

# Storm Fury on the Plains

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## Late Fall-Early Spring 2015-16 Highlights

By Andy Kleinsasser – Meteorologist



Hutchinson tree damage from Thanksgiving weekend ice storm. Photo courtesy of Ashley Booker.

**Thanksgiving Weekend Ice Storm:** A potent slow-moving storm system affected the region over Thanksgiving weekend causing a prolonged period of precipitation. The system began as rain brought upwards of 1-3 inches over eastern Kansas on Thanksgiving Day. The system transitioned into a winter storm of freezing rain, sleet and snow from Thanksgiving night through Sunday night as colder air filtered south across the area. A prolonged period of freezing precipitation resulted in significant ice accumulations of one-quarter to three-quarters of an inch across portions of central and south-central Kansas, generally west of the Flint Hills. Consequently, damage to trees and powerlines

was extensive in spots.

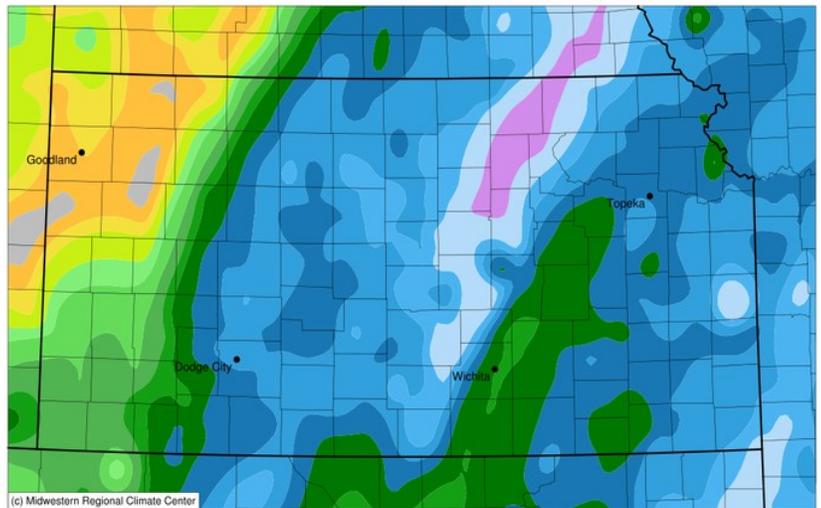
### Rare December Flooding:

An intense low pressure system lifted out of the Desert Southwest and moved into the High Plains on the weekend of December 12th. This storm system pulled rich Gulf moisture into the Plains causing rare December flooding for much of central and eastern Kansas. Many streams and rivers overflowed their banks across the area with rainfall amounts ranging from 1-3 inches. No doubt if this rainfall would have fallen as snow, accumulations

would have been measured in feet rather than inches!

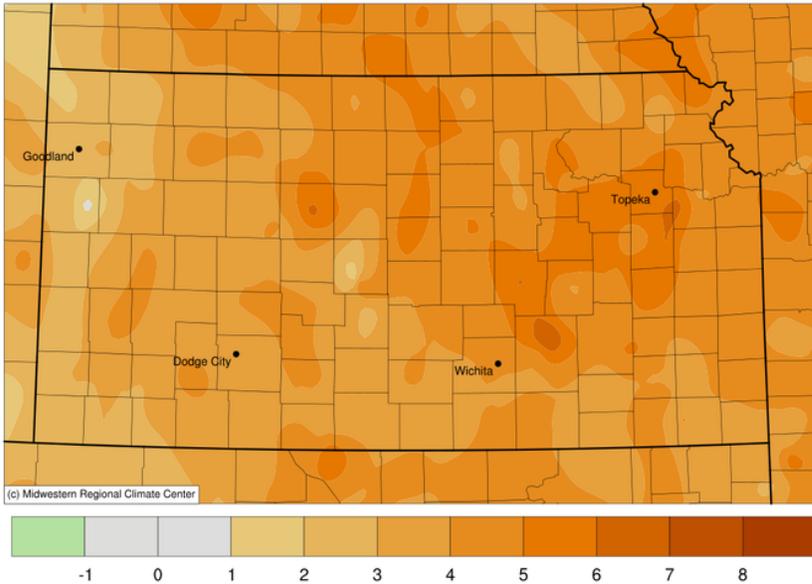
### Accumulated Precipitation (in)

December 11, 2015 to December 15, 2015



Unusually heavy rain for December fell across much of central and eastern Kansas on the 12<sup>th</sup>-14<sup>th</sup>, with some areas exceeding 3-4 inches.

