Topeka News

Volume 2, Issue 4 November 2008

Special points of interest:

- Winter Weather Preparedness Extravaganza!
- Fantastic Tutorial of the NWS-Topeka homepage.
- A look at the Winter Climate Outlook for Northeast Kansas

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Storm Data/Climate

The severe weather season tapered off during the month of September, which gave meteorologists at the National Weather Service in Topeka a brief reprieve from working the intense warning operations that were necessary during the spring and summer months. Nevertheless, a handful of severe weather events peppered the autumn season—several of which brought damage to portions of northeast Kansas.

September 8th, large hail pummeled portions of northeast Kansas—including the National Weather Service Office! The two forecasters on duty sustained fairly extensive damage to their cars as a result of the hail, which was up to just over two inches in diameter. A nearly stationary cold front hung up over the state on September 11th and 12th. Storms that developed in the vicinity of the boundary dropped a significant amount of rain (3 to 5 inches in some locations!) across counties in north central and east central Kansas. Roadways were closed in several counties because of flowing water. Also on September 12th, two brief tornadoes touched down northeast Douglas County including an EF-1 southeast of Eudora, and a brief, non-damaging EF-0 that touched down in an open field to the southeast of Vinland. The EF-1 tornado damaged two residences, several barns, an outbuilding, a garage, as well as a cedar tree and a power pole. Finally near the end of the month, sporadic reports of penny to quarter size hail came in associated with thunderstorms that developed over portions of north central Kansas.

One of the 2" diameter hail stones that fell at the NWS-Topeka office on the morning of September 8th.

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What are Blizzards and How Often do They Occur in Northeast Kansas?

By: Bill Gargan, Lead Forecaster

Blizzard Warning criteria is met across north central, northeast and east central Kansas when wind speeds are forecasted to be 35 MPH or more (sustained or gusts) and considerable falling and/or blowing snow is expected to reduce visibilities to less than one quarter of a mile. These conditions would have to prevail for a period of 3 hours or longer to be considered a Blizzard. The Blizzard Probability Map on page 8 of this newsletter (which uses data from 1959 through 2008) infers that Blizzard conditions are quite rare across northeast and east central Kansas. There is only a 2 to 12 percent chance of observing Blizzard criteria during a winter season at these locations. The probability of a Blizzard during the winter season increases to 13 to 24 percent across north

Continued on Page 8…

Winter Weather Preparedness

Warning

Issued when a winter weather event is occurring or imminent, and poses an immediate threat to life and property. A warning is typically issued 3 to 24 hours before the storm strikes.

Watch

Issued when a winter weather event has the potential to threaten life and property, but the exact timing and location of the event is still uncertain. A watch is typically issued 12 to 48 hours before the storm is expected to strike.

Advisory

Issued when a winter weather event is anticipated to cause a significant inconvenience to the public, but is not expected to be life threatening. But, conditions could be life threatening should caution not be ex-

Hazardous Weather Outlook

Issued two or more times each day. The Hazardous Weather Outlook serves as a "heads-up" to the potential for a significant winter weather event that may be possible in the following 2 to 7 days.

Specific Winter Weather Warning Types:

- **Winter Storm Warning:** Issued when (1) heavy snow is expected to accumulate to 6 or more inches in a 12 hour period, or (2) 8 or more inches n a 24 hour period, (3) a mix of freezing/frozen precipitation is expected to accumulate, or (4) sleet is expected to accumulate to 1/2 inch or more.
- **Blizzard Warning:** Issued when snow or blowing snow will reduce visibilities to less than 1/4 mile, and the sustained wind speed is expected to be 35mph or greater. Conditions should be expected to occur for 3 or more hours.
- **Ice Storm Warning:** Issued when ice accumulations greater than 1/4 inch are expected.
- **Wind Chill Warning:** Issued when wind chill indices are expected to drop to –25 degrees or lower.

Specific Winter Weather Advisory Types:

- **Winter Weather Advisory:** Issued if snowfall amounts of 1 to 5 inches, sleet accumulates to 1/2 an inch or less, or blowing snow that reduces visibilities to less than 1/2 mile may hamper travel or pose an inconvenience to citizens.
- **Freezing Rain Advisory:** Issued if freezing rain is expected to accumulate as a thin layer of ice on surfaces and may cause an inconvenience or pose travel problems.
- **Wind Chill Advisory:** Issued when wind chill indices are expected to drop to between –15 and –24 degrees.

