

Packerland Weather News



Volume 5, Issue 2

Autumn/Winter 2006

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NOAA Honors Longtime Observers

Recognizing more than 59 years of dedication, NOAA's National Weather Service named Oneida County observer Charles Longwitz as a 2006 recipient of the agency's Thomas Jefferson Award for outstanding service in the Cooperative Weather Observer Program. The award is the agency's most prestigious. Only six were presented this year to cooperative weather observers from around the country.

John Caskey was a recipient of the John Campanius Holm Award. The award is the NWS's second most prestigious observer award and only 25 were presented this year. Caskey has been a weather observer in Vilas County for 58 years.

"Cooperative observers are the bedrock of weather data collection and analysis," said retired U.S. Air Force Brig. Gen. David L. Johnson, director of NOAA's National Weather Service, in a written statement. "Satellites, high-speed computers, mathematical models, and other technological breakthroughs have brought great benefits to the nation in terms of better forecasts and warnings. But without the century-long accumulation of accurate weather observations taken by volunteer observers, scientists could not begin to adequately describe the climate of the United States. We cannot thank Charles and John enough for their years of service to America."

The NWS Cooperative Weather Observer program has given scientists and researchers continuous observational data since the program's inception more than a century ago. Today, more than 11,700 volunteer observers participate in the nationwide program to provide daily reports on temperature, precipitation, and other weather factors such as snow depth, river levels, and soil temperature.



Charles Longwitz, second from right, receives the Jefferson Award from the National Weather Service. With Charles is (L-R) Gary Austin, Bob Bonack, and Pat Hein of the NWS.



John Caskey with the Holm Award.

Comments or Suggestions?

If you have suggestions for articles, have comments about the newsletter, or would like to be removed from the mailing list, please contact us at:

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or by e-mail: jeff.last@noaa.gov



Service Awards Given to Weather Observers

Charles Longwitz	Jefferson Award
John Caskey	Holm Award
WSAW-TV, Wausau	Special Service Award
Oshkosh Waste Water Treatment Plant	25 Year Award
Walt Kaszynski	35 Year Award
John Czerwonka	30 Year Award
Kevin Brewster	25 Year Award
Suring Waste Water Treatment Plant	20 Year Award
Steinhaus Family	20 Year Award
Jim Koth	15 Year Award
Tom Tiffany	15 Year Award
Jon and Juliette Guth	15 Year Award
William Jones	15 Year Award
Dan Konopacky	10 Year Award



Wisconsin Valley Improvement Company dam tenders: (L-R) Jon Guth, Dan Konopacky, Charles Longwitz, John Caskey, Jim Koth, and Tom Tiffany.



Oshkosh Waste Water Treatment Plant: (L-R) NWS Green Bay's Gary Austin, Jan Brandenburg, Brad Randall, Jason Schill, Kevin Sorge, Randy Whittaker, and Tom Kruzick.



Mr. and Mrs. John Czerwonka.



Kevin Brewster (L) and NWS Green Bay's Scott Cultice.



The Steinhaus family. Mark (center) is the youngest official observer in northeast Wisconsin.



Suring Waste Water Treatment Plant: (L-R) Leslie Steffek and Mark Steffek.



Mike Breunling (R) receives an award on behalf of WSAW-TV from NWS Green Bay's Gary Austin.



Juliette and Jon Guth.



William Jones (L) and NWS Green Bay's Scott Cultice.

We Appreciate Our Volunteers!

By Gary R. Austin, Meteorologist-in-Charge,

NWS Green Bay

NOAA's National Weather Service in Green Bay thanks our volunteer weather observers and spotters for their personal dedication in taking observations and reporting them to us. Our volunteers include cooperative observers, hazardous weather spotters, and amateur (ham) radio operators who not only serve as spotters but also relay this important information to our office as an integral part of our hazardous weather warning operations. Last but not least, a couple of ham radio operators actually volunteer their personal time directly at our station during summer severe weather operations, any time of day or night, collecting reports from radio operators in the field.

Cooperative weather observers assist us every single day of the year in recording temperatures and precipitation, some for many years in succession—that's outstanding dedication! Their observations, taken on a daily basis by meticulously following NWS guidelines, provide us with information that is an invaluable part of the forecast process. Their observations also serve as the foundation upon which a national climate database

is maintained, permitting the study and identification of long-term trends of weather patterns. The database is used by a wide variety of organizations, both in government and the private sector. A small group of our cooperative observers are also ham radio operators, and as members of the Badger Weather Net, forward their daily observations to the NWS.

