National Weather Service
Wichita, KS

Storm Fury on the Plains

Spring Spotter Newsletter

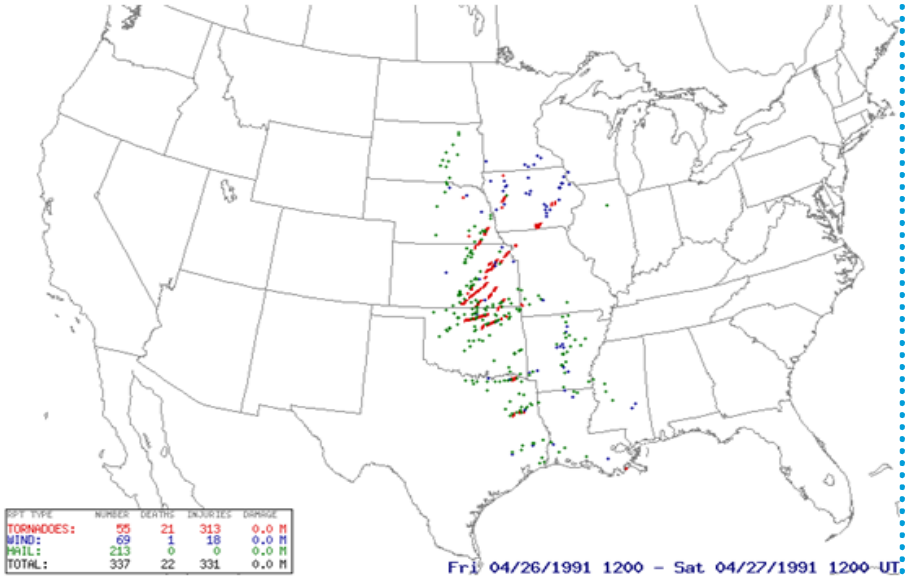
April 2011

Inside this issue:

1991, A year to Remember Twenty Years Later

By: Dick Elder

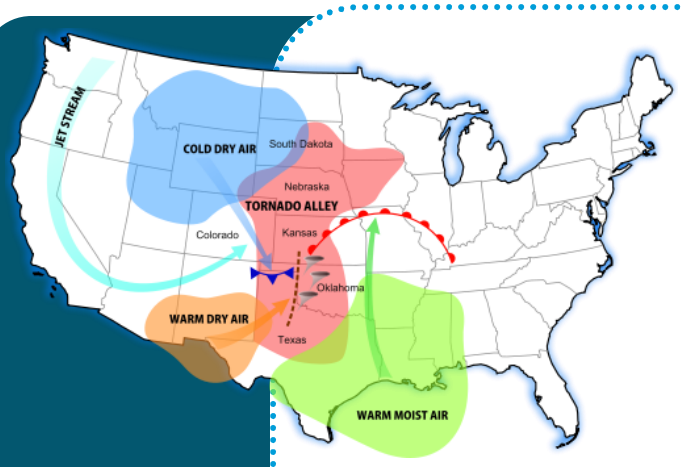
Hi, my name is Dick Elder. I am the manager of the Wichita National Weather Service office. I've had the honor of serving in this position for nearly 21 years. Over that time I have seen a lot of severe weather events. It should go without saying I am fascinated by severe weather. That's the main reason I chose the meteorology career, and it is part of the reason I came to Wichita to pursue it.



Severe storm reports from 4/26/1991 through 4/27/1991. Tornado tracks are in red.

F5 Tornado moving into Andover, KS April 26, 1991

One year that occurred not long after I came to Wichita continues to stand out for me, 1991 – a year unprecedented for severe thunderstorms and tornadoes in Kansas and in the Wichita area. Since the Weather Service began keeping tornado statistics in 1950, Kansas has averaged 60 tornado touchdowns across the state per year. Fortunately, only about 5 per year are classified as EF-3 or higher on the Enhanced Fujita Scale. EF3 tornadoes are strong enough to cause significant property



Tornado Alley, Where Significant Tornadoes occur the most frequently.

