



# Topeka News

Volume 1, Issue 1

November 12, 2007

## Special points of interest:

- Summer Severe Weather and Flooding
- What are Storm Based Warnings?
- Women in Science Day, Activities
- Cooperative Observer Award, Special Recognition for Franklin County

## Inside this issue:

Storm Based Warning Implementation 2

Other Severe Weather Highlights 3

How to Stay Informed During Hazardous Wx 3

Winter Weather Review 4

Women in Science Day, 2007 4

Recent Local Events 5

A Note from the Staff 6

## May 5-6th Severe Weather and Flooding

**An upper level low pressure system brought bouts of severe thunderstorms and heavy rains through the Topeka County Warning Area (CWA) from the afternoon hours of Saturday, May 5th through Monday, May 7th.** Three types of events stand out during the period. The first of which is a series of tornadoes that affected portions of North Central Kansas the night of Saturday, May 5th. Concurrently, a strong squall line pushed eastward across much of North Central Kansas, bringing a widespread swath of damage through the area. The entire weekend was affected by round after round of strong thunderstorms producing heavy rainfall. This heavy rainfall produced exceptional flooding across the entire CWA, with many residents of central and southern Shawnee and northern Osage Counties requiring water rescues.

Five tornadoes touched down

on the night of May 5th across North Central Kansas. Two of these were brief touchdowns that caused only minor damage and were rated EF-0 on the Enhanced Fujita scale. Two were rated EF-1, and the strongest was rated an EF-2. The supercell thunderstorm that produced four of the five moved north through Eastern Ottawa County between 11:30 and midnight, then became embedded in a squall line as it continued northward into eastern Cloud and western Washington County. The picture above is the result of the strongest of these tornadoes, the EF-2 tornado that developed around 11:40 pm just southwest of the Ottawa State Fishing Lake. The supercell then continued northward before lifting



around 11:55 pm.

Numerous homes, cabins, campers, outbuildings and small cottages were heavily damaged or destroyed by this tornado which extended along an 11 mile path west of the State Fishing Lake. Tragically, this tornado was also responsible for five injuries and one fatality. The supercell produced two more tornadoes after it had been absorbed into the aforementioned squall line. Both tornadoes were rated EF-1. (Continued on Page 6...)

## Climate Review

Precipitation totals were generally below normal across northeast Kansas this summer and early fall, save for an exceptional amount of rain that fell during early May, and a moderately wet spell that hit near the end of September and beginning of October. Sites across east central Kansas received the greatest amount of precipitation

during the early summer, while north central portions of the area remained relatively dry. By late summer the opposite proved true when north central Kansas received an abundance of precipitation, and east central Kansas was left relatively dry. Temperatures were generally above normal through the period. Several heat waves

brought hot and humid weather to the region during the summer months. The first 90 degree day at Topeka for 2007 occurred on June 7<sup>th</sup>. Several 100 degree days were recorded, and 2007 featured one the warmest Augusts on record. Also, the second longest streak of warm low temperature read- (Continued on Page 2...)

## Climate Review Continued...

-ings greater than 70 degrees extended for 28 days from late July through the middle of August. Several individuals across the area were reported to have experienced heat-related illnesses according to local emergency rooms. At least one

death in Topeka was partially attributed to the extreme heat. The Climate Prediction Center has issued an outlook stating that there is a 40% to 50% chance for above normal temperatures this upcoming winter for much of northeast Kansas. There are

equal chances this upcoming winter for precipitation to be above, below, or near normal. For more information, please visit the Climate Prediction Center website at: <http://www.cpc.ncep.noaa.gov/>

**Scientists with the Climate Prediction Center believe that moderate La Nina conditions will continue to develop over the next few months.**

	May	Jun	Jul	Aug	Sep
<b>Topeka</b>					
Mean Temperature	68.7	74.2	79.0	83.5	71.4
Normal	64.4	73.9	78.4	76.7	68.1
Precipitation	10.25	4.39	1.99	2.79	1.35
Normal	4.86	4.88	3.83	3.81	3.71
<b>Concordia</b>					
Mean Temperature	65.2	72.1	79.6	81.2	68.8
Normal	63.0	73.4	79.1	77.0	68.0
Precipitation	6.29	1.08	3.32	2.08	4.55
Normal	4.20	3.95	4.20	3.24	2.50

## Storm Based Warnings Implemented

**“A smaller geographic area enclosed by a warning will reduce the number of individuals warned. But, more specific warnings will encourage citizens to take each warning even more seriously.”**

NWS Offices across the country have officially begun to issue warning products on a storm-to-storm basis. What does this mean?

