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The Topeka Tiller

National Weather Service
Topeka, KS

Spring 2017 Volume 10, Issue 1

Director Dr. Louis Uccellini and Deputy Director, Mary Erickson Visit WFO Topeka

By Jenifer Prieto, Forecaster

On March 17th, the staff at the Topeka Weather Service office (WFO) had the privilege of hosting the Director Dr. Louis Uccellini and Deputy Director Mary Erickson of the National Weather Service. Both the Director and Deputy Director are based out the National Weather Service (NWS) headquarters office in Silver Spring, MD. As part of an outreach effort for senior management to discover the projects and activities each office is working on, the Director of the Weather Service routinely visits each of the 122 offices in the country. He typically visits with the staff over lunch or dinner, and then takes a tour of the office to see the various layouts of the operations and support staff area. In total for the Topeka WFO, there were around 26 projects and/or achievements the office shared during their visit. Both guests were impressed by the achievements, summarized in the following quote: *"The Topeka office will be right up there when statements are made how the field is leading the way with an all hands approach to connecting your office to decision makers through the IDSS (Impact-based Decision Support Services) you are also working to define."* To further clarify this term, IDSS is referred to the weather and hazard support we provide to our core partners, such as local and state Emergency Management. This information is typically relayed to organizers in order to protect the public, especially during large outdoor events or festivals.

The Director and Deputy Director both exhibit a strong passion in Meteorology, emphasizing the Mission of the National Weather Service in their everyday work, (*"... provides weather, water, and climate data, forecasts and warnings for the protection of life and property and enhancement of the national economy"),* and preserving the finest talent of individuals in the field. To reiterate these notions, the Director gave a presentation to the Topeka office, highlighting the future vision and goals of the National Weather Service. With the improving technology, modeling capabilities, and enhanced services provided to the public and local partners, it is imperative local offices continue to adapt and evolve to fit the needs and concerns of our partners and the public we serve. The photo below was from the event with Dr. Uccellini centered in the front row. Mary Erickson is 6th from the left in the front row.

Inside this issue:

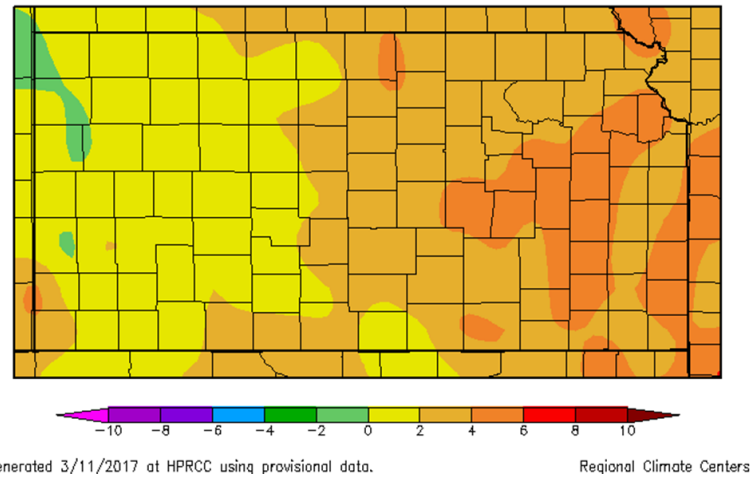
Winter of 2016-2017 Review

By Emily Heller, Meteorologist Intern

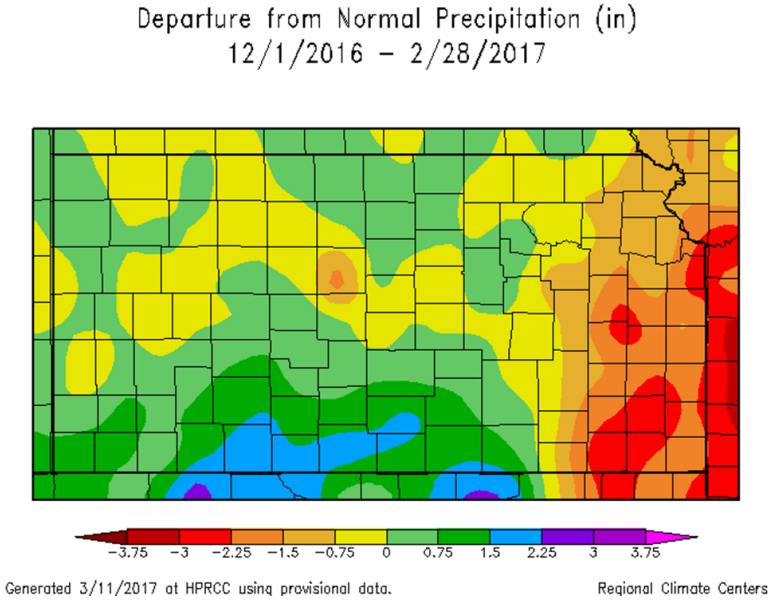
With spring well on the way, some might wonder what happened to winter. Here is a review detailing the winter which entails December of 2016 to February 2017.

