



METEOROLOGIST

JOB DESCRIPTION

Meteorologists study Earth's weather, climate, and atmospheric conditions. In this role, you will use weather data from observation stations, satellite images, and radar to produce short- and long-range weather forecasts for the general public, commercial clients, government agencies, or the military. Meteorologists also play a key role in research into global climate change.



SALARY

Junior meteorologist ★★★★★

Senior meteorologist ★★★★★

INDUSTRY PROFILE

Competitive field • Employers include national weather services, the armed forces, and media and research organizations • Predicted growth in private-sector weather services

RELATED CAREERS

- ▶ **HYDROLOGIST** Monitors, studies, and promotes the sustainable management of water resources, such as lakes, reservoirs, and domestic pipelines. Works for utility firms, government agencies, universities, and environmental consultancies.
- ▶ **OCEANOGRAPHER** Conducts scientific research into the ocean environment, studying how the seas interact with rivers, ice sheets, and the atmosphere. Also provides advice on subjects including currents and tides, marine pollution, and underwater mineral resources to clients such as oil companies and coastal construction firms.

Accurate forecasting relies on the fastest supercomputers in the world, which perform millions of calculations per second to model weather data.

AT A GLANCE



YOUR INTERESTS Earth sciences • Geography • Mathematics • Physics • Chemistry • Biology • Information Technology (IT)



ENTRY QUALIFICATIONS A relevant degree is needed to enter the field, while a postgraduate qualification is necessary to conduct research.



LIFESTYLE Forecasters work in shifts to provide 24-hour cover. Researchers work regular hours, with occasional overtime if necessary.



LOCATION A meteorologist is based in an office at a regional weather station or commercial weather-service provider, at a television studio, or on a military base.



THE REALITIES Meteorologists have a responsibility for accurate forecasting, particularly when severe weather threatens property or lives.

CAREER PATHS

National weather services are the largest employers of meteorologists, but there are also recruitment opportunities with private-sector firms, research institutes, environmental consultancies, and utility companies.

GRADUATE To enter this profession you will need a degree in meteorology, environmental science, physics, mathematics, or a related subject.



POSTGRADUATE If you have a postgraduate degree in a related subject, you can apply for research posts. A degree will also help if you are applying for forecasting jobs.



METEOROLOGIST You will need to stay up to date with scientific and technological advances throughout your career, in areas such as climate change or mathematical modeling. You can move between a variety of roles, including research, forecasting, training, and consultancy.



FORECAST METEOROLOGIST

Prepares weather forecasts using real-time observations and data from computerized models. Forecasters also compile rolling weather reports that are shared with international weather organizations.



BROADCAST METEOROLOGIST

Presents forecasts that are televised, broadcast on radio stations, or accessed via the Internet, using maps to show aspects such as temperature and rainfall.



FORENSIC METEOROLOGIST

Usually works in a consultancy capacity, analyzing and reconstructing past weather events to help insurance companies or lawyers determine the impact of the weather conditions on a particular claim or legal case.



ENVIRONMENTAL METEOROLOGIST

Conducts research into areas including severe weather patterns, air pollution, or how weather affects the spread of disease.

SKILLS GUIDE



Effective verbal and written communication skills to explain weather forecasts clearly.



Good team-working skills to interact with groups, from the general public to technical staff.



Strong analytical skills for studying and interpreting complex meteorological data.



Excellent numerical skills for using advanced mathematical models to process weather data.



Advanced computer skills to use modeling software for simulating weather scenarios.



Attention to detail to spot unexpected weather events so that future forecasts can be revised.