Winter Storm Watch Specifics:

- **Winter Storm Watch:** Heavy snow, blizzard-like conditions, or significant accumulations of freezing rain (ice) or sleet are anticipated, but there is still some question as to the timing and placement of the winter weather event.

(Right) Heavy snow fell at the National Weather Service Office in Topeka on December 22, 2007.

At Home/Work

Keep a supply kit stocked and available at all times in case of a winter storm that knocks out power to your home/workplace, or in case you're left stranded at either location.

- ☐ Blankets/Sleeping Bags/Extra Clothing
- ☐ Flashlight and Extra Batteries
- ☐ First Aid Kit
- ☐ Knife
- ☐ Non-Perishable Food, Bottled Water
- ☐ Tissues or Paper Towels for Sanitary Purposes
- ☐ Sand or Cat Litter for Traction
- ☐ Shovel, Windshield Scraper & Brush
- ☐ Tool Kit/Tow Rope
- ☐ Booster Cables
- ☐ Flashlight and Extra Batteries
- ☐ NOAA Weather Radio (Battery Powered)
- ☐ Extra Food and Bottled Water
- ☐ Extra Medicine and First Aid Supplied
- ☐ An Emergency Heat Source (Fireplace, Wood Stove, Space Heater)
- ☐ Fire Extinguisher
- ☐ Smoke Alarm
- ☐ Pet Supplies

Keep your vehicle stocked with supplies in case you're stranded on the road in the middle of a winter storm. Also plan ahead before any travel during the winter season.

In a Vehicle

If Caught Outside Alone

- ☐ Find shelter if possible
- ☐ Stay Dry
- ☐ Cover all exposed body parts

If Caught Outside And No Shelter is Available

- ☐ Build a shelter (lean-to, snow cave)
- ☐ Build a fire for heat and to draw attention
- ☐ Melt snow for drinking water

If Caught Outside In Your Vehicle

- ☐ Stay in Your Vehicle
- ☐ Run the motor 10 minutes every hour
- ☐ Open the window a crack for fresh air
- ☐ Make yourself visible to rescuers—tie a brightly colored cloth to your antenna or door
- ☐ Periodically move around to stay warm

**** Most winter weather deaths and injuries occur in auto accidents. If hazardous winter weather is forecast, it may be better to stay home! ****