**Average Temperature (°F): Departure from 1981-2010 Normals**  
 November 01, 2015 to February 29, 2016



**Average temperature departure from normal November 2015 through February 2016. Much of Kansas was at least 3 degrees warmer than normal.**

5.1 degrees warmer than normal. It was 2<sup>nd</sup> only to 1999-2000. It was Wichita's warmest November-February period on record (since 1888). Wichita also recorded its warmest December since 1965, and its warmest February since 1999.

**Dry and Snowless Mid-Late Winter:** The large-scale atmospheric pattern transitioned from a wet and stormy November-December to dry in January. With the exception of only a few instances, this dry pattern persisted through March. A good chunk of southern, central and into eastern Kansas received only 25 to 50 percent of normal precipitation January-March with portions of southwest Kansas only receiving 5 to 25 percent of normal precipitation.

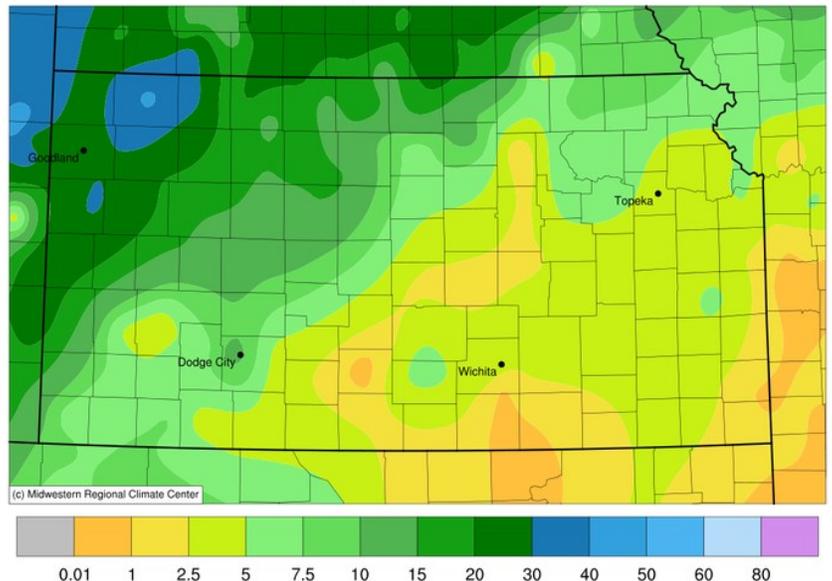
The lack of precipitation translated to below normal snowfall, especially over the southeast one-half to two-thirds of the state, where November through March snowfall totals were generally less than 5 inches, with some locations less than 1-2 inches.

The heavy rainfall of November and December, supported by the strong El Niño, helped boost Kansas to its 2<sup>nd</sup> wettest November-December period on record (since 1895) which tallied a statewide average of 5.46 inches, 3.28 inches above normal. It was Wichita's 7<sup>th</sup> wettest November-December period on record (since 1888) which tallied 6.39 inches, 3.77 inches wetter than normal. It was Wichita's wettest November since 1992.

**Above Normal Temperatures:** The strong El Niño also supported warmer than normal temperatures across much of the region from late fall through the winter. In fact, Kansas experienced its 2<sup>nd</sup> warmest November-February period on record, averaging 39.2 degrees which was

