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| NOAA Header |
| **NOAA In Your State****Montana** |
| *“NOAA's work touches the daily lives of every person in the United States and in much of the world. Our products and services are the result of the hard work of NOAA’s dedicated staff and partner organizations located in program and research offices throughout the country. The following is a summary of NOAA programs based in, and focused on, your state. The entries are listed by statewide, region, and then by congressional districts and cities or towns.”** Dr. Jane Lubchenco

Under Secretary of Commerce for Oceans and Atmosphereand NOAA Administrator |

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| where is montana |

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| ***MT******Statewide*****National Weather Service (NWS)****Automated Surface Observing Systems****Montana Stations**The Automated Surface Observing Systems (ASOS) program is a joint effort of the National Weather Service (NWS), the Federal Aviation Administration (FAA), and the Department of Defense (DOD). ASOS serves as the Nation's primary surface weather observing network. ASOS is designed to support weather forecast activities and aviation operations and, at the same time, support the needs of the meteorological, hydrological, and climatological research communities. ASOS works non-stop, updating observations every minute, 24 hours a day, every day of the year observing basic weather elements, such as cloud cover, precipitation, wind, sea level pressure, and conditions, such as rain, snow, freezing rain, thunderstorms, and fog. There are 18 ASOS stations in Montana.http://www.nws.noaa.gov/mirs/public/prods/maps/map\_images/state-maps/asos\_09/MT\_asos.pdf and <http://www.nws.noaa.gov/asos/>**National Weather Service (NWS)****Cooperative Observer Program****Montana Sites**The National Weather Service (NWS) Cooperative Observer Program (COOP) is truly the Nation's weather and climate observing network of, by and for the people. More than 10,000 volunteers take observations on farms, in urban and suburban areas, National Parks, seashores, and mountaintops. The data are representative of where people live, work and play. The COOP was formally created in 1890 under the NWS Organic Act to provide observational meteorological data, usually consisting of daily maximum and minimum temperatures, snowfall, and 24-hour precipitation totals, required to define the climate of the United States and to help measure long-term climate changes, and to provide observational meteorological data in near real-time to support forecast, warning and other public service programs of the NWS. In some cases, the data are used to make billions of dollars worth of decisions. For example, the energy sector uses COOP data to calculate the Heating and Cooling Degree Days which are used to determine individuals’ energy bills monthly. There are 345 COOP sites in Montana.http://www.nws.noaa.gov/mirs/public/prods/maps/map\_images/state-maps/coop\_09/MT\_coop.pdf and <http://www.nws.noaa.gov/om/coop/>**National Weather Service (NWS)****NOAA Weather Radio All Hazards****Montana Transmitters**NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service (NWS) forecast office. NWR broadcasts official NWS warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week. Working with the Federal Communication Commission's (FCC) Emergency Alert System, NWR is an "All Hazards" radio network, making it the single source for comprehensive weather and emergency information. In conjunction with federal, state, and local emergency managers and other public officials, NWR also broadcasts warning and post-event information for all types of hazards – including natural (such as earthquakes or avalanches), environmental (such as chemical releases or oil spills), and public safety (such as AMBER alerts or 911 Telephone outages). Known as the "Voice of NOAA's National Weather Service," NWR is provided as a public service by the NWS. NWR includes 1,100 transmitters covering all 50 states, adjacent coastal waters, Puerto Rico, the U.S. Virgin Islands, and the U.S. Pacific Territories. There are 30 NWR transmitters in Montana.http://www.nws.noaa.gov/mirs/public/prods/maps/map\_images/state-maps/nwr\_09/MT\_nwr.pdf and <http://www.nws.noaa.gov/nwr/>***MT-At Large******Billings*****National Weather Service (NWS)****Weather Forecast Office****Billings WFO**Located in Billings, this NWS Weather Forecast Office (WFO) is staffed around-the-clock every day, and provides the best possible weather, water, and climate forecasts and warnings to residents of south central and southeastern Montana. Highly trained forecasters issue warnings and forecasts for events, including