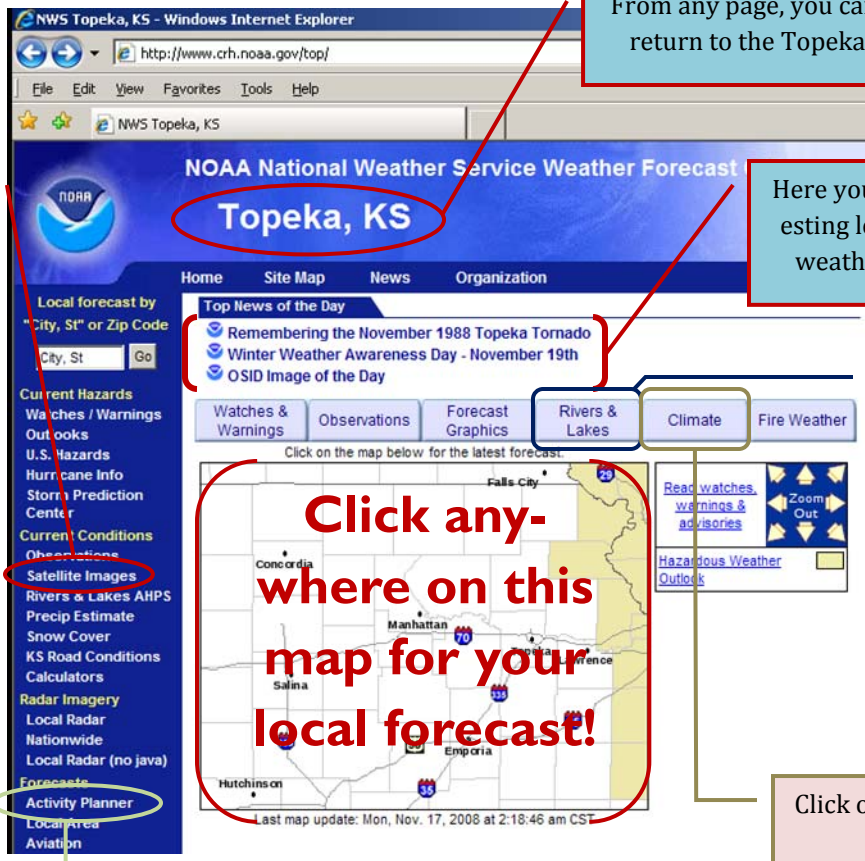
Winter Weather Preparedness

NWS-Topeka Homepage Tutorial...www.weather.gov/topeka

From any page, you can click here to return to the Topeka Home page.

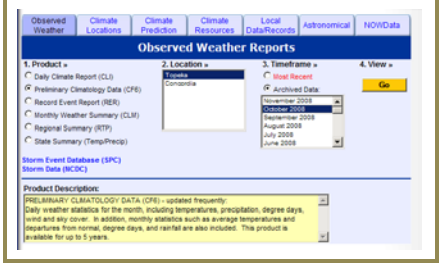
Click here for various regional satellite

Here you can find recent and interesting local, regional and national weather news that affects your



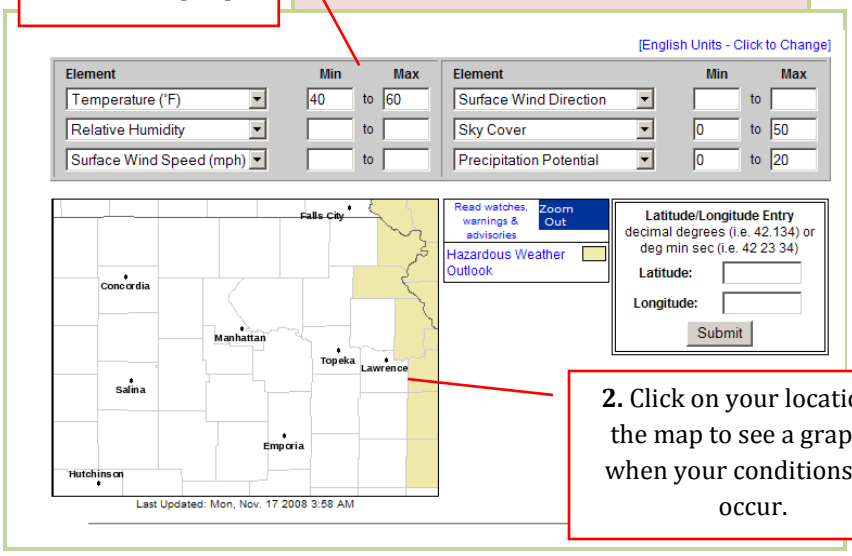
Click on this tab for the latest River Forecasts

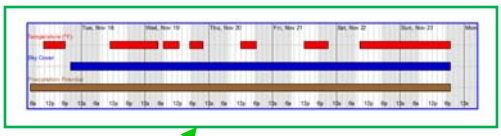
Click on this tab for Archived Area Weather Data.



Looking for those perfect weather conditions for your outdoor activities? Try out the Activity Planner!