December of 2016 brought a variety of both temperature and weather conditions. In Topeka, the warmest day topped out at 68 degrees occurring on Christmas Day, which tied the record high for December 25th. The lowest temperature of the month occurred just a week earlier on the 18th at 9 degrees below zero! This makes nearly an 80 degree change in only one week. Weather wise, freezing drizzle occurred in the middle of the month on the 16th, and 2.6 inches of snow fell on the 17th. Total snowfall for the month in Topeka was only 3.1 inches, less than the average of 5.2 for the month.

January was another month with below average snowfall and varying temperatures. The mean temperature in Topeka for the month was 33.4 degrees, with the highest temperature of the month reaching 65 degrees on January 30th, which is 26 degrees above the normal high temperature for January. Below zero days were rare with only two days dipping into the negative temperatures. Precipitation for the month was above normal mainly due to over a half an inch of rain falling on the 16th, contributing to nearly half of the months total. Only 2.2 inches of snow fell which was below the normal value of 4.9 inches. Freezing rain and drizzle from the 13th to the 15th led to some traffic accidents.



Map depicting the departure of average temperatures from normal for the winter.



Map depicting the departure of average precipitation from normal for the winter.

Generally, February was very warm and dry compared to normal. The average temperature in Topeka was 44.2 degrees. The month was the third warmest February of any February on record, behind 1930 and 1954. Between the 16th and the 23rd, the average high temperature was 71.5 degrees. Daily high temperature records were set on three days of the month including the 22nd where the high temperature was 79 degrees, which tied for the forth warmest temperature ever measured in February. As for precipitation, this year had the forth lowest amount on record. Normal snowfall for February is 4.5 inches, where this past month only received a trace.

Top 10 Tornado Disasters in Topeka's County Warning Area

By Bill Gargan, Lead Forecaster

Here are the top 10 tornado disasters that occurred within NWS Topeka's County Warning Area, which includes northeast, east central, and portions of north central Kansas.

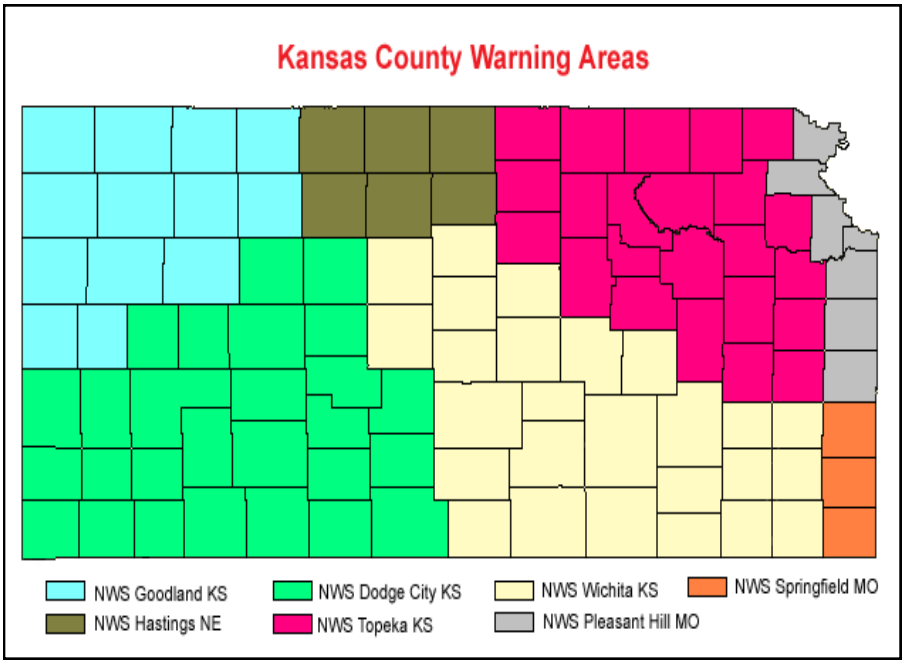


Image depicting the location of NWS Topeka's County Warning Area (CWA). It is located in pink on the image.