Weather spotters, after learning and maintaining their knowledge of hazardous weather spotting at our spring training talks, assist us during severe weather events, in real-time in any season of the year, providing us with information about hazardous weather. In spite of all of our high-tech equipment, like radars and satellites, we still rely on their eyes to let us know what is truly happening "on the ground" so we can make appropriate warning decisions. Many spotters relay their reports via ham radio, where their radio links are sometimes the only way we receive reports of hazardous weather.

Without the volunteer service of our observers, storm spotters, and ham radio operators, we could not provide the valuable services expected by our tax-paying community. Thank you very much!

New Employee Joins Forecast Office

By Linda S. Skowronski,

Administrative Support Assistant, NWS Green Bay

Edward Kindred joined the staff at NWS Green Bay on August 7, 2006, as Electronics Technician. Before joining the National Weather Service, Kindred worked as a journeyman instrumentation/industrial electrician with Banta Book Group in Menasha, Wisconsin. Prior to working at Banta, he was an I&E technician at Nicolet Paper in Green Bay. Kindred started his career with, and was honorably discharged from, the United States Marine Corp.

Electronics Technicians in the National Weather Service maintain the radar technology and all observation equipment, including the Automated Surface Observing System. Their dedication to preventive and



NWS Green Bay Electronics Technician Ed Kindred.

corrective maintenance allows information to continue to flow into the forecast office for the issuance of weather forecasts and watches and warnings.

Are You Ready for Winter?

Winter storms are frequent visitors to the Midwest and Wisconsin. Now is the time to prepare before heavy snow, ice, and frigid cold hit. Begin by putting together a winter storm safety plan for you and your family:

- Check and winterize your vehicle before the winter season begins.
- Have a NOAA All-Hazards Weather Radio with a battery back-up to keep up-to-date on the latest weather forecast.
- Store extra food that requires no cooking, in the event electricity is cut off.
- Make sure your emergency heating source, such as a fireplace or space heater, has proper ventilation.
- Check the weather forecast before leaving for extended periods outdoors.

When traveling, carry a winter storm survival kit that includes blankets, a flashlight with extra batteries, a first-aid kit, high-calorie non-perishable food, a shovel and knife, a windshield scraper and brush, and



Photo by Peg Zenko.

booster cables. Keep your gas tank near full to avoid ice in the tank and fuel lines. If you must travel in a winter storm, avoid traveling alone.

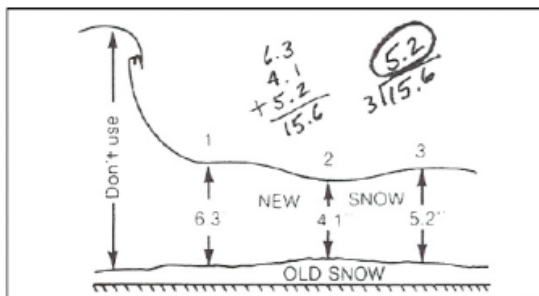
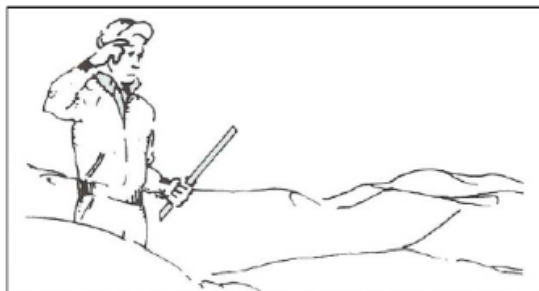
Stay safe this winter, and enjoy the beauty of the season.

Storm Spotters: Time to Sharpen the Rulers

Before you know it, winter will be here, and the snow will be flying. Your accurate snowfall measurements are essential to the National Weather Service forecast and warning program.

It is important to measure snowfall (and snow depth) in locations where the effects of blowing and drifting are minimized. Finding a good location where snow accumulates uniformly simplifies all other aspects of the observation and reduces the opportunities for error. In open areas where windblown snow cannot be avoided, several measurements will be necessary to obtain an average depth—these measurements should not include the largest drifts. In heavily forested locations, find an exposed clearing in the trees. Measurements beneath trees are inaccurate since large amounts of snow can accumulate on trees and never reach the ground.

Snowfall should be reported in tenths of an inch (for example, 3.9 inches). Official spotters and weather observers can call in their reports to the NWS using the toll-free



hotline.

Cooperative weather observers can contact Pat Hein with any questions. Pat can be reached via e-mail at pat.hein@noaa.gov.

