



The Topeka Tiller

Spring 2015 Volume 8, Issue 1

National Weather Service

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Recap of Winter 2014 - 2015

By Emily Heller, Meteorologist Intern and Kyle Poage, Forecaster

The climate for Topeka during the three month period between December 2014 and February 2015 was characterized by a warmer December and January, but a cooler than normal February. December was the warmest month with temperatures 4.3 degrees above the average temperature of 32.0 degrees. In the second week of December, two records were broken for record high minimum temperatures on December 13th and 14th. January began frigid, and between the 4th and 9th, high temperatures only climbed above freezing once. On the 7th, these cold temperatures were aided by the strongest high pressure ever recorded at Topeka, 1054.3 millibars, moving over the area. The ladder part of the month was unseasonably warm with record highs set on two days, 67 degrees on January 19th and 78 degrees on January 28th. This 78 degree temperature also set the record

for the highest temperature ever recorded for the month of January. February was the coldest month this winter, and came out as the 20th coldest for any February on record (See Figure 1). Temperatures were 7.4 degrees below the normal average of 34.4 degrees. The lowest temperature for the entire winter in Topeka was 0 degrees, occurring on February 5th.

Departure from Normal Temperature (F)
2/1/2015 - 2/28/2015

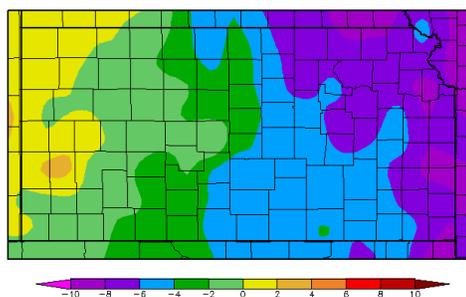


Figure 1: Departure from normal temperatures for February

With no significant snow storms this past winter, it should not be surprising that snow amounts fell below average for the Topeka area. From the beginning of December to the end of February, 9.9 inches of snow fell in Topeka, which is six inches below our normal value of 15.9 inches. The first widespread snowfall of the season occurred December 17th with most of the area seeing between 2-4 inches.

Between January 31st and February 2nd, a storm system that moved across the area brought snow to our most northern counties, while counties to the south experienced mostly rain. 7 inches of snow was reported in Nemaha County, while Topeka actually broke a record on the 31st for receiving 1.04 inches of precipitation. Periods of light snowfall were seen throughout the month of February, with the highest amount in Topeka reported on the 28th with a recorded 1.8 inches of snow.

Severe Weather Preparedness and Safety

By Audra Hennecke, Forecaster

Temperatures are warming up, trees and flowers have begun to bud and bloom, and we have already heard our first rumbles of thunder for the season. These are all signs of the start of spring, but in northeast Kansas, this is also a reminder of the increasing threat for severe weather. Our severe weather season usually starts to become more active during the month of April, with May and June being the peak months in our

severe weather season. With this in mind, it is important to make sure that we are prepared for this upcoming severe weather season, and being prepared involves having a means of receiving important warning information, having a plan, practicing your plan, and knowing where to seek shelter when warnings are issued for your area.

When disaster strikes, you may have limited time to make what

might be a life or death decision. One of the most important things you can do is to be aware of when a danger is present for your area. In order to stay situationally aware of weather threats, it is important that you have multiple ways to receive warning information, like Tornado, Severe Thunderstorm, and Flash Flood warnings.

Severe Weather Preparedness and Safety continues on page 5

NWS Topeka Education and Outreach

By Chad Omitt, Warning Coordination Meteorologist

Each year during the late winter and early spring season NWS Topeka embarks on a whirlwind of outreach and education activities geared toward providing information on awareness and preparedness for hazardous weather. NWS meteorologists provide over 50 presentations across northeast Kansas beginning in February and running through April that focus on educating



Figure 1 Chad Omitt Presenting a Storm Safety and Information show in Topeka

residents of weather risks and provide information on how to reduce those risks. Specifically we talk about the importance of putting a plan together and have multiple ways to receive watch and warning information. We also look at the types of thunderstorms that are common to Kansas and the associated cloud features to help provide an introduction to thunderstorm cloud identification. We are wrapping up our county safety shows but each year those can be found at our website

www.weather.gov/top We provide talks to the general public but we also receive requests from various businesses and civic groups as well as schools for talks. If interested contact chad.omitt@noaa.gov to find out more.