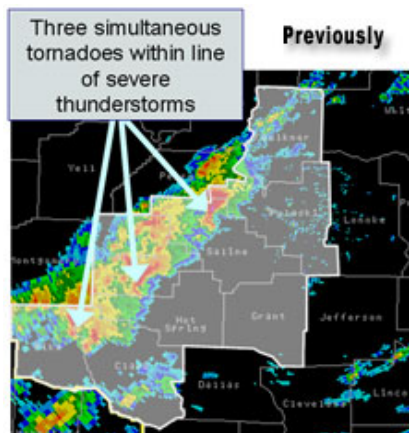
- Storm warnings will no longer be based on geopolitical boundaries. Instead, forecasters will draw specific warning polygons that directly

correspond to the path of a storm. Warning products will now **specify** the portion of a county that will be affected by the storm.

- More specific warnings will result in fewer total individuals warned. False alarm rates will be significantly reduced. The significance of issued warnings will heighten, warn-

ings will become more meaningful.

- **All** products will still be supported by local media outlets. Storm based warnings will have the technology to be uploaded to more electronic devices—including cell phones and PDAs, and will have an increased presence on the web.

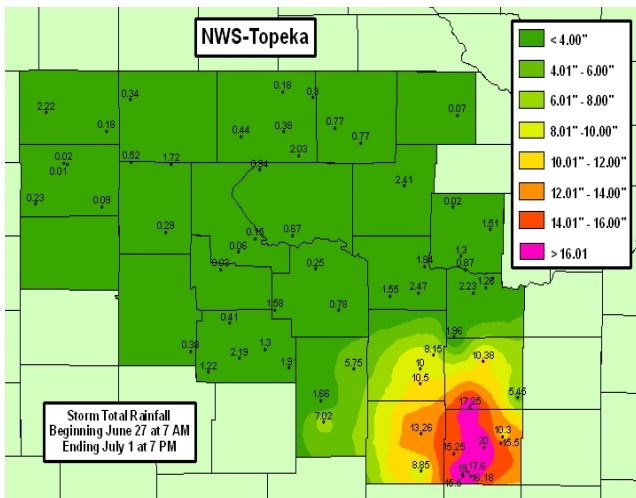


County-Based Tornado Warnings  
8 Counties under warning  
Almost 1 million people warned



Storm-Based Tornado Warnings  
70% less area covered  
~600,000 fewer people warned

## Summer Severe Weather Highlights



**Significant rainfall June 27th through July 1 led to massive flooding.**

- A major Flash Flood and Flood event set-up over East Central Kansas **June 28<sup>th</sup> through 30<sup>th</sup>**. Storm total rainfall amounts across Coffey, Anderson, Franklin, and Osage Counties were in the double digits—including sites across Anderson County that saw 20 inches of rain (see graphic at left).
- **July 4<sup>th</sup>**: Severe weather dampened the Independence Day plans of citizens across the state. Heavy rain and hail pounded Wabaunsee, Dickinson, and Pottawatomie Counties, while 60 to 70 mph blew across Jefferson, Shawnee, Riley, and Douglas Counties. Several funnel clouds were also reported when gusty winds were wrapped up into scattered thunderstorm updrafts.
- **August 16<sup>th</sup> and August 20<sup>th</sup>**: Discrete thunderstorms produced fairly widespread ravaging severe wind gusts across north central Kansas.
- **August 23<sup>rd</sup>**: The largest hailstones to have fallen in the Topeka County Warning Area so far this year were reported. Stones up to the size of baseballs fell in the town of Hanover in Washington County.

## Hazard Preparedness

What is the best way to stay up-to-date on potential local hazards, including advisory, watch, and warning products?

### 1. Visit [www.weather.gov/topeka](http://www.weather.gov/topeka)

- Click on the links on the “Current Hazards” section of our website.
- Click on the local “Weather Story” of the day.
- Click on the interactive map for a complete forecast. Current advisory, watch, and warning products will be listed at the top of the page.

### 2. Listen to your All-Hazards NOAA Weather Radio for the most current information.



**Winter Weather Season** is fast approaching. To **prepare** for the impending cold temperatures and freezing precipitation:

- Talk with your family to develop an emergency plan. Keep emergency phones numbers near phones in your home, and also in your car. Establish a contact point where everyone can congregate should you become separated during a storm.
- Create a preparedness kit for both your home and you car. Include a cell phone, flashlight, batteries, blankets, extra clothing, high calorie/non-perishable food, a supply of water, and matches. In addition, have road maps, a shovel, sand or kitty litter, booster cables, a windshield scraper, and a tow rope available in your car. Have a contact person in mind whether at home or while traveling who knows your plans to travel or stay home in the event of a winter storm. A battery powered All-Hazards NOAA Weather Radio will keep you up to date on all winter storm information.
- Third, be ready to report adverse weather conditions to the National Weather Service at Topeka by visiting our website at [www.weather.gov/topeka](http://www.weather.gov/topeka), or calling us at 1-800-432-3929. If winter hazards such as heavy snow, strong winds, freezing rain, or flooding affects you, your report will help to improve our forecasts and refine our watch and warnings products.