10.) On June 17, 1978, a weak F1 tornado developed 4 miles east-northeast of Lyndon, then moved east-southeast across the west edge of Pomona Lake. The tornado capsized a dinner show boat called the Whippoorwill. Unfortunately, 16 of the 58 passengers on board drowned and 3 were injured.

9.) On May 19, 1960, a violent F4 tornado touched down east of Ogden and moved east-northeast to just south-west of Rossville. This was the first tornado of a tornado family produced by one intense supercell thunderstorm. The tornado swept a home from its foundation 5 miles south of Wamego. There were no fatalities but 12 people were injured.

8.) On May 6, 1983, a strong F3 tornado tracked from 3 miles west of Auburn through the southern and southeast sections of Topeka and lifting before moving through Tecumseh. The most intense damage occurred in Topeka where the tornado tracked from Topeka Boulevard to the north edge of Lake Shawnee. One person was killed in a mobile home and 25 sustained injuries.

7.) On June 19, 1981, a strong F3 tornado developed northwest of Lawrence and moved southeast across the southwest side of town. 22 homes were destroyed and another 30 homes received considerable damage. The tornado damaged a shopping center at 31st Street and Iowa Street. One person was killed and 33 others were injured.

6.) On April 12, 1964, a violent F4 tornado tracked north-northeast from 3 miles south of Welda to 4 miles south of Garnett where a car was thrown 200 yards at the intersection of US HWY 169 and US HWY 59, killing all 3 passengers. The tornado damaged 20 farmsteads and leveled four homes. Nine people were injured by this tornado. A half an hour earlier another violent tornado moved from 4 miles southeast of Overbrook, KS, north-northeast to 4 miles west of Lawrence, to 4 miles northwest of Tonganoxie. Thirty homes were destroyed with several being swept off their foundations.

5.) On June 8, 1966, a strong F3 tornado moved from Fort Riley, through the northwest side of Manhattan. This tornado struck about an hour and 15 minutes before an F5 tornado hit Topeka. The tornado destroyed 11 homes along with an apartment building near the KSU campus, and 328 homes were damaged. There were no fatalities but 50 people were injured.

Article continues on page 5…

Meet Our (Soon to be Departing) Meteorologist!

Brian Barjenbruch

Current position? Lead Meteorologist

Where are you from originally? Leigh, Nebraska. I grew up on a farm near this town, about 1.5 hours west of Omaha.

What school did you attend and degrees have you earned? I spent 2 years at Valparaiso University in Indiana. I then transferred and completed my Bachelor's degree at the University of Nebraska-Lincoln. I spent 2 more years at the University of Nebraska-Lincoln to earn my Master's degree in Meteorology.

When did you join the National Weather Service and which offices did you work for before coming to Topeka? I began my NWS career in 2007 as a meteorologist intern in Springfield, MO. I came to NWS Topeka as a general forecaster in 2009, and then became lead meteorologist at NWS Topeka in 2012.

Since being at the Topeka office, what is your most memorable severe or winter weather event and why? My most memorable severe weather event occurred on May 28, 2013. I was the severe weather coordinator during the EF-4 tornado near Bennington, KS and the EF-3 tornado near Corning, KS. Both of these tornadoes were taking a track to directly impact these towns initially, but both tornadoes stalled and became nearly stationary. These very large and long-lived tornadoes resulted in no fatalities and no injuries. It was an extremely stressful and rewarding day at NWS Topeka.

What is the most rewarding and difficult aspects when it comes to working for the National Weather Service? The most rewarding aspect is that feeling that you get when you've made a great forecast for a significant weather event, and given your absolute best effort to send that forecast message out to core partners and the public. The most difficult aspect would have to be the work hours. Weather doesn't take a break, so neither do weather forecasters. As a 24/7/365 operation, it can make having a "normal" life outside of work a bit more difficult.

Why did you decide to become a Meteorologist? Growing up on a farm, the weather impacted my daily life directly, and sometimes fiercely. I grew up with memories of watching our creek flood, being snowed in for days, huddled around the wood stove after our power went out due to an ice storm, and spending the occasional hour in the basement with tornadoes nearby. It was hard not to be fascinated with the weather, and my decision to be a meteorologist was made early!

Good Luck with your promotion to Science and Operations Officer in Omaha, Nebraska!

