



**Australian Government**

**Department of the Environment, Water, Heritage and the Arts**  
**Australian Antarctic Division**

# INFORMATION KIT

## Australia's Antarctic program Antarctic Medical Practitioner

Thank you for requesting information about working as an Antarctic Medical Practitioner (AMP) with the Australian Antarctic Division (AAD).

This kit provides you with information to enable you to make an informed decision about whether you have:

- the required qualifications, skills and abilities to undertake the work; and
- the personal skills to allow you to live and work in a diverse and isolated community.

Working in Antarctica is not for everybody. We require people with a wide range of skills and abilities to maintain our three continental stations (Mawson, Davis, Casey) and our sub - Antarctic station on Macquarie Island. We also require people who can live and work together harmoniously in often harsh and inhospitable conditions.

### **BACKGROUND**

The AAD, an agency of the Department of the Environment Water, Heritage and the Arts, leads Australia's Antarctic program.

The Government has established four goals for Australia's Antarctic program:

- maintaining the Antarctic Treaty System and enhancing Australia's influence in it;
- protecting the Antarctic environment;
- understanding the role of Antarctica in the global climate systems; and
- undertaking scientific work of practical, economic and national significance.

The AAD's role is to:

- undertake and support activities aimed at achieving the four government goals;
- administer the Australian Antarctic Territory and the Territory of Heard Island and the McDonald Islands; and
- support our Minister, and through the Minister, serve Parliament and the Australian people.

Around 70 expeditioners spend the winter on our stations with the summer population increasing to approximately 300. Each station is staffed by a range of people from varied backgrounds and professions.

# IMPORTANT MEDICAL NOTE

All applicants for the Australian Antarctic program (AAp) should read the following note before completing the *Confidential Checklist of Medical History*.

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Persons participating in the AAp may engage in physical activity at altitudes up to 2000 metres, may experience temperatures as low as -40°C, and may make flights in unpressurised aircraft to 3000 metres. All must be sufficiently agile and physically fit to enable them to climb ladders and nets on the sides of ships and climb into and out of ship's boats and inflatable craft which move considerably in heavy swells.

Personnel may be in the field for periods up to 3 months, or on Marine Science cruises of long duration. The stress of isolation, environmental conditions and extreme remoteness from major medical facilities are important considerations and it is therefore mandatory that applicants be in good physical condition and free from any disability which could adversely affect their health, restrict their activities or create a burden for others in Antarctica.

Expeditioners must be certified fit for Antarctic service by medical officers of the Australian Antarctic Division's Polar Medicine Unit after an examination by a Health for Industry medical advisor or other approved medical officer. This process includes a chest X-Ray (at least two-yearly), an electrocardiograph (stress electrocardiograph if over 55 years of age at the time of examination), a skin test for tuberculosis, and blood donor screening tests (blood groups; antibody screening; and tests for syphilis, HIV/AIDS, and hepatitis). A Pap smear will also be included for wintering female applicants, and a mammogram will be performed if indicated.

The examining doctor will pay particular attention to weight, agility and general fitness.

There is a weight limit: Body Mass Index (BMI) must not exceed 35.

$$BMI = \frac{Weight(kg)}{Height(m)^2}$$

Excessive abdominal obesity may be disqualifying because of possible difficulties in the diagnosis and surgical treatment of some abdominal diseases.

It is imperative that all past and present medical conditions be disclosed. Many conditions may not be significant but a history of some illnesses may be disqualifying. These include:

- epilepsy (fits)
- brain surgery
- coronary artery disease;
- high blood pressure requiring medication;
- asthma.
- uncured stomach or duodenal ulcers;
- diabetes mellitus; or
- cancers (malignancies)

Those applicants whose continued good health is dependent on any medication are generally not acceptable.

It should be noted that AAp medical facilities are necessarily limited; evacuations are not the first line management and are not routine for personnel with non life-threatening injuries or illnesses. During the summer shipping and aviation seasons changes may be made to AAp shipping schedules, or aid may be enlisted from other nations if possible, to accomplish the evacuation of a patient with a life-threatening condition.