# A Winter Weather Refresher...



Standard 8 Inch Rain Gauge



Standard Snow Board and Ruler

Before the first snowflakes of the season begin to fall, take a few minutes to brush up on best snowfall measurement practices. Three values are essential to every observation: 1. The amount of snowfall since the last observation. 2. The depth of snow since the last observation. 3. The water equivalent of the snowfall since the last observation.

## First, Prepare for the season:

1. Remove the funnel and inner measuring tube of standard 8" rain gauges in order to more accurately collect freezing precipitation.
2. Place at least 2 white snowboards out, and mark them with brightly colored flags. Attempt to place snowboards in a relatively open location, away from shady areas, trees, buildings, or other obstructions.
3. Make sure there are no leaks in your gauge. If there is a problem, contact Bill Newman at [bill.newman@noaa.gov](mailto:bill.newman@noaa.gov) or 1-800-432-3929. If not, you should be ready to measure snow!

## To Measure Snowfall:

- Use a ruler, and record the depth to the nearest tenth of an inch. This snowboard should be cleaned off after every observation.

## To Measure Snow Depth:

- Use a ruler, and record the depth to the nearest whole inch. This snowboard should never be cleared off after an observation. If you have several snowboards, calculate the average depth from several locations.

## To Measure the Water Equivalent of Snowfall:

- Melt the contents of the 8 inch rain gauge. Using funnel, pour the liquid into the inner measuring tube (kept indoors) and measure just as you would for rainfall to the nearest hundredth of an inch.

## Other Local Events

### What Direction Will You Choose?



### Women In Science

Women in Science Day 2007, an event sponsored by the National Weather Service in Topeka, The Topeka Zonta Club, Washburn University, and the Sunflower Association for Women in Science, was developed to provide local middle-school aged females with the chance to explore education and career opportunities in science and technology. Several members of the NWS-Topeka

and NWS-Pleasant Hill/Kansas City were on hand to assist with the day's activities. 225 girls from across northeast Kansas participated in several lab activities that focused on different aspects of science and technology, including biology, astronomy, communication, hydrology, and geology. The keynote speaker, Dr. Barb Quaney, spoke of the ways that science and technology shaped her education and eventually helped to get a job as an occupational therapist and researcher. The event was a tremendous success. Each of the students also received a free t-shirt. For information on "Women in Science Day, 2008" please watch the NWS-Topeka homepage at [www.weather.gov/topeka](http://www.weather.gov/topeka) for information as it becomes available—primarily during the spring and summer of '08.



The Middle school students at "Women in Science Day" respond to a question posed by keynote speaker Dr. Barb Quaney.

## Recent Local Events

Three Cooperative Observers that record temperature and precipitation data daily for the NWS at Topeka received National Awards this past summer.

- **Bill and Shirley Driscoll** of Rossville, KS and **Melba Bruce** from Minneapolis, KS received the distinguished Holm Award for outstanding service in the Cooperative Weather Observer Program. Each year, only 25 of these awards are presented nationally, and the NWS-Topeka office was fortunate enough to have 2 awarded locally! Congratulations to the Driscolls, and to Melba Bruce.



*Shirley and Bill Driscoll*

Several other observers have also received awards recently.

- **Kansas State University** and the **University of Kansas** each received 50 Year Honored Institution Awards.
- **Leo and Nancy Pollard** of Lecompton, KS received the 25 Year Length of Service Award.
- **Carol Linden** of Lebo, KS received a 15 Year Length of Service Award.
- **John Foster** of Eskridge, KS, **Debra Kruse** of Bremen, KS, **Clair Kopsa** of Agenda, KS, and **Kevin Foerschler** of Woodbine, KS all received 10 Year Length of Service Awards.



*Melba Bruce with  
DAPM Bill Newman*

Franklin County became a **StormReady** Community on August 22. Meteorologist in Charge Ken Harding and Warning Coordination Meteorologist Jennifer Stark were on hand for the presentation. The **StormReady** designation is part of a nationwide community preparedness program that uses a grassroots approach to help communities develop plans to handle local severe weather and flooding threats. There are now more than 1,100 **Storm-Ready** communities across the country.



