.5	8.24
31	7.79
31.5	7.35
32	6.9
32.5	6.46
33	6.02
33.5	5.57
34	5.13
34.5	4.68
35	4.24
35.5	3.8
36	3.35
36.5	2.91
37	2.47
37.5	2.02
38	1.58
38.5	1.13
39	0.69

**Table 3**

**BODY FAT PERCENTAGE ESTIMATION (FEMALES)  
FOREARM AND BICEP CIRCUMFERENCES TO FAT PERCENTAGE POINTS  
TABLES**

<b>FOREARM cms</b>	<b>POINTS</b>	<b>FOREARM cms</b>	<b>POINTS</b>	<b>BICEPS cms</b>	<b>POINTS</b>
16	43.88	39	8.92	15	0.15
16.5	43.12	39.5	8.16	15.5	0.67
17	42.36	40	7.4	16	1.2
17.5	41.6	40.5	6.64	16.5	1.72
18	40.84	41	5.88	17	2.25
18.5	40.08	41.5	5.12	17.5	2.78
19	39.32	42	4.36	18	3.3
19.5	38.56	42.5	3.6	18.5	3.83
20	37.8	43	2.84	19	4.35
20.5	37.04	43.5	2.08	19.5	4.88
21	36.28	44	1.32	20	5.4
21.5	35.52			20.5	5.93
22	34.76			21	6.45
22.5	34			21.5	6.98
23	33.24			22	7.5
23.5	32.48			22.5	8.03
24	31.72			23	8.55
24.5	30.96			23.5	9.08
25	30.2			24	9.6
25.5	29.44			24.5	10.12
26	28.68			25	10.65
26.5	27.92			25.5	11.17
27	27.16			26	11.7
27.5	26.4			26.5	12.22
28	25.64			27	12.75
28.5	24.88			27.5	13.27
29	24.12			28	13.8
29.5	23.36			28.5	14.32
30	22.6			29	14.85
30.5	21.84			29.5	15.37
31	21.08			30	15.9
31.5	20.32			30.5	16.42
32	19.56			31	16.95
32.5	18.8			31.5	17.47
33	18.04			32	18
33.5	17.28			32.5	18.52
34	16.52			33	19.05
34.5	15.76			33.5	19.57
35	15			34	20.1
35.5	14.24			34.5	20.62
36	13.48			35	21.15
36.5	12.72				
37	11.96				
37.5	11.2				
38	10.44				
38.5	9.68				

**Table 4**

**BODY FAT PERCENTAGE ESTIMATION (FEMALES)  
ABDOMEN CIRCUMFERENCE TO FAT PERCENTAGE POINTS TABLE**

<b>ABDOMEN cms</b>	<b>POINTS</b>	<b>ABDOMEN cms</b>	<b>POINTS</b>	<b>ABDOMEN cms</b>	<b>POINTS</b>
60	4.85	84	12.65	108	20.45
60.5	5.01	84.5	12.81	108.5	20.61
61	5.17	85	12.98	109	20.78
61.5	5.34	85.5	13.14	109.5	20.94
62	5.5	86	13.3	110	21.1
62.5	5.66	86.5	13.46	110.5	21.26
63	5.82	87	13.63	111	21.43
63.5	5.99	87.5	13.79	111.5	21.59
64	6.15	88	13.95	112	21.75
64.5	6.31	88.5	14.11	112.5	21.91
65	6.47	89	14.28	113	22.08
65.5	6.64	89.5	14.44	113.5	22.24
66	6.8	90	14.6	114	22.4
66.5	6.96	90.5	14.76	114.5	22.56
67	7.12	91	14.93	115	22.73
67.5	7.29	91.5	15.09	115.5	22.89
68	7.45	92	15.25	116	23.05
68.5	7.61	92.5	15.41	116.5	23.21
69	7.77	93	15.58	117	23.38
69.5	7.94	93.5	15.74	117.5	23.54
70	8.1	94	15.9	118	23.7
70.5	8.26	94.5	16.06	118.5	23.86
71	8.42	95	16.23	119	24.03
71.5	8.59	95.5	16.39	119.5	24.19
72	8.75	96	16.55	120	24.35
72.5	8.91	96.5	16.71	120.5	24.51
73	9.07	97	16.88	121	24.68
73.5	9.24	97.5	17.04	121.5	24.84
74	9.4	98	17.2	122	25
74.5	9.56	98.5	17.36	122.5	25.16
75	9.73	99	17.53	123	25.33
75.5	9.89	99.5	17.69	123.5	25.49
76	10.05	100	17.85	124	25.65
76.5	10.21	100.5	18.01	124.5	25.81
77	10.38	101	18.18	125	25.98
77.5	10.54	101.5	18.34	125.5	26.14
78	10.7	102	18.5	126	26.3
78.5	10.86	102.5	18.66	126.5	26.46
79	11.03	103	18.83	127	26.63
79.5	11.19	103.5	18.99	127.5	26.79
80	11.35	104	19.15	128	26.95
80.5	11.51	104.5	19.31	128.5	27.11
81	11.68	105	19.48	129	27.28
81.5	11.84	105.5	19.64	129.5	27.44
82	12	106	19.8	130	27.6
82.5	12.16	106.5	19.96		
83	12.33	107	20.13		
83.5	12.49	107.5	20.29		

**Table 5**

**BODY FAT PERCENTAGE ESTIMATION (FEMALES)  
THIGH CIRCUMFERENCE TO FAT PERCENTAGE POINTS TABLE**

<b>THIGH cms</b>	<b>POINTS</b>	<b>THIGH cms</b>	<b>POINTS</b>	<b>THIGH cms</b>	<b>POINTS</b>
35	3.1	59	17.4	83	31.71
35.5	3.4	59.5	17.7	83.5	32.01
36	3.7	60	18	84	32.3
36.5	3.99	60.5	18.3	84.5	32.6
37	4.29	61	18.6	85	32.9
37.5	4.59	61.5	18.89		
38	4.89	62	19.19		
38.5	5.19	62.5	19.49		
39	5.48	63	19.79		
39.5	5.78	63.5	20.09		
40	6.08	64	20.38		
40.5	6.38	64.5	20.68		
41	6.68	65	20.98		
41.5	6.97	65.5	21.28		
42	7.27	66	21.58		
42.5	7.57	66.5	21.87		
43	7.87	67	22.17		
43.5	8.17	67.5	22.47		
44	8.46	68	22.77		
44.5	8.76	68.5	23.07		
45	9.06	69	23.36		
45.5	9.36	69.5	23.66		
46	9.66	70	23.96		
46.5	9.95	70.5	24.26		
47	10.25	71	24.56		
47.5	10.55	71.5	24.85		
48	10.85	72	25.15		
48.5	11.15	72.5	25.45		
49	11.44	73	25.75		
49.5	11.74	73.5	26.05		
50	12.04	74	26.34		
50.5	12.34	74.5	26.64		
51	12.64	75	26.94		
51.5	12.93	75.5	27.24		
52	13.23	76	27.54		
52.5	13.53	76.5	27.83		
53	13.83	77	28.13		
53.5	14.13	77.5	28.43		
54	14.42	78	28.73		
54.5	14.72	78.5	29.03		
55	15.02	79	29.32		
55.5	15.32	79.5	29.62		
56	15.62	80	29.92		
56.5	15.91	80.5	30.22		
57	16.21	81	30.52		
57.5	16.51	81.5	30.81		
58	16.81	82	31.11		
58.5	17.11	82.5	31.41		

**Table 6**

### ROYAL AUSTRALIAN NAVY CARDIO-VASCULAR STANDARDS

SERIAL (a)	STANDARD CODE (b)	BLOOD PRESSURE		PULSE (e)	ECG (f)	EXERCISE TOLERANCE (g)
		Systolic/mm Hg (c)	Diastolic/mm Hg (d)			
1	CVSA1	Under 20 yrs—100–130 20–35 years—100–140 35 years and over—100–150	60–90	60–90	Without pathological abnormality	The member is to step at a rate of 30 times per minute to a height of 43 cm for five minutes. 30 second pulse counts (P1, P2, P3) are taken at one minute, two minutes and three minutes post exercise. P1, P2, P3 are then added together and a test score of 190 or less is acceptable.
2	CVS1D	Under 20 yrs—100–130 20–35 years—100–140 35 years and over—100–150	60–90	60–90	Without pathological abnormality	As above.
3	CVS2	Under 20 yrs—100–130 20–35 years—100–140 35 years and over—100–150	60–90	60–90	Only required over the age of 40 years	NIL.

**Note:** A cardio-vascular assessment by a Consultant Physician if the systolic pressure exceeds 140 mm Hg or diastolic pressure exceeds 90 mm Hg.

## ROYAL AUSTRALIAN NAVY RESPIRATORY STANDARDS

SERIAL (a)	STANDARD CODE (b)	DEFINITION (c)
1	RS1	The Forced Expiratory Volume in one second (FEV 1.0) must exceed 75 per cent of the vital capacity (VC). The vital capacity must exceed four litres using standard RAN Spirometry procedures.
2	RS2	No specific requirement other than absence of respiratory pathology engendering a significant degree of disability.