Severe Weather Awareness Week in Kansas was March 2-6th this year. Each year our emergency management and media partners combine with the NWS to highlight various weather hazards and ways to reduce your risk from those



hazards with education efforts including a state wide tornado drill which was held on Tuesday, March 3rd. Here is a photo of NWS Topeka meteorologists along with our Kansas Division of Emergency Management partners and Kansas Governor Sam Brownback as he signs the document proclaiming severe weather awareness week in Kansas.

NWS Topeka Education and Outreach continues on page 4

Women In Science Day

By Audra Hennecke, Forecaster

On September 30th, four National Weather Service meteorologists assisted with the 8th annual Women in Science (WIS) Day hosted at Washburn University in Topeka, Kansas. The National Weather Service served as one of nearly a dozen sponsors for the event. This year nearly 250 7th grade girls from 10 area schools attended the eventful WIS Day. The participating schools stretched beyond the city of Topeka with girls coming from Holton, Tecumseh, Perry, Eskridge, and Lawrence to attend this annual event. This event is designed to demonstrate the practical applications in everyday life of science, technology, engineering, and mathematics, and how these everyday applications can become a professional career. Studies indicate that girls perform as well as boys in math and science throughout elementary school, but begin

to lose interest in these types of courses as they enter into junior high and high school. In an effort to turn these stats around, the WIS Day brings in several local, professional female scientists to talk about their careers, their field of work, and to conduct hands-on laboratory activities with the girls so that they can learn more about these diverse science careers.

During the WIS Day, there were two guest speakers and a total of 18 different interactive labs, in which the girls could choose two different labs in which to participate. The labs covered a wide range of interesting scientific topics, including forensic science, food chemistry, biology, medicine, psychology, archeology, and earth science. Some examples of the exciting labs the girls could participate in

included demonstrations on crime solving tools from a forensic scientist, learning the science behind the action of CPR, participating in an indoor archeological investigation, and building a volcano. In addition to participating in two different lab sessions, the girls had the opportunity to speak with the many women scientists and engineers who volunteered to assist with the WIS Day about their careers, how they became interested in that field of study, and the wide selection of other science professions that are available in the real world.

Women In Science Day continues on page 3

Meet Your Meteorologist, Brandon Drake

Hello! My name is Brandon Drake and I am currently a Meteorologist Intern at the National Weather Service Forecast Office in Topeka, KS. As an Intern, I am considered a certified Meteorologist who is in training to issue the official forecast as well as local warnings that are issued. My duties include: verifying warnings issued in our office by working with emergency managers, local media, and trained storm spotters; performing daily balloon launches to obtain a vertical profile of the atmosphere; performing quality control on routine and climate products; and most importantly working alongside trained and experienced Meteorologists to strengthen my skills needed to become a fully certified forecaster. After I receive my training, I hope to become a General Forecaster and then on to a more Senior Meteorologist role with the NWS. After having grown up in a cold winter climate, I realize that I've had enough cold weather in my life, so my desire is to eventually settle down in Florida where I hope to see little in the way of winter!

It seems almost everyone who becomes a meteorologist has a story about how they were fascinated by the weather as a child. While that is also true for me, I first noticed my fascination through a fear of severe weather. I'm originally from



Nebraska, and as a child, I can remember a tornado nearly taking my family home away. It was easily the scariest moment of my life up until that time. I didn't really care at the time how it looked or sounded or anything. The only thing I can remember at that moment was if everyone was safe and also praying that the house wasn't going to be torn apart by the tornado and all of us sucked up with it! From there, I began to confront that fear and eventually decided to major in meteorology at the University of Nebraska-Lincoln. I graduated from there and went on to the US Air Force to serve as a meteorologist supporting the mission of our military. However, after my time in the military, I chose to pursue my dream

of becoming part of the NWS. Finally in May of 2014, I arrived here on station in Topeka and have been enjoying it ever since. I enjoy the process of learning about everything. Weather is something we all have in common. I would describe it as something that isn't really a job. It is fun and interesting. I feel truly blessed and fortunate to be here at this office. The people here are top notch and very intelligent and good at what they do. I can't wait to learn as much as possible from them all as I continue to aspire to become the best I can and understand exactly why the weather does what it does. Hopefully, through research and direct interaction, through observing and a little chasing here and there, I will be able to leave a positive impact on my chosen field of study.

My hobbies are too many to list here, but I really enjoy Nebraska Football, flying, reading, and exercising. I look forward to hopefully getting the opportunity to meet as many of you as I can in the near future.

Women In Science Day (Continued...)