severe thunderstorms, tornadoes, winter storms, floods, and heat waves. This essential information is provided to the general public, media, emergency management and law enforcement officials, the aviation and marine communities, agricultural interests, businesses, and others. Information is disseminated in many ways, including through dedicated government channels, satellite, the Internet, and NOAA Weather Radio All Hazards.Forecasters provide on-site, detailed weather support during critical emergencies, such as wildfires, floods, chemical spills, and for major recovery efforts such as those following the Greensboro, Kansas, tornado; Hurricane Katrina; and the Sept. 11, 2001, terrorist attack in New York City. The WFO collects and disseminates precipitation, river, and rainfall data, and prepares local climatological data. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs, which helps build strong working relationships with local partners in emergency management, government, the media and academic communities. The WFO operates Automated Surface Observing Stations (ASOS), as well as the local Doppler Weather Radar, which provides critical information about current weather conditions. The radar data enables forecasters to issue warnings for tornadoes, severe thunderstorms, and flash floods.<http://www.wrh.noaa.gov/byz/>***Dillon*****National Environmental Satellite, Data, and Information Service (NESDIS and Office of Oceanic and Atmospheric Research (OAR)****Climate Reference Network****Dillon Station**The U.S. Climate Reference Network (USCRN) is an operational network of climate stations. Data from the USCRN will be used in operational climate monitoring activities and for placing current climate anomalies into an historical perspective. NOAA's National Climatic Data Center (NCDC) manages the USCRN. The USCRN will also provide the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS). NOAA’s National Environmental Satellite, Data, and Information Service and NOAA’s Office of Oceanic and Atmospheric Research jointly manage USCRN.<http://www.ncdc.noaa.gov/crn/>***Ft. Peck*****Office of Oceanic and Atmospheric Research (OAR)****Earth System Research Laboratory/Global Monitoring Division****Surface Radiation Measurement Network**The Earth System Research Laboratory operates seven stations as part of its surface radiation measurement network (SURFRAD). The station measurements support regional and global weather and climate research with accurate, continuous, long-term measurements of the surface radiation budget over the United States. Solar radiation is the driving energy for geophysical and biological processes that control weather and affect planetary life; understanding the global surface energy budget is therefore key to understanding climate and the environmental consequences to agriculture and other statewide concerns.Because it is impractical to cover the whole earth with monitoring stations, the answer to global coverage lies in reliable satellite-based observations. Accurate and precise ground-based measurements across a range of climate regions are essential to refine and verify the satellite observations. One of these stations is located near Fort Peck. These ground-based measurements also support special research projects on radiation and climate processes in the Montana region and serve as important verification for weather forecasts.http://www.srrb.noaa.gov/surfrad/index.html.**Office of Oceanic and Atmospheric Research (OAR)****Earth System Research Laboratory/Global Monitoring Division****Total Column Ozone Measurements**NOAA's Earth System Research Laboratory (ESRL) makes measurements of the column amounts of ozone between the earth's surface and the top of the atmosphere at a number of locations around the United States, including Ft. Peck, MT. The observations are obtained with ground-based spectrometers that measure the attenuation by ozone of ultraviolet light. This integrated ozone amount is critical in determining the amount of ultraviolet radiation reaching the earth's surface. Excess ultraviolet radiation is responsible for human skin cancer and is also harmful to other biogenic organisms. Column ozone measurements monitor changes in the stratospheric ozone layer resulting from human-produced chlorine and bromine compounds that destroy ozone. With controls now in place on the manufacture and use of these ozone-destroying compounds, it will be important to monitor the ozone layer for the expected recovery and determine whether other factors such as long-term climate change are influencing this recovery.