National Weather Service Wichita, KS

Storm Fury on the Plains

Spotter Newsletter

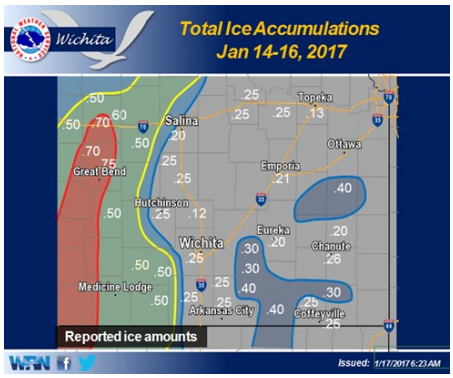
January 2018

Inside this issue:

2017 Weather & Climate Highlights

By Andy Kleinsasser – Meteorologist

January 13-16th Ice Storm



A significant ice storm impacted much of Kansas over the weekend of January 13-16th, 2017. Ice accumulations of at least 0.25" were common, with crippling amounts of 0.50-0.75" across portions of western and central Kansas including the communities of Medicine Lodge, Great Bend, Russell and Dodge City. Needless to say, tree and powerline damage was widespread, and slick roads led to numerous accidents. Approximately 4,000 homes were without power across Barton, Harper, Kingman and Rice counties.

Damage from 0.50" ice accumulation in Zenda. Photo courtesy of Jodi Davis.

March 4-6th Grass Fires

Grass fires north of Hutchinson. Photo courtesy of KAKE.

Fire danger concerns became elevated the weekend of March 4th with conditions worsening by March 6. The extreme fire danger was the result of very strong southwest to northwest winds in excess of 50 mph, along with very low relative humidity as low as 5%. Consequently, several large grass fires affected portions of central and south-central Kansas March 4-6th.

On March 6th, fires approached the town of Wilson in Ellsworth County from the northwest, forcing residents to evacuate. Residents were eventually allowed back into their homes later that night. On March 5th, a second large grass fire flared up north of Hutchinson with valiant fire-fighting efforts containing about 90% of the fire by early afternoon on the 6th. However, the fire rapidly flared back up during the early evening on the 6th as winds switched to the northwest, and relative humidity values plummeted. This forced evacuations of around 10,000 people along the far northern edge of Hutchinson.

Grass fires north of Hutchinson. Photo courtesy of KWCH.

May 18th Severe Storms

Storms rapidly developed over western Oklahoma and central Kansas during the afternoon hours of May 18th. The most severe storms across Kansas developed along a warm front which was situated generally near I-70. A few of these storms produced brief tornado touchdowns and damaging winds. The most severe damage occurred just west of Salina in and around the Salina Speedway from a tornado-warned storm.

Damage at the Salina Speedway, west of Salina Airport. Photo courtesy of Dusty Wiegert.

June 15th Severe Storms

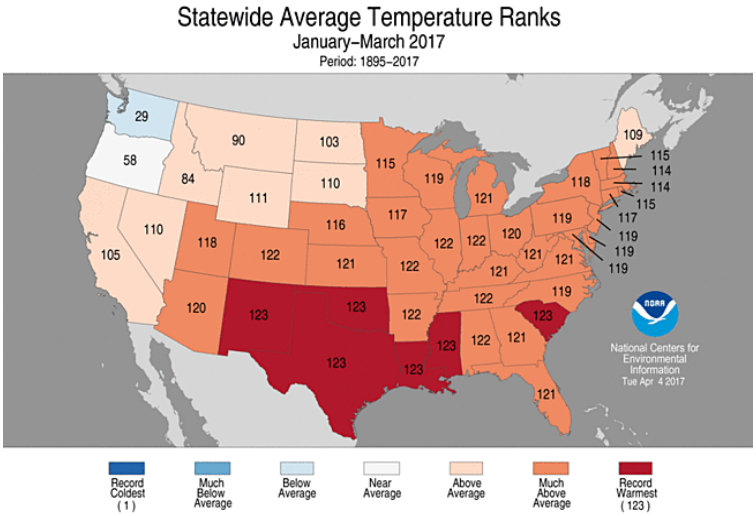
Storms developed over central Kansas during the late afternoon hours of June 15th and rapidly became severe due to extreme instability in place. After the storms developed they tracked southeast into the evening hours, leaving a path of destructive winds and large hail across central and south central Kansas. Widespread tree damage was reported along with power outages due to 60-80 mph winds. There were a few injuries in Hutchinson when a large tree fell on a vehicle.