1. Enter your ideal conditions up top





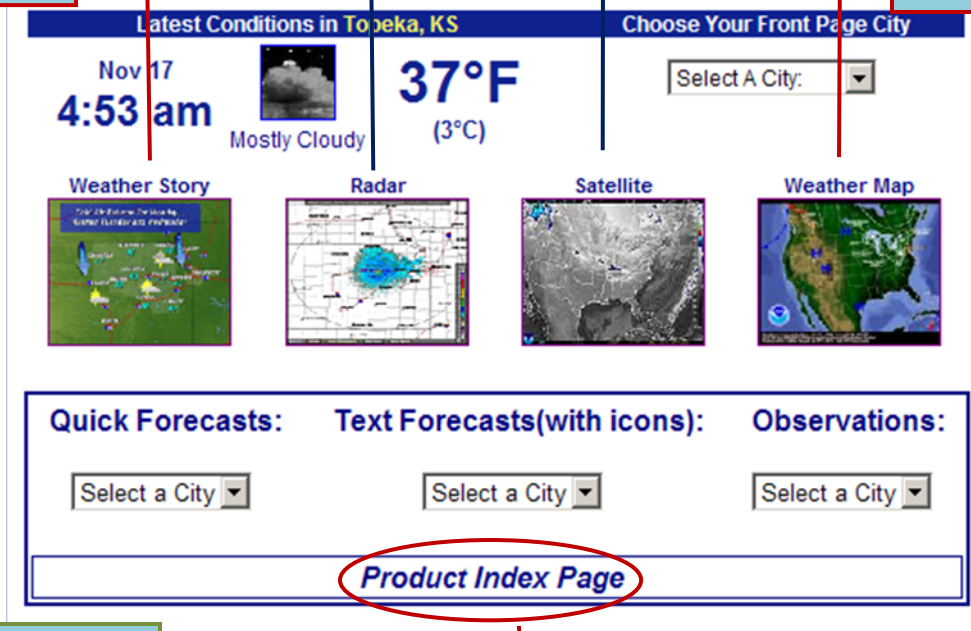
2. Click on your location in the map to see a graph of when your conditions will occur.

Click here for the latest Doppler radar image from KTWX, our NWS radar centered in Alma, KS

Click here for the Satellite Imagery of the Continental USA.

Click here for the Graphical Weather Story of the Day

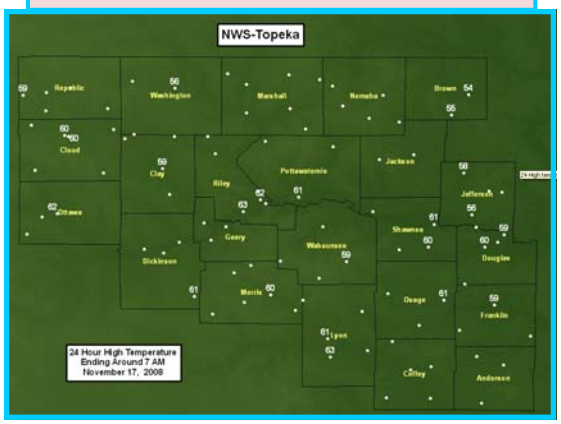
Click here for a National analysis of the daily fronts, pressure centers and broad precipitation areas.



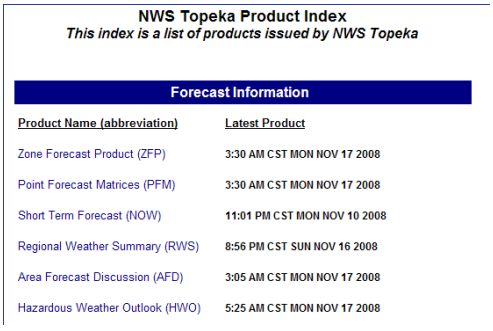
Bottom Left Hand Side of the Web Page

Click here for archived issues of **Topeka News**!

Click here to check out daily high temperature and precipitation maps from our cooperative observer network



Click here for a list of all text products issued by the office.