### RESPIRATORY STANDARDS FOR MEMBERS OF FOREIGN NAVIES

1. Differences in lung function between races are well documented. These differences mean that Australian lung function values applied to members from foreign navies with a different racial background may lead to these personnel being declared unfit in error. In general, FVC in Caucasians is approximately 10 per cent greater than in Chinese and approximately 20 per cent greater than in Indians. Similar changes have been found in African-Americans who generally have values of FEV1.0 and FVC approximately 12–15 per cent lower than that for Caucasians. People of mixed race usually have intermediate values. Coastal New Guineans show values similar to those of Indian descent, ie approximately 20 per cent less than Caucasians. Highland New Guineans show values similar to Caucasians and this is thought to be due to habitual high level of activity.

2. The following procedure should be employed when assessing lung function of members of foreign navies. Perform spirometry obtaining values for FEV1.0 and FVC. Obtain the predicted normal values from the Australian standards then subtract:

- a. 10 per cent for Chinese,
- b. 20 per cent for Indians,
- c. 20 per cent for coastal New Guineans, and
- d. 12 per cent for African-Americans.

3. This will provide a new predicted normal adjusted for race, as well as age, sex and height. 20 per cent above and below this will give the normal range.

## ROYAL AUSTRALIAN NAVY DENTAL STANDARDS

SERIAL (a)	STANDARD CODE (b)	DEFINITION (c)
1	DS1A	<ol style="list-style-type: none"> <li>1. All teeth are free from active caries.</li> <li>2. Any loss of tooth structure which represents a hazard, or potential hazard to the health and viability of a tooth is properly restored.</li> <li>3. Supporting structures and oral tissues are free from inflammation and other pathological lesions except those of a minor or temporary nature.</li> <li>4. Masticatory function is adequate.</li> <li>5. Dental aesthetics are acceptable.</li> <li>6. Aircrew are to have at least eight serviceable, vital functionally opposed permanent teeth exclusive of third molars in each arch, so positioned as to be capable of retaining and stabilising bridges or partial dentures where these are indicated.</li> <li>7. An elongated or malpositioned natural tooth which cannot be brought into functional occlusion with a natural or artificial opposing tooth or one which demonstrates marked destruction of supporting tissues is not to be classified as a serviceable tooth.</li> </ol>
2	DS1D	<ol style="list-style-type: none"> <li>1. All teeth are free from active caries.</li> <li>2. Any loss of tooth structure which represents a hazard, or potential hazard to the health and viability of a tooth is properly restored.</li> <li>3. Supporting structures and oral tissues are free from inflammation and other pathological lesions except those of a minor or temporary nature.</li> <li>4. Masticatory function is adequate.</li> <li>5. Dental aesthetics are acceptable.</li> <li>6. Before undertaking a suitability test for diving duties all applicants are to be examined by a dental officer who is to advise the appropriate MO and diving officer of any dental condition which could preclude any applicant from achieving and adequate grip and seal of the mouthpiece of the breathing apparatus without the aid of dentures.</li> <li>7. Dentures may be worn when diving but only on the advice of the dental officer.</li> </ol>
3	DS1S	<ol style="list-style-type: none"> <li>1. All teeth are free from active caries.</li> <li>2. Any loss of tooth structure which represents a hazard, or potential hazard to the health and viability of a tooth is properly restored.</li> <li>3. Supporting structures and oral tissues are free from inflammation and other pathological lesions except those of a minor or temporary nature.</li> <li>4. Masticatory function is adequate.</li> <li>5. Dental aesthetics are acceptable.</li> <li>6. Sound occluding natural or artificial teeth, including molars for the efficient mastication of food, are free from oral sepsis.</li> </ol>
4	DS2	<ol style="list-style-type: none"> <li>1. All teeth are free from active caries.</li> <li>2. Any loss of tooth structure which represents a hazard, or potential hazard to the health and viability of a tooth is properly restored.</li> <li>3. Supporting structures and oral tissues are free from inflammation and other pathological lesions except those of a minor or temporary nature.</li> <li>4. Masticatory function is adequate.</li> <li>5. Dental aesthetics are acceptable.</li> </ol>

**MEDICAL EXAMINATION PRIOR TO DISCHARGE**

**MINUTE**

File Reference:

HMAS NOSUCH  
Attention: SMO

**PREDISCHARGE MEDICAL CHECKUP** —(Rank, Name and Service Number)

Reference:

A. ABR 1991, volume 1, chapter 7

1. The abovenamed member will cease full time service from the RAN with effect from . . . . .
2. He/she is currently on leave/resettlement training. Prior to the member's departure a medical examination was performed.
3. In order to verify that the members medical condition has not changed since the medical examination in paragraph 2 above, you are requested to conduct a Predischarge Medical Checkup on Form PM 6 within one month of the date of his/her discharge.
4. The member has been instructed to contact you by . . . . . in order to undergo this examination.
5. If the member has not made contact as instructed, you are advised that the contact address and telephone number that the member has provided are:  
. . . . . Telephone ( ) . . . . .

H. J. SMITH  
LEUT, RAN  
for CO HMAS NOSUCH  
Telephone: (02) 359 XXXX  
Facsimile: (02) 359 XXXX

4 December, 1993

Enclosure: Form PM 4

## AIRCREW—MEDICAL AND DENTAL FITNESS—TEMPORARY RESTRICTIONS ON FLYING DUE TO MEDICAL AND DENTAL REASONS

1. The operation of modern aircraft calls for a high standard of physiological and psychological balance on the part of aircrew.
2. Apart from pathological conditions, this balance may be disturbed as a result of various extraneous factors, the effects of which are scarcely detectable, and therefore negligible for everyday activities, but, are considerably increased in the case of those whose work is in the air.
3. Flight safety requires that MO responsible for the medical supervision of aircrew should be well aware of these factors and of the appropriate preventive measures. Aircrew suffering from any physical or constitutional complaints are to report to the MO without delay. Authorising officers who have reason to doubt the medical fitness of any aircrew are to seek the advice of the MO.
4. Flying when suffering from common head colds may have serious deleterious effects.
5. A lowering of the black-out threshold may persist for three or four days after clinical recovery from gastro-enteritis.
6. The main extraneous factors to be taken into consideration are:
  - a. administration of certain drugs which do not require the patient to be confined to bed,
  - b. immunisation procedures,
  - c. loss of blood affecting regular and occasional blood donors or following dental extractions,
  - d. simulated ascents in pressure chambers,
  - e. competitive or tiring sporting activities,
  - f. diving,
  - g. ingestion of alcoholic beverages, and
  - h. watchkeeping duties.

### Administration of Certain Drugs

7. In general, aircrew requiring drugs having a systemic reaction are to be removed from flying duties. Where these drugs are absolutely indicated, they must be dispensed (on prescription) by a pharmacist, or if by another Health Service member, the dispensing must be supervised by the attending MO.
8. Aircrew are not to be authorised to fly for **eight hours** after taking any **antihistamine** drug.
9. Drugs of the **barbiturate, amphetamine, tranquilliser** and **antihistamine** groups, which are supplied under various trade names (and can be purchased from pharmacies), can have dangerous side reactions which have been regarded as the cause of accidents. Aircrew who have been prescribed (or produce) any of these drugs, are to be 'temporarily grounded', and the Squadron Commander is to be informed that they are not to fly until passed fit by the MO.

### Immunisation Procedures

10. The following measures should be taken in the event of a reaction occurring following certain immunisations:

- a. **ADT, Cholera, Hepatitis, and Typhoid Immunisation**—suspension from flying duties until local and or general reactions have disappeared, and
- b. **Yellow Fever Immunisation**—suspension from flying duties until all signs of general reactions have disappeared.

### Restrictions Due to Blood Donations

11. Aircrew in active flying appointments **are not** to donate blood except in emergencies or special circumstances, such as those involving a rare blood type.

12. Aircrew who have donated blood **are not** to perform flying duties within a period of 72 hours following the donation, **nor engage in** flights at night or above 10 600 metres, or aerobic or gunnery tactics within a period of **seven days**.

### Training in a Decompression Chamber

13. Suspension from flying duties will be at the discretion of the MO when symptoms and/or reactions occur during or after a decompression chamber exposure.

**Note:** Serious effects will entail a period of observation in hospital.

14. Personnel are not to be exposed to explosive decompression.

### Tiring Sporting or Recreational Activities

15. Flying fitness is impaired by fatigue. Fatigue can be caused by a number of factors, not the least of which is prior exhaustion from over-excessive muscular effort.

16. Aircrew are encouraged to participate in physical fitness programs but are to be cautioned to plan these activities so that they will not affect their fitness to fly.

### Diving

17. Any incident occurring during, or following, diving **imposes an automatic ban** on flying until a medical examination has been performed.