<http://www.esrl.noaa.gov/gmd/about/ozone.html>**Office of Oceanic and Atmospheric Research (OAR)****Earth System Research Laboratory/Global Monitoring Division****Ultraviolet Radiation Monitoring Network**The Earth System Research Laboratory (ESRL) operates an ultraviolet radiation (UV) monitoring network site in Ft. Peck. These measurements are done as part of ESRL’s research on the Earth's surface radiation budget. Research efforts are devoted to the extent and cause of observed variations in long-term radiation and meteorological measurements, using satellite observations and climate model calculations. In addition, observations of spectral solar radiation are made for the purpose of remote sensing of certain atmospheric constituents and spectral solar UV is measured for the investigation of the interaction of ozone and solar radiation. ESRL also provides essential instrument calibration services for national and worldwide partner UV monitoring networks.http://www.esrl.noaa.gov/gmd/grad/***Glasgow*****National Weather Service (NWS)****Weather Forecast Office****Glasgow WFO**Located in Glasgow, this NWS Weather Forecast Office (WFO) is staffed around-the-clock every day, and provides the best possible weather, water, and climate forecasts and warnings to residents of northeastern Montana. Highly trained forecasters issue warnings and forecasts for events, including severe thunderstorms, tornadoes, winter storms, floods, and heat waves. This essential information is provided to the general public, media, emergency management and law enforcement officials, the aviation and marine communities, agricultural interests, businesses, and others. Information is disseminated in many ways, including through dedicated government channels, satellite, the Internet, and NOAA Weather Radio All Hazards.Forecasters provide on-site, detailed weather support during critical emergencies, such as wildfires, floods, chemical spills, and for major recovery efforts such as those following the Greensboro, Kansas, tornado; Hurricane Katrina; and the Sept. 11, 2001, terrorist attack in New York City. The WFO collects and disseminates precipitation, river, and rainfall data, and prepares local climatological data. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs, which helps build strong working relationships with local partners in emergency management, government, the media and academic communities. The WFO operates Automated Surface Observing Stations (ASOS), as well as the local Doppler Weather Radar, which provides critical information about current weather conditions. The radar data enables forecasters to issue warnings for tornadoes, severe thunderstorms, and flash floods.http://www.wrh.noaa.gov/ggw/***Great Falls*****National Weather Service (NWS)****Weather Forecast Office****Great Falls WFO**Located in Great Falls, this NWS Weather Forecast Office provides (WFO) is staffed around-the-clock every day, and provides the best possible weather, water, and climate forecasts and warnings to residents of north-central and southwestern Montana. Highly trained forecasters issue warnings and forecasts for events, including severe thunderstorms, tornadoes, winter storms, floods, and heat waves. This essential information is provided to the general public, media, emergency management and law enforcement officials, the aviation and marine communities, agricultural interests, businesses, and others. Information is disseminated in many ways, including through dedicated government channels, satellite, the Internet, and NOAA Weather Radio All Hazards.Forecasters provide on-site, detailed weather support during critical emergencies, such as wildfires, floods, chemical spills, and for major recovery efforts such as those following the Greensboro, Kansas, tornado; Hurricane Katrina; and the Sept. 11, 2001, terrorist attack in New York City. The WFO collects and disseminates precipitation, river, and rainfall data, and prepares local climatological data. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs, which helps build strong working relationships with local partners in emergency management, government, the media and academic communities. The WFO operates Automated Surface Observing Stations (ASOS), as well as the local Doppler Weather Radar, which provides critical information about current weather conditions. The radar data enables forecasters to issue warnings for tornadoes, severe thunderstorms, and flash floods.<http://www.wrh.noaa.gov/tfx/>***Helena*****National Ocean Service (NOS)****National Geodetic Survey****Geodetic Advisor**The Geodetic Advisor is a jointly funded National Ocean Service (NOS) employee that resides in the state to provide liaison between NOS and the host state. The Geodetic Advisor guides and assists the state's charting, geodetic and surveying programs through technical expertise. The program is designed to fill a need for more accurate geodetic surveys, and is in response to the desire of states to improve their surveying techniques to meet Federal Geodetic Control subcommittee standards and specifications. The surveys provide the basis for all forms of mapping and engineering projects and monitoring of the dynamic Earth. This program also provides technical assistance in planning and implementing Geographic/Land Information System (GIS/LIS) projects.