Owing to these circumstances, participants may be asked to donate blood for transfusion if called for by the expedition medical officer. Blood donor screening tests as described above are therefore carried out as part of the medical tests. Following routine practice in Blood Transfusion Services, questions will be asked of you concerning the risk of passing on infections from the use of your blood. Please note that the giving of false or misleading statements in relation to the donation of blood is an offence under various laws that apply in Tasmania and in the Australian Antarctic Territory.

Please note that although a dental check and certificate of dental fitness is only required of successful wintering applicants it is in the interests of ALL expeditioners, including summerers and round trippers, to see that their dental health is good. The expeditions do not have access to dentists although the wintering Medical Officer has received some dental training.

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## THE SELECTION PROCESS

Applicants will be selected for interview where required, on the basis of information provided in their application. It is therefore most important that all applicants provide comprehensive details of qualifications, experience and abilities as they relate to the selection criteria.

The following is a brief explanation of the AAp selection process to assist applicants to understand how their applications will be assessed. It is intended as a guide only.

### Stage 1 - Registration and shortlisting

- On receipt, applications are registered and an acknowledgment letter will be sent to the applicant within 2 weeks.
- Application forms are then sent to the Selection Advisory Committee (SAC) which assesses each application against the advertised selection criteria. Only those applicants considered to best meet the selection criteria are shortlisted for interview. Service reports are also considered for prior AAp participants.
- The *Confidential Checklist of Medical History* for those on the shortlist is then assessed by the Polar Medicine Unit to identify medical conditions which may preclude selection.
- The SAC then prepares a shortlisting report for approval by an appropriately authorised officer (the delegate). When the report is approved, those applicants not included in the shortlist are advised in writing.
- This stage is completed 1 to 2 months after the closing date for applications.

### Stage 2 - Interviews

- Interviews will usually be held shortly after the completion of stage 1 and are conducted in the capital city nearest the applicant's home, in Hobart or by telephone. Note that applicants will be asked to nominate three referees at interview – two professional and one personal.
- Applicants not listed for further consideration are advised in writing at this time.
- If there are not enough suitable applicants, the AAD may re-advertise or canvas interest from former successful applicants.

### Stage 3 - Post interview arrangements and final report

- Applicants being considered further will complete a medical examination, adaptability assessment and other pre-employment checks.
- The committee then prepares a final report, which includes details of preferred applicants and reserves. When this report is approved by the delegate, applicants not selected are advised in writing and offers of employment are made to successful applicants.
- This usually occurs 1 to 2 months after interview.

### Important Note:

Non-Australian citizens domiciled overseas with no evidence of eligibility to work in Australia will not be able to use the on-line application. People in this category wishing to enquire about employment opportunities should make direct contact with Dr Jeff Ayton, Chief Medical Officer on +61 3 62323300 or email [jeff.ayton@aad.gov.au](mailto:jeff.ayton@aad.gov.au)

## **FUNCTIONS OF THE POSITION**

The AMP is required to provide complete surgical, medical and dental care, for a remote community, at an AAp station, during a voyage and in Antarctic and subantarctic field environments.

## **WORKING ENVIRONMENT**

AMPs form part of the AAD's Polar Medicine Unit which is part of the AAD Support Centre. The Unit's objective is to provide the best possible health care service, in an extremely isolated environment, to AAp expeditioners. The Unit is responsible for all aspects of polar medicine, including medical policies, practices and administration; training of recruited medical and lay staff; implementing predeparture medical standards and screening; provision of health care services, equipment, supplies and facilities; and liaison with national government, medical and commercial organisations, and international polar agencies.

Successful applicants will be the sole medical practitioner for 12 to 15 months at the station, providing total health care service for approximately 15 wintering expeditioners, up to 80 during summer (October to March) and up to 130 passengers and crew on expedition voyages. There are no para-medical or ancillary medical staff on AAp.

AMPs selected for winter positions will be based initially at the AAD's Headquarters at Kingston in Southern Tasmania, for a period of approximately three months prior to departure to Antarctica or subantarctic locations. During this time, they will participate in general expedition and specific medical training. On completion of their employment contract, AMP's will be required to participate in debriefing following their return to Australia. The duration of the debriefing period will vary according to whether or not medical research is undertaken.