### Altitude Restrictions Following Diving

18. After diving on compressed air or gas mixtures the following restrictions on flying are to be imposed:

- a. all aircrew (including Sea Air Rescue (SAR) diver)—no flying (or low pressure chamber experience) above 600 metres within 12 hours of diving between one to two atmospheres absolute (0 to 10 metres) or within 24 hours if a pressure of two atmospheres absolute has been exceeded (ie over 10 metres); or as a passenger, if the aircraft cabin is pressurised to the equivalent of 2500 metres no flying **within two hours of diving** which does not require decompression stops, or **within 24 hours** of dives involving decompression stops.

19. Patients suffering from 'decompression sickness' who need air transportation should travel, where possible, in aircraft pressurised to ground level. Where this is not possible, cabin altitude should not exceed 300 metres.

### Restrictions Following Consumption of Alcohol

20. The incapacitating nature of the after effects of over-indulgence in alcoholic beverages is widely recognised. Also well recognised is the fact that the body takes an appreciable length of time to break down ingested alcohol.

21. Aircrew are not to undertake flying duties **with a blood alcohol concentration greater than zero, nor with any symptoms of hangover**. As a practical guide to assist compliance with this restriction, the **minimum time** between any alcohol ingestion and subsequent flying duties **is to be eight hours**.

### Watchkeeping Duties

22. In order that they may be properly rested, aircrew should not normally keep watch **within eight hours** of being due to undertake flying duties.

### Dental

23. All flying personnel should undergo a dental examination **every twelve months**, whether they know they require treatment or not, in order to minimise the risk of high altitude toothache. This complaint (barodontalgia) may constitute a serious risk when flying modern high performance aircraft. Dental clinics are to maintain a comprehensive record of aircrew annual dental examinations.

### Iatrogenic Barodontalgia

24. Dental procedures which induce temporary pulpal hyperaemia, such as crown cementation, occlusal equilibration or extensive cavity preparation, may cause toothache with changes in ambient pressure or temperature. These procedures should not be used shortly before a patient is to be subject to extreme barometric or temperature variations.

### Dental Extractions

25. Flying duties are not to be resumed for **48 hours** after a simple dental extraction, irrespective of whether local or general anaesthesia has been employed, because of the possibility of reactionary haemorrhage being precipitated by changes in ambient pressure. Personnel are to be reexamined before resuming flying duties.

### Dry Socket

26. Alveolar osteitis ('dry socket') is painful and characterised by swelling, fever and general malaise. A risk of secondary haemorrhage also exists. Patients with this condition are to be removed from flying duties until treatment has been completed.

### Oral Surgery

27. Restrictions on flying after oral surgery depend on the nature of the procedure and must be determined by the dental officer concerned. In general, any unsutured wound is liable to reactionary haemorrhage and the **48 hour period** of restriction is necessary. If infection is present, there is further risk of delayed secondary haemorrhage and flying duties are not to be resumed until treatment has been completed and the patient reexamined.

### Root Canal Treatment

28. Changes in ambient pressure involve a risk of emphysema and periapical pain following the irrigation of root canals. Endodontic treatment for flying personnel should be done expeditiously and personnel should be withdrawn from flying duties whilst root canal treatment is being carried out.

### Other Procedures

**29.** Procedures not involving risk of haemorrhage or barodontalgia require no restrictions unless local anaesthesia or relative analgesia has been employed. Aircrew are to be removed from flying duties for **12 hours after** local anaesthesia and **24 hours after** relative analgesic (see also paragraphs 7 to 9). Intravenous sedation is not normally employed in the Navy but dental officers should be aware that personnel who have received private or emergency treatment ashore may have been subjected to 'Diazepam' or 'Methohexitone' sedation and are to be removed from flying duties for **48 hours** following the administration of these drugs.

**30.** For the purposes of this Manual, any run in a 'decompression chamber' is to be **considered as flying duty**, irrespective of the qualifications and activity of the person concerned.

## **GENERAL CONSIDERATION FOR CONDUCT OF ALL HEALTH EXAMINATIONS**

1. A careful scrutiny of the member's health record Form PM 4, followed by discussion of significant health problems, is to be made on each occasion. Follow-up action of all outstanding requirements is to be completed.
2. The X-ray report (if applicable) is to be received prior to 'certification of fitness'. Ensure that the correct statement has been given to the Consultant Radiologist. Form PM 85 is not to be forwarded to DGNHS until Box 14 (if applicable) has been completed.
3. Note in Box 67 that dental officers Certificate of Fitness has been received.
4. Check the visual and hearing standards.
5. Results of spirometry are to be recorded in Box 30. Bronchodilating medication is not to be used. See instructions on spirometry.
6. Where abnormalities are noted in Box 67, ensure brief explanation of action being taken to investigate/treat the condition, is included.
7. Where Valsalva manoeuvre is required, it must be **'positive'** and recorded in Box 18. If it is 'negative' or 'doubtful', the member is to be referred to an ENT specialist for further opinion.

## PROCEDURE FOR TESTING COLOUR PERCEPTION

Colour Perception is only to be tested by an operator who is CP1

### Farnsworth Lantern Test

1. The first test for colour perception shall be **Farnsworth Lantern Test (FALANT)**. A PASS on the FALANT can mean either **CP1 or CP2**; a **FAIL is CP3**.
2. Detailed instructions for the administration of the FALANT as well as criteria for passing the test are engraved on a metal plate permanently attached to the instrument and shall be followed without exception.
3. **Operation of the lantern:**
  - a. **Important** —the Farnsworth Lantern must be used through the stepdown transformer supplied and NOT plugged directly into a 240V power outlet. Operate lantern on 110–120 volt, AC or DC if available.
  - b. Give the test in a normally lighted room. Screen from glare and exclude sunlight. The examinee should not face the source of room illumination.
  - c. Only one person is to be tested at a time (others shall not be allowed to watch).
  - d. Station examinee 2.5 metres from the lantern.
  - e. Examinee may stand or sit. If examinee ordinarily uses glasses for distance, he/she should wear them. The aperture of the lantern should be directed at the head of the examinee and the adjusting screw should be tightened to hold lantern in this position.
4. **Administration and scoring:**
  - a. **Instruct examinee:** 'The lights you will see in this lantern are either **red, green** or **white**. They look like signal lights at a distance. Two lights are presented at a time in any combination. Call out the colours as soon as you see them, naming first the colour at the top and then the colour at the bottom. **Remember**, only three colours, **red, green** and **white** —and top first.'
  - b. Turn knob at top of lantern to change lights. Depress button in centre of knob to expose lights. Maintain regular timing of about **two seconds** per exposure.
  - c. Expose the lights in random order, starting with an RG (red, green), or GR (green, red) combination (Nos. 1 or 5), continuing until each of the nine combinations have been exposed.
  - d. If no errors are made on the first run of nine pair of lights, the examinee has **passed**.
  - e. **If any errors are made on the first run, discard the results** of the first run and give two more complete runs.
  - f. Average the errors of these last two runs. If the examinee has an average of more than one error per run he/she has **failed**. If the examinee has an average of one error, or less than one error per run, he/she has **passed**.
  - g. An error is considered the miscalling of one, or both, of a pair of lights. If an examinee changes his/her response before the next light is presented, record his/her second response only.

- h. If an examinee says—'yellow', 'pink', etc, remind him/her, 'There are **only three colours** —red, green and white'.
- i. If an examinee takes a long time to respond, tell him/her—'As soon as you see the lights, call them'.

**5. Recording.** The result of the FALANT test is recorded as either **PASS** or **FAIL** on Form PM 364.

### **Pseudoisochromatic Plate Test**

**6.** The second test employs Pseudoisochromatic Plates, and is used for all examinees where a 'pass' has been gained on the FALANT in order to distinguish between CP1 and CP2.

**7. Operation of Plates.** When the Pseudoisochromatic Plates are used the easel light with daylight filter is to be used for illumination. The easel light is to be placed on a table or shelf so that the candidate's line of sight is at right angles to the plates and so that his/her eyes are at a distance of approximately one metre (plates just out of arms reach). The candidate is not to face an open window or other strong light. Nearby incandescent lights are to be shielded so that they do not illuminate the plates. Nearby window blinds are to be drawn.

**8. Administration.** The examiner will instruct the candidate to 'Please read the numbers'. The examiner will not give other instructions and will not ask other questions. The candidate is not allowed to trace patterns or touch the test plates. When not in use the book of plates is to be kept in a light-tight cover under lock and key. Soiled or unserviceable books are to be returned to store and a replacement drawn.

- a. The demonstration plate must be shown **first** (a red '12' on a blue background). All of the remaining plates are then shown. About **two seconds** should be allowed for response to each plate. If the candidate hesitates he/she should be asked again to—'Read the numbers'; if he/she 'fails to respond' the examiner turns to the next plate without comment.
- b. With the exception of the 'demonstration plate' which is always first, the examiner must change the order of the plates frequently. The change should be made at least **weekly** and more often if there is suspicion that the numbers have been learned in serial order by the candidates.