**Accumulated Snowfall (in)**

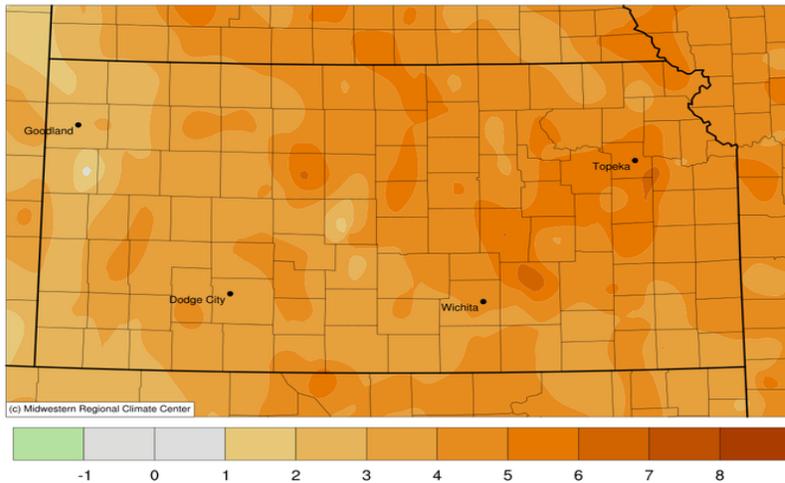
November 01, 2015 to March 31, 2016



**Accumulated snowfall November 2015 through March 2016. Much of the southeast one-half to two-thirds of Kansas received generally less than 5 inches, with some locations less than 1-2 inches. Normal snowfall is around 10-18 inches.**

**Average Temperature (°F): Departure from 1981-2010 Normals**

November 01, 2015 to February 29, 2016



Average temperature departure from normal November 2015 through February 2016. Much of Kansas was at least 3 degrees

Normal snowfall is around 10-18 inches. In contrast, northwest Kansas received near to above normal snowfall, with November-March totals exceeding 20 to 30 inches in spots. Wichita tied with 1904 for its 2<sup>nd</sup> least snowiest November-February period, measuring a measly 0.8 inches. However, on Easter morning Wichita measured 3.5 inches, which was not only the largest snowfall of the 2015-16 season, but also knocked Wichita from 2<sup>nd</sup> to 12<sup>th</sup> least snowiest seasons on record.

## Wichita's Newest Meteorologist—Eric Metzger



Eric Metzger has been a meteorology intern at the Wichita office since October 2015; his professional meteorology career began in Bedford, Massachusetts working at Weather Service Corp (WSC) after graduating from the University of Nebraska-Lincoln (UNL) in 1994. At WSC, he provided decision support services to a wide range of operations from nuclear power plants to airports and more. In 1999, Eric began work at Universal Weather and Aviation in Houston, Texas providing worldwide

decision support services and flight weather briefings to private and government flight operations. In 2003, he joined the Air Force and was selected to attend the Naval Postgraduate School to earn his Master's in Meteorology in 2008.

Like many meteorologists, Eric's passion for science and weather originated at an early age by experiencing significant weather events from Hurricane David in 1979 and the many severe storm events and winter events throughout the 80s and early 90s in Kansas and Nebraska. The most notable of these would be the Hesston Kansas tornado on March 13, 1990. He began his college career as an astronomy/physics major at UNL but switched over to meteorology/climatology a year and a half later and never looked back.

Eric has worked many significant weather events to include the Great Barrington, Massachusetts tornado of '95; the Jerrell, Texas tornado of '97; the blizzard of '96, blizzard of '97, Hurricane Katrina, Hurricane Rita (received a decoration for his DSS actions) and Typhoon Ewinar ('06) in an operational role. Eric has also led offices in operational and support roles at Kessler AFB and Ft. Bliss Texas.

Eric met his wife, Rebecca, in Nashua, New Hampshire, and they were married in 2000. They have three children, two of which are now on their own. Their youngest is a competitive swimmer. Eric and Rebecca enjoy watching their son compete in the national USA swimming program.

## 25th Anniversary of the April 26th 1991 Tornado Outbreak Live-Tweet Event

Look back at [#Andover25th](#) [#Outbreak1991](#)

[@NWSWichita](#) [@NWSTulsa](#)

*By Jaclyn Ritzman – Meteorologist*

To remember the events that unfolded 25 years ago on April 26th, the National Weather Service Offices in Wichita, Kansas and Tulsa, Oklahoma put together a timeline of events the events that unfolded on April 26th, 1991. To continue to work towards building a Weather-Ready Nation, the first half of the Twitter event provided information to educate the public on severe storm environments, safety, and how the National Weather Service has evolved since 1991. The second half of the live tweet event followed supercell thunderstorms that tracked across northern Oklahoma and the supercell that produced the Andover tornado. At the very end of the Tweet event, an overview of the tornadoes and their impacts were also provided as many tornadoes, some violent, occurred on April 26th, 1991.