HP supercell and lightning bolt west of Kingman, KS. Photo courtesy of Matt Crowther.

Warm Start to the Year

The weather pattern supported near to record warmth for the first couple months of 2017 across a good chunk of the nation. Kansas tallied its 3rd warmest January through March period since records began in 1895. The table below displays daily record high temperatures set at Wichita, Chanute and Russell from January through March.

January-March 2017 Record High Temperatures		
Wichita	73	January 30
Wichita	72	February 16
Wichita	89	March 20
Chanute	73	January 11
Chanute	82	February 11
Chanute	82	February 22
Chanute	78	February 23
Chanute	87	March 19
Chanute	87	March 20
Russell	84	February 10
Russell	78	February 16
Russell	90	March 19



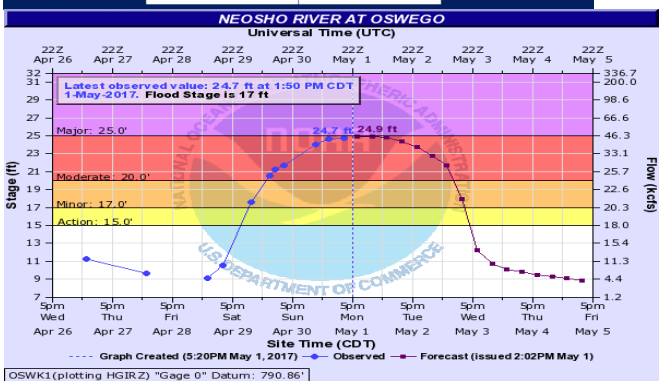
Statewide average temperatures ranks, January-March 2017. Kansas recorded its 3rd warmest January-March period on record.

Wichita's wettest Aprils since 1888

Wettest Aprils (Inches)	
1944	12.42"
2009	9.94"
2017	***7.28"***
1942	7.08"
1945	6.79"
1951	6.33"
2016	6.23"
1940	6.15"
1922	6.12"
1999	6.02"

April Rainfall and Flooding

A slow moving upper level low pressure system brought significant rainfall to southeast Kansas and especially the Ozarks region starting on Friday, April 28th and continuing into April 30th. A few locations across southeast Kansas picked up around 5 inches of rain through this event with some areas of southern Missouri receiving over 10 inches of rainfall. Heavy rainfall caused numerous streams and rivers to flood. This same storm system brought significant snowfall to parts of western Kansas which is extremely rare for so late in April.



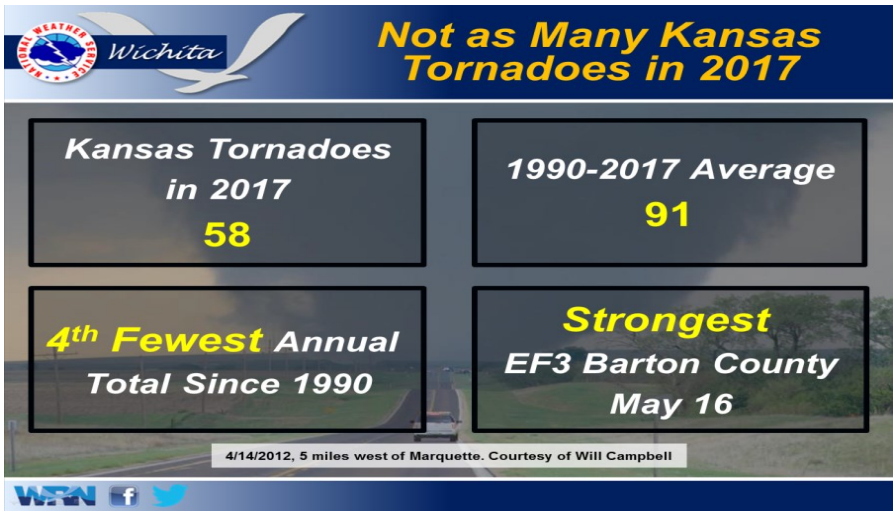
Near major flood stage was observed along the Neosho River near Oswego late April into early May.

