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Packerland Weather News

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Green Bay Packers are StormReady

The Green Bay Packers have been recognized as a StormReady Supporter by the National Weather Service (NWS), only the second National Football League team to earn the designation and the first in the National Football Conference. NWS Central Region Director Lynn Maximuk is scheduled to present a plaque honoring the organization during a ceremony at Lambeau Field on May 20.

To achieve this recognition, the Packers worked with the NWS Green Bay office to ensure severe weather safety procedures and methods to communicate weather information were in place. These procedures not only cover game-day events, but also ensure fans are safe whenever they visit Lambeau Field, the Atrium, and the adjoining practice facility. In addition, the organization actively promoted severe weather safety through awareness activities, and security staff attended storm spotter training classes, all in an effort to better protect fans and spectators of events at Lambeau Field and the surrounding practice facility.

"StormReady encourages communities and organizations to take a proactive approach to improving local hazardous weather operations and public awareness," said Jeff Last, warning coordination meteorologist at the Green Bay NWS forecast office. "StormReady Supporters, like the Green Bay Packers organization, establish severe weather safety plans and actively take part in and promote severe weather safety awareness activities."

Some 90% of all presidentially declared disasters are weather related, leading to around 500 deaths per year and nearly \$14 billion in damage. StormReady, a program started in 1999 in Tulsa, Oklahoma, helps arm America's communities with the com-



munication and safety skills needed to save lives and property—before and during a weather event. StormReady helps community leaders and emergency managers strengthen local safety programs.

There are now nearly 1,600 StormReady communities across the country. More than 100 businesses and schools have been designated as StormReady Supporters who promote the principles and guidelines of the StormReady program.

StormReady communities are better prepared to save lives from the onslaught of severe weather through advanced planning, education and awareness. No community is storm proof, but StormReady can help communities save lives.

For more information on StormReady, check out the StormReady website at:

www.stormready.noaa.gov

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:

NOAA/NWS
2485 South Point Road
Green Bay, WI 54313

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



Fire Prevention in Wisconsin

By Tim Kieckbusch, Senior Forecaster
NWS Green Bay

The year was 1931 – Herbert Hoover was U.S. President, the world was caught in the grip of the Great Depression, construction was completed on the Empire State Building in New York City, and over 640,000 acres of forest were blackened by fires in Wisconsin.

Fire prevention efforts have come a long way in Wisconsin since 1931. The Wisconsin Department of Natural Resources (WDNR) and U.S. Forest Service strategically place highly-trained firefighting personnel and state-of-the-art equipment in the most fire-prone areas of the state, so that wildfires can be quickly suppressed. Even so, thousands of acres are still consumed by wildfires each year. Since 1990, an average of 1,418 fires has scorched 3,223 acres per year within WDNR protection areas. Surveys of local fire departments suggest that wildfires may burn in excess of 20,000 acres each year across the rest of the state.

The most significant fire activity in Wisconsin typically occurs in April and early May, prior to spring green-up, when there is an abundance of fine dry fuels. The weather during this period is often dominated by large, dry Canadian air masses, and occasional strong low pressure systems that produce windy and warm conditions. The combination of dry fuels and windy, dry, and warm weather conditions often leads to periods of high fire danger in the spring.

Over 90 percent of Wisconsin wildfires are human-caused, usually the result of improper debris burning. Other typical causes include sparking or combustion due to equipment or machinery, arson, sparking from railroad cars, improper disposal of smoking materials, fireworks, and unsupervised campfires. A smaller subset of fire starts can be directly attributed to weather, as a result of lightning strikes or strong winds causing trees or branches to fall on power lines.

In order to help prevent wildfires due to careless outdoor burning, the WDNR has

implemented a “Burning Permit” program. Burning permits are an important tool in fire prevention. When used appropriately, they allow the public to burn safely outdoors, and help protect lives, property and natural resources from the damaging effects of wildfires. If you need to burn outdoors, do your part by obtaining a burning permit.

Keep in mind that if your fire escapes (due to your negligence) and becomes a wildfire, you are responsible for any suppression costs incurred by the state or town in which the fire occurred, and could face civil liability for any damage done to other people’s property.

