

# Aerospace Careers: Meteorologist



## **Introduction**

Perhaps the most direct way in which people benefit from earth science research is through daily weather prediction. Weather systems thousands of miles away have an effect on you right here at home. Earth science satellites provide up-to-the-minute information about weather patterns across the entire world, allowing meteorologists to forecast what's headed your way.

More than just images of clouds, meteorologists compare temperature readings, winds, atmospheric pressure, precipitation patterns, and other variables to form an accurate picture of our climate. From past readings, meteorologists are able to draw conclusions and make predictions about how our climate will translate into local weather every day. They can also develop computer models that predict how climate and weather may vary in the future as a result of human activity. Meteorologists also carry out basic research to help us understand the way the atmosphere works, ranging from why hurricanes and tornadoes form when and where they do, to why the ozone hole formed over the Antarctic in the spring. They use satellites, aircraft, ships, and balloons to take the data needed to help understand, document, and predict weather and climate.

## **Education**

Students majoring in atmospheric science should be strong in mathematics, physics, chemistry, and computer science. This major combines advanced courses in these areas with courses in meteorology. Because employment in this field is highly competitive, students should consider a strong minor or a second major to complement the major in atmospheric science. Many students match this discipline with minors or majors in communications, agronomy, computer science, geology, chemical engineering or chemistry, education or physics. Students who enjoy atmospheric science also tend to enjoy physics, mathematics and computing. This is a highly abstract science since it deals with large weather phenomena that are only understood with computer and mathematical models. There is often a need to engage in graduate work in order to gain employment in this field.

Is [Atmospheric Science](#) the right major for you?

Take the [MyMajors Quiz](#) and find out if it is one of your top recommended majors!



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## What Courses Do Atmospheric Science Majors Take?

The required and elective courses you would take for Atmospheric Science majors vary considerably among institutions. Courses are listed here that are illustrative of the breadth of topics you are likely to experience were you to major in this field.

The Oceans  
Atmospheric Thermodynamics  
Major Environmental Issues  
Physics/Chemistry/Mathematics  
The Atmosphere  
Weather Analysis and Forecasting

Air Quality  
Global Climate Change  
Meteorology of the Continents  
Synoptic Meteorology  
The Upper Atmosphere  
Weather Instrumentation

### **Links to Meteorology Job Information click below:**

<http://www2.sunysuffolk.edu/mandias/careers.html>

<http://kids.earth.nasa.gov/archive/career/meteorologist.html>

### **Links to more Information click below:**

<http://kids.earth.nasa.gov/archive/career/meteorologist.html>

<http://www.avjobs.com/careers/detail.asp?RecID=126>

[Bureau of Labor Statistics](#)



Courtesy: [NASA, NOAA, howstuffworks.com (photo)]

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