"In 1991, Kansas had 115 tornadoes. Nine of those were rated EF-3 or higher"

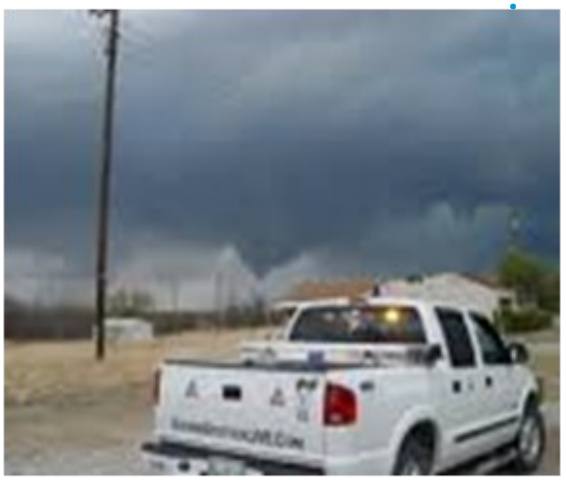
damage, injuries, and deaths.

In 1991, Kansas had 115 tornadoes. Nine of those were rated as EF-3 or higher. The strongest was the April 26th EF-5 tornado that ripped through Andover in western Butler County.

Twenty people died in severe weather and tornadoes that year and 347 were injured. Property damage was put at $330 million dollars.

Few people realize that on March 26th and April 26th, 1991, tornadoes followed tracks within 5 miles of one another across Cowley County. In Sedgwick County, a violent tornado tracked across south Wichita on April 26th, and three weeks later on May 16th, another strong tornado touched down and moved within a mile of the original track. Like lightning, tornadoes do strike twice in the same place.

Many of you may know Wichita is sort of located on a dividing line between the Great American Desert to the west and the wetter and more temperate areas of the Ozarks and the Midwest. The city and surrounding areas sit in the heart of Tornado Alley.



A view of the Andover Tornado.

I hope this region never again sees severe weather to match 1991, but my experience tells me we will see massive tornadoes and outbreaks of multiple tornadoes again.

The destructive weather of 1991 is something I think about each and every day as we prepare for severe weather season each year. We, as scientists and public protectors, learned many things that year that have helped us be successful in the National Weather Service mission to protect lives and property.

I came to the realization that the National Weather Service can provide the best warnings possible. Local emergency management agencies can sound sirens. Local media can provide constant updates on the storms, but it still comes down to each of us taking responsibility to stay informed and to make correct decisions to protect ourselves from severe weather.

The aftermath of Andover 1991.

I want to give you some examples of how poor decisions made on April 26th, 1991 resulted in tragedy that might have been avoided.

As a violent tornado was moving across Cowley County northeast of Winfield, volunteer severe weather spotters were out ahead of the storm. Not only were they calling in reports on the tornado's location and direction of travel, they were going house to house telling people to take shelter because a dangerous tornado was

headed their way. One of the tornado fatalities that day was a young lady who chose to stay in her mobile home after one of those brave spotters told her to take cover. The mobile home was demolished, and she was one of the first fatalities of the storm.

At nearly the same time a violent and deadly tornado was moving out of south Wichita and drawing a bead on the city of Andover. The Golden Spur Mobile Home Park was in the direct path of this tornado. Knowing this, an Andover policeman took it upon himself to drive through the mobile home park, sounding his siren to do what he could to advise people that they needed to take shelter. Many did take shelter in the park's community shelter.

However, 13 Golden Spur residents died in the tornado. Some either were oblivious to the tornado or weren't sure what to do to stay safe.

One couple left their mobile home and sought shelter in the metal shed where they stored their lawn equipment. Their mobile home and shed were destroyed, and one of the couple died.

One person knew the tornado was coming, walked to the community shelter, and then went back to his mobile home telling others he had forgotten to lock the door. His body was found among the rubble.

Another man, known to be rather independent, enjoyed sitting on his porch. He stayed true to his routine that day and sat on his porch, refusing to heed warnings from others about the tornado. His body was found among the debris.

My purpose here is not to criticize the victims of these storms but to emphasize the need for everyone in this state to educate himself or herself about what to do when severe weather strikes. At some time, you will be threatened by severe weather. The decisions you make at that time can mean the difference between life and death.

"The decisions you make at that time [of severe weather] can mean the difference between life and death"

Our Skywarn storm spotter and weather safety presentations offer the opportunity to learn about severe weather and how to stay safe. Everyone who attends and completes this training session is a qualified storm spotter and is educated on severe weather recognition and detection to provide accurate reports of severe weather conditions to the National Weather Service and local emergency management.