### **9. Scoring and Recording:**

- a. If '10 or more' responses to the 14 test plates are correct, colour perception is **normal** (CP1); if 'nine or less' responses are correct, colour perception is **anomalous** (CP2). The responses, are recorded on Form PM 364 as:

**No. correct responses, eg**  $\frac{10}{14} = \text{CP1}$

14

$\frac{9}{14} = \text{CP2}$

14

- b. The demonstration plate is not considered in scoring. In plates with two digit numbers incorrect responses to either is a 'failure' for the plate.
- c. The interpretation of error score holds only when the test is administered under the standard source of illumination, standard distance and standard timing.

**10. Colour Perception Trade Tests.** Sailors who apply to enter the Engineering Branch: Electronics Technician (ET), Aviation Technician Avionics (ATV) and Marine Technician (MT) who are **CP2** are to be given a supplementary Trade Colour Perception Test in which they are required to match **with absolute accuracy** the coloured bands of 15 pairs of wires of the DEF 10 series and a number of miniature colour-coded electronic components. The test is to be carried out in

average room lighting and **a single failure will debar entry to these categories**. A 'pass' is to be recorded as **CP2 (PTT)** on Form PM 364. The Trade Test is to be carried out in the presence of a MO at all Recruiting Centres and is to be repeated at HMAS CERBERUS on entry.

## MEDICAL STANDARDS FOR ROYAL AUSTRALIAN NAVY DIVERS

1. Medical standards are tabulated below; where relevant quantitative standards are given. Mandatory rejection criteria are shown at Annex K to this chapter.

SERIAL (a)	CRITERION (b)	STANDARD FOR ENTRY (c)	SERVING STANDARDS (d)
1	Age	Ships diver—30 years max. Clearance diver—25 years max.	There is no upper age limit for diving provided all the medical standards can be met. Serious consideration must be given, however, to the need for divers over the age of 40 to have adequate reserves of pulmonary and cardio-vascular fitness for use in emergency, and therefore to the possibility of diving having to be terminated or limited on these grounds.
2	Obesity(1)	Weight Standard One. Obesity is a particular hazard to divers and may also imply a lack of physical fitness.	As for entry.
3	Skin	No evidence of chronic or acute skin disorders such as are likely to be affected adversely by friction from dry diving suits, prolonged immersion or prolonged exposure to the high humidity, and elevated temperature environments which are commonly encountered in oxyhelium diving.	As for entry.
4	ENT	Both tympanic membranes must be intact and mobile when a Valsalva test is carried out. This test confirms patency of the eustachian tubes. If the Valsalva test is negative retest in one to three days. If still negative referral to an ENT specialist is advised.	As for entry.
5	Respiratory System	No evidence of lung disease and particular attention must be paid to any condition that might cause retention and trapping of expanding gas in any part of the lungs during decompression.	As for entry.

SERIAL (a)	CRITERION (b)	STANDARD FOR ENTRY (c)	SERVING STANDARDS (d)
6	Cardio-vascular System	<p>a. No evidence of heart disease.</p> <p>b. The resting blood pressure must not exceed 140/90 mm Hg.</p> <p>c. An exercise tolerance test is to be carried out. The candidate will be required to step at a rate of 30 times per minute to height of 17 inches (43 cm) for five minutes. Thirty second pulse counts (P1, P2, P3) are taken at one minute, two minutes and three minutes post-exercise. P1, P2, P3 are then added together and a test score of 190 or less is to be regarded as an acceptable level of fitness. Those who fail to achieve level should be reexamined at a later date, following suitable guidance.</p>	As for entry.
7	Alimentary System	No evidence of acute or chronic gastro-intestinal disease.	As for entry.
8	Dental	<p>a. As for RAN dental standards.</p> <p>b. All candidates at initial examination are to be referred to a RAN dental officer for a certificate of dental fitness. Ships divers will be examined by a dental officer every six months.</p>	<p>As for entry.</p> <p>Clearance divers must be examined every six months and a certificate of dental fitness issued subject to any routine treatment required being completed within two months of examination.</p>
9	Musculo-skeletal	Any impairment of musculo-skeletal function must be carefully assessed against the general requirements outlined in paragraph 2.	As for entry.
10	Central Nervous System	A full examination of the central nervous system must show normal function, but localised minor abnormalities such as patches of anaesthesia, which are to be documented, are allowable provided generalised nervous system disease can be excluded.	As for entry.

SERIAL (a)	CRITERION (b)	STANDARD FOR ENTRY (c)	SERVING STANDARDS (d)																													
11	Vision	a. Ships diver—VS3 CP3. Clearance diver VS2 CP1.  b. Visual fields are to be normal on simple testing.  c. Fundi must be normal.  d. Colour vision will have been tested at initial examination and any abnormalities are to be detailed in the Form OM 101.	As for entry.																													
12	Hearing	Maximum allowable loss in worst ear using international standard will be:  <table border="0" data-bbox="510 795 774 996"> <thead> <tr> <th>Hz</th> <th>dBA</th> </tr> </thead> <tbody> <tr><td>500</td><td>25</td></tr> <tr><td>1000</td><td>25</td></tr> <tr><td>2000</td><td>25</td></tr> <tr><td>4000</td><td>25</td></tr> <tr><td>6000</td><td>35</td></tr> <tr><td>8000</td><td>35 = HS1A</td></tr> </tbody> </table>	Hz	dBA	500	25	1000	25	2000	25	4000	25	6000	35	8000	35 = HS1A	<table border="0" data-bbox="949 705 1204 907"> <thead> <tr> <th>Hz</th> <th>dBA</th> </tr> </thead> <tbody> <tr><td>500</td><td>35</td></tr> <tr><td>1000</td><td>35</td></tr> <tr><td>2000</td><td>35</td></tr> <tr><td>4000</td><td>50</td></tr> <tr><td>6000</td><td>50</td></tr> <tr><td>8000</td><td>50 = HS2</td></tr> </tbody> </table>		Hz	dBA	500	35	1000	35	2000	35	4000	50	6000	50	8000	50 = HS2
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8000	50 = HS2																															

**Note:**

1. It should be noted that the height/weight table makes little allowance for variations in body type. If clinically indicated candidates who exceed these criteria may be reassessed by an approved technique for measuring relative body fat at SUMU, then submitted to the DGNHS for consideration for the waiver of standard.

**Appendix:** 1. Procedure for Sharpened (Tandem) Rombergs Test

## PROCEDURE FOR SHARPENED (TANDEM) ROMBERGS TEST

### Reference:

Aerospace Medicine volume 39 No. 3, March 1968.

1. Ensure even floor surface free of furniture and fittings.
2. Member to remain in shoes.
3. Instruct member to stand heel to toe with arms crossed over chest, right palm to touch left shoulder, left palm to touch right shoulder.
4. Instruct member to close eyes for a period of 60 seconds. During this 60 second period if the member does not lose their balance they are **given a perfect score of 240**.
5. If the member loses their balance the number of seconds balance they have maintained is counted (eg 30 seconds). The test is then repeated for 60 seconds periods to a total of four minutes and all scores within each 60 second period are totalled and placed over 240. **The pass score is 120**.
6. The member is instructed to resume the test position immediately following any loss of balance and the 60 second test period is recommended immediately.

### INTERPRETATION OF SHARPENED ROMBERGS TEST

7. Rombergs sign (inability to maintain balance with the feet together and eyes closed) was initially described as test of postural sense in the legs, but the Sharpened (Tandem) Rombergs correlates well with other neurological disorders (vestibular, labyrinthine and cerebellar impairment).
8. It should be noted that recent exposure to motion or consumption of alcohol may impair performance on the Sharpened (Tandem) Rombergs test. Practice can improve the score of 'normals' but does not help when a neurological condition exists.
9. Doubtful cases and persistent failures should be referred to a neurologist or OIC SUM.

## MANDATORY MEDICAL CRITERIA FOR REJECTION FROM DIVING

Any candidate with a history of **chronic illness** is to be referred to a diving medical physician before being considered 'fit to dive'.

**The following are medical grounds for rejection from diving practice:**

**1. Central Nervous System:**

- a. Any history of fits (apart from childhood febrile convulsions), intra-cranial surgery, blackouts, severe head injury involving more than momentary unconsciousness or concussion, and migraine, are causes for rejection. If the severity of head injuries is in doubt, any further opinion should include an EEG examination. A history of migraine or repeated headaches should be investigated further and referred to a Consultant Neurologist.
- b. Any history of stroke, intra-cranial aneurysm, arterio-venous malformation, tumor or craniotomy.
- c. Any past or present evidence of psychiatric illness is a cause for rejection unless the examining MO can be confident that it is of a minor nature and unlikely to recur. Particular attention should be paid to any past or present evidence of alcohol or drug abuse. Personnel with an ongoing drug or alcohol abuse problem are 'unfit for diving'.
- d. Any speech defect which might prevent instant, clear communication with or without stress.

**2. ENT.** The following ENT conditions are **cause for rejection:**

- a. any evidence of chronic outer, middle or inner ear disease;
- b. any evidence of chronic or recurrent sinusitis, chronic inflammatory change or severe allergic conditions of the upper respiratory tract;
- c. any history of middle ear surgery (including tympanoplasty) should be referred for specialist opinion before a decision is made; and
- d. deafness or severe hearing loss in one or both ears.