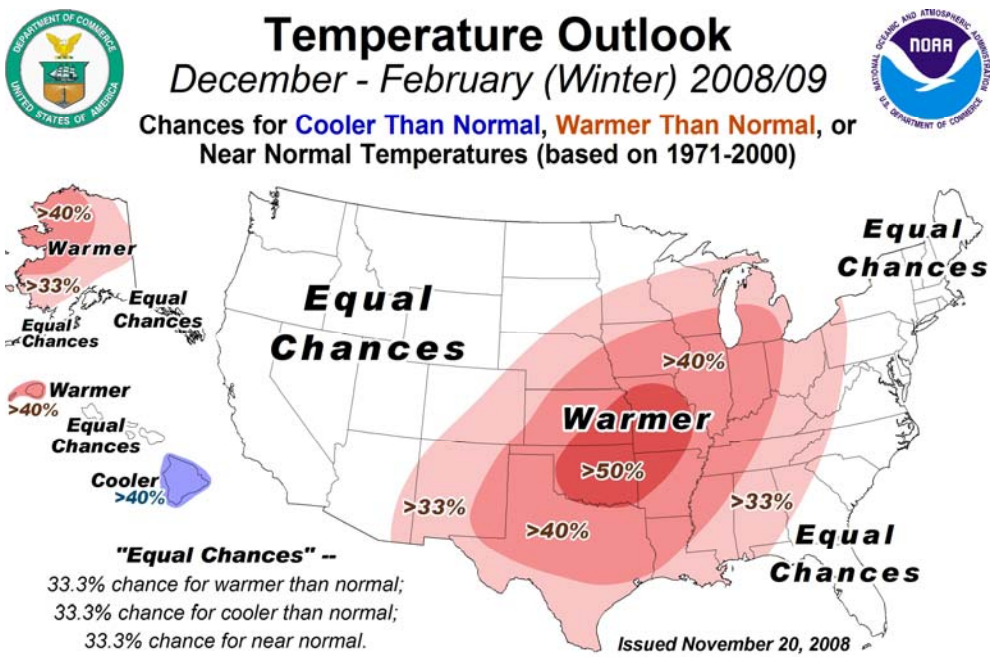
NWS Topeka Product Index

This index is a list of products issued by NWS Topeka

Forecast Information

Product Name (abbreviation)	Latest Product
Zone Forecast Product (ZFP)	3:30 AM CST MON NOV 17 2008
Point Forecast Matrices (PFM)	3:30 AM CST MON NOV 17 2008
Short Term Forecast (NOW)	11:01 PM CST MON NOV 10 2008
Regional Weather Summary (RWS)	8:56 PM CST SUN NOV 16 2008
Area Forecast Discussion (AFD)	3:05 AM CST MON NOV 17 2008
Hazardous Weather Outlook (HWO)	5:25 AM CST MON NOV 17 2008

Graphics/Text Compiled by Dennis Cavanaugh, General Forecaster



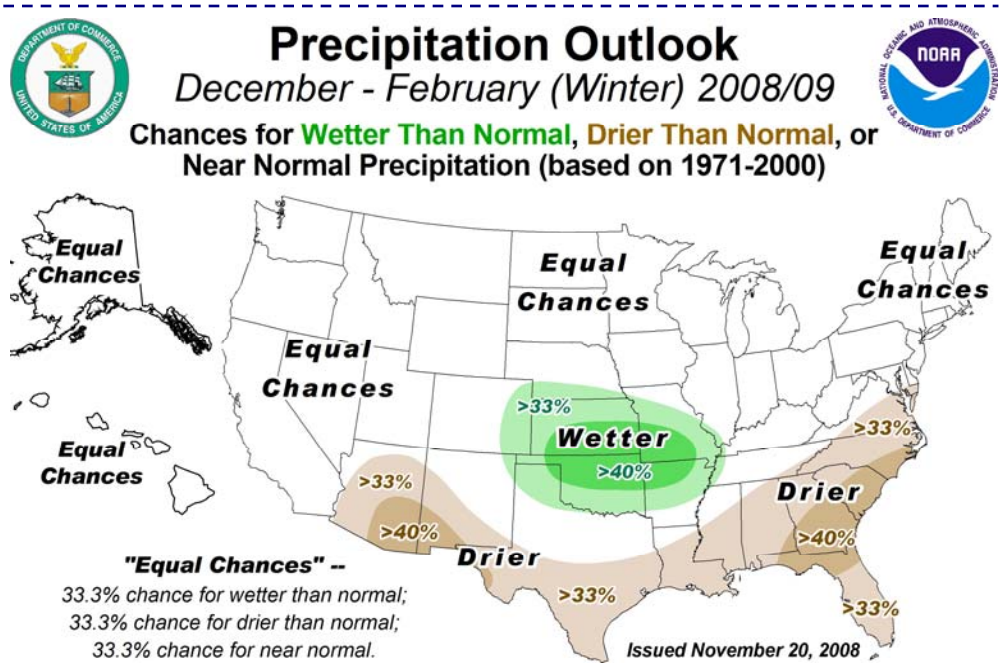
October and November were a bit quieter. A lone severe weather event was reported on October 6th when thunderstorm winds estimated to be 60mph by a trained spotter blew 2 to 3 inch diameter branches from a live tree. November 5th was the next active day, when thunderstorms dropped penny to quarter size hail across portions of north central and northeast Kansas, and winds up to 60mph blew across Washington County.