Meteorologists from the National Weather Service hosted one of the 18 labs, in which three mini-weather experiments were conducted. The first experiment allowed the girls to create convective currents using a container of water, ice cubes, and food coloring to learn more about how thunderstorms develop. In the second experiment, the girls were able to make lightning by utilizing Styrofoam plates, aluminum pie pans, and wool fabric to create static electricity. Through this experiment the girls were able to learn how lightning actually forms in the atmosphere during a thunderstorm. The final experiment allowed the girls to learn about the

formation of clouds by making fog in a jar, utilizing a jar of warm water, a bag of ice, and a match. The girls were very energetic and had a great time participating in each of the experiments. This WIS Day ultimately was just as exciting for the NWS meteorologists as it provided a wonderful opportunity to talk with middle-school girls about their interests in science and the types of careers they see themselves pursuing as they continue on to college and head into the real world!



Meteorologist Audra Hennecke explains a lab to 7th grade girls from various local schools in Topeka

NWS Topeka Education and Outreach (Continued...)

NWS Topeka in cooperation with our Shawnee County Emergency Management partners and our local media partners also hold an annual Severe Weather Awareness Day at the West Ridge Mall each spring. This year the event was held on April 11th. During the event, NWS provides on hands learning about flooding, severe storms and we provide free educational material that give information on how to stay safe.



Figure 2 Audra Hennecke and Jenifer Bowen from NWS Topeka at Severe Weather Awareness Day at West Ridge Mall in Topeka.

DYK....that Kansas burns on average over 200,000 acres of land each year? That's more than any other state in the country!

As a result, NWS meteorologists have been busy working with our county, state and federal partners to help provide fire weather information to local landowners that can help them make better decisions about when to burn pastureland in the spring. NWS meteorologists attend burn workshops in an effort to help land owners avoid burning when weather conditions would cause fires to burn uncontrollably or during times when smoke can stay close to the ground and cause air quality problems.

Both are very important issues that land owners need to consider and [NWS information located on our website](#) and via the [Kansas Flint Hills Smoke Management website](#) can help in that effort.

COOP Corner!

By Shawn Byrne, Observation Program Leader

TOP Award Winner!!

Maurice Heiman, of Baileyville, KS was the recipient of John Campinius Holm Award for 2014. This is the nation's second highest award a Cooperative Observer can receive. Requirements for the award include outstanding observational skills and exceptional record keeping over 20 years of service. Only 25 Holm Award winners are announced each year. Further, receiving the Holm Award is a requirement for the Jefferson Award competition each year, which is the highest award a Cooperative Observer can receive. We congratulate Maurice on his accomplishment, and appreciate his outstanding and dedicated

service to the nation's Cooperative Program!



NWS Central Region director, Chris Strager, presenting the John Campanius Holm Award to Maurice Heiman



Figure 3 Tips for a successful prescribed burn include monitoring the weather

That's just a scratch on the surface of all of the various outreach and education efforts that the NWS in Topeka does each year! If you have questions or are interested in having the NWS provide a presentation to your group or business contact chad.omitt@noaa.gov for more information.

Benjamin Franklin Award Presentation

Congratulations go out to Mr. Lowell Jones of Fostoria, KS. Lowell received the Benjamin Franklin Award for 55 years of continuous dedicated service to the NWS CO-OP program. Lowell began taking observations at his farm on June 1, 1959. Mr. Jones has now retired from taking weather observations, and has passed the duties onto his son Ivan. We thank Lowell for so many dedicated years serving the NWS.

COOP Corner continues on page 6

Severe Weather Preparedness and Safety (Continued...)

Some methods for receiving warning information include TV, NOAA Weather Radio, broadcast radio, subscribing to a mobile alerting system, the wireless emergency alerts (WEA) system, and outdoor sirens. We encourage everyone to have at least two different means of receiving warning information in case one method fails (i.e., the power goes out). Keep in mind that severe weather frequently occurs at night and you may already be in bed and asleep when severe weather is approaching. As a result, it is critical that one of your means of receiving warning information can wake you up and alert you to an impending threat. The WEA system will send a loud tone alert and brief message on your phone whenever a Tornado Warning or a Flash Flood Warning has been issued for your area. Otherwise, NOAA Weather Radios and other mobile alerting systems are the best for alerting you during nighttime severe weather threats.

Having a plan in place before severe weather strikes is critical so that you know what to do and where to go whenever a warning is issued for your location. Make sure to think about all of the different places you may be during the day – at home, work, school, outdoor sports game, etc. – and ensure that you know where you need to go to seek shelter from hazardous weather in each of these locations and determine approximately how long it may take you to get to that shelter. At home, we encourage you to practice your plan so that everyone in your family knows where to go and what to do, and make sure you have an emergency preparedness kit ready in your shelter location. Some items you should have in your emergency kit include a 3-day supply of water and food for each person, a NOAA weather radio, flashlight, extra batteries, first aid kit, a whistle (to signal for help), a helmet (for head

protection), a cell phone charger, prescription medications, and essential items for babies and your pets. More extensive lists of items to consider including in your emergency preparedness kit can be found online at www.ready.gov.



