Geophysical Scientist (2 posts)
UKRI – NERC – BGS
The Lyell Centre, Edinburgh

£24,777 to £26,932 per annum (depending on qualifications and experience)

Full-Time – 37 hours a week (a range of flexible working options may be available)
Fixed Term Appointment (2 years)

About us

The British Geological Survey (BGS) is an applied geoscience research centre that is housed in UK Research and Innovation (UKRI) and affiliated to the Natural Environment Research Council (NERC). It is a world leading geological survey that provides a core science mission to inform government of science related to the subsurface and its interfaces and also undertakes applied research for solutions to earth and environmental processes, both in the UK and globally. It is funded directly by UKRI as well as through research grants and via private sector contracts.

BGS has an annual budget of approximately £60 million and employs 650 people. It has two main sites, a head office in Keyworth near Nottingham and the Lyell Centre, which is a joint collaboration with Heriot Watt University in Edinburgh. BGS works with more than 150 private sector organisations as well as having close links with 40 universities and sponsors approximately 100 PhD students each year.

About the role

We are currently looking to appoint two highly motivated scientists within the Geomagnetism team to undertake magnetotelluric fieldwork and ground conductivity modelling for space weather impacts.

The Geomagnetism team (www.geomag.bgs.ac.uk) undertakes long-term monitoring of the Earth’s magnetic field through the operation of magnetic observatories in the UK and overseas. We use worldwide land, marine, airborne and satellite data to make global models describing how the Earth's magnetic field changes in space and time and what that reveals about physical processes within the solid Earth. We also research the magnetic field changes in satellite and observatory data that result from space weather and solar activity and how this impacts modern technology.

We apply our science in researching the impact of space weather on ground-based technology and our environment.

The primary tasks for the successful applicants will include:

- Contributing to the team's activities in data collection for magnetotelluric studies of ground conductivity across the UK, by carrying out measurements of the magnetic and geoelectric field at around 40 sites.
- Planning, identifying, scouting, seeking landowner permission, installation, monitoring and removal of magnetotelluric surveying systems to be deployed over two years.

- Undertaking time series processing and computation of magnetotelluric response functions for each site and support, where appropriate, scientific research into the space weather impacts on ground based systems (NERC-funded project SAGE)

These roles involve extensive UK-based travel, regularly being outdoors and occasional out-of-hours working and therefore requires a full UK driving licence.

**About you**

Candidates should have a BSc in geophysics, space science, physics or mathematics, or similar relevant discipline. Candidates should be able to demonstrate working knowledge of scientific computing languages (e.g. FORTRAN, C, Python, Matlab, GMT, R) and data analysis.

These posts will suit self-motivated individuals who are willing to undertake extensive fieldwork across the UK, as well as scientific data analysis, alongside other BGS staff.

These positions will be based in the BGS’s Edinburgh office which is located on the Heriot-Watt University campus and candidates must be able to attend this office during normal working hours.

Please also refer to the specific essential and desirable criteria for these posts.

**What we offer**

A generous benefits package is also offered, including a very competitive pension scheme, 30 days (pro-rata) annual leave plus bank holidays, free parking and access to flexi-time. We also offer the ‘Bike to Work’ scheme, and health and wellbeing support.

For a salary at the top end of the advertised range, you will also need to meet the desirable criteria detailed on the TopCareer.jobs website.

Please note that any internal BGS staff applying for this post would, if successful, be appointed to new UKRI Terms and Conditions and pay (if not already on them).

**How to Apply**

Applicants are required to include a cover letter outlining their suitability for this role. We would stress the importance of this paperwork in our selection process. **A well thought through application addressing the advertised essential and desirable criteria for the post will be considered far more favourably than a generic covering letter and CV.**

Applications are being handled by UK Shared Business Services, to apply please visit our job board at [https://www.topcareer.jobs/Vacancy/irc254028_10684.aspx](https://www.topcareer.jobs/Vacancy/irc254028_10684.aspx)

Applicants who are unable to apply online should contact us by telephone on +44 (0)1793 867000.
Closing date for receipt of applications is **21 June 2020.** Interviews are expected to be held in early-mid July 2020 in either Edinburgh or online.

BGS provides a range of flexible working options including flexible working patterns, compressed hours and home working so if you have a need for flexibility, please raise this in the recruitment process when your needs, balanced with the requirements of the role, will be fully considered.

We are committed to promoting equality and diversity across our organisation as well as across all areas of our science community. As such, we aim to have a workforce with employees from all backgrounds with people who are passionate about earth science and who share our commitment to work for the good of the environment and the benefit of society.

We will actively seek to avoid discrimination on the grounds of age, disability, race (including colour, nationality, ethnic or national origin), sex or sexual orientation, being trans or a member of the non-binary community, being married or in a civil partnership, being pregnant or on maternity leave.

The British Geological Survey is an Investors in People organisation and has achieved Bronze status for Athena SWAN – a scheme that recognises an organisation’s commitment and progress in developing a diverse and inclusive workforce.

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### Specific Skills Criteria

**S = Shortlist Stage**

**I = Interview Stage**

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<th>Essential</th>
<th>Desirable</th>
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<tr>
<td><strong>QUALIFICATIONS</strong></td>
<td><strong>BSc (Hons) in physics, space science, mathematics or geophysics (S)</strong>&lt;br&gt;<strong>Full UK driving licence (S)</strong></td>
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<tr>
<th>EXPERIENCE</th>
<th>KNOWLEDGE</th>
<th>SKILLS AND ABILITIES</th>
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| • Familiarity with scientific data analysis techniques (S)  
• Experience in scientific computer programming (S and I)  
• Experience of scientific field work (S and I) | • Demonstrable programming skills in one or more scientific computing languages (e.g. FORTRAN, C, Java, Python, Matlab, GMT, R) (S and I)  
• Competence in using personal computers and standard office applications (S) | • Ability to present work clearly to experts and non-experts alike (S and I)  
• Effective written, spoken and presentational communication skills (S and I)  
• Ability to work unsupervised, prioritise work effectively and meet tight deadlines (S and I) | • Able to travel off-site regularly (S & I)  
• Ability to work well in a team context and to liaise with colleagues (S&I) | • Demonstrates an interest in the work of Geomagnetism and BGS (S&I) |
| • Experience in analysing geomagnetic and/or geophysical time series data (I)  
• Planning and executing environmental fieldwork campaigns (S & I) | • Experience working on Linux-based computers or in other non-windows-based operating systems (I)  
• Knowledge of magnetotellurics and Earth conductivity (S&I) | • Demonstrates the ability to solve problems (I)  
• Demonstrates negotiating skills (I) | | • Demonstrates the ability to pay attention to detail (I) |
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