

What is a COOP Station and How Is the Data Used?

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 11,000 volunteers take observations on farms, in urban and suburban areas, National Parks, seashores, and mountaintops. The data are truly representative of where people live, work and play.

The COOP was created under the Organic Act of 1890. The mission of the program is two-fold:

- To provide 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 change
- To provide meteorological data in near real-time to support forecast, warning and other public service programs of the NWS.

Volunteer weather observers conscientiously contribute their time so that observations can provide the vital information needed. These data are invaluable in learning more about the floods, droughts, heat and cold waves affecting us all. The data are also used in agricultural planning and assessment, engineering, environmental-impact assessment, utilities planning, and litigation. COOP data plays a critical role in efforts to recognize and evaluate the extent of human impacts on climate from local to global scales.

Equipment used to gather these data is provided, installed and maintained by the NWS. Observers send monthly data forms to their local NWS office. Once all the forms are received from observers in their forecast area, the NWS sends the forms to the National Climatic Data Center (NCDC) in Asheville, NC, where data are checked, digitized, and archived.

Much of the data are available to users via publications, special orders, and the Internet. In fact, your data are one of the most requested products in our national climate archives. Coop data is used by economists in key decision making. Engineers use your data to determine the depth needed to ensure stable home foundations, the slope of highways to ensure adequate runoff, the size of storm drains and the requirements for dams. Businesses use the data to decide where to site facilities, when and where to hold meetings and for many other things to numerous to list.

Your data also form the basis for studies of climate variability and change in the United States. Your Coop data influences billions of dollars related to economic decisions. Don't forget, this data gets more valuable with time. The longer the record, the more informed we all become.