As part of a cooperative effort to protect lives and property, the National Weather Service in Green Bay supplies fire weather forecasts to all fire control agencies in central and northeast Wisconsin. Fire weather planning forecasts, which are issued twice daily during the fire season, are used to determine staffing and resource levels for the upcoming day. National Fire Danger Rating System forecasts are issued daily to help provide an estimate of the general fire danger for the next day. Fire Weather Watches and Red Flag Warnings are issued during periods of extreme fire danger when weather and fuel conditions are favorable for catastrophic fires. In addition, spot forecasts are issued for site-specific areas to aid in the safe completion of prescribed burns, or to assist in firefighting efforts on a wildfire.

Here are some simple steps to help you burn safely:

- Obtain an annual permit from your local Ranger Station or Emergency Fire Warden.
- Check after 11:00 am daily for burning restrictions (internet or phone):
 - Internet: <http://dnr.wi.gov/forestry/fire>
 - Click on “View Burning Permit Restrictions” or select your county on the map
 - Dial (toll-free): 1-888-WIS-BURN
- The restrictions will tell you if burning permits are required, if burning is allowed, the hours of burning, any size limitations, or if burning has been suspended for the day due to high forest fire danger.
- Be certain to read your permit and follow the daily burn restrictions.
- Never leave your fire unattended, have fire-fighting tools (water and a shovel) handy, and be certain that your fire has been completely extinguished before leaving.



The Cooperative Observer Corner

By Pat Hein, Observations Program Leader
NWS Green Bay

As the winter season comes to a close, we at the National Weather Service offer our thanks to all Cooperative Observers for the time and effort that you have put forth in your winter observations. Snowfall is the hardest single element to measure due to the frequency of blowing and drifting snow across our area.

In preparation for the spring and summer months, I would like to take this opportunity to offer some helpful tips in reporting your observations. Questions have arisen on how to enter observations when you are on vacation or ill. If possible, have another family member or responsible neighbor enter your observation in your absence. If that cannot be done, there is a way to enter your data when you get back depending on the method you use to submit your data. If you are unsure of the process, please contact me for details.

Another point I would like to talk about is your scheduled observation time. You all know what this is, but what happens if you get busy or just forget to take your observation? If this happens, take the observation when you can, and enter in remarks the time you took your readings. While this may not seem significant, a few hours can make a big difference in your readings.

Also, when you receive no precipitation or snowfall in the last 24 hours, place a zero in the column. This applies to all observers and verifies that you actually had no precipitation in the last 24 hours. When the forms are forwarded to the National Climatic Data Center to be added to the climate database, an empty entry means the data is missing, so it is critical that a day with no precipitation is entered with a zero.

The "NOWData" website that contains local climate information.

I encourage you to visit our website:

www.weather.gov/grb

On the left hand menu under Climate-Local, you can see your records and data under the tab "NOWData." If you don't see your correct data, let me know so I can take the appropriate action.

Another excellent site is our National Cooperative Observer website:

www.weather.gov/om/coop

Everything you want to know about the Cooperative Observer program is on this site. While on this page, sign up for the National Cooperative Observer Newsletter for some interesting reading.

Thank you for your observations. You are doing a great public service not only to your community but the entire country. As always, if you have any questions, feel free to call or e-mail me at pat.hein@noaa.gov

Did You Know?

Wisconsin averages about 21 tornadoes each year, but the number can widely vary. In 2005, a record 62 tornadoes were reported across the state, including a record

outbreak of 27 twisters on August 18 alone. In sharp contrast, during 1995 only 7 tornadoes were documented in Wisconsin.

New Aviation Forecast for Appleton

By Scott A. Cultice, Hydrometeorological Technician
NWS Green Bay

On March 30 of this year, the Green Bay National Weather Service Office began issuing a regular aviation forecast for the Outagamie County Regional Airport (ATW) which is located just west of Appleton. The Green Bay office already issues similar forecasts for airports at Green Bay (GRB), Wausau (AUW), Rhinelander (RHI), and Mosinee (CWA). During the EAA AirVenture, we also issue an aviation forecast for Oshkosh (OSH).