<http://www.ngs.noaa.gov/ADVISORS/AdvisorsIndex.shtml>***Missoula*****National Weather Service (NWS)****Weather Forecast Office****Missoula WFO**Located in Missoula, this NWS Weather Forecast Office (WFO) is staffed around-the-clock every day, and provides the best possible weather, water, and climate forecasts and warnings to residents of north central Idaho and western Montana, west of the Continental Divide. Highly trained forecasters issue warnings and forecasts for events, including severe thunderstorms, tornadoes, winter storms, floods, and heat waves. This essential information is provided to the general public, media, emergency management and law enforcement officials, the aviation and marine communities, agricultural interests, businesses, and others. Information is disseminated in many ways, including through dedicated government channels, satellite, the Internet, and NOAA Weather Radio All Hazards.Forecasters provide on-site, detailed weather support during critical emergencies, such as wildfires, floods, chemical spills, and for major recovery efforts such as those following the Greensboro, Kansas, tornado; Hurricane Katrina; and the Sept. 11, 2001, terrorist attack in New York City. The WFO collects and disseminates precipitation, river, and rainfall data, and prepares local climatological data. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs, which helps build strong working relationships with local partners in emergency management, government, the media and academic communities. The WFO operates Automated Surface Observing Stations (ASOS), as well as the local Doppler Weather Radar, which provides critical information about current weather conditions. The radar data enables forecasters to issue warnings for tornadoes, severe thunderstorms, and flash floods.<http://www.wrh.noaa.gov/mso/>***St. Mary*****National Environmental Satellite, Data, and Information Service (NESDIS and Office of Oceanic and Atmospheric Research (OAR)****Climate Reference Network****St. Mary Station**The U.S. Climate Reference Network (USCRN) is an operational network of climate stations. Data from the USCRN will be used in operational climate monitoring activities and for placing current climate anomalies into an historical perspective. NOAA's National Climatic Data Center (NCDC) manages the USCRN. The USCRN will also provide the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS). NOAA’s National Environmental Satellite, Data, and Information Service and NOAA’s Office of Oceanic and Atmospheric Research jointly manage USCRN.<http://www.ncdc.noaa.gov/crn/>***Wolf Point, Roosevelt County*****National Environmental Satellite, Data, and Information Service (NESDIS and Office of Oceanic and Atmospheric Research (OAR)****Climate Reference Network****Wolf Point Station**The U.S. Climate Reference Network (USCRN) is an operational network of climate stations. Data from the USCRN will be used in operational climate monitoring activities and for placing current climate anomalies into an historical perspective. NOAA's National Climatic Data Center (NCDC) manages the USCRN. The USCRN will also provide the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS). NOAA’s National Environmental Satellite, Data, and Information Service and NOAA’s Office of Oceanic and Atmospheric Research jointly manage USCRN.<http://www.ncdc.noaa.gov/crn/>**Office of Oceanic and Atmospheric Research (OAR)****Air Resources Laboratory****Global Energy and Water Cycle Experiment**NOAA has several observational sites that support the World Climate Research Program’s Global Energy and Water Cycle Experiment (GEWEX). One of NOAA’s GEWEX sites is located near Wolf Point, MT. GEWEX sites were established to provide detailed measurements (such as turbulent fluxes of heat, water vapor, momentum, carbon dioxide, air temperature, and relative humidity) and other information about the physical and biological processes that occur at the land/surface interface. Observations from these sites are being used to test and improve the current generation of land surface models that are used for both regional and global climate prediction.[http://www.ceop.net](http://www.ceop.net/) |
| **NOAA’s Office of Legislative and Intergovernmental Affairs**[**http://www.legislative.noaa.gov**](http://www.legislative.noaa.gov) |