You can also learn how to be safe by following guidance in severe weather safety brochures available from the National Weather Service and the American Red Cross. You can find links to severe weather brochures at http://www.weather.gov/safety.php.

I encourage each of you to take these safety tips to heart and share them with family and friends. Make sure you know where to find adequate shelter if severe weather threatens at home or at work – the two places you spend most of your time. Make sure to share this with family and friends, and ask that they do the same. Let's learn from the tragedies of 1991.

Mick McGuire: Wichita's Newest General Forecaster

Welcome Mick!

Mick McGuire, originally from the San Joaquin Valley of California, moved to Clearwater, Kansas at an early age. He has worked in four NWS offices before arriving in Wichita, Kansas in December 2010. Mick's interest in severe weather came at a young age when watching satellite images on the evening news, and it was reinforced at a ball game when wind driven hail up to the size of baseballs sent everyone running for cover.

After working numerous jobs following high school, Mick decided to follow his life-long love of the weather and become a meteorologist. Mick volunteered at the NWS in Topeka, Kansas while seeking a degree in Atmospheric Science at the University of Kansas. After graduating from KU he started his career at the NWS in Tulsa, Oklahoma. He was promoted to a General Forecaster at the NWS in Brownsville, Texas and then accepted a position as a Senior Forecaster in Goodland, Kansas. Mick has been involved in a wide range of endeavors throughout his career including overseeing the Fire Weather Program, NOAA Weather Radio, Climate, and working with various computer systems. One career highlight includes providing support to the NWS in Lake Charles, Louisiana following the landfall of hurricane Rita in 2005.

In his spare time, Mick enjoys spending time with his family, running, storm chasing, landscape photography, and gardening. He began pursuing severe storms in the early 90s after witnessing his first tornado on May 16, 1991 near Clearwater, Kansas and continues to log miles in search of tornadoes across the Great Plains today.

The National Weather Service In Your Neighborhood

By: Chance Hayes

Were you aware that the National Weather Service has a presentation to fit everyone's need? Our staff enjoys traveling to the communities we serve to meet the people that reside across Kansas. We are willing to travel and speak to any organization that would be interested in learning more about the weather. We have three distinct presentations for all school aged kids, a presentation for civic groups, or church groups. If you are more interested in fire weather, we can accommodate you as well. Those are only a few of the presentations we offer. If this sounds intriguing to you, feel free to contact Chance Hayes by email to schedule a date for us to travel to your community. These presentations are free of charge. We look forward to the opportunity to provide weather information to each person that resides in our area. For more information contact Chance.Hayes@noaa.gov or sign up online at http://www.crh.noaa.gov/ict/?n=talks.

Chance Hayes giving a spotter presentation to a group in the community.

The Abominable Snowman Scores Winter Storm 'hat trick' for Winter 2010-11

By Eric Schminke - General Forecaster

Two strong winter storms occurred only one week apart, wreaking havoc on the residents of Kansas.

In hockey, a hat trick occurs when a player scores three goals in one game. After a dormant December during which only a trace of snow was recorded at Wichita's Mid-Continent Airport, the 'Abominable Snowman' swung into action by unleashing 3 winter storms across Kansas. The 2nd and 3rd such events occurred only one week apart, on January 31st-February 1st and February 8th and 9th.

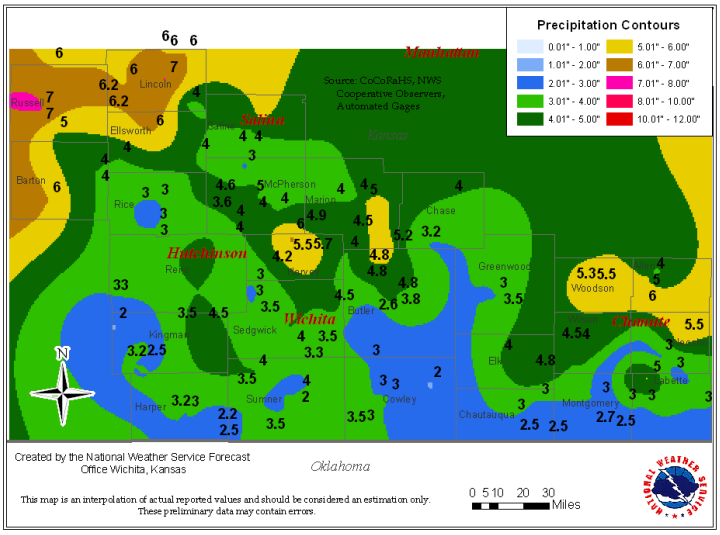
January 9th-10th:

The first winter storm arrived on January 9th and 10th especially Central and Southeast Kansas which experienced light to moderate snow continuously for about a 24-hour period. Hardest hit were Lincoln, Russell, and Barton counties where 6-7 inch accumulations were prevalent. Parts of Southeast Kansas, especially Woodson, Allen and Neosho counties, received 5-6 inches. Snowfalls around South-Central Kansas were generally 3-5 inches, but the majority of the snowfall arrived just in time for the morning rush hour during which around 100 accidents occurred in the Wichita Metro Area.

Snow accumulation at Bunker Hill, KS. Photo by Russell County Emergency Manager.

The culprit for this first winter event didn't appear overly ominous; however, it was *slow moving*. An upper-level low pressure trough drifted east-southeast across the Northern Plains. While in the lower atmosphere, weak low pressure rounded the base of the trough along the Red River. The slow movement of both features allowed for prolonged moist ascent over Kansas from Sunday evening (the 9th) through Monday evening thereby resulting in a prolonged period of predominantly light, powdery snow.

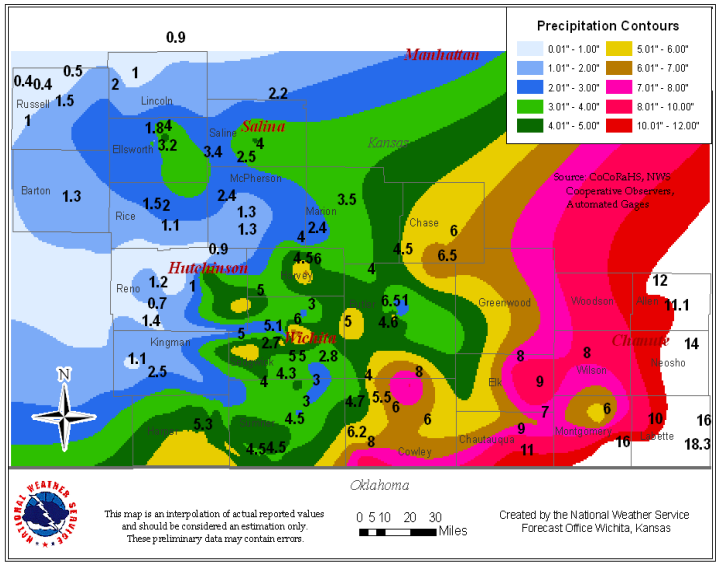
Snow Total Accumulations for January 10th & 11th, 2011



January 31st-February 1st:

The second winter storm arrived the evening of January 31st, but unlike its January 9th-10th predecessor, this storm would pack a nasty punch. This time the culprit was a powerful cyclone that intensified as it moved east along the Red River on February 1st then sprinted northeast to the Mid-Mississippi Valley on the 2nd when the cyclone wound up like an alarm clock.

Storm Snow Totals as of 7am on February 2nd, 2011



The result: A monstrous blizzard that would bury most areas with heavy snow whipped by 35-40 mph winds from January 31st to February 1st. (A winter storm becomes a blizzard when wind-driven snow frequently reduces visibilities to ¼ mile or less with sustained winds exceeding 35 mph for 3 hours or more.)

The heaviest snow and strongest winds occurred over Southeast Kansas where total accumulations reached 12-18 inches. The greatest accumulations overwhelmed extreme Southeast Kansas. With 35-40 mph winds, the blowing and drifting snow was obviously widespread and produced drifts 3 to 6 feet deep with near zero visibilities. Areas of South-Central Kansas received 5 to 8 inches with drifts of 2-4 feet, while most of Central Kansas received 2 to 4 inches. In Southeast Kansas, travel was virtually impossible as most roads and highways were closed.

This event was anticipated 3 days in advance with Winter Storm and Blizzard Warnings. The dangerous winter storm would prove deadly with 2 confirmed deaths. A total of 53 counties were declared disaster areas mostly in Eastern Kansas.

This blizzard impacted about one third of the country from New Mexico to New England and Eastern Canada. Many areas were buried by 10 to 20 inches of wind-driven snow while other areas were glazed over by sleet and freezing rain. An estimated 100 million people were greatly affected by this historic winter event that will be remembered as "The Groundhog's Day Blizzard". It's highly unlikely that "Punxsutawney Phil" saw his shadow the morning of February 2nd. He was probably too busy trying to dig his way out of all the snow that had accumulated in his neighborhood.