## **KEY ACTIVITIES / RESPONSIBILITIES**

Provide complete surgical, medical and dental care, including public health, occupational medicine, nutrition, preparation of first-aid kits, upkeep and stocktaking of equipment and pharmaceuticals.

Provide supplementary instruction and supervision to lay persons on matters of health, medical procedures and first-aid.

Conduct research on human interaction with the Antarctic environment; and support the efficient and effective operation of AAp as appropriate.

## **REPORTING ARRANGEMENTS / GUIDANCE**

Due to the mix of medical responsibilities and operational requirements, reporting arrangements can vary according to particular circumstances.

During the pre-departure phase, supervisory responsibility for AMPs tends to be shared between the Chief Medical Officer, Polar Medicine Unit, and the relevant Station Leader or Voyage Leader, as appropriate. During the voyage phase, AMPs will report to the Voyage Leaders on all non-medical issues. During the land-based phase of the expedition, the Station Leader will exercise management responsibility for operational issues, while the Chief Medical Officer, Polar Medicine Unit, maintains overall professional responsibility.

The collective expertise of the Polar Medicine Unit is backed up by a network of consultants in all medical specialties throughout Australia, many of whom have practical experience working in Antarctic, subantarctic and AAp voyage situations. The ready availability of sophisticated communication facilities at most locations, means that AMPs have access to expert external input for diagnosis and treatment purposes.

## SELECTION CRITERIA

### IMPORTANT

- 1 Be certified as fit for Antarctic service by the AAD's Polar Medicine Unit after tests conducted by or on behalf of a Health for Industry Medical Advisor.
- 2 Be rated as suitable for Antarctic service against the personal qualities criteria described below. Some assessments will be made by the Directorate of Psychology - Army.
- 3 Satisfy security and character checks.
- 4 Have several years post-graduate experience in general practice and in particular:
  - possess sufficient professional knowledge, experience and practical ability in the fields of practice indicated in the list below;
  - have the ability to conduct solo, a totally isolated practice and the capacity to deal with any surgical, medical and dental emergency that may arise; and
  - possess the ability to impart knowledge and train expeditioners in basic medical skills and to supervise (semi-skilled/unskilled) expedition personnel assisting with medical procedures.

### LESS IMPORTANT

- 5 Have some experience in, or ability to carry out, both operational research (investigations into health, hygiene, epidemiology, nutrition etc.) and research on human adaptation to the Antarctic environment.
- 6 Possess other skills of use in an isolated Antarctic community.

## ELIGIBILITY REQUIREMENTS

Applicants must have unrestricted registration as a medical practitioner under the laws of an Australian State or Territory.

Must satisfy security requirements to the level of Protected.

## COMMON DUTIES REQUIRED OF ALL EXPEDITIONERS

All expeditioners are required to perform other duties as rostered by the station leader in addition to the duties of their own position. Such additional tasks include nightwatch, general kitchen duties, garbage clearance, water duties and participation in other specific work parties.

## DESIRABLE PROFESSIONAL AND PRACTICAL SKILLS FOR AMPs

AMPs must have practical skills or working knowledge, where appropriate, in the following fields. Some examples of practical procedures which have been performed by AMPs, or may be required, are indicated (*italicised within brackets*). A *generalist level of experience is sought*.

- 1 **GENERAL MEDICINE**  
General Medicine (*lumbar puncture, pleural tap*)  
Dermatology  
Ophthalmology (*enucleation of eye*)  
Otorhinolaryngology  
Psychiatry and Counselling

