



# Meteorologists in the NWS

NOAA NATIONAL WEATHER SERVICE

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## Nature of Work

National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) meteorologists are employed in many facets of both research and applied meteorology. Their duties may be concentrated in any of the following areas of applied meteorology:

- Aviation weather
- Hurricanes
- General forecasting
- Marine weather
- Radar meteorology
- Climatology
- Hydrology
- Spaceflight meteorology
- Space weather
- Fire weather
- Severe local storms forecasting
- Mathematical analysis and programming
- Numerical analysis and prediction
- Public preparedness



## The Local Forecast Office



NWS meteorologists work in 122 local forecast offices located throughout the U.S. and its territories. They prepare a wide variety of forecasts for the general public and for other special interest users such as aviation, marine, and fire weather. Their primary responsibility is to issue and distribute alerts and warnings of hazardous weather and flood conditions for the protection of life and property.

A meteorologist may be assigned observational work; however, most observations are becoming automated. Meteorologists in local forecast offices may participate in studies of local forecast challenges, public preparedness initiatives, and other informational programs. Forecast offices operate 24 hours a day, 7 days a week on rotating shifts. The standard work week is 40 hours. Additional pay is provided for night work between 6 pm and 6 am, work in excess of 40 hours per week, and on holidays and Sundays. Starting salaries range between \$30,000 and \$38,000 per year, depending on your level of education, and climb to over \$80,000 per year for lead forecaster and management positions.

## National Centers

Some NWS meteorologists work at regional or national centers in support of national forecast and warning operations. National centers include: Storm Prediction Center (Norman, OK), National Hurricane Center (Miami, FL), Space Environment Center (Boulder, CO), Aviation Weather Center (Kansas City, MO), Climate Prediction Center (Camp Springs, MD), Environmental Modeling Center (Camp Springs, MD), and the Hydrometeorological Prediction Center (Camp Springs, MD). There are also 13 regional River Forecast Centers where hydro-meteorologists work to provide forecasts of our nation's river levels. Meteorologists in all of these facilities may also work rotating shifts.



Meteorologists working at the NWS Training Center (Kansas City, MO), Warning Decision Training Branch (Norman, OK), and Cooperative Program for Operational Meteorology, Education and, Training (Boulder, CO) develop and provide state of the science training to NWS personnel. Training topics range from applied meteorology, to computer programming, to management and leadership.

# Planning for Your Career in the NWS

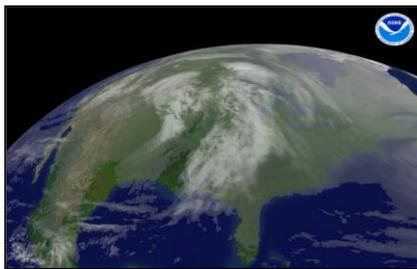
A meteorology degree is similar to an engineering degree in terms of the math and science requirements and academic rigor. To prepare, take all of the math and science classes that you can!

For meteorologists, the NWS requires a minimum of a bachelor's degree in meteorology, atmospheric science, or other natural science major that includes:



1. At least 24 semester (36 quarter) hours of credit in meteorology/atmospheric science including dynamics and thermodynamics (6)\*, analysis and prediction of weather systems (synoptic/mesoscale) (6), physical meteorology (3), and remote sensing/instrumentation (2).
2. Six semester hours of physics, with at least one course that includes laboratory sessions.\*
3. Three semester hours of ordinary differential equations.\*
4. At least nine semester hours of course work appropriate for a physical science major in any combination of three or more of the following: physical hydrology, statistics, chemistry, physical oceanography, physical climatology, radiative transfer, aeronomy, advanced thermodynamics, advanced electricity and magnetism, light and optics, and computer science.

\* There is a prerequisite of calculus for course work in atmospheric dynamics and thermodynamics, physics, and differential equations. Calculus courses must be appropriate for a physical science major.



## Career Opportunities in NOAA

In addition to the NWS providing weather, water, and climate information, NOAA provides information and data about life on earth, our oceans, and the Nation's living marine resources. NOAA's programs range from marine sanctuaries to environmental satellites to global climate change to ocean exploration initiatives. Electronic eyes and ears have taken NOAA from beyond Earth's orbit to deep within the oceans. This global perspective

emphasizes that development and economic well-being are linked to a healthy earth environment. Other agencies within NOAA include the: National Ocean Service; National Marine Fisheries Service; Office of Oceanic and Atmospheric Research; National Environmental Satellite, Data, and Information Service; and, NOAA Marine and Aviation Operations.

## Other Related Career Opportunities

In addition to working for the NWS, there are other career opportunities for meteorologists. Among these are: Media Weathercasting; Applied Meteorological Consulting; Forecasting in the Military; Commercial Aviation Forecasting; Air Quality Forecasting; and University Teaching and Research.



### On the web:

AMS Career Page.....	<a href="http://www.ametsoc.org/AMS/AtmosCareers">www.ametsoc.org/AMS/AtmosCareers</a>
List of Colleges with Degree Programs .....	<a href="http://www.ametsoc.org/AMS/curricula">www.ametsoc.org/AMS/curricula</a>
NWS Meteorology Career page .....	<a href="http://www.weather.gov/careers.php">www.weather.gov/careers.php</a>
NOAA Career Page.....	<a href="http://www.careers.noaa.gov">www.careers.noaa.gov</a>
Federal Pathways Program (for students and recent grads) .....	<a href="http://www.usajobs.gov/StudentsAndGrads">www.usajobs.gov/StudentsAndGrads</a>
Federal Job Applications.....	<a href="http://www.usajobs.gov">www.usajobs.gov</a>