Weather Sensor Improvements Made

By Glenn M. Wareham, Electronics Technician,
NWS Green Bay

Weather data is received at the National Weather Service office in Green Bay from a number of sources. One such source is the Automated Surface Observing System or ASOS. NWS Green Bay maintains six ASOS sites at airports in Green Bay, Oshkosh, Wausau, Rhinelander, Marshfield, and Wisconsin Rapids. In an effort to upgrade and improve ASOS, ice free wind sensors and new temperature/dew point sensors were installed.

The Vaisala 425 NWS Ice Free Wind Sensor was installed at all six ASOS sites. Unlike its predecessor, this sensor has no moving parts. It relies upon an array of three ultrasonic sensing heads to estimate both the speed and direction of prevailing winds. The absence of moving parts, combined with the addition of heater elements in the sensor head, completely eliminated the need for maintenance due to ice buildup on the sensor head. No longer will a technician need to make a trip to chip off the ice on a frozen wind sensor after a typical Wisconsin winter storm.

Green Bay Electronics Technicians also installed the Vaisala DTSI Thin Film Capacitance Dew Point Sensor. The DTSI



The new ice free wind sensor.

replaced the HO1088 Ambient Temperature/Dew Point Sensor which used a chilled mirror imbedded with a resistive temperature device and electro-optical system to measure dew point temperatures. Because of its design characteristics, the Model 1088 required more frequent mirror cleanings and parts replacement than anticipated.

Installation of these new sensors has greatly reduced the maintenance downtime as well as cost of replacement parts experienced in the past. More importantly, these improvements have increased the reliability of this weather sensing equipment to provide meteorologists with real-time observations when preparing forecasts and issuing watches and warnings.

Wanted: Severe Weather Spotters

NOAA's National Weather Service relies on a group of volunteers who, during severe weather, keep an eye on the sky. Their information, in concert with NWS Doppler radar analysis, allows meteorologists to make decisions on the severity of thunderstorms and other types of significant weather.

Severe weather spotters attend annual training given by the NWS. The 90 minute seminar concentrates on the identification of significant cloud features that are associated with severe weather. Spotters also learn how to measure snow, estimate hail size and wind speed, and learn how to report this information to the NWS.

Timely reports from weather spotters mean faster and more accurate warnings and forecasts for the citizens of Wisconsin. If you would like more information on the weather spotter program, please visit the NWS Green Bay Spotter website. The website contains training material and the latest schedule of severe weather spotter classes in northeast Wisconsin.



On the Web

www.weather.gov/grb/skywarn

El Niño Conditions Expected this Winter

By Roy Eckberg, Forecaster,
NWS Green Bay

The latest climate monitoring from NOAA’s Climate Prediction Center (CPC) indicated that weak El Niño conditions had developed across the equatorial Pacific. What is an El Niño? El Niño refers to the large scale ocean-atmosphere climate phenomenon linked to a periodic warming in sea-surface temperatures across the central and east-central equatorial Pacific, generally from the date line to 120°W. El Niño was originally referred to as an annual warming of sea-surface temperatures along the west coast of tropical South America.

On average, an El Niño usually lasts 9 to 12 months, but can last up to 2 years. In some of the prolonged events, an El Niño has lasted 3 to 4 years. A typical El Niño develops between June and August, and then peaks during the months of December through April. An El Niño begins to decay (cooling of the equatorial Pacific waters) during the May through July time period. El Niño usually occurs every 2 to 7 years. The Climate Prediction Center declares the onset of an El Niño episode when the 3 month average sea-surface temperature exceeds 0.5°C above normal in the east-central equatorial Pacific, generally from 5°N—5°S and 170°W—120° W.

The Climate Prediction Center is forecasting El Niño conditions to continue this winter. What can you expect this winter in Wisconsin?

As you can see in Figure 1, warmer than normal conditions will be found across the Great Lakes region as the northern jet stream remains north of Wisconsin. The southern jet stream is more active which allows for mild Pacific air to move into the northern United States, unlike in a typical year where arctic intrusions are more commonly found. The Climate Prediction Center’s forecast for this winter in Wisconsin is calling for a 45 percent chance that temperatures will be above normal, 33 percent chance of near normal temperatures, and only a 22 percent chance that temperatures will be below normal this winter. To put it another way, there is a 78