**3. Respiratory System.** The following respiratory conditions are **cause for rejection:**

- a. any chronic lung disease, past or present;
- b. any past or present evidence of obstructive airways disease (eg asthma, chronic bronchitis, emphysema, allergic bronchospasm);
- c. any history of pulmonary tuberculosis, spontaneous pneumothorax, perforating chest injuries or open chest surgery; (a calcified primary focus is not normally a reason for disqualification); and
- d. any fibrotic lesion of the lung that may cause generalised lack of compliance in lung tissue or lead to local or general air trapping.

**4. Cardiovascular System.** The following cardio-vascular conditions **are cause for rejection:**

- a. any evidence of cardiac disease or deformity, pathological murmurs and bruits;

- b. severe varicose veins although less severe or successfully treated varicosities are acceptable; and
- c. severe haemorrhoids until successfully treated.

**5. Alimentary System.** The following conditions of the alimentary system **are cause for rejection:**

- a. peptic ulceration unless there is endoscopic evidence of complete healing and the candidate has been asymptomatic for **one year**;
- b. any abdominal herniation which may have bowel present until satisfactorily repaired; and
- c. any other chronic gastro-intestinal disease (eg ulcerative colitis, Crohn's disease).

**6. Dental.** Abnormalities of dentition or malformations of mandible or maxilla likely to impair the candidate's ability to securely and easily retain an unmodified diving equipment mouthpiece and obtain a complete seal without dentures will be **cause for rejection.**

**7. Skin.** Any evidence of chronic or acute skin disorders likely to be adversely affected by friction from dry diving suits, prolonged immersion or prolonged exposure to high humidity and elevated temperature environments which are commonly encountered in oxyhelium diving.

**8. Metabolic.** Diabetes mellitis will be cause for rejection. Other metabolic disorders are to be referred to a diving medical physician before being considered 'fit to dive'.

## STANDARD METHOD OF SPIROMETRY

1. The following method of testing pulmonary function is to be followed explicitly to ensure correct test results. Errors in measurement technique may adversely affect a member's career.

2. A vitalograph spirometer is the standard measuring instrument for lung function testing in the RAN.

### 3. Method of testing:

- a. Ensure that **two hours** have elapsed since the last meal and **one hour** since the last cigarette.
- b. Explain the test in simple terms, ensuring the need to exhale rapidly and forcefully.
- c. Any restrictive clothing (including belts), should be loosened.
- d. Place a nose clip on the applicant (optional).
- e. The member should be stood squarely in front of the instrument, and so that their neck is slightly extended when the mouthpiece is in the test position.
- f. The deepest possible inspiration should be taken from a normal breathing pattern, the mouth closed firmly around the mouthpiece and a hard, fast exhalation made into the instrument. Common errors are pursing the lips and placing the tongue over the mouthpiece, thus forming obstructions.
- g. Allow **two** practice attempts, then place a fresh chart on the instrument and record **three tracings**. The **final result** should show **two tracings with less than five per cent variation**. If variations greater than five per cent are observed the technique should be scrutinised by a MO.
- h. Record personal details and any relevant history, eg upper respiratory tract infection or excessive anxiety.

### 4. Calculation of results:

- a. Measure the 'forced vital capacity' (FVC) and 'forced expiratory volume' in **one second** (FEV1) for each curve. Use the largest FVC and FEV results for calculations. Use only the BTPS (1) scale for measurements. Find the members predicted FVC and FEV1 from the nomograms at appendixes 1 or 2 to this Annex.
- b. Use this formula to calculate the FEV1/FVC ratio as a percentage:

$$\frac{\text{FEV1} \times 100}{\text{FVC}} = \text{Ratio per cent}$$

#### Note:

1. BTPS stands for body temperature (37 degrees C), barometric pressure, saturated with water vapour.

**Example:** Gas volume of four litres measured at 660 mm Hg and 18 degrees C has a correction factor of 1.12, eg 4 x 1.12 = 4.48 litres BTPS.

**Results below 70 per cent**

5. When results are consistently below 70 per cent, the following action is to be taken:
- a. compare the results obtained at subparagraph 4.b. with the predicted FVC of the subjects age and height (appendix 1 or 2 to this Annex),
  - b. calculate ratio of measured FVC and predicted FVC by using the following formula:  
$$\frac{\text{measured FVC} \times 100}{\text{predicted FVC}} = \text{per cent predicted FVC, and}$$
  - c. use the graph at appendix 3 to this Annex to compare the measured FEV1/FVC percentage (subparagraph 4.b.) and the percentage predicted FVC.

**6. Any member with a percentage predicted FVC below 70 per cent or above 150 per cent is to be rejected.** (Refer to appendix 6 to Annex E, chapter 7.)

**7. Doubtful cases** should be retested in one or two weeks, particularly if the member is suffering from a temporary respiratory limitation, eg upper respiratory tract infection or viral infection.

**8.** The graph at appendix 3 to this Annex is to be used to correlate the measured FEV1/FVC percentage and the predicted FVC. **Any member whose results fall below the lower line should be rejected.** The line below 100 per cent predicted FVC is the same, ie 72 per cent.

- Appendixes:**
1. Prediction Nomogram—Males
  2. Prediction Nomogram—Females
  3. Relationship Between FEV(1)/FVC per cent and FVC per cent Predicted

## PREDICTION NOMOGRAM—MALES

NOTE ON FEF VALUES: These figures are actual findings but unsuitable for prediction of normal values because the correlation between FEF and age is not statistically significant.

These spirometric standards for white caucasian males were established from a selected European industrial population. Vitalograph Spirometers were used in this study.

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## **PREDICTION NOMOGRAM—FEMALES**

NOTE ON FEF VALUES: These figures are actual findings but unsuitable for prediction of normal values because the correlation between FEF and age is not statistically significant.

The age for FEF estimations requires to be reversed, as indicated by the scale figures in semi-parentheses

These spirometric standards for white caucasian males were established from a selected European industrial population. Vitalograph Spirometers were used in this study.

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**RELATIONSHIP BETWEEN FEV(1)/FVC PER CENT AND FVC PER CENT  
PREDICTED**

## PROCEDURE FOR LONG BONE SURVEYS

1. The basic survey should include the following:
  - a. AP radiograph of each shoulder joint,
  - b. AP radiograph of each shoulder joint with arm in internal rotation,
  - c. AP radiograph of each hip joint,
  - d. AP radiograph of each knee joint, and
  - e. lateral radiograph of each knee joint.

Possible additional projections are a radiograph of each hip joint with leg in lateral position.

2. The early demonstration of '**dysbaric osteonecrosis**' demands high quality radiographs which clearly demonstrate the bone trabeculae. This will require the optimum screen/film combination, an adequate ratio grid and a focal spot size of 1 mm to 2 mm. A smaller size with a high-speed rotating tube should be used if this is available. Gonad protection should always be used. A list of recommended projections and specimen radiographs illustrating these views should be available for the radiographer. Where possible, the radiographs should be checked before the patient leaves the X-ray room or department and preferably this should be done by the radiologist responsible for the interpretation. It is of considerable advantage to have the surveys done in as few centres as possible so that the radiography technicians become closely involved in the work and are fully aware of the problems in interpretation and the need for high quality radiographs.

3. **Shoulder Joint.** The objective is to obtain a radiograph of the entire articular cortex of the humeral head in unobscured profile. An 18 cm x 24 cm film is recommended. An antero-posterior projection of each shoulder is taken with the patient lying supine and the trunk rotated to bring the scapula on the side to be radiographed flat against the table top. With the arm in the supine position (palm up), pulled down and abducted 10 degrees, the beam is centred 25 mm below the tip of the coracoid process of the scapula. The beam should be collimated by bringing in the diaphragms to show only the head and the proximal third of the shaft of the humerus. This view should show a clear joint space. The patient should hold their breath while the film is exposed.

4. **Shoulder Joint with Arm in Internal Rotation.** An 18 cm x 24 cm film is recommended. An antero-posterior projection of each shoulder joint is taken with the patient placed in a supine position and the trunk rotated to bring the scapula on the side to be radiographed flat against the table top. The humeral head is then internally rotated by turning the forearm to the prone position (palm down), with the elbow slightly flexed and the humerus abducted approximately 10 degrees. The beam is centred about 25 mm below the tip of the coracoid process of the scapula. The beam should be collimated by bringing in the diaphragms to show only the head and the proximal third of the shaft of the humerus. The patient should hold their breath during the exposure.

5. **Hip Joint.** The objective is to obtain a radiograph demonstrating the head of the femur. To obtain comparable radiographs at serial follow-up, the femoral neck should be in a standard position. A 24 cm x 30 cm film is recommended. A separate antero-posterior projection of each hip joint is taken with the patient placed in a supine position and the foot on the side under investigation at 90 degrees to the table top. The beam should be centred over the head of the femur, ie 25 mm below the mid-point of the line joining the anterior-superior iliac spine and the mid-point of the upper border of the pubic symphysis. The beam should be collimated by bringing in the diaphragms to show only the head, neck and immediate subtrochanteric area of the femoral shaft. The edge of the gonad protector should be as near to the femoral head as possible but not obscuring it.

