



Educational Topic

Meteorologist

Related Job Titles:

Weather Officer, Weather Forecaster, Meteorology Researcher, Meteorological Modeling Specialist, Atmospheric Scientist, Atmospheric Chemist

Job Description:

A Meteorologist collects weather data, surveys weather indicators and makes predictions regarding developing weather patterns. This individual advises air traffic control and other agencies about weather hazards such as thunderstorms, developing storm cells and fronts, turbulence, tornadoes, icing, flooding, flash flooding and other such weather-related phenomena. They issue to various governmental agencies and the public weather advisories for vehicles, aircraft and watercraft. They use sophisticated computer software programs that assist them in modeling the potential flow and intensity of storm cells and fronts. They are also available to participate in weather-related research projects that seek to provide more accurate forecasting methods over a longer time period.

Interests / Abilities:

- Do you read and understand charts with special symbols easily?
- Can you perform calculations quickly with great accuracy?
- Do you enjoy getting out a road map and figuring out what route to drive when preparing for vacation? Can you see more than one route to a destination?
- Are you curious about your surroundings and what processes shape them?
- Are you patient when it comes to completing forms requiring detailed information?

Suggested School Subjects / Courses:

- Math (algebra, trigonometry, calculus)
- Physics
- Meteorology
- Statistics
- Computer modeling
- Geography

Education / Training Needed:

The minimum education required for this position is a bachelor's degree in Meteorology or Atmospheric Sciences from an accredited college or university. Experience in computer modeling techniques is extremely helpful for this job. To do research, at minimum a master's degree is required and a Ph.D. is highly desired for this position.

Areas of expertise:

- *Aeronautical*: study weather phenomena and its effects on flight (lightning, icing, etc.)
- *Synoptic*: analyze data from satellites, radar, and surface-observing instruments
- *Weather forecasters*: prepare forecasts for public and specialized reports for aviation, marine, and agriculture
- *Research*: study atmospheric physics, refine theories, and improve mathematical/computer models of atmospheric processes, and events
- *Climatologists*: collect, organize, archive, interpret, and publish climatological data.

