



**British  
Antarctic Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

## Antarctic Atmospheric Scientist – Antarctica

Contract type: Antarctic Contract

Duration: Antarctic Winter (Up to 18 Months)

Salary: £23,937 per annum initially. Additionally, upon completion of a successful tour, you will receive a 10% bonus on your Antarctic Service.

Benefits: We offer generous benefits

Team: Space Weather and Atmosphere team

Location: Antarctica

### Description

The British Antarctic Survey (BAS) offers the opportunity for suitably qualified persons to join multi-disciplinary teams at Halley (76°S, 26°W) and Rothera (67°S, 68°W) stations in Antarctica. This is science with a difference. As part of a small, highly motivated team, the successful candidate will be spending a year 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 candidate 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 into space and the successful candidate will face the challenges of a newly relocated station. Halley is an important observatory studying the Antarctic ozone "hole". Meteorology and Ozone Monitoring (MOM) makes regular measurements of the stratospheric ozone content, and participates in international projects to measure trace chemicals, which are instrumental in the processes leading to ozone depletion.

Other background pollution studies include taking snow and air samples for later isotopic and trace gas analysis in the UK. The Clean Air Sector Laboratory (CASLab) is the UK's primary research facility for polar atmospheric chemistry. BAS operates a programme of routine measurements, as well as enhanced science campaigns, to study this clean background atmosphere, and how it links to wider global processes.

The station makes meteorological observations using an interactive, PC-based Automatic Weather Station, designed to facilitate data gathering and analysis and may make more frequent observations for aircraft. Regular upper air soundings are made using balloon-borne radio sondes. Additional observations and measurements are also made throughout the day.

The successful candidate will be responsible for maintaining the atmospheric science equipment in good working order, maintaining the quality of the data and managing its transfer to electronic storage. Each scientist is a member of a small multi-disciplinary team

of scientists and support staff; and as such, they are expected to be adaptable and work on other programmes and to take their share of general base work. As the station is isolated for most of the year, the ability to work without detailed supervision and to solve problems as they arise is paramount.

The appointment will be for approximately 18 months, commencing in August 2018 in Cambridge. The successful candidate will undertake appropriate specialist training in all aspects of the job, prior to travelling to the Antarctic in the autumn of 2018 and returning in spring 2020.

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.

## Purpose

The main responsibility of the job is to carry out the Atmospheric Science programme for the Station. For Halley, this is the Meteorology programme and the routine Atmospheric Chemistry programme.

## Qualification

A degree or HND in physics, chemistry, geophysics, meteorology, electronic engineering or a related subject. Experience of using atmospheric chemistry instruments would be an advantage. An ability to solve problems and to be flexible are also key characteristics of the job.

## Duties

- a) To carry out the meteorological observations and scientific duties described in the Met Station Instructions (MSI) as agreed by the head of Meteorology and Ozone Monitoring (MOM) and to carry out routine atmospheric chemistry measurements which are part of the Tropospheric Chemistry (TROPCHM) project.
- b) To organise and carry out the work in a safe and professional way.
- c) To keep all work areas in a tidy condition.
- d) To report major problems to the head of MOM or TROPCHM when they arise.
- e) To maintain or repair faulty instrumentation when possible/appropriate.
- f) To request replacement stores in a timely fashion.
- g) To compile monthly and annual reports of the work undertaken.
- h) To work with other staff to ensure that the operational and safety standards of the base are maintained.
- i) To undertake general duties as required by the Station Leader.

*We welcome applications from all sections of the community. People from ethnic minorities and disabled people are currently under-represented and their applications are particularly welcome. We operate a guaranteed interview scheme for disabled candidates who meet the minimum criteria for the job role.*

*You will need to be physically capable and medically fit to work in Antarctic conditions.*

## Skills Specification

*Skills are listed as either Essential or Desirable. Desirable skills importance rating in parenthesis (1 is high, 5 is low)*

### Communication skills - a) oral skills b) written skills

- Clear, concise communication on technical issues required in both written (e-mails, month and annual reports) and oral form. – Essential

### Computer / IT skills

- Good PC and computer literacy required. – Essential
- Experience of data management, Linux or software development. - Desirable [2]

### Decision Making

- Ability to problem solve on a wide range of equipment, reach conclusions on appropriate courses of action and communicate these to managers. – Essential

### Interpersonal skills

- Will be required to work closely with other scientists on base. As well as making input to the team must be able to accept team decisions on work allocations and priorities. - Desirable [2]

### Managerial ability

- Sufficient maturity to be able to work safely, effectively and alone in remote location. – Essential
- Experience of managing a small team. - Desirable [3]

### Meteorology

- Have practical experience of meteorology or atmospheric chemistry. – Essential

### Other Factors

- Able to follow instructions meticulously when required. – Essential
- Ability to perform simple mechanical workshop activities (drilling, filing, elementary sheet metal work). - Desirable [4]

### Qualifications

- Degree or similar in physics, chemistry, meteorology, geophysics, electronic engineering or similar subject, or lower qualification backed by suitable experience. – Essential

### Resource Management ability

- Ability to organise own time and prioritise effectively. – Essential

### Skills / Experience

- Ability to solve technical/scientific problems. – Essential
- Ability to encounter new equipment and perform effective fault finding to board level in a short period of time. - Desirable [2]
- Experience of working in a remote location. - Desirable [2]
- Experience of working with atmospheric chemistry instruments. - Desirable [2]