Chanute's wettest Aprils since 1894

Wettest Aprils (Inches)	
1994	16.25"
1927	15.12"
2017	***11.02"***
1944	9.18"
1922	9.08"
1929	8.88"
1983	8.29"
1947	8.27"
1915	8.14"
2009	7.49"

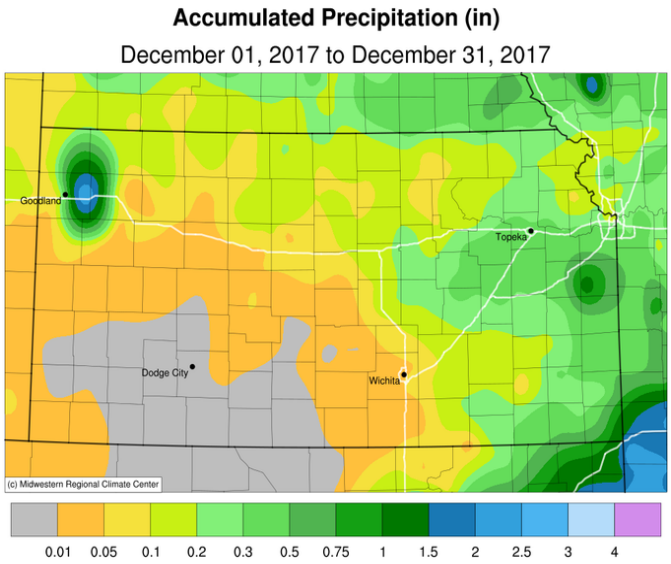
Not as Many Tornadoes in 2017

Fifty-eight tornadoes were reported across Kansas in 2017. This is well below the 1990-2017 annual average of about 91 tornadoes, and is Kansas' 4th fewest annual total since 1990. These numbers are preliminary and may change slightly over the next few months.

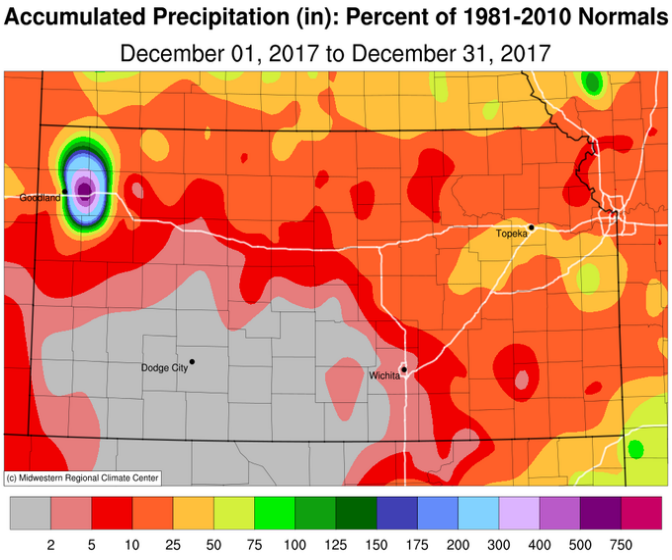


Dry December

The large-scale weather pattern favored drier than normal conditions to end 2017 across much of the region. Most of Kansas received 25% or less of their normal December precipitation, with much of the southwest quarter of the state receiving less than 5% of their normal precipitation.



Kansas observed December precipitation. Much of the state received less than 0.2" precipitation.



Kansas observed December precipitation percent of normal. Most of the state received 25% or less of their normal precipitation.