- 2 EMERGENCY MANAGEMENT**  
Urology & STI (*catheters, suprapubic cystotomy*)  
Thoracic (*underwater seal drains*)  
Burns (*split skin graft*)
- 3 ANAESTHETICS\* AND INTENSIVE CARE**  
Anaesthesia and Intensive Care
- 4 SURGERY**  
Surgery (*craniotomy, laparotomy with exploration of the abdomen, appendectomy, oversewing perforated peptic ulcer, splenectomy, management of other abdominal trauma, colostomy, tracheostomy, oesophagoscopy, bronchoscopy, sigmoidoscopy*)  
Plastic Surgery (*hand injuries, amputations, management of tendon and nerve injuries*)
- 5 ORTHOPAEDICS**  
Orthopaedics (*conservative management of all types of fractures, including skeletal traction, management of cervical and thoraco-lumbar spinal injuries, treatment of dislocations of minor and major joints, and management of lower back problems*)
- 6 OBSTETRICS AND GYNAECOLOGY**  
Obstetrics and Gynaecology (*Dilatation and Curettage, Ectopic Pregnancy, LUSCS*)
- 7 OCCUPATIONAL, INDUSTRIAL AND ENVIRONMENTAL MEDICINE AND PUBLIC HEALTH\***  
Diving Medicine\*  
Aviation and Retrieval Medicine  
Altitude Medicine
- 8 DENTISTRY\* (extractions, conservative treatment)**
- 9 LABORATORY\*, RADIOLOGY & RADIOGRAPHY\* AND PATHOLOGY**  
Laboratory Methods (*urine, blood, microbiology, cross matching*)  
Radiology and radiography (*including wet film processing*)  
Pathology (*post mortem*)
- 10 PHYSIOTHERAPY\* AND SPORTS MEDICINE**
- 11 MEDICAL SERVICES\***  
Nursing  
Sterilisation  
Drug and Equipment Inventory  
Nutrition, Dietetics  
First Aid Instruction

\* Some training may be provided in these areas before departure.

## PERSONAL QUALITIES CRITERIA

The applicant's attitude, behaviour and potential behaviour will be assessed in terms of each indicator under the personal qualities criteria listed below.

Successful applicants will:

- **DEMONSTRATE A STRONG WORK ETHIC;**

Evidenced by a proven history of efficient, effective, responsive and productive work performance.

Applicants for supervisory positions will be expected to demonstrate supervisory capabilities, including a good knowledge of workplace diversity, workplace relations, occupational health and safety and environmental management practices and principles.

- **DEMONSTRATE THAT THEY CAN MAKE A POSITIVE CONTRIBUTION TO COMMUNITY AND TEAM;**

Evidenced by:

- demonstrating the capacity to cope with physical and emotional isolation and the resilience to overcome hardship;
- demonstrating the capacity to work productively, contribute to the success of small isolated work groups and the overall community including recognising the affect their behaviour has on others;
- demonstrating a capacity to address and resolve issues of conflict;
- demonstrating the capacity to exercise sound judgement
- demonstrating flexibility, tolerance and acceptance of changing circumstances;
- demonstrating qualities of robustness, motivation and confidence whilst displaying sensitivity, situational awareness and support and respect to fellow workers;
- demonstrating good social skills and taking pride in their appearance and maintaining socially accepted standards of hygiene;
- responsible use of alcohol; and
- not exhibiting behaviour that could endanger others safety or be seen as being abusive, threatening or offensive to others.

- **DEMONSTRATE THAT THEY RESPOND TO AUTHORITY AND ARE COMPLIANT WITH THE LAW, LEGISLATIVE REQUIREMENTS AND AAD POLICIES AND PROCEDURES;**

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Evidenced by:

- a history of complying with authority and supporting lawful instructions;
- demonstrating a commitment to and compliance with appropriate environmental management policies and practices;
- demonstrating a knowledge and history of compliance with occupational health and safety practices and principles; and
- recognition of harassment and discrimination issues and demonstrated compliance with associated legislative requirements.

- **DEMONSTRATE A COMMITMENT TO AAP SPECIFIC REQUIREMENTS;**

Evidenced by:

- demonstrating commitment to supporting the Australian Antarctic Science Programme;
- demonstrating willingness to participate in “common duties” and activities in support of the community generally; and demonstrating commitment to fully participate in all required training and associated activities

## **CONDITIONS OF EMPLOYMENT**

The AAD provides an attractive salary package and set of conditions of employment for its AMPs.

**Base salary** in Australia ranges from \$116,901 to \$130,960 pa.

**Antarctic Service Allowance** of \$49,014 pa is payable during Antarctic service.

Normal PAYG taxation arrangements apply. The only taxation concession available is a Special Zone A rebate.