"The heaviest snow and strongest winds occurred over Southeast Kansas where total accumulations reached 12-18 inches"

February 9th-10th:

Barely a week had elapsed since the "Groundhog's Day" blizzard when a 3rd snow storm invaded Kansas. Accumulations of 8-15 inches buried most

The snow drift outside of the NWS Wichita office at 5pm February 1st. The drift measured around

areas with localized amounts around 20 inches. Northerly winds of 15-25 mph produced drifts 2-4 feet deep. This 2nd snowstorm in 8-9 days enabled a few locations to set February snowfall records. In fact, February 2011 became the 6th snowiest February on record in Wichita's climate record history with an even 13.0 inches, and the month was barely 1/3 complete.

One culprit for this 3rd snowstorm was a mid-upper level disturbance moving east from the Central Rockies that induced an intense low pressure to form over the Texas Panhandle. Meanwhile, massive Arctic high pressure extending from Montana southeast across the Northern Plains and funneled bitterly cold air into Kansas. The bitterly cold, moisture-laden air coupled with intense, deep-layer ascent produced heavy snow across most of Kansas especially Central and Southeast Kansas. The heavy snow occurred on top of the snow from the previous blizzard a week earlier which travel treacherous.

After a dormant December, this winter definitely ended in historic February fashion when many snowfall records were set. We shall see if the spring season follows suit from a severe weather standpoint.

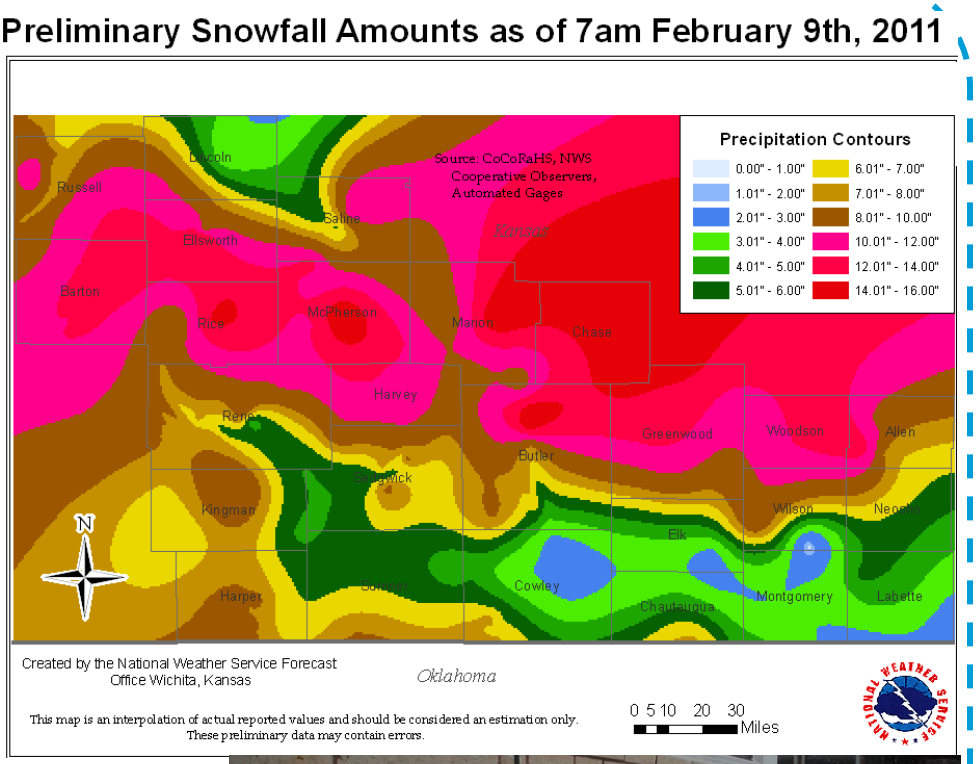


Image courtesy of Saline County Emergency Management.

facebook

Be sure to find

Wichita, KS Skywarn

on facebook

Also be sure to check if your county Emergency Manager has a facebook page.

April Burning Restrictions

By: Doug Watson KDHE.