### **8am—4pm:**

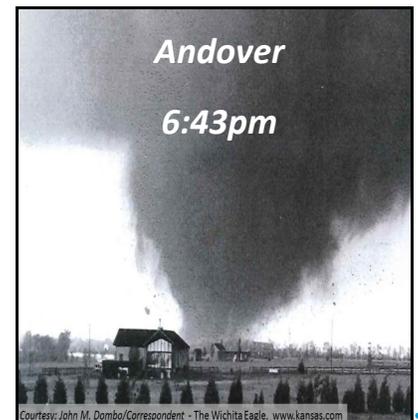
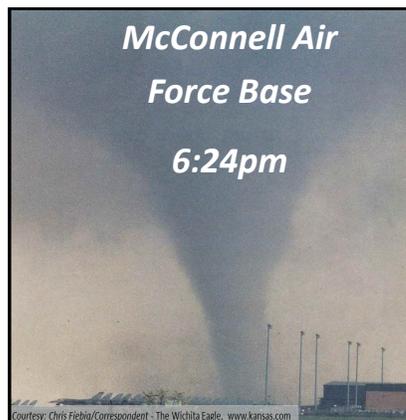
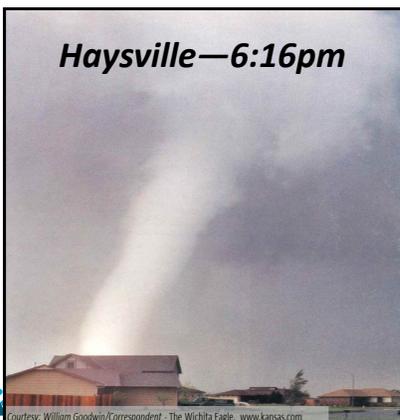
- Learn about supercell thunderstorms, the environment that supported these dangerous storms on April 26th, 1991, and how warnings, dissemination of warnings, and radar data have evolved within the National Weather Service since 1991.

### **4pm—8pm:**

- Follow the supercell that produced the Andover tornado as it tracked across south central Kansas as well as tornadoes that tore across northern Oklahoma.

### **8pm—10pm:**

- Check out the overview of the events including information about other tornadoes that happened that day across



## Mental checklist for tornado safety in a vehicle

***By Chance Hayes—Warning Coordination Meteorologist***

It can be a very daunting task to make the right decision if you are in an undesirable situation while traveling in and around thunderstorms. Your very best option is to be prepared and to not be in that position at all. Use all available resources at your disposal prior to traveling in and around inclement weather. However in the unfortunate event that you are caught in a vehicle, you need to ask yourself these questions to arrive at your best option. Every situation is different, and a quick but thorough decision process is needed. I should preface this checklist with a statement that you should never leave the safety of your home to seek shelter under a bridge or in a ditch or culvert. If you have planned accordingly, you may have time to drive to a sturdy indoor shelter that is not present at your location.

- ◇ Am I safe at my current location?
- ◇ Do I have time to drive away from the tornado?
- ◇ Can I drive ahead and get to shelter?
- ◇ Do I need to drive at a right angle based on the tornado's movement?
- ◇ Do I perform a U-turn and drive to shelter?
- ◇ Do I remain in my seatbelt and lie sideways or recline my seat back in my vehicle and get below window level?

### **Last resort options**

- ◇ Do I get into a ditch or culvert?
- ◇ Has it been raining heavily?
- ◇ Do I get under an overpass?
- ◇ Does the bridge have steel girders which produces a "cubby hole" to seek shelter?



Be sure to find

**US National Weather Service Wichita Kansas**

**on Twitter at [@NWSWichita](https://twitter.com/NWSWichita)**

**Also be sure to check if your county Emergency Manager has a Twitter account for your county.**

## Hazardous weather safety decisions

### *By Chance Hayes—Warning Coordination Meteorologist*

When it comes to hazardous weather safety, is there a perfect answer? Some would argue that this is a very difficult question to answer. I would argue that it isn't. If you are taking the appropriate steps towards personal responsibility, you should have the answer. That answer is to be prepared before the onset of the weather event. By taking personal responsibility, you should have:

1. Become prepared by paying attention to the weather earlier in the day or days leading up to the event
2. Understand the threats posed by the storm
3. Understand the area that is being threatened
4. Don't ignore what is being said
5. Don't become complacent
6. Act immediately when warranted

How can you better prepare yourself for times when inclement weather is expected to impact your day? Use a multitude of risk signals that are readily available to you.