What then, should residents of northeast Kansas expect this upcoming winter? The Climate Prediction Center (CPC) issued their three month climate outlook for the months of December, January, and February (Winter) in mid-November. Temperature-wise during this outlook period, east central Kansas has a 50% to 60% chance for above normal temperatures, while portions of north central and northeast Kansas have a 40% to 50% chance for above normal temperatures. Precipitation-wise, southern portions of the forecast area have a 40% to 50% chance for above normal precipitation this winter, while locations further north have a 33% to 40% chance for above normal precipitation. Therefore, residents of northeast Kansas can generally expect a greater chance for a warmer and wetter winter period. The El Nino Southern Oscillation remains in a neutral state at this time. Warm weather observed the past few winter seasons and the high soil moisture content currently evident across the plains also helped the forecast trend toward the warmer and wetter solution.

Additional **local** climate information is always available at **http://www.weather.gov/climate/index.php?wfo=top**

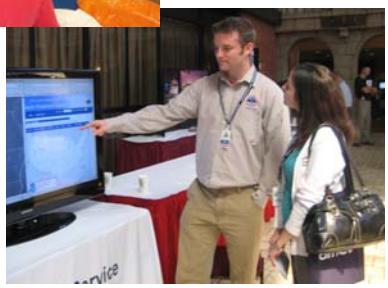
Additional **national** climate information can be found at **http://www.cpc.ncep.noaa.gov**

Kyle Poage assisted with the composition of this article.



NWS-Topeka Outreach

(Left) Meteorologist Intern Jared Leighton presents at the Topeka Water Festival.



(Right) Meteorologist Dennis Cavanaugh gives a weather briefing to Jill Blair from Douglas County Emergency Management.

Meteorologists from the National Weather Service in Topeka spent the autumn months busily preparing their normal forecasts, researching, undergoing training, and working warning operations during several severe weather events (including those noted in the Storm Data/Climate section of this newsletter). NWS meteorologists stayed active outside the office as well.

The Kansas Emergency Management Association (KEMA) conference was held in Topeka this year, and several staff members tended a booth and gave daily weather briefings to attendees.

The second annual "Women in Science Day" was held this past summer at Washburn University. The day-long encouraged and inspired local seventh and eighth grade girls to pursue educational choices and careers in math and various sciences. Dr. Caroline P. Davies, an Associate Professor at the University of Missouri-Kansas City in the Department of Geosciences spoke with the girls during the WIS Day morning session regarding climate change and its effect on human health. During the afternoon session, the girls were able to enjoy the sciences first hand by participating in a variety of labs. Lab topics involved aspects of geology, chemistry, architecture, archaeology, biology, and physiology. The day was a fantastic success.

The Topeka Water Festival was a chance for Topeka fourth graders to get out to learn and experience water related activities, careers available, and the overall cool properties of H_20. The booth staffed by meteorologists from the National Weather Service in Topeka offered students the chance to view a small scale "tornado," and get a good look at the weather balloon and radiosonde that are launched at the office twice every day.

Several cooperative observer awards were also handed out this past autumn, including a prestigious Holm Award, and several length-of-service awards. Robert Dreith, a cooperative observer located four miles north of Randolph, received the Holm Award for the complete, outstanding record of observations that he has collected since July 1, 1979. Mr. Dreith has provided the National Weather Service in Topeka with precipitation, snowfall, snow depth, and liquid water equivalent measurements everyday since that date. Length of Service Award Winners for the fall included Scott Siefert in Clyde for 20 years of service, Ron Ellis in Le Roy for 25 years of service, and Alan Winkler in Mc Farland for 35 years of service.

Shawnee Heights 5th graders also stopped by for a tour of the office in November—and were even able to watch a weather balloon launch!

(Below) Students gather at Women in Science Day

(Right) Bob Reith accepts his Holm Award.

