## PHYSICISTS, METEOROLOGISTS ELECTRONIC ENGINEERS OR ELECTRONICS TECHNICIANS

The British Antarctic Survey (BAS) offers the opportunity for suitably qualified people to join multi-disciplinary teams at Halley (76°S, 27°W) or Rothera (68°S, 68°W) in Antarctica. This is science with a difference. As part of a small, highly motivated team, the successful candidates will be spending two years in the Antarctic. Life here is like nowhere else, so you must be ready to take on all the challenges that it offers. With the unparalleled beauty of the Antarctic, you will find this a profitable experience in more ways than one. The primary role of the successful candidates will be to make observations and to maintain and operate a suite of scientific instruments for studying the atmosphere and also to carry out quality assurance on the resulting environmental data.

Halley research station primarily concentrates on atmospheric research from ground level through into space. A team of six engineers and scientists, from a wintering complement of 17 personnel, concentrate their efforts on studies of the upper atmosphere, air-snow interaction, air chemistry and meteorology. It is an important observatory studying the Antarctic ozone "hole". The Meteorology and Ozone Monitoring Unit makes regular measurements of the stratospheric ozone content, and participates in international projects to measure trace chemicals, which are crucial to the processes leading to ozone depletion. Regular upper air soundings are made at the station using balloon-borne radio sondes. The physics of the surface boundary layer is studied using instruments carried by small kites and on masts. Other background pollution studies include taking snow and air samples for later isotopic and trace gas analysis in the UK.

The research station at Rothera supports an even broader range of science but these posts will focus on atmospheric physics from the surface to the upper atmosphere. At Rothera meteorological support is provided for summer aircraft operations. A number of remote automatic weather stations located along the Antarctic Peninsula and on Alexander Island are serviced from the station. Projects on cloud physics will be deployed in the near future.

Both stations make meteorological observations every three hours using an interactive, PC-based Automatic Weather Station, designed to facilitate data gathering and analysis. They also have weather satellite image receivers, which are used to aid local weather forecasting. Each station has a number of PCs networked using Novell netware to a unix system.

The successful candidates are specifically responsible for one or more of the programmes, maintaining the equipment in good working order and dealing with their observations promptly. Each scientist is a member of a small multi-disciplinary team of scientists and support staff; and as such, he/she will be expected to be adaptable and work on other programmes and to take his/her share of general base work. As the stations are isolated for most of the year, the ability to work without detailed supervision and to solve problems as they arise is paramount. Vacancies exist both for those with experience in instrument electronics and for those with a scientific qualification who have some practical interest in the atmosphere, electronics or computing.

The appointments will be for approximately 33 months, commencing in July 2004 in Cambridge. The successful candidates will undertake appropriate specialist training in all aspects of the job, prior to travelling to the Antarctic in the autumn of 2004 and returning in spring 2007.

This will be a challenging and demanding opportunity to work in an extreme and isolated environment. Applicants must therefore be physically capable and medically fit to work in Antarctica. You must be adaptable and willing to take on various tasks as they arise including a considerable amount of outdoor maintenance and general base work.

**Qualifications**: A degree or HND in physics, geophysics, meteorology, electronic engineering or a related subject. Alternatively, a minimum of two years practical meteorological or electronics experience, supported by A levels or HNC in Physics or Electronics. An ability to solve problems and to be flexible are also key characteristics of the job.

**Further information:** General information on living and working in Antarctica together with details of the work undertaken by the Physical Sciences Division of BAS is on the BAS web site <u>http://www.antarctica.ac.uk</u> and at <u>http://www.antarctica.ac.uk/About\_BAS/Cambridge/Divisions/PSD/</u> Further information on the work carried out by meteorologists in BAS is available at <u>http://www.antarctica.ac.uk/met/</u> Alex Gaffikin, a former holder of the post has a very informative page about the job at <u>http://www.alexantarctica.net/</u>. You may also email <u>basestab@pcmail.nerc-bas.ac.uk</u> for further employment details or one of <u>s.colwell@bas.ac.uk</u> or j.shanklin@bas.ac.uk for technical details of the posts.

You can obtain application forms either from the Personnel Section or download them from the WWW via <u>http://www.antarctica.ac.uk/Employment/vacancies</u> Send the completed application form to: Personnel Section, British Antarctic Survey, Madingley Road, Cambridge CB3 0ET Tel: Cambridge (01223) 221508/7

## NATURAL ENVIRONMENT RESEARCH COUNCIL