Example of an emergency supply kit

If a Severe Thunderstorm Warning has been issued for your area and there is the threat for large hail and damaging winds, then you should go indoors and stay away from windows as large hail and debris from strong winds can potentially break windows. If a Tornado Warning has been issued for your area, immediately seek shelter indoors (or in a storm shelter). If you can get underground in a basement, storm shelter, or engineered safe room, that is the best option. If you can't get underground, then go to the lowest floor and most interior room (which in a home is likely a bathroom or a closet) and stay away from windows. If you live in a mobile home, there are absolutely no safe sheltering options and your plan needs to be to find a more adequate shelter elsewhere. Flooding is actually the leading thunderstorm killer with most flood deaths occurring at night. All it takes is 6

inches of swiftly moving water to knock an adult off his/her feet and 2 feet of rushing water to sweep away vehicles. As a result, whenever a Flash Flood Warning has been issued, 'Turn Around, Don't Drown!' You never want to drive over a flooded roadway because it's difficult to determine how much water is over the road and you also don't know if the road underneath the water is structurally sound or if it has weakened and begun to break apart. Lightning is a threat that exists with every thunderstorm. If you can hear thunder, then you are close enough to be struck by lightning, so remember that 'When Thunder Roars, Go Indoors.' But once inside, avoid electrical equipment and plumbing (i.e., washing your hands, taking a shower, washing dishes) as all of these are good conductors of electricity.

Now is the time to make sure that you and your family are prepared for this severe weather season! Take some time before the warnings are issued for your area to ensure that you have all of these preparedness and awareness plans in place. By being prepared and staying situationally aware during severe weather season, you can find comfort in knowing what to do and where to go whenever severe weather strikes.

"Flooding is actually the leading thunderstorm killer with most flood deaths occurring at night"

COOP Corner (Continued...)

Special Recognition

Every year it is our honor to be able to present awards for exemplary and dedicated service to our CO-OP observers. They are the backbone of the Nation's climate record, and we are so very thankful for their service! Lengths of Service awards were presented to the following people over the past year:

Individual Awards

Raymond O'Neil	35 Years of Service	Beattie, KS
Robert Dreith	35 Years of Service	Randolph, KS
Melba Bruce	30 Years of Service	Minneapolis, KS
Mike Gfeller	30 Years of Service	Junction City, KS
Arthur Kidwell	25 Years of Service	Enterprise, KS
Richard Phelps	20 Years of Service	Miltonvale, KS
James Dobbins	15 Years of Service	Goff, KS



Arthur Kidwell, Enterprise, KS



Richard Phelps, Miltonvale, KS



Raymond O'Neil, Beattie, KS

Institution Awards

Ottawa Water Plant	50 Years of Service	Ottawa, KS
Marysville Water Plant	50 Years of Service	Marysville, KS