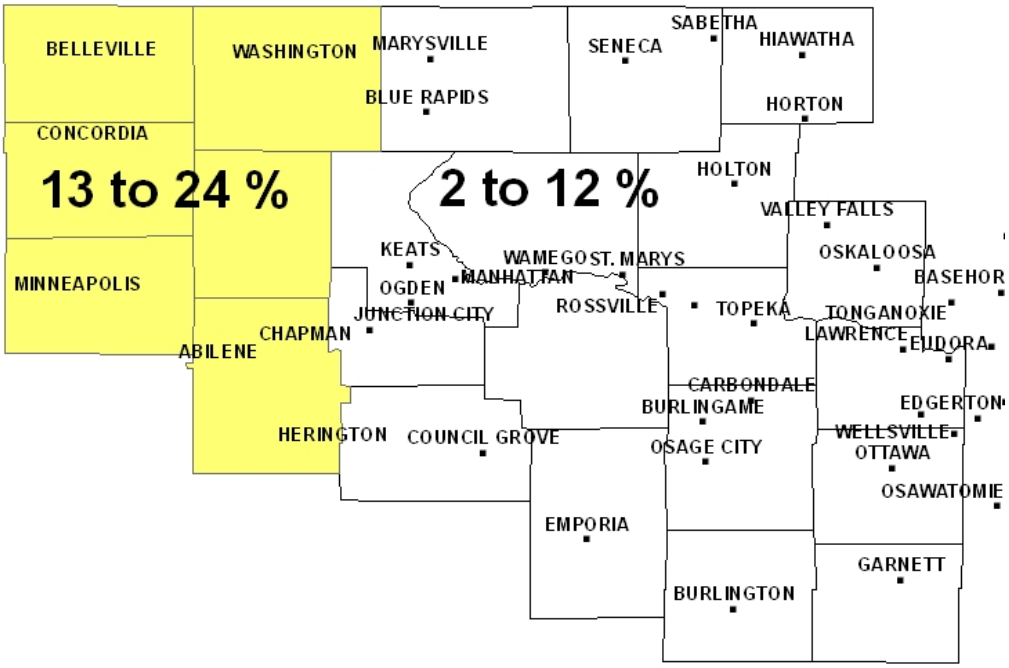
National Weather Service
1116 NE Strait Avenue
Topeka, KS 66616

Phone: 785-234-2592
Spotter Hotline: 1-800-432-3929
E-mail:
w-top.webmaster@noaa.gov

Topeka News

Blizzards…Continued

Probability of a Blizzard Each Winter Season Across the NWS-Topeka CWA



central Kansas. The area in the continental U.S. with the greatest chance to meet Blizzard criteria in a winter season is from western Nebraska and northeast Colorado north-northeastward across the Northern Plains and Upper Midwest. There is a 50 to 76 percent chance of Blizzard conditions occurring in a winter season in this portion of the country.

The last time Blizzard conditions were observed in north central Kansas was on February 9, 2001. 15 inches of snow was reported in Republic County near Belleville. During the event, winds gusted to over 40 mph which produced white out conditions and near zero visibilities. The strong winds also caused the snow to drift 3 to 4 feet deep, which blocked many county roads. The last blizzard to affect northeast and east central Kansas, which includes the Topeka vicinity, was on March 8, 1998. A snowstorm on that day dumped 6 or more inches of snow along and northwest of the Kansas Turnpike. A swath of 10 to 18 inches of snow fell along and north of a line from Holton to Belleville. Strong winds of 30 to 50 mph combined with the heavy snow to produce white out conditions in many areas, and snow drifts of 4 to 7 feet. Some locations even noted snow drifts over 10 feet tall! The whiteout conditions and drifting snow forced the closing of at least 22 U.S. and state highways, including 60 miles of Interstate 70 from the west side of Topeka to Junction City. Numerous accidents and stranded vehicles were also reported. One fatality occurred in northern Dickinson County as a result of a head on collision between two cars. In review, the probability for a blizzard to occur in northeast and east central Kansas in a winter season is only 2 to 12 percent—on average a 7 percent chance. Therefore, the frequency of a Blizzard in northeast and east central Kansas is approximately once every fifteen years. It will be interesting to see when the next Blizzard will strike northeast and east central Kansas, since it's been nearly a decade since the last event.