**Recreation Leave** - You will accrue recreation leave at the equivalent of 20 days for each full year worked. Please note that recreation leave is not available in Antarctica.

**Superannuation** - A generous employer superannuation contribution of 15.4% will apply where eligibility to join the Public Sector Superannuation Accumulation Plan is established.

**Salary Sacrifice**- Limited Salary sacrifice options are available.

**Other Benefits** – The Polar Medicine Unit predeparture training and your time spent in Antarctica or the subantarctic has been recognised for professional medical development and training for generalist colleges, including the Australian College of Rural and Remote Medicine, and other professional and specialist colleges. AMP's have furthered their careers by participation in further study and research at Master's and MD university level whilst employed with the AAD.

Also remember that under normal circumstances you will be provided with; at no cost to you, all your cold weather clothing requirements, accommodation and when in Antarctica, your food. This has the potential to save you thousands of dollars in costs that you would normally incur working in Australia.

The AAD generally meets the cost of:

- Medical Indemnity as a Commonwealth salaried employee
- airfares to and from Tasmania including reunion travel pre-embarkation and interstate instructional courses;
- accommodation while in Tasmania including a daily payment of \$16.50;
- transport to and from the AAD to accommodation in Hobart;
- accommodation, clothing, food and some sundry items (eg toiletries) while in Antarctica;
- transportation of 1 cubic metre (up to 250 kg) of personal goods to Hobart and on return to your home location; and
- in some cases, storage of household goods and motor vehicle.

## WORKPLACE DIVERSITY PROGRAM

Workplace Diversity brings together key elements of Government policy including legislation that enshrines the basic principles of equal opportunity (EEO) and human rights policies that embody the principles of equity and merit.

The rationale underpinning workplace diversity is that the individual qualities and skills possessed by our colleagues - educational background, ethnic, religious and cultural, physical attributes and gender - are an indispensable asset in creating a harmonious, productive working environment and in achieving our business objectives.

*Completion of the questions at the top of page two on the application form is voluntary, however your response will assist us to structure selection committees appropriately and to make any other arrangements that may be required.*

*Your response will also assist us evaluate whether our recruitment strategies are appropriate.*

Where women, Aboriginals or Torres Strait Islanders are to be interviewed, the selection committee will, where practicable, have a member of that group on the committee.

## MERIT

The APS is a Public Service in which employment decisions are based on merit.

A decision is based on merit if:

- a) an assessment is made of the relative suitability of the candidates for the duties, using a competitive selection process;
- b) the assessment is based on the relationship between the candidates' work-related qualities and the work-related qualities genuinely required for the duties;
- c) the assessment focuses on the relative capacity of the candidates to achieve outcomes related to the duties; and
- d) the assessment is the primary consideration in making the decision.

## QUESTIONS COMMONLY ASKED BY POTENTIAL APPLICANTS

### **How long will I be employed for?**

AMPs are employed for the winter. Employment normally commences between July to early August. Employment for these positions requires you to stay on once you have returned to Australia, for debrief. Standard length of employment for wintering AMPs is a minimum of 15 months, 12 of these usually spent on expedition. Opportunities may exist for shorter term engagements for summer or voyage participation. These positions can be for between one and three months.

### **What happens between starting employment and leaving for Antarctica?**

During the pre departure period (usually three months) you will have accommodation arranged and paid for you. You will be required to complete a mandatory training program which ensures that you are ready to undertake your job in Antarctica, and will not put yourself, others or the environment at risk. The training program includes on and offsite daily and residential components.

### **How do I get there?**

The AAD uses ice-strengthened ships to conduct resupply and research voyages, and plans to transfer personnel between Hobart and Antarctica by air in the next few years. Access to the continental research stations is possible only in summer, so when the last ship or aircraft leaves Antarctica in March/April, there is no way to return to Australia until the following summer (usually October). Helicopters or small boats are used to transport expeditioners between the ship and research stations, depending upon ice conditions at the time.

Macquarie Island is usually only visited at the end of each summer by an AAD resupply vessel, when the changeover of winter personnel is made. Access to the island at other times is by passing commercial non-AAD vessels, making the opportunity to deliver cargo and supplies very limited.