1. Watch local television
2. Listen to commercial radio
3. Listen to NOAA Weather radio when you first wake up
4. Use your smart phone to remain alert to weather situations by looking at radar and having mobile alerts sent to directly to you
5. Call your loved ones and let them know what they can expect
6. Most importantly, use your EYES
  - a. If it looks bad, it probably is bad, and you should avoid the area

If you can become more responsible for your personal safety by using the various risk signals at your disposal, it is very likely that you will not have to make a lifesaving decision.



**National Weather Service  
Wichita, Kansas**

**Report**

**T**ime of Event

**E**vent Type

**L**ocation of the Storm

**L**ocation of Yourself

[www.weather.gov/wichita](https://www.weather.gov/wichita)

 NWSWichita

 @NWSWichita  
#kswx



Example: "I saw a tornado at 4:43pm approximately 2 miles south of my location, which is 4 miles NW of Winfield."

Hail Sizes		Tornadoes	Wind Reports	
0.75"	Penny	Damaging Winds	> 58 MPH	Twigs & small limbs break off
1.00"	Quarter	Wall Cloud	58-72 MPH	Shingles damaged & large limbs broken
1.25"	Half Dollar	Funnel Cloud		
1.75"	Golf Ball	Hail	73-112 MPH	Roof damage, windows break, & trees uprooted
2.00"	Egg	Flooding		
2.50"	Tennis Ball	Snow Totals	113+ MPH	Roofs torn off & trailer homes destroyed
2.75"	Baseball	Ice Accumulation		
4.00"	Grapefruit			

**When reporting, please report your location in reference to a town.**



## NWS Wichita Gets Their Cooking Skills On

On Wednesday, March 2<sup>nd</sup>, we held our 6<sup>th</sup> Annual Chili Cook-off. This was an opportunity for the staff to try out their latest chili creations and recipes to get their name on the coveted plaque. Four staff members submitted entries for the competition with all the rest of the fixings provided by the rest of the staff. Retirees from our office were invited to attend and provided their votes. Each staff member got to choose their favorite and place it in the official ballot box. Our new champion was Josh Johnson, electronic technician, who made a traditional style ground beef chili with tomatoes, beans and all sorts of spices. It was a wonderful event filled with fun and laughter.

## Your Role as a Community Based Spotter

Your duty as a volunteer Community Based Spotter is extremely important to us at the NWS. You are basically our eyes in the field. Your reports to the NWS are vital in the hierarchy of communications. It is your report that gets peoples attention, aids the warning forecaster, and helps to save lives and property. So, as we move into this severe weather season I hope that you keep these core values in mind and fulfill your role as a Community Based Spotter.

- You are aware of the expected weather
- You are trained at recognizing significant weather
- You are dedicated to reporting the significant weather I observe
- You will ensure that those that I am associated with, as well as myself, will stay safe

Be sure to find

[US National Weather Service Wichita Kansas](#)

on Facebook

**Also be sure to check if your county Emergency Manager has a Facebook page for your county.**

## 2016 Cooperative Observer Awards

The following cooperative observers were presented Length of Service Awards in 2016. We would like to thank and congratulate our observers for volunteering their time in providing us with the climatic data which is published by the National Climatic Data Center on a monthly basis and made available to the private, public, and government entities. Their dedication to service is greatly appreciated!

<u>Observer</u>	<u>Station</u>	<u>Years</u>
Marc Friesen	Newton	10
Larry Rader	Caldwell	10
Jim Holloway	Arkansas City	10
Irene Myers	Wellington	10
Eric Stites	Mount Hope	15
Tammy Razey	Peck 2 S	15
Tim Howell	Hillsboro	15
Marvin Wheat	Eureka 1 E	15
Leonard Moore	Mulvane 1 W	20
Lafaye Noble	Bartlett	20
G. Robert Watkins	Wonsevu	30
US Army Cor. of Engineers (Institution award)	Marion Reservoir	50
Humboldt Municipal Water Plant (Institution award)	Humboldt	50
US Army Cor. of Engineers (Institution award)	Kanopolis Lake	75



Be sure to find us by searching for

**NWS Wichita**

on YouTube