**6. Knee Joint.** The objective is to ensure a comparable density between the lower two-thirds of the femur and the upper third of the tibia. It is recommended that the voltage is lowered the current raised and use made of a grid. Two projections are used. A 30 cm x 40 cm film is recommended for both. An antero-posterior projection of each knee is made with the knee extended to include the lower two-thirds of the femur and the upper third of the tibia and fibula. The beam should be centred at the level of the upper border of the patella.

**7.** A lateral projection of each knee joint is made with the patient rotated so that the lateral border of the knee to be examined is against the table. The opposite leg should be positioned so that a line through both anterior-superior iliac spines is at right angles to the table top. In this way the projection of the knee joint is more likely to be a true lateral. The field should include the lower two-thirds of the femur and the upper third of the tibia and fibula. The beam should be centred at the level of the upper border of the patella.

**8. Hip Joint with Leg in Lateral Position.** Should there be doubt in the diagnosis then the following additional views may be of value.

**9.** A 24 cm x 40 cm film is recommended. A lateral projection of the hip joint increases the potential radiation dose to the gonads. However, it may be of value in identifying an early lesion particularly when there is a structural failure with a translucent subcortical band. A separate lateral projection of each hip joint is taken with the patient supine. The knee and hip on the side to be examined are flexed so that the foot is flat on the table top directly opposite the other knee. The thigh is then abducted maximally and the knee supported by a sandbag. The beam is centred over the head of the femur, ie 25 mm below the mid-point of the line joining the anterior-superior iliac spine and the upper border of the pubic symphysis. The projection should include the head, neck and immediate subtrochanteric region of the femur.

#### Further Comments

**10.** The gonads must always be protected from 'ionising radiation' by a lead shield. If this is done, estimation of the radiation dose received by the patient indicates that the basic skeletal survey can be safely repeated at intervals of 12 months.

**11.** It is debatable whether the routine surveys should include the additional projections. However, when doing this type of work, it is not always practicable or easy to recall a member for a repeat or extended radiographic examination. In this situation it is worthwhile to include the additional projections as they may help to indicate more clearly whether or not an abnormality is present. When the recall is easy, then the survey should be confined to the basic views.

**12.** Probably the greatest fault lies in under-penetration of the radiographs. Because of this, trabecular detail is not clearly seen and consequently small dense areas close to the joint surface will not be identified. During the process of repair, granulation tissue grows from the living bone into the necrotic bone and new bone is laid on the trabeculae causing an overall increase in bone bulk. Therefore, there is more tissue for the X-rays to penetrate and, unless the voltage is increased possibly as much as 10 kV, a pale, under-penetrated radiograph will result. When this happens, small dense areas will not be identified and this is one of the commonest causes of misinterpretation and failure to identify **osteonecrosis**. Other difficulties in interpretation arise from malrotation of the shoulder joint resulting in the superior border of the greater tuberosity appearing as a dense layer which could be misinterpreted as osteonecrosis. Further faults will arise from inadequate projection, exposure, etc.

**13.** Tomography may be required to improve definition particularly in the femoral head and sometimes in the humeral head where detail is obscured by overlying bone. In general however, good quality radiographs preclude the need for frequent use of tomography.

## GUIDE FOR PERFORMING MEDICAL EXAMINATIONS FOR SUBMARINE SERVICE (INCLUDING CIVILIANS)

Reference:

DI(N) PERS 31–22—*Health Screening of Civilian Personnel Embarking in HMA Ships/Submarines*

1. This guide is applicable to both selection, periodic and SETF preliminary examinations.
  2. The results of the examination for service in submarines are to be recorded on Form PM 85.
  3. **Periodic Medical Examinations.** Periodic medical examinations of submarine personnel drawing submarine allowance are to be carried out by the establishment in which such personnel are borne. The results are to be recorded on Forms PM 85 and PM 139. If a full examination has been made for some other purpose during the preceding 12 month period, and recorded on Forms PM 85 and PM 139, a further medical examination is not required under this section, although details are to be reported as required at appendix 2 to this annex.
  4. A careful scrutiny of the members health record, followed by oral confirmation, is to be made to ensure no causes for rejection are present.
  5. A clear chest X-ray report is to be received prior to certification of fitness for submarine service. The Form PM 85 is not to be forwarded to DGNHS until the X-ray result has been received. All members are to have a clear chest X-ray within **12 months** of SETF training. Any history of respiratory disease since the previous routine chest X-ray is to be thoroughly investigated and a repeat chest X-ray performed.
  6. Note in Box 62 that dental officers certificate of fitness has been received.
  7. Check the visual and hearing standards. Selection medical examinations of officers and Seaman Branch personnel must include an ophthalmologist report on Form PM 86.
  8. Valsalva manoeuvre must be positive and recorded in Box 52. If it is negative or doubtful the member is to be referred to an ENT specialist for further opinion.
  9. Results of spirometry are to be recorded in Box 54. Bronchodilating medication is not to be used. See annex L to this chapter for instructions.
- Note:** Serving submariners who record a vitalograph of 70 per cent or below are to be referred to a Consultant Chest Physician. The physician's report is to be forwarded to OIC SUMU for consideration and recommendation.
10. Where abnormalities are noted, ensure brief explanation of action being taken to investigate/treat the condition is included in Boxes 36, 37 and 38.
  11. When, subsequent to entry into submarine service, a member is found to be 'permanently medically unfit for submarines', to be brought forward for IMS as soon as possible.

- Appendixes:**
1. Medical Standards for the Royal Australian Navy Submarine Service
  2. Special Requirements for Submarine Escape Training Facility
  3. Form PM 6—Medical Check Prior to Departure for Escape Training Course
  4. Medical Criteria for Mandatory Rejection from Submarine Escape Training Facility
  5. Submarine Escape Training Facility—Official Medical Warnings
  6. Medical Standards for Civilians Riding in Royal Australian Navy Submarines

## MEDICAL STANDARDS FOR THE ROYAL AUSTRALIAN NAVY SUBMARINE SERVICE

1. Medical standards are tabulated below. Mandatory rejection criteria are shown at Annex K to this chapter:

SERIAL (a)	CRITERIA (b)	ENTRY STANDARD (c)	SERVING STANDARDS (d)
1	Age	34 years 9 months maximum	Under 35 for reentry (for SETF)
2	Physical Attributes—Weight	Good physique. WS1 or WS2.	WS3 (WS1 or WS2 required for SETF)
3	Mental Ability	Stable and capable of learning to perform the tasks allotted.	As for entry standard
4	Emotional Stability and Personality	Fit to perform duties adequately in conditions of long strain and fatigue for long periods. No fear of reasonable confined spaces.	As for entry standard
5	Dental (Note 1)	Sufficient sound occluding teeth, including molars on both sides of the mouth for the efficient mastication of food and free from oral sepsis.	As for entry standard
6	Vision—officers and Seaman Branch sailors	VS3 (Note 2) CP1	VS3, CP1
7	Vision—Non-Seaman officers	VS3 (Note 5) CP2	VS5, CP1
8	Vision—Non-Seaman Sailors	appendix 2 to Annex C to chapter 7 refers	appendix 2 to Annex D to chapter 7 refers
9	Hearing  Officers: <b>Seaman</b>  Officers: <b>Non-Seaman</b>  Sailors UC  Sailors in the following branches—NPC, CSO, CK, ETP, ETS, MTP, RO, SN, STD may be:	Valsalva Positive. Branch Hearing Standards:  HS1. Pitch Discrimination 30 Hz either side of a basic note of 1000 Hz.  HS1  Pitch Discrimination 30 Hz either side of a basic note of 1000 Hz. HS1A  HS2	Valsalva Positive. Branch Hearing Standards: HS2  Pitch Discrimination 30 Hz either side of a basic note of 1000 Hz.  HS2  Pitch Discrimination 30 Hz either side of a basic note of 1000 Hz. HS2A  HS2

7N1-2

SERIAL (a)	CRITERIA (b)	ENTRY STANDARD (c)	SERVING STANDARDS (d)
10	Respiratory Function (Note 3)	FEV/FVC ratio of 75 per cent or better, clear chest X-ray, and FEV(1) and FVC to be between 85 per cent and 125 per cent of predicted. (If outside these limits the opinion of a respiratory physician must be sought and the report forwarded to DGNHS.)	FEV/FVC Ratio of 70 per cent.
11	Cardiovascular Fitness (Notes 4)	Max blood pressure limits in relation to age: <b>Systolic</b> —under 20 years: 100/130 mm Hg 20–35 years: 100/140 mm Hg <b>Diastolic</b> —60–90 mm Hg	As entry plus over 35 years: <b>Systolic</b> —100/150 mm Hg  <b>Diastolic</b> —60/90 mm Hg