Be sure to find us on

Facebook: **US National Weather Service Wichita Kansas**

Twitter: **@NWSWichita**

YouTube: Search **NWS Wichita**

Warning Credibility & Getting People to Take Action

By: Chance Hayes—Warning Coordination Meteorologist

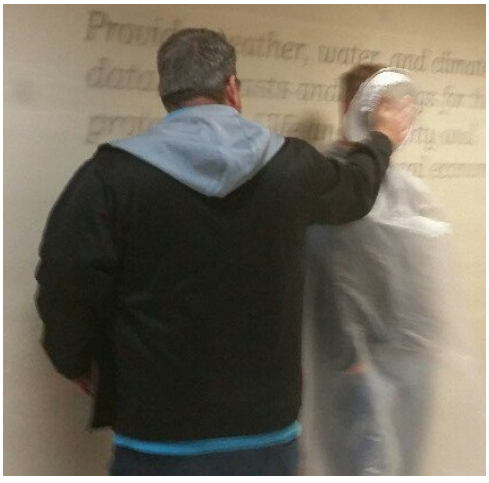
It has become increasingly difficult to get people to take action when the weather warrants. This can be due to many different factors like the ability to have weather information at a person's fingertips such as radar data, wireless emergency alerts for the more dangerous type of weather or just not caring. A couple of things that we have heard over the years from people is that we issue too many warnings leading to complacency, and the warning verbiage itself states "Doppler Radar Indicated" which means that it may or may not actually exist. What most people don't know is actually how powerful and accurate Doppler radar is today. It has the ability to depict: where hail will fall and give an approximated size, where enhanced straight line winds will occur and how strong they may be, and where rotation occurs that could lead to a tornado and the resulting rotational velocities that may indicate tornado strength. If a person knew these facts, they would likely act accordingly and more readily. Unfortunately, this isn't the case, and they tend to rely on the simple verbiage in the warning.

This being said, your reports are crucial in producing a correct and prompt action to the impending situation. How? When we utilize phrases stating the report came from a storm spotter, law enforcement or a trained spotter then people understand that someone has physically seen or experienced the hazard and relayed it to the National Weather Service. This simple observation and report instills action versus being quickly dismissed like the "Doppler Radar Indicated" verbiage.

So, we ask you to help us by reporting any significant weather hazard via social media or a phone call. Help us create action during severe weather and not disregard.

NWS Wichita Fundraising Activity

NWS Wichita participates along with several other government agencies in the annual Combined Federal Campaign (CFC). This campaign is a voluntary effort to raise money for non-profit organizations providing assistance locally, nationally and globally. Each employee can elect to make a one time or bi-monthly donation to the charity or charities of their choice. This year the Wichita office decided to raise money with a potluck and "pie the boss" activity. Employees could take a shaving cream pie and throw it at our Meteorologist in Charge (MIC), Ken Cook. Participants had to pay $10 for each pie. All of the proceeds were donated to the Wichita Children's Home. It was a fun activity for all even the MIC who came up with this fundraiser idea.



Rich Fallin putting a pie in the MIC's face

May Once Again Proves to be the Most Active Month for Tornadoes in 2017

By: Eric Schminke - Meteorologist

Overall 2017 was a fairly quiet year in the "Department of Tornadoes" in the Wichita County Warning Area (CWA). As is often the case, the majority of the twisters that did visit central, south-central or southeast Kansas did so in May. Of the 17 that were confirmed, 13 were in May and occurred on three out of four days from the 16th to the 19th. Of this total, the only one that was significant was a strong EF3 that struck Barton County.

That evening a tornado developed in Pawnee County, 3 miles east of Larned and moved northeast into Barton County. The tornado entered Barton County about 0.7 of a mile southwest of Pawnee Rock. It then struck the west side of Pawnee Rock where it caused EF1 to sporadic EF2 damage to several homes and one school. As the tornado begin to move more toward the north/northeast, it caused EF2 damage to two homes on West Barton County Road. One was a mobile home where one person was injured.

The tornado strengthened considerably as it once again moved toward the northeast. A farmhouse built in 1890 and located two miles west/northwest of the Great Bend Airport, was destroyed; it was at this point that the tornado achieved EF3 intensity. All three occupants sought shelter and were unharmed. The house next door to the farmhouse was almost completely destroyed. The remainder of the tornado's track was in open country, and damage was limited to trees and power lines.