The Terminal Aerodrome Forecast (TAF) product is a highly detailed forecast for conditions expected at (and in the vicinity of) a specific airport complex for the next 24 hours. The forecasts are issued four times a day at 5:30 am CST, 11:30 am CST, 5:30 pm CST, and 11:30 pm CST. The TAFs are amended anytime the forecaster predicts weather changes (visibility, ceiling, wind direction, thunderstorms approaching) from the previous TAF.

Both commercial and private aviation interests use the latest TAF product covering



The Outagamie County Regional Airport near Appleton.

their arrival and departure points for flight planning purposes. Additionally, the Federal Aviation Administration (FAA) may not approve a proposed flight plan if the pilot (or plane) connected with a flight plan is not rated for the expected weather conditions at the proposed arrival or departure.

You can view this TAF and all others across the country at:

www.weather.gov/grb/?n=pilotwx

Severe Weather Season is Upon Us

Even though last summer was a record quiet season, this is the time of year when the severe weather season usually starts in earnest. It's never too late to prepare for summer thunderstorms.

Each year across the U.S. many people are killed or seriously injured by tornadoes and severe thunderstorms despite advance warning. Some do not hear the warning, while others receive the warning but do not believe it will happen to them. Preparing before the storms strike could save your life.

Here's what you can do before severe weather hits:

- Develop a plan for you and your family at home, work, school, and outdoors.
- Identify a safe place to take shelter.
- Have frequent drills.
- Know the county name in which you live or visit.

- Keep a highway map nearby to follow storm movement from weather bulletins.
- Have a NOAA Weather Radio with a warning alarm and battery back-up.
- Check the weather forecast before leaving for extended periods outdoors.
- When going outdoors, bring along a portable weather radio. Watch for signs of approaching storms.

When conditions are favorable for severe weather to develop, the National Weather Service issues a severe thunderstorm or tornado WATCH. When a watch is in effect, keep an eye to the sky and stay tuned to weather radio or local media for weather updates.

When severe weather begins to develop, WARNINGS are issued to alert the public and emergency officials. When a warning is issued for your area, put your emergency weather plan into action.



On the Web

www.weather.gov/grb/prepare

Unprecedented Late Season Snowstorm of May 1947

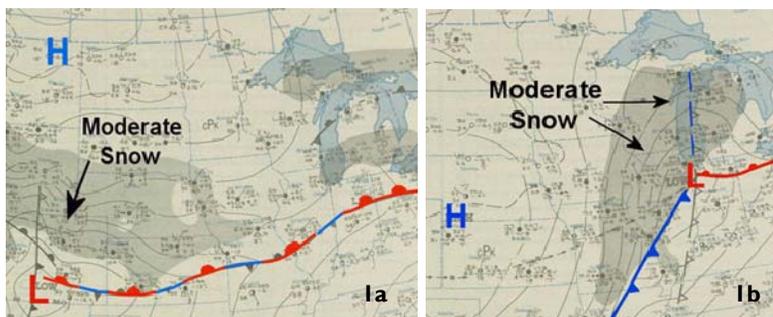
By Roy Eckberg, Forecaster
NWS Green Bay

As people were about to commemorate Decoration Day 1947 (now called Memorial Day), they were unaware that a late season snowstorm was poised to hit the central United States and western Great Lakes region. When finished, this unprecedented storm would leave up to a foot of snow in some areas causing damage to homes, trees, and other property.

The days leading up to the storm saw a noticeable drop in temperatures. On May 25, temperatures were near 70 across Wisconsin. A cold front pushed through the state on the 26th, bringing cooler conditions with highs around 60. A second and stronger cold front moved across the state on the 27th. This cold front continued south and finally stalled across the central plains into the Ohio Valley (Figure 1a). Behind the front, cold, Canadian air was firmly entrenched across Wisconsin with temperatures in the 30s and 40s.

The storm began to brew on May 27 across Colorado and was heading east into the central plains. A sharp contrast in temperatures was noted across the region. To the north of the front, temperatures were in the 30s and 40s with unseasonably low dew point temperatures in the teens and 20s across the northern plains. South of the front, temperatures were in the 60s and 70s with abundant moisture flowing north into the central plains with dew points in the 50s and 60s. The ingredients were coming together for a significant spring storm.