Top 10 Tornado Disasters in Topeka's County Warning Area (continued…)

4.) On May 20, 1957, a violent F5 tornado touched down 2 miles south of Williamsburg and moved to just south of Wellsville. Several farm homes were swept of their foundations. Three people were killed and 9 were injured in Franklin County. This tornadic supercell went on to hit Spring Hill, MO, and the Kansas City suburbs of Martin City and Ruskin heights, where 37 people were killed and 500 were injured.

3.) On May 19, 1960, a violent F4 tornado touched down 4 miles northeast of Rossville and moved east-northeast to 8 miles north of Topeka then the tornado hit the town of Meridian where 64 homes were destroyed. Several farm-steads were also destroyed along the tornado path. One person was killed and 91 others were injured by this tornado. This violent tornado was the 2nd tornado spawned by this supercell. The first tornado produced by this same supercell is listed as number nine in this list.

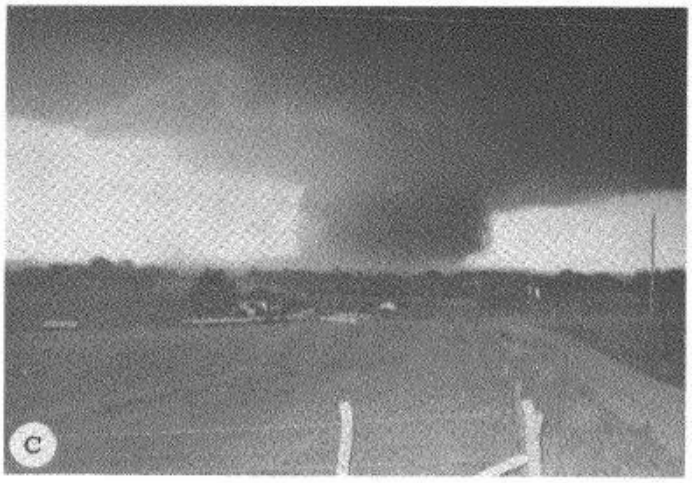


Photo taken just north of Rossville of May 19th, 1960. (#3)

2.) On June 8, 1974, a violent F4 tornado moved north-northeast from the northwest side of Emporia, to 4 miles southwest of Auburn. This violent tornado was wrapped in rain and destroyed the Flint Hills Shopping Center, a trailer park, a nursing home, apartment complex and a residential area of northwest Emporia. The tornado also tore apart several farmsteads between Emporia and Auburn. Five of the six deaths were from the trailer park that got hit in Emporia and the sixth fatality occurred at the apartment complex. 177 people were injured by this tornado.

1.) The most devastating tornado to hit northeast Kansas was on June 8, 1966, when a violent F5 tornado touched down 2 miles south-southeast of Dover and moved northeast from southwest to northeast across the city of Topeka. Around 820 homes were completely destroyed with entire neighborhoods being demolished across central Topeka. The Washburn University campus was severely damaged by this tornado. Sixteen people were killed and 450 others were injured. At the time this tornado caused about 100 million dollars of damages to the city of Topeka. In today's dollars, that would be close to 750 million dollars.

Photo taken by Perry Riddle of the 1966 Topeka Tornado. (#1)

From this list of the top 10 tornado disasters across the Topeka's County Warning Area, they have all occurred in the 50s, 60s, 70s and 80s. After Doppler radars were deployed by the NWS in the 1990s, advanced forecast techniques used to better assess environments more favorable for significant tornadoes and new software such as the Advanced Weather Interactive Processing System to disseminate warnings faster, the lead time for tornado warnings have increased on average to about 15 minutes. The increased lead times on tornado warnings have given people more time to take shelter which may have resulted in less fatalities and injuries. Also, many towns have not taken a direct hit by tornadoes in the last 20 years. Last year on May 25th, a large damaging tornado went one mile south of the town of Chapman. A large tornado on May 16, 2014, remained stationary 5 miles west of Bennington, KS. There were no deaths or injuries when an EF4 tornado moved across the west side of Manhattan, KS on June 11, 2008.

To our COOP Observers:

With warm temperatures back in place, please place inner measuring tubes and funnels back on the main rain gauge housing for the summer season. Thank you for all your hard work!

National Weather Service

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Severe Weather Spotting Card :

Weather to Report:

Hail (report any size)

Strong Wind Gusts (58+ MPH)

Any notable wind damage to trees, homes, businesses

Funnel Cloud/Rotating Wall Cloud or Tornado

What to Include in your Report:

Your Name and/or Call Sign (Spotter Number)

Your Location

Time and Date of Event

Location and Duration of Event

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