EF2 damage on west side of Pawnee Rock

EF3 damage 2 miles west/northwest of the Great Bend Airport

The twister's track ended 2½ miles northwest of Hoisington. This tornado's track was 27 miles long (of which 22 miles were in Barton County), reached 300 yards wide and tracked in Barton County for 27 minutes. It caused $658,000 damage and injured two.

EF3 damage 2 miles west of Great Bend Airport

The most tornadoes occurred on the 19th when seven occurred. They were all "little guys" with short tracks that remained in the open country. There was an EF1 variant; although it's track was only 0.8 mile long and 60 yards wide. It damaged a barn and threw a machine shed into a tree between 8½ and 9 miles west/northwest of Elmdale in central Chase County.

Anxious Moments In Salina On June 26th

Salina faced a precarious situation on June 26th. At 620 PM CDT, a tornado developed 5 miles north/northeast of the city no more than a mile north of the I-70/Ohio Street interchange. As the tornado crossed I-70, it overturned a tractor trailer, but no injuries were reported. The tornado struck the country club area, but damage was limited to trees and power lines. Although the twister was only rated an EF0, it did have a track just short of 7 miles long and averaged 60 yards wide as it moved southeast around 30 mph.

Once again, 2017 was relatively quiet from a tornado standpoint. There were 58 tornadoes reported statewide which is much below the annual average of 91 since 1990. From 2007 to 2016, 268 tornadoes were confirmed in the Wichita CWA. The 2017 total of 17 was 10 events below the 10-year average.

We shall see what happens in 2018.

Meet Our New Meteorologist —Thomas Vaughan

Thomas Vaughan is the newest member of the NWS Wichita team, reporting for duty in September of 2017.

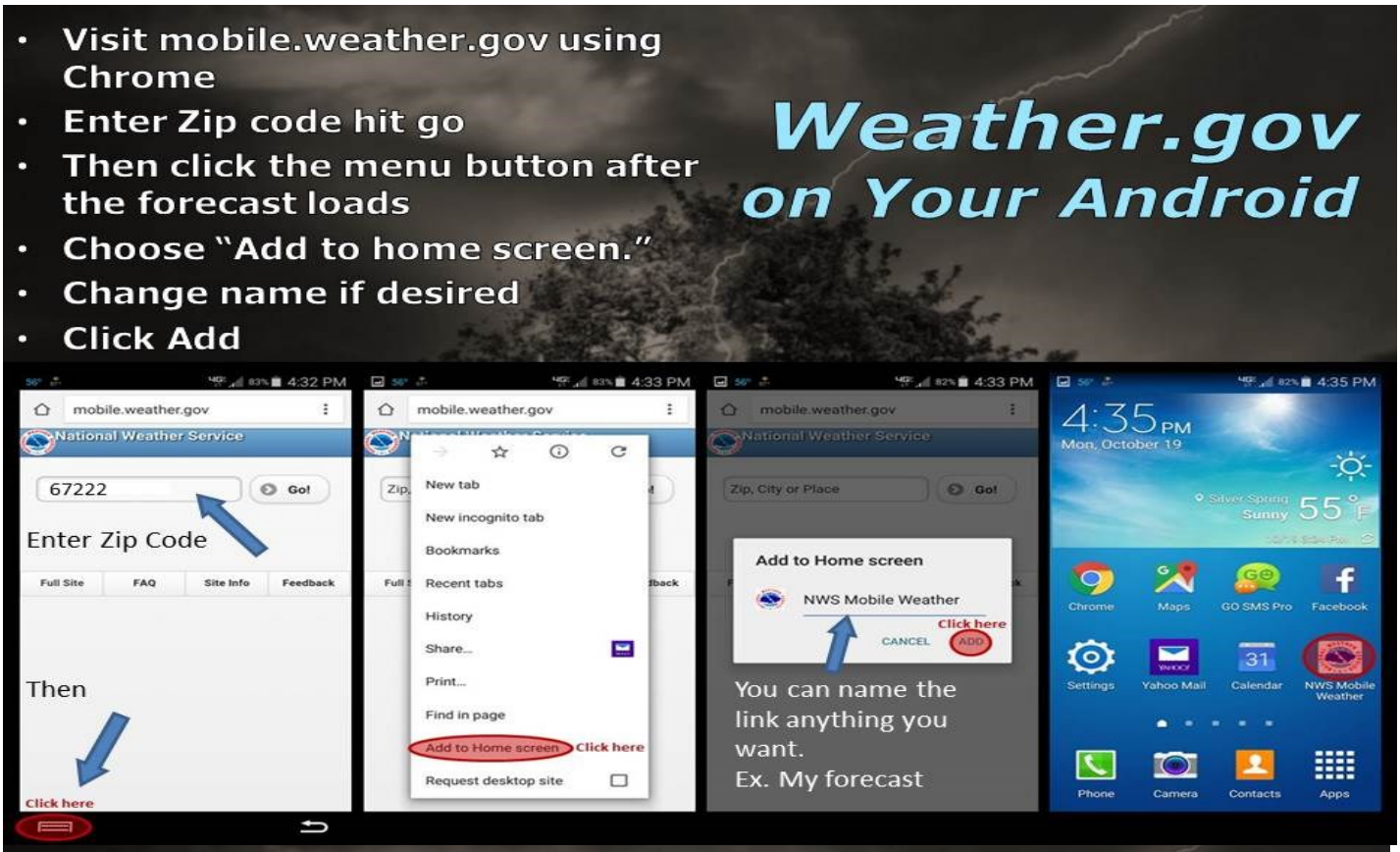
Growing up in a small town in northeastern North Carolina near the Outer Banks, Thomas experienced numerous hurricanes as a child, which is what originally sparked his interest in meteorology at a very early age. Two that stand out in particular were Hurricane Floyd in 1999 (which caused catastrophic flooding throughout eastern North Carolina and damaged many of his friends' homes) and Hurricane Isabel in 2003 (which left his family without electricity for nearly two weeks). Additionally, he experienced his first (and so far only) tornado in fifth grade, and by then Thomas knew he wanted to be a meteorologist when he was older—an inclination that never really changed.

