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# Sapper Rachael Bradley

## Geographic Technician/ ME Geographic Engineer

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**Royal  
Geographical  
Society**  
with IBG

Advancing geography  
and geographical learning



**Job title:** Geographic Technician/ ME Geographic Engineer

**Organisation:** The British Army

### How did you get to where you are now?

My passion for geography started when I chose to study the subject at GCSE and then A Level, coupled with a very good teacher at school, this led me to study it at university. I found physical geography such as climatology, geomorphology and river environments particularly interesting, so I went on to do a BSc Dual Honours degree in Geography and Geology at The University of Manchester.

Although my dissertation focussed on sedimentology, most of my research came from mapping a section of rock, comparing two early Devonian river channels in Pembrokeshire. Even though I didn't know it at the time, the makings of a cartographer were being developed.

I decided to join the British Army after graduation, after being drawn to the active and unique nature of the job. A happy coincidence occurred when I found there was the job role of Geographic Technician in the Royal Engineers, which encompassed many parts of my degree.

**W:** [www.rgs.org/iamageographer](http://www.rgs.org/iamageographer)

### Was there anything particularly useful that helped you get into this role?

Whilst at university I joined the University Officer Training Corps (UOTC), which helped me develop from a student into the makings of a soldier. During my time there I learnt practical, communication and leadership skills. Moreover, several visits to different units were organised as 'Look at Life' weekends, to show the potential employee what exactly it was like being in the Royal Engineers. The experience I gathered from UOTC was invaluable when coming to choose my career path.

### What do you do as part of your role?

As a Military Geographic Engineer (ME Geo) I am responsible for the production, analysis and dissemination of geographical information and products to all departments in defence (Army, Navy, RAF and Government). I create products and supply information that helps military commanders make informed decisions about operations. For example, using high resolution satellite imagery to produce 3D visualisations, or conducting analysis of the terrain to determine potential positions or routes and use of the ground.

### What skills and characteristics do you need for this role, apart from geographical knowledge?

Being a military geographer requires a number of skills, including:

- Advanced geospatial analysis using GIS
- Data management
- Geospatial web services
- Geodetic survey
- Remote sensing and photogrammetry

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These are all skills which are taught in the training to become a ME Geographic Engineer. However, the skills required whilst on this course include:

- Colour proficiency
- English and maths
- Basic GIS
- Route planning
- Map reading
- Planning and coordination
- Oral presentation

#### **How does geography feature in your work/ what difference does it make?**

As interpretation of the physical and human terrain is a fundamental part of the job role, geographical skills and knowledge are utilised on a daily basis for geospatial analysis and manipulation to create map products.

#### **What advice would you give to someone wanting to go in to this career?**

Studying geography or any variant at university will set you up well for training to meet the standards the Army require. After initial soldier training, a further three year training programme (including a sandwich year) begins. At the end of this you will receive a BSc degree in Military Geospatial Science from Sheffield Hallam University. This training is unique to anything you will find in civilian life and will make it very appealing when looking for jobs after the Army. I would also say be open minded. The job can vary a lot, one day you may be making a map, the next you could be doing data management or even training on exercise on Salisbury Plain, honing your rifle skills. It's a constantly evolving job which, if you take every opportunity, gives a lot of invaluable experience in such a niche area, providing you with many transferable skills for the future.

#### **Why did you choose geography? Why should others choose geography?**

I was intrigued to understand the physical and human processes that created and develop our planet. The many field trips offered through my career enabled me to see these geographical and geological processes first hand, as well as satisfying my thirst for travel. This is a key reason to choose geography! It builds independence and self-reliance, as well as cultural development through being exposed to completely new environments.

Having a background in geography will set you up for a wide array of job prospects as it contains such a varied number of topics, from computing and data collection to team building skills. For example, through studying the processes which drive our planet's evolution we can predict and mitigate against natural disasters, better understand the environment and how we can protect and utilise it. And of course, as my school teacher drilled into me "Geography is the greatest subject on this planet!".