*The Franklin County commissioners are Donald Stottlemire, Donald Hay, John Taylor, Sue Farrel, and Chairman Roy Dunn. Franklin County Emergency Management are Alan Radcliffe and Vickie Eckard.*

## Other Local Events

Scott Blair, a meteorologist with the National Weather Service in Topeka recently attended the Topeka Water Festival. Federal State, County, and

Local Emergency agencies were also present. The event was held to raise awareness and promote preparedness in the event of a natural disaster or emergency. At left, Scott shows local grade



school students the "Tornado Machine" and explains the concept of tornado development and what to do if a tornado is spotted near their home.

Over the past few months, several NWS-Topeka employees have retired. Congratulations!

### Recently Retired:

Curt Holderbach- Meteorologist in Charge  
Doug McHatton- Electronics Systems Analyst  
Steve Kays- Lead Forecaster

Also, please help us welcome a few new faces!

### New to the Office:

Ken Harding- Meteorologist in Charge  
Marion Smith- Administrative Support Assistant  
Scott Blair- Journeyman Forecaster  
Michael Teer- Electronics Systems Analyst  
Scott Watson- Service Hydrologist



## NOAA's National Weather Service– Topeka, KS

### A Note from the Staff:

We here at the National Weather Service Office in Topeka, KS hope that you enjoy the premiere edition of our *new* newsletter. The past few months have been challenging, but very exciting across Northeast Kansas. Forecasters have been hard at work installing new computer programs, recruiting new cooperative observers and storm spotters, participating in local events, welcoming new employees, and of course, issuing short term, long term, and aviation forecasts as well as watch and warning products. The purpose of this newsletter is to bring to light the day to day as well as the exceptional activities of the staff and the events and people who influence our daily duties. We want to share severe weather event summaries, climate news, and interesting meteorological information that we've experienced the past few months. We also want to highlight the men and women in the cooperative observer, storm spotter, and other program areas that assist the office on a daily basis. Finally, we would like to share a glimpse of what to expect in the near future from the office. This may include long range forecasts, severe or winter weather preparation activities, and our upcoming outreach activities. Thank you for taking the time to read through the debut edition of the "Topeka News." We hope you enjoy it!

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## Topeka News

### Continued...May 5th-7th Severe Weather and Flooding

(...Continued from Page 1...)

The second tornado of the night touched down in Ottawa County before tracking to the north-northeast along a 7 mile path into southeastern Cloud County, just west of Miltonvale. The third of the night was a brief touchdown that hit a residence near the abandoned town of Enosdale in Washington County. No further injuries were reported with these tornadoes.

The second major event during the weekend was the squall line that produced extensive straight line wind damage across much of North Central Kansas. This squall line developed due to a merger of a few supercell thunderstorms over western Ottawa County around midnight, May 6th. The primary swath of damage began in Ottawa County and then continued northeast into Clay, Cloud, Washington and Riley Counties. The squall line commonly produced winds in excess of 80 mph, with numerous farm buildings, grain bins, homes, trees, outbuildings and power poles sustaining damage throughout each of the 5 coun-

ties affected. Some of the most concentrated damage occurred in Clay County, where 35 residences sustained damage.

The most widespread event of the weekend was the extensive flooding which affected almost all of Northeast Kansas. From an area roughly along and southeast of a Minneapolis to Marysville line...and along and

tle which collapsed as a train tried to cross. In Topeka, significant flash flooding along the Shunganunga Creek stranded nearly 500 residents. City and county officials needed to perform numerous water rescues before dawn on May 7th. Much of Southern Shawnee County was inundated with flood waters. The entire town of Wakarusa was inundated

with floodwaters, leaving homes across the town virtually underwater. Several residents needed to be rescued from their rooftops. Significant flooding continued in northern Osage County where at one time Burlingame was completely isolated because water covered



northwest of the Kansas Turnpike, locations received anywhere from 4 to 9 inches of rain during the 48-hr period of 7am May 5th to 7am May 7th. This heavy rainfall caused nearly every river basin in the area to rise above flood stage. The heavy rainfall also contributed to a few notable flash flooding incidents. The picture above is the result of flash flooding near Ft. Riley, where flood waters weakened a tres-

every road in or out of town.

Without the help of emergency management, local, county and state emergency officials and the entire Northeast Kansas Storm Spotter Network, the severe weather of May 5th-7th could have injured or killed many more people. Thanks to all those who worked hard to ensure public safety.