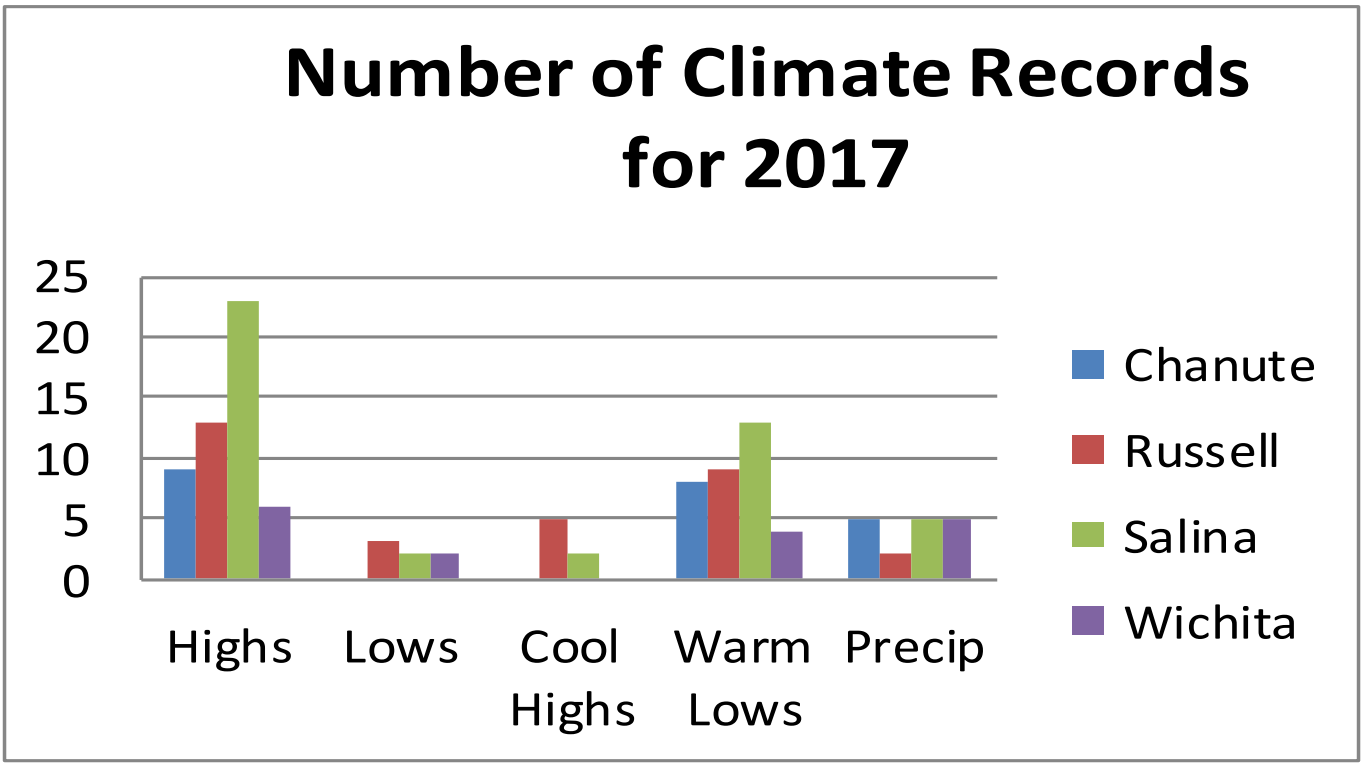
After graduating as valedictorian of his high school class in 2011, Thomas enrolled as an Applied Atmospheric Science major at East Carolina University on a full academic scholarship as an EC Scholar and Honors College student. While at East Carolina, Thomas was selected as an Ernest F. Hollings Scholar by the National Oceanic and Atmospheric Administration (NOAA), the parent agency of the National Weather Service. As a Hollings Scholar, Thomas interned at NOAA's Pacific El Niño/Southern Oscillation (ENSO) Applications Climate Center in Honolulu, HI, where he created a statistical seasonal rainfall forecast for the Hawaiian Islands based on a canonical correlation analysis technique using ENSO signals in the Tropical Pacific.