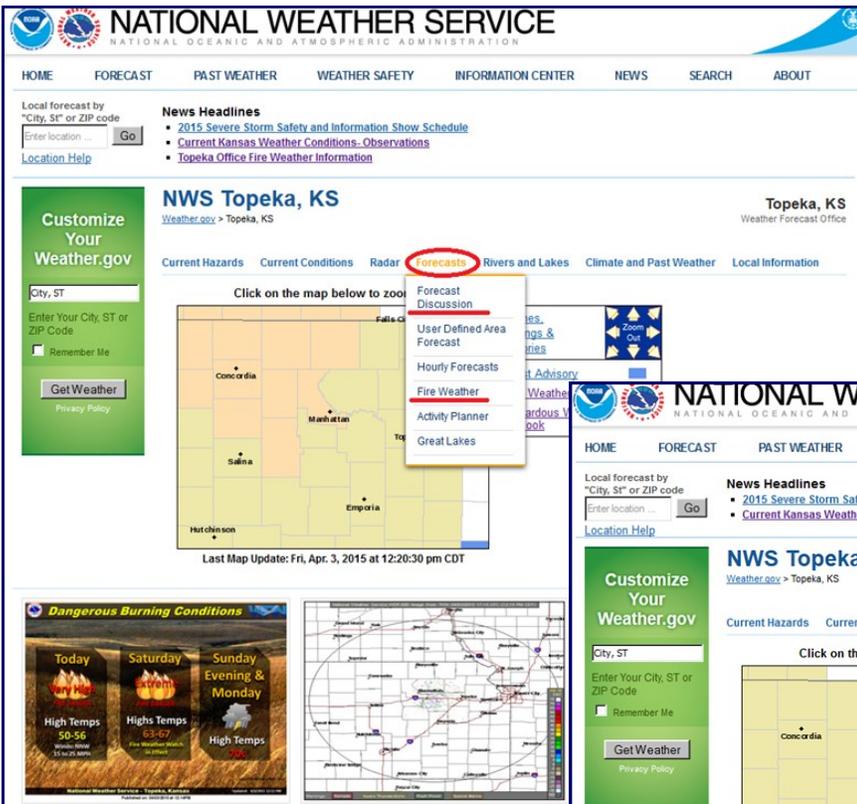
2015 Observational Site Visits

We at the National Weather Service want to thank each and every Cooperative Observer in the field, and what they do to enhance the forecast skill of our office in Topeka, but also continuously add to the Nation's climate record as well! Your contributions to our Nation are very much appreciated. We are going to try to visit as many sites as we can by the end of the year. However, if we are unable to get to you this year, and you need supplies, please feel free to email or call us!

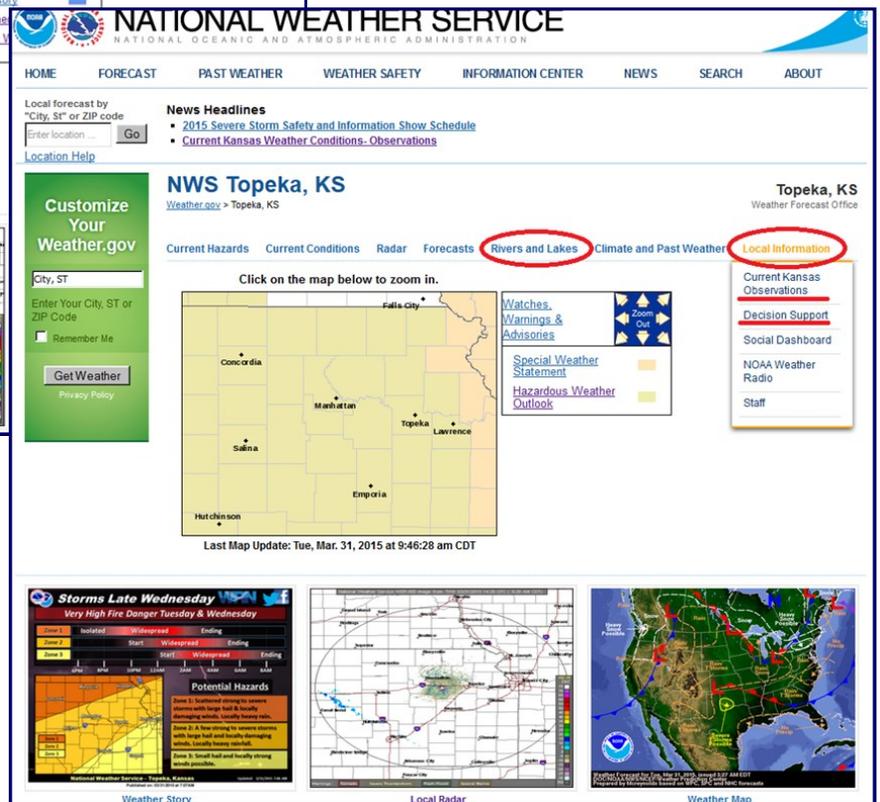
New Webpage Layout!

You may have noticed the look of our webpage has changed. This change occurred March 30th, 2015, and was collaborated between all Central Region Weather Forecast Offices, River Forecast Centers, and Center Weather Service Units. The goal of this change is to eventually have office to office consistency nationwide.

Any bookmarks from our old site will most likely need to be changed. Below is an example of what our new page looks like and where you can find some useful links. Changes and updates to this new webpage are still in progress. If you have any additional questions, feel free to contact us at w-top.webmaster@noaa.gov.



On the left picture: From the “Forecasts” tab, a link to the current forecast discussion is available. From this same tab under “Fire Weather”, fire forecasts by county and fire outlooks can be found.



On the right picture: Under the “Local Information” tab, you can find our current observation page by clicking “Current Kansas Observations”. Another useful link under this tab is the “Decision Support” link. Under this, you will be able to access the most recent Hazardous Weather Outlook.

Clicking on “Rivers and Lakes” will take you to our AHPS page.

Once again, changes are still occurring! Thank you for being patient through this time as we try to make information as easy and convenient for you to access.



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Severe Weather Spotter 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

Exact Location of Event

Time and Date of Event

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