TYPICAL JANUARY-MARCH WEATHER ANOMALIES AND ATMOSPHERIC CIRCULATION DURING MODERATE TO STRONG EL NIÑO & LA NIÑA

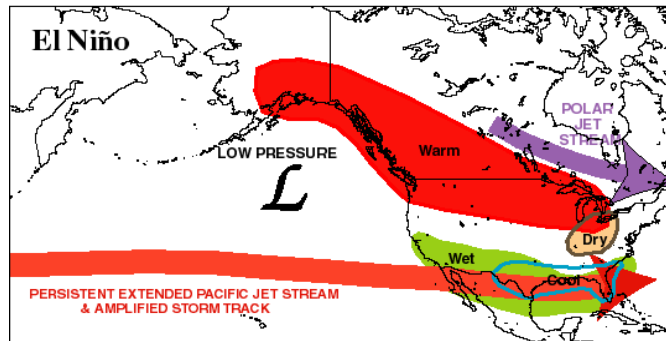


Fig. 1. Typical impacts of moderate to strong El Niño. Courtesy NOAA CPC.

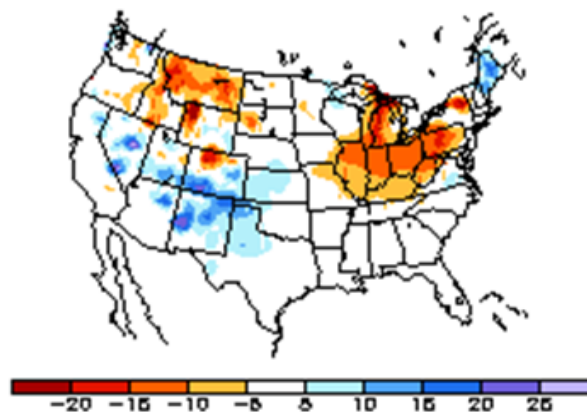


Fig. 2. Snowfall trends during El Niño. Orange indicates below normal snowfall.

percent chance temperatures will be near or above normal and only a 22 percent chance temperatures will be below normal. Despite the high probability of a warmer than normal winter, there is still an outside chance that the winter will be colder than normal, although it is a small chance.

As shown in Figure 2, there is little trend in what to expect for snowfall across Wisconsin during an El Niño winter, although lighter snowfalls usually occur across much of the central and eastern Great Lakes and Ohio Valley. Thus, the precipitation forecast for Wisconsin is calling for even chances of above normal, normal, or below normal conditions.



On the Web

www.cpc.ncep.noaa.gov

NWS Green Bay Employees Selected for Cline Award

By Linda S. Skowronski,

Administrative Support Assistant, NWS Green Bay

Senior Forecaster Richard Mamrosh and Science and Operations Officer Eugene Brusky recently received the 2006 Isaac M. Cline Award. As winners in the category of program management/administration at the local level and for the Central Region of the National Weather Service, they are eligible to be considered for the national Cline Award.

Mamrosh and Brusky led NWS participation in the TAMDAR Great Lakes Fleet Experiment, demonstrating the operational forecast utility of a new observational data set from the first mesoscale network of aircraft data. This data ultimately contributes to improved forecasts and warnings and aviation safety.

This prestigious award is named in honor of Isaac M. Cline, one of the most recognized employees in weather service history. Cline made numerous contributions to the mission of what was then called the Weather Bureau. His most noteworthy



accomplishment was the actions he took during the Galveston hurricane of 1900, the deadliest weather event in U.S. history. The Cline Award is presented annually to NWS staff in nine categories of accomplishment. Award recipients are nominated by NWS managers or co-workers as well as users of NWS products and services.

A Much Quieter 2006 Severe Weather Season

By Phil Kurimski, Forecaster,

NWS Green Bay

Despite a record setting 2005 severe weather season, 2006 was much less active in north-central and northeast Wisconsin. There was only one confirmed tornado across the NWS Green Bay forecast area, which was significantly less than the record 23 tornadoes in 2005. The lone tornado in 2006 touched down over Lake Winnebago a few miles west of Sherwood in Calumet County on June 24. Although a waterspout was confirmed over the bay of Green Bay on September 29, tornadoes (waterspouts) that occur on large bodies of water, such as Lake Michigan or the waters of Green Bay, do not count toward the season's tornado total. Waterspouts on smaller, inland bodies of water, such as Lake Winnebago, are counted as tornadoes. Northeast Wisconsin averages seven tornadoes per year.

The most significant severe weather event



3"+ diameter hail in Oconto Falls. Photo by Jared Alfson.

this season occurred during the evening of July 1 when very large hail clobbered northeast Wisconsin. Several severe thunderstorms produced golf ball and baseball size hail, with hail larger than 3 inches in diameter measured in Oconto and Manitowoc counties. The large hail was destructive, producing millions of dollars of damage to homes and cars across the area.

The Newsletter
of NOAA's
National
Weather
Service
in Green Bay, Wisconsin

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