

## Cartographer

A cartographer designs, checks and updates geographical information in the form of maps and charts. They work in either land, marine or air cartography. They may also be called geographical information system (GIS) technicians.

### The Work

As a **cartographer** you could be:

- collecting geographical data using specialist equipment
- gathering information from aerial surveys, satellite observation, environmental remote sensing and seismic sensing methods
- gathering statistical information on other aspects of geography such as climate
- using data gathered to design maps, with colours, symbols and scales for a variety of uses, such as sat nav systems and web maps
- using specialist software such as computer-aided design (CAD), 3D modelling and geographical information systems (GIS)
- checking that maps are accurate and include all the relevant information
- working with surveyors and designers
- keeping up to date with new software and technology
- supervising the technical staff.

As a **cartographic technician** you could be:

- actually producing the maps, usually by a digital process
- using computerised techniques such as GIS to scan, process and display data on screen
- using desktop publishing and other software to illustrate maps in graphic and possibly animated form: for example climatic variations, population distribution
- producing final documents for printing.

### Pay

The figures below are only a guide. Pay rates vary, depending on:

- where you work
- the size of your company
- the demand for the job.

Starting pay might be around £25,000 a year. With experience this can rise to around £32,000 to £37,000 a year. Senior cartographers may earn up to £47,000 a year.

### Conditions

- You work in an office.

- You may travel to different sites to gather data for analysis.
- You mostly work regular hours.
- You are sometimes under pressure to meet deadlines.

## Getting In

Cartographer:

- You need at least an HND (SCQF Level 8), but ideally a degree (SCQF Levels 9-10). Relevant subjects include geography, geographical information systems, land surveying, earth sciences or oceanography.
- There are postgraduate courses (SCQF Level 11) in cartography, geographical information systems or geoinformation technology. These can be useful if you want to work in a particular area.
- The University of Glasgow offers MSc Geoinformation Technology and Cartography, and MSc Geospatial and Mapping Sciences, and the University of Aberdeen offers MSc Geographical Information Systems. To get in you need a good Honours degree in a relevant subject.

Cartographic technician:

- As a school leaver, you may apply for direct entry after taking some subjects at National 5 or Higher. The few posts tend to go to those with Highers.
- An HNC (SCQF Level 7) in a relevant subject might be useful.
- Relevant experience is helpful, for example in a cartographic office, an engineering drawing office or a mapping and charting office.
- The Royal Air Force (RAF) sometimes has openings for trainee air cartographers. You need at least National 5 English and Maths. A technological subject is useful.

This is a small profession and entry is very competitive. Employers can include local authorities, Ordnance Survey and the Ministry of Defence, as well as map publishers, universities and private companies. As well as cartographer, job titles can include the terms GIS, mapping and geo-information.

## What Does It Take

You need:

- an interest in graphics and design
- enthusiasm for geographical information and maps
- good design and layout skills
- a good eye for detail
- good IT skills to use specialist software
- patience, accuracy and attention to detail.

You should be able to:

- meet deadlines
- handle statistical information
- interpret data, graphs and symbols

- organise complex information
- work as part of a team.

## Training

- Training is mainly on the job for both cartographers and cartographic technicians.
- You can take short courses including digital mapping and geographical information systems (GIS).
- You might get sponsorship to study for a postgraduate qualification.

## Getting On

- Promotion prospects are limited, so it is useful if you are willing to move. Some cartographers work freelance.
- There may be opportunities to work abroad, so knowledge of other languages can be useful.
- Joining a professional body, such as the [British Cartography Society](#), is useful for making contacts and keeping up to date with new developments.

## Contacts

### British Cartographic Society

Website: [www.cartography.org.uk](http://www.cartography.org.uk)

X: @bcsmaps

Facebook: [www.facebook.com/britishcartographicsociety](https://www.facebook.com/britishcartographicsociety)

## Statistics

Employment Status : Not available this career.

### Past Unemployment - Scotland

No Claimant statistics available for Scotland.

Predicted Employment Statistics : Not available this career.