Following graduation from ECU in 2015, Thomas went to graduate school at Florida State University to pursue a master's degree in meteorology. At Florida State, Thomas was the lead graduate teaching assistant for the department's Introductory Meteorology Laboratory courses before eventually becoming a graduate research assistant in the Nicholson Climatology Lab studying rainfall variability in Africa. This work in the Nicholson Lab ultimately led to his thesis topic, "An Examination of El Niño and La Niña Teleconnections to Sahel and Guinea Coast Rainfall in the Context of the 1968 Rainfall Regime Change." Additionally, while at Florida State, Thomas also served as the meteorology intern at the Florida Division of Emergency Management (FDEM). It was while interning at FDEM that Thomas learned the many aspects of operational forecasting and decision support, both of which have been beneficial so far in his career at the National Weather Service. Thomas defended his thesis this past summer and graduated from Florida State in August before beginning his career here at NWS Wichita in September.

In his free time, Thomas enjoys swimming, having worked as an ocean lifeguard in Myrtle Beach, SC during summer breaks and competing on the Florida State University club swim team. He also enjoys going to music festivals and has recently taken trips to festivals across the U.S. and beyond including Las Vegas, Atlanta, and Belgium.

How to get weather.gov on your mobile device





National Weather Service

2142 S. Tyler Rd.
Wichita, KS 67209
Phone: 316-942-8483 ext. 726
Email: Chance.Hayes@noaa.gov

Newsletter Editor:
Vanessa Pearce
Meteorologist
Email: Vanessa.Pearce@noaa.gov

"The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information, database and infrastructure which can be used by other government agencies, the private sector, the public, and the global community."

Online: www.weather.gov/Wichita

Got any ideas for articles? Let us know!

Email: vanessa.pearce@noaa.gov