**Notes:**

1. Candidates are to be referred to an RAN dental officer. The position of the third molar teeth, if present, are to be favourable. All treatment is to be complete prior to posting for submarine training.
2. Officers and sailors of the Seaman Branch are to be referred to a consultant ophthalmologist using Form PM 86. No myopia is allowed. Periscope focus adjustment allows +5.0 dioptre sphere to -2.5 dioptre sphere with no adjustment acceptable for astigmatism.
3. Spirometry testing is to be conducted in accordance with annex L to this chapter. A clear full plate chest X-ray on inspiration and expiration is required within 12 months of commencement of SETF training. This chest X-ray **must have been read by a radiologist**, whose Form PM 6 referral is to include the following statement:  
  
**'Chest X-ray of submarine candidate for report please. It is requested that any suspected or detected lesions of the lungs (including healed tuberculous foci), chest wall pathology or air trapping be noted.'**
4. A cardiovascular assessment by a consultant physician if the systolic pressure exceeds 140 mm Hg or diastolic pressure exceeds 90 mm Hg.
5. **Non-seaman officers** who undertake periscope watchkeeping duties require to achieve VS5 and CP1 by the use of periscope optics, ie capable of correction to 6/9, 6/9 by a spherical lens within a bracket of +5.00 DS to -2.00 DS, of which no more than 1.0 dioptre astigmatism in any plane is allowable. Any progressive pathological ophthalmic condition will disqualify. These parameters are to be verified by a consultant ophthalmologist prior to certifying the officer as 'visually fit for periscope watchkeeping duties'. **Non-seamen officers** selected for submarine training outside of these Visual Standards will be ineligible to perform periscope watchkeeping duties.

## **SPECIAL REQUIREMENTS FOR SUBMARINE ESCAPE TRAINING FACILITY**

1. The criteria at appendix 4 to this Annex to this chapter are absolute contraindications for SETF.
2. Candidates for SETF medical examinations are to be medically examined a maximum of 12 months prior to SETF training on Form PM 85. A further Form PM 197 medical is to be performed within four weeks of the course if the Form PM 85 medical is greater than one year old. The candidates are to be examined by one of the following MO (or alternatively, a delegate authorised by these MO or by Navy Office):
  - a. SMO SETF,
  - b. SMO HMAS PLATYPUS, or
  - c. OIC, SUMU, HMAS PENGUIN.
3. Successful candidates for SETF are to be issued with SETF warnings (see pro forma in appendix 5 to this Annex) which they are to sign.
4. Prior to departure for SETF from areas other than HMAS STIRLING locality, candidates are to be medically checked by one of the personnel specified in paragraph 2 above and a locally produced format similar to the example given at appendix 3 to this Annex is to be completed. This is to be done as close as possible to the last working day before proceeding to the SETF.

**FORM PM 6—MEDICAL CHECK PRIOR TO DEPARTURE FOR ESCAPE  
TRAINING COURSE**

## MEDICAL CRITERIA FOR MANDATORY REJECTION FROM SUBMARINE ESCAPE TRAINING FACILITY

1. The following are medical grounds for rejection for SETF:
  - a. Fits or blackouts of any kind.
  - b. Recurrent headaches, severe or repeated concussion or cranial surgery.
  - c. Psychiatric illness (other than minor conditions proven by time to have been temporary).
  - d. Tuberculous lung disease, including the presence of a healed primary focus.
  - e. Asthma and bronchospasm (other than transient bronchospasm of childhood associated with infection).
  - f. Pneumothorax, spontaneous or traumatic.
  - g. Other lung disease, injury or surgery likely to have impaired lung function or to have produced pleural adhesions. If air embolism has occurred during Submarine Escape Training Tank (SETT), no further SETT is allowed.
  - h. Chronic ear, sinus or labyrinthine disease.
  - i. Chronic skin disease, particularly cystic acne vulgaris and other conditions exacerbated by heat, humidity or an oily atmosphere.
  - j. Evidence of current alcoholism/drug use or requirement for potentially mood altering or sedative medication.
  - k. Acute or chronic peptic ulcer.
  - l. Chronic seasickness.
  - m. Body weight greater than WS2.
2. These conditions may also disqualify the member from submarine service.
3. Cases of doubt are to be referred to SGADF for decision.

## TEMPORARY MEDICAL RESTRICTIONS ON PERSONNEL UNDERGOING SUBMARINE ESCAPE TRAINING FACILITY TRAINING

4. Prior to undertaking SETF training, personnel are not to engage in the following activities for the period shown:

a.	hard physical exercise	24 hours;
b.	diving/flying	24 hours;
c.	blood donation	one week;
d.	immunisations	48 hours; and
e.	more than two standards drinks of alcohol	24 hours.
5. Following SETF training, personnel must not engage in the activities shown in paragraph 4 until the expiration of the period shown.

## SUBMARINE ESCAPE TRAINING FACILITY—OFFICIAL MEDICAL WARNINGS

### AIM

1. The aim of these warnings is to ensure the safety of all personnel carrying out Submarine Escape Training Facility (SETF) training. Failure to abide by these warnings is a disciplinary offence as well as placing you personally at risk.

### CONSUMPTION OF ALCOHOL

2. You are **not** to consume more than two middies of beer or the equivalent in alcoholic content of wine or spirits in the **24-hour** period prior to the commencement of the SETF course. You are **not** to consume **any** alcohol in the **eight hours** immediately prior to the commencement of the SETF course. Following commencement of the SETF course you are **not** to consume **any** alcohol until the course has ended. **Evidence of any alcohol consumption whilst at SETF will result in removal from the course.**

### OTHER ACTIVITIES

3. You are **not** to engage in the following activities for the periods indicated prior to the start of SETF training, and after the completion of pressurised training:

- |    |                        |   |
|----|------------------------|---|
| a. | hard physical exercise | 24 hours,   |
| b. | diving                 | 24 hours,   |
| c. | blood donation         | one week,   |
| d. | immunisations          | 48 hours, and   |
| e. | flying                 | You are not to fly within 24 hours post pressurised training. |

4. The daily start time of pressurised training is to be taken as 0800 hours for the purpose of the above regulations.

5. Even though you were passed 'fit' at your pre-escape training medical, you may subsequently develop a medical condition such as a cold, cough, sinus pain, earache or infected sores prior to proceeding to SETF. This may prevent you from undergoing escape training. In this case, you are to report to the nearest Naval medical authority **BEFORE** proceeding to the SETF. You are then to inform the duty officer of the Unit whether the medical authority passed you 'fit for escape training' or not. **IF YOU ARE IN DOUBT ABOUT YOUR MEDICAL FITNESS FOR SETF TRAINING, YOU ARE TO REPORT TO A NAVAL MEDICAL AUTHORITY BEFORE PROCEEDING TO SETF.**

NAME:

I have read and understood the SETF Official Medical Warnings contained above.

SIGNED:

DATE:

## MEDICAL STANDARDS FOR CIVILIANS RIDING IN ROYAL AUSTRALIAN NAVY SUBMARINES

**Reference:** DI(N) PERS 31–22—*Health Screening of Civilian Personnel Embarking in HMA Ships/Submarines*

1. The medical standards listed below apply to civilians riding in RAN submarines. Some of these standards may be able to be waived in individual cases as decided by the Squadron Medical Officer, or Officer in Charge (OIC) Submarine and Underwater Medicine Unit. In the case of personnel who undertake repeated trips to sea, unless there is intercurrent illness, the medical examination **remains valid for 12 months**. For infrequent sea riders the examination should be performed prior to each occasion of travel.

- a. Age: 45 years maximum.
- b. Physique: Body Mass Index less than 30. (Body Mass Index = Mass, in kg, divided by the square of the height, in metres.)
- c. Personality: No psychiatric illness, especially claustrophobia (other than minor conditions proven by time to have been temporary) or evidence of current alcoholism.
- d. Vision: Distant vision corrected to 6/9.
- e. Hearing: No history of chronic ear, sinus or labyrinthine disease.
- f. Respiratory: No history of pneumothorax (spontaneous or traumatic), asthma or tuberculous lung disease including the presence of a healed primary focus. A normal chest X-ray **less than three years old**.
- g. Cardiovascular: No history of hypertension, ischaemic heart disease including angina or other significant cardiac conditions. Normotensive.
- h. Central Nervous System: No history of fits or blackouts of any kind, recurrent headaches, severe or repeated concussion or cranial surgery.
- i. Gastrointestinal: No history of current acute or chronic peptic ulcer, chronic sea sickness or diabetes.
- j. Gynaecological: Not in any stage of pregnancy.

**Note:** If special circumstances exist where a civilian is authorised to conduct pressurised escape training, the medical standards to apply should in no way vary from the medical standards required of Service personnel.

## TEMPORARY RESTRICTIONS ON DIVING DUE TO MEDICAL AND DENTAL REASONS

1. **Drugs.** Many drugs and medicines, especially **antihistamines, tranquillisers and sedatives** can have a pronounced effect on judgment which is incompatible with safe diving. Divers undergoing treatment with these drugs may dive only at the discretion of a MO. Without such clearance, diving is not to take place within **at least 24 hours** of the last dose of the drug.