As the low pressure system deepened across the plains, the cold and dry air was driven south. The rain changed to snow across Nebraska on the morning of the 28th and became very heavy where Alliance and Harrison received a foot of snow. The storm continued to move northeast across northern Missouri during the afternoon of the 28th. Snow was reported across the northern two thirds of Iowa with 8 inches at Cherokee and 4.5 inches in Mason City. The storm then moved northeast to near



Figures 1a and 1b: Surface weather maps for May 28 (1a) and May 29 (1b) valid 1:30 AM CDT.

Chicago early on the 29th (Figure 1b). The storm was a significant liquid precipitation producer across Wisconsin as totals (rain and melted snow combined) were generally between one and two inches across the southern half of the state. The cold air that dropped south out of Canada was the key ingredient for the rain to change to snow despite the calendar indicating it was almost June. Some locations across the plains and Wisconsin experienced their biggest May snowfalls on record.

In Wisconsin, the wet, clinging snow broke large branches off trees, damaging or killing the fruit and the trees themselves. In addition, the heavy snow knocked down power lines from the central plains into Wisconsin during the height of the storm. The spring storm also caused recurring swells on Lake Michigan of 5 feet or more along the southeast Wisconsin coastline. The high waves produced damage to small craft, docks, waterfront buildings, and property.

LOCATION	AMOUNT INCHES
GAYS MILLS	10.0
VIROQUA	9.0
PINE RIVER	8.4
CODDINGTON	6.0
NEW LONDON	6.0
STURGEON BAY	4.5
WAUPACA	4.0
MENASHA	4.0
TOMAH	4.0
APPLETON	3.5
STEVENS POINT	3.5
GREEN BAY	3.0
LAONA	3.0
WISC RAPIDS	3.0
OCONTO	2.5
ANTIGO	2.0
KEWAUNEE	2.0
MARINETTE	2.0
MARSHFIELD	2.0
OSHKOSH	2.0
SHAWANO	2.0
WASHINGTON IS.	2.0
LONG LAKE	1.7
MERRILL	1.0
WAUSAU	1.0

Table showing two-day snowfall across parts of Wisconsin.

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Service
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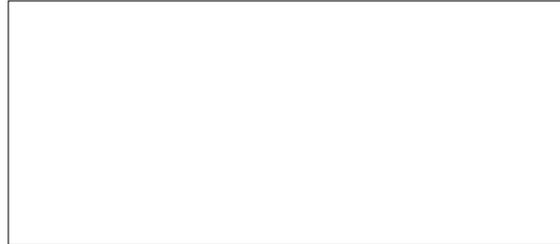
Send correspondence to:
NOAA/NWS
2485 South Point Road
Green Bay, WI 54313

Phone: 920-494-2363
E-mail: jeff.last@noaa.gov

The **Packerland Weather News**
Editors: Jeff Last
Linda Skowronski
Roy Eckberg
Scott Cultice



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New River Stage Forecast Available in Appleton

By Tom Helman, Senior Forecaster
NWS Green Bay

Beginning this spring, river stage forecasts will be available for the Fox River at Appleton courtesy of the North Central River Forecast Center in Chanhassen, Minnesota. The river stage site is located near Lutz Park and is operated by the United States Geological Survey in cooperation with the United States Army Corps of Engineers.

The river stage forecasts will be issued year round during times of high water. Any statements or warnings will be used by the National Weather Service (NWS) in Green Bay. In addition, a seasonal daily river stage forecast will also be available from May 1 to October 1 during the recreational season. This service will extend from Appleton in southern Outagamie County to Wrightstown in southern Brown County.

River stage data along with forecast stage



Looking upstream near Lutz Park in Appleton. The river stage was 7.6 feet at the time of the photo.

data for Appleton can be viewed on the Advanced Hydrological Prediction System web site by going to the NWS Green Bay web site and selecting "Rivers & Lakes" under "Hydrology."

www.weather.gov/grb