### **What are the living quarters like?**

Buildings are comfortable and functional for living and working. They are insulated and strengthened to withstand low temperatures and fierce winds. The layout of the research stations vary, but each has scientific laboratories, powerhouses, workshops, a small hospital, stores, photographic darkrooms, communication facilities, kitchen, mess, recreation and expeditioner rooms. There is a mixture of shared and single accommodation at each research station, which is allocated according to numbers on station.

### **What clothes and personal items do I have to take?**

The buildings are well heated and comfortable, so everyday casual clothing and shoes is all you require for indoors. All specialised Antarctic clothing is supplied soon after arrival at the AAD. Whilst on station, expeditioners are fully maintained (toiletries, health care etc), however, expeditioners often choose to take some preferred 'special' toiletry items.

### **What will I eat?**

Each research station has its own Chef. The food supplied is similar in variety to that obtained in Australia. Fresh vegetables are available for the first few weeks after the ship's departure. Limited hydroponic produce is also grown on station. We will endeavour to meet any special dietary requirements wherever possible.

### **How do I get paid?**

Your pay is paid fortnightly into a nominated financial institution and a payslip sent to a nominated addressee if required; payslips are also faxed to the station each payday.

### **Do I need any cash on station?**

Everything on station is provided except for alcohol. Limited personal alcohol purchases can be made from a store at each station on a prearranged credit card basis. Cash is required to make purchases on the ships travelling to and from Antarctica, although the range of goods is generally very limited. Tourist vessels may visit the station during the summer period, many of which have souvenirs for sale. Credit cards and cheques are not usually accepted.

### **Will I have the opportunity to "explore" Antarctica?**

Once field training has been completed, subject to work commitments, opportunities may arise where expeditioners can participate in field trips to outlying huts and areas of special interest.

### **What do I do after work?**

A range of recreational facilities is provided at the research stations. Libraries of books, films, records, cassettes, compact discs, DVDs and video cassettes are available. A dart board, billiard and table tennis tables, gymnasium equipment, climbing wall, spa, sauna and cross country skis are also provided.

Expeditioners are required to perform their own housework as well as help out with station duties such as kitchen hand, garbage runs and major cleaning. It is often possible for expeditioners to pursue their hobbies in Antarctica; some need to provide their own materials.

### **Who will I be working with?**

The mix of people involved in Australia's Antarctic programme will vary according to the research station and the time of year. Each station has a station leader, medical practitioner, chef, Australian and international scientists, communications support employees, mechanics, field training employees and building trades employees. Women are encouraged to apply for any job for which they are qualified. Women have been employed in most jobs in supporting Australia's Antarctic programme. The AAD is committed to increasing the numbers of women employed in Antarctica, across all employment categories.

### **How cold is it really?**

At the Antarctic research stations maximum daily temperatures average around -1°C to +3°C during summer and winter temperatures average between -20°C and -30°C. The climate is characterised by very low temperatures, fierce winds, dryness and frequent blizzards. The Macquarie Island climate varies little through the year, being wet and windy, with temperatures of around -2°C to +12°C.

### **How can I contact home?**

During summer, mail is delivered to the research stations by ship once or twice each season dependant on shipping schedules. In winter, written messages are sent by facsimile or email. Modern satellite communications allow ready telephone access between Australia and the research stations. Rates are comparable to Australian STD charges. Phone calls to or from ships can be very expensive. Email provides a cheap and effective means of communication if you have the requisite set up at home.

### **How might the time away affect my family?**

The AAD acknowledges that successful expeditions to Antarctica depend on expeditioners being happy and content with their decision to leave their homes and families to live and work in Antarctica. Making the decision to embark on Antarctic service, and the resulting separation, can mean a struggle with difficult personal problems which need to be assessed by all those involved. Our brochure entitled 'Antarctic Separation' will provide you with more information. It is available by telephoning the Expedition Liaison and Training Coordinator on free call 1800 030 680.

## **ANTARCTIC BOOKS**

The AAD Library has a comprehensive collection of Polar material. A reading list can be obtained from the AAD.