### Diving after Dental Treatment

2. The risk of secondary or reactionary haemorrhage after dental treatment increases the hazards of diving. Haemorrhage of this nature is practically uncontrollable by the patient. Sudden bleeding into the mouth, not only interferes with the functioning of breathing apparatus (with risk of inhalational pneumonia or respiratory obstruction and suffocation) but also impedes speech communication to an extent that could be disastrous in an operational situation.

### Barodontalgia

3. The prevention of 'barodontalgia' in diving personnel depends, as it does with aircrew, on the maintenance of high standards of preventive and restorative dentistry. Diving personnel are to be dentally examined **twice a year** and a record maintained by dental clinics of the examinations of all diving personnel for whose treatment they are responsible.

4. The precautions and restrictions which apply to flying personnel during and after dental treatment also apply to divers. Annex G to this chapter refers.

5. For the purpose of this order **any run in a recompression chamber is to be considered as diving duty** irrespective of the qualifications and activity of the person concerned.

### Vaccinations and Immunisations

6. Divers are considered to be 'temporarily unfit for diving' after all immunisation procedures for **48 hours**. In an emergency only, divers may dive at the discretion of the MO.

7. **All** clearance diving officers and sailors serving with operational teams and units are to be kept 'in date' with immunisations required for overseas travel, as laid down in ADFP 702—*Immunisation Procedures*, so that they can be deployed at short notice without becoming unfit to dive under the provisions of the preceding paragraph.

### Minor Respiratory Illnesses

8. Divers suffering from minor respiratory illnesses such as common cold, influenza, sinusitis and tonsillitis are not to dive until pronounced 'fit' by a MO or Phase 4 Medical Trained Sailor and the diving officer is not to allow them to enter the water unless they are in possession of a certificate stating that they are 'fit to dive', signed by the MO, Phase 4 Medical Trained Sailor or medical sailor (UM).

9. Divers are to be considered 'temporarily medically unfit for diving' for **seven days** after donating blood for blood transfusion services. (This does not include routine blood tests.)

## SEA SERVICE—PROSCRIBED MEDICAL CONDITIONS

### Reference:

- A. ABR 1991, volume 1, chapter 9, paragraphs 949–79
  - B. ABR 1991, volume 1, chapter 7, paragraphs 7–147 to 7–149
1. The following conditions are Proscribed Medical Conditions for sea service.
  2. All those conditions listed at Reference A to the extent that the medical category restrictions require. Should a member with any of these conditions have had a less restrictive category than required previously determined at IMS, the matter is to be referred to FMO for determination.
  3. All conditions which meet the criteria stated in Reference B particularly:
    - a. psychological or psychiatric problems (including personality and substance abuse disorders) unless the condition has been permanently cured;
    - b. significant, chronic and disabling diseases of the following systems:
      - (1) neurological,
      - (2) cardiovascular,
      - (3) gastrointestinal, and
      - (4) orthopaedic.
    - c. conditions for which pharmacological treatment is not contained within a ship's Medical Allowance List;
    - d. any trauma or physical disability where a member's freedom to move about a ship is hampered or made unsafe;
    - e. any condition where the natural history suggest recurrence, either with or without external stimulus or trigger factor, which would require hospitalisation of any degree;
    - f. any condition where recurrence is possible, and such recurrence could pose a threat to life or long term wellbeing of the member; and
    - g. any condition which requires special dietary or other requirements.
  4. The list is not exhaustive, and any case of doubt is to be referred to FMO.

**ANNUAL HUMAN IMMUNODEFICIENCY VIRUS TESTING OF  
UNITED STATES NAVY/UNITED STATES MARINE CORPS PERSONNEL  
ASSIGNED TO AUSTRALIA**

**Reference:**

A. US SECNAVINST 5300.30C

1. Reference A requires that all USN/USMC personnel assigned overseas are to have **annual** HIV tests performed. The RAN has agreed to perform these HIV tests as required for USN/USMC personnel posted to billets in Australia.

2. The individual USN/USMC members will be notified by the US Defense Attache Office, Canberra when HIV testing is required. Following notification, the individual member will report to the nearest RAN health facility for testing. All blood samples are to be forwarded to BNH for testing.

3. Each blood sample must be accompanied by the following **minimum** information to ensure accurate reporting to US authorities:

- a. Name (Last, First, Middle);
- b. Social Security Number (SSN, 9 digits);
- c. Date of Birth (DDMMYY); and
- d. Duty Station/Activity within Australia.

4. Following testing, the Pathology Department, BNH is to forward **one** copy of the HIV screening results to the RAN health facility holding the member's health records. THE RESULTS MUST BE ENTERED IN BOTH THE MEDICAL AND DENTAL RECORDS.

5. A **second** copy of the HIV screening results (double enveloped) is to be forwarded by the Pathology Department, BNH directly to:

US Defense Attache Office  
Attention—US Naval Attache  
US Embassy  
Moonah Place  
YARRALUMLA ACT 2600



**MEDICAL-IN-CONFIDENCE**

**ANNUAL CONTINUOUS TRAINING HEALTH QUESTIONNAIRE**

This questionnaire is to be completed by a MO.

NAME ..... DATE OF BIRTH .....  
RANK ..... SERVICE NO .....

Please complete in block letters.

Tick boxes

1. Have you been ill or had a serious injury since your last medical examination? Yes   
If 'Yes' please detail No

.....  
.....

2. Have you had any operations since your last medical examination? Yes   
If 'Yes' please detail No

.....  
.....

3. Are you taking prescribed medication at present? Yes   
If 'Yes' please detail No

.....  
.....

4. Do you think there is any medical reason why you should not take forthcoming ACT? Yes   
If 'Yes' please explain No

.....  
.....

5. Are you receiving compensation for any medical condition? Yes   
If 'Yes', what condition No

.....  
.....

6. Are you pregnant? (Pregnancy prevents a sea posting.) Yes   
No

Reminder: If you suffer any illness or injury before commencing your ACT which may prevent you undertaking your duties, you must inform your posting officer.

Signature of Member .....

Signature of MO .....

Printed name and rank of MO .....

Date / /

This form should be retained in member's medical documents

**MEDICAL-IN-CONFIDENCE**

**LETTER PRO FORMA TO BE FORWARDED TO LOCAL GENERAL  
PRACTITIONER FROM OFFICER IN COMMAND LOCAL RESERVE  
ADMINISTRATION CELL**

Dear Dr.....

This person is a member of the Australian Naval Reserve and has been identified to undertake a period of full-time naval service, which may involve going to sea on a naval ship with limited or no emergency medical treatment facility. Request you conduct a medical examination and record the results on the attached pro forma.

Should you find that this person has any of the following proscribed medical conditions, then they are considered **unfit for service at sea**. The following list is not exhaustive and any cases of doubt can be referred to the Surgeon General Australian Defence Force in Canberra on (02) 6266 3840. Should the person only be serving in a shore establishment then less emphasis of fitness is required but all conditions need to be notated.

**Proscribed conditions are:**

- a. Psychological or psychiatric problems (including personality and substance abuse disorders) unless the condition has been permanently cured.
- b. Significant, chronic and disabling diseases of the following systems:
  - (1) neurological,
  - (2) cardiovascular,
  - (3) gastrointestinal, and
  - (4) orthopaedic.
- c. Conditions for which pharmacological treatment is required long term.
- d. Any trauma or physical disability where a member's freedom to move about a ship is hampered or made unsafe, ie crutches.
- e. Any condition where the natural history suggest recurrence, either with or without external stimulus or trigger factor, which would require hospitalisation of any degree.
- f. Any condition where recurrence is possible, and such recurrence could pose a threat to life or long-term wellbeing of the member.
- g. Any condition which requires special dietary or other requirements.

Thank you for your support of the Australian Defence Force. **Your account** should be forwarded to the Reserve Administration Cell for payment along with the medical pro forma.

OIC  
Reserve Administration Cell  
(Address/Contact Numbers)

**Appendix:** 1. Reserve Health Examination Record

This a temporary form to be used until the official form is designed which will be promulgated as a future amendment.

**RESERVE HEALTH EXAMINATION RECORD** LRAC .....

*To be completed by local GP when unable to visit a Service health facility.*

Surname ..... Given Names .....

O/Number ..... Rank ..... Date of Birth .....

**EXAMINATION**

Measurements in cms/kgs

Height .....	Weight .....	Neck .....	Waist .....	Chest .....
B/P .....	Pulse .....	Urinalysis .....		

Neurological	Normal/Abnormal	Orthopaedic	Normal/Abnormal
Cardiovascular	Normal/Abnormal	ENT	Normal/Abnormal
Gastronintestinal	Normal/Abnormal		

Comments: (Please comment on all abnormal findings, include extra pages if required.)

<b>Considered Fit for Naval Service</b>	Yes / No
---	----------

Date: .....	Examined at: .....	.....
		Signature and Printed Name of local GP

Confirming Authority:	Member recommended fit / unfit for Naval Service.
Signature .....	Printed Name ..... Rank .....
Date .....	