Revised by Stephanie Dunten, Meteorologist Intern

A temporary Kansas Administrative Regulation was approved March 1, 2011 for Open Burning Restrictions for certain counties during the month of April. This is a new regulation in support of the State of Kansas Flint Hills Smoke Management Plan (SMP) that was formally adopted by the Kansas Department of Health and Environment (KDHE) on December 29, 2010. The regulation was proposed in an effort to have the regulatory component of the SMP in place for the Flint Hills burn season this March-April 2011.

Burning that will continue to be allowed in these counties during April includes agricultural burning related to the management of prairie or grasslands (range or pasture management) and conservation reserve program (CRP) burning activities. Restricted activities include: burning of materials such as land clearing debris, crop residues, construction debris, fire fighter training burns, and yard waste. Existing exemptions are allowed for the following: (1) open burning on a residential premise containing five or less dwelling units and incidental to the normal habitation of the dwelling units and (2) open burning for cooking or ceremonial purposes on public or private lands regularly used for recreational purposes. Other exemptions may be considered on a case-by-case basis for certain activities; for example, the burning of storm debris would be a possible qualifying exemption.

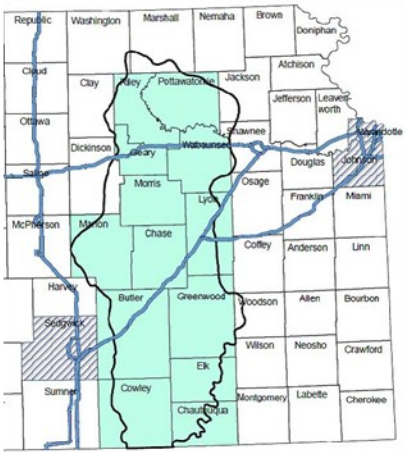
Burn activities not explicitly exempted in the new regulation will be subject to review and approval by the KDHE. Any proposed burn activity must be proven to be necessary, to be in the public interest, and not to be prohibited by any local government or local fire authority.

April burn activities involving nonagricultural land clearing debris and construction debris in Johnson, Wyandotte, and Sedgwick counties will be subject to review and approval by the respective local authorities.

More information on the Kansas Smoke Management Plan can be found at www.ksfire.org.

The regulations will apply to the following 16 counties:

Butler	**Lyon**
Chase	**Marion**
Chautauqua	**Morris**
Cowley	**Pottawatomie**
Elk	**Riley**
Geary	**Sedgwick**
Greenwood	**Wabaunsee**
Johnson	**Wyandotte**



For more Information: www.ksfire.org

NWS Wichita offers Bi-lingual service for the Hispanic communities

By: Vanessa Pearce, Meteorologist Intern

¡Hola! The National Weather Service in Wichita is pursuing a new venture of trying to work with the Hispanic communities in our county warning area (CWA). Our first efforts include the recording of our public service announcements in Spanish which will be played on El Radio Lobo during the severe weather season. One of our staff members is in the process of translating our brochures and weather safety videos to further our efforts. We are hopeful that this will be a step to reaching out to those within our CWA and beyond that we may have not have been able to reach before. If you have any questions about these efforts or would like more information or a copy of our translated brochures, please contact Vanessa Pearce at Vanessa.Pearce@noaa.gov.

Getting to Know your National Weather Service Team

Scott Smith, Meteorologist Intern

Our newest member of the WFO Wichita team reported for duty January 31st of this year. Scott Smith comes to us after serving in the Air Force for 10 years.

He began his career as an enlisted weather forecaster at Barksdale Air Force Base (AFB) near Shreveport, Louisiana. While at Barksdale, he served as Team Chief in a 24-hour forecasting and observing weather station responsible for meteorological support for the 2nd Bomb Wing. The team prepared and issued weather watches, warnings, and advisories for the protection of the wings' B-52 bombers and over 9,000 Barksdale residents. Scott then attended Officer Training School and moved on to serve as the Wing Weather Officer for the 366th Fighter Wing at Mountain Home AFB, Idaho. His responsibilities included the coordination and execution of dedicated weather support for three fighter squadrons with more than 70 aircraft operating over a 196,000 square mile area. He presented over 200 weather briefings to base senior staff members as well as conducted three trans-oceanic deployment briefings. Scott then transferred to Shaw AFB, South Carolina where he served as an Operations Flight Commander and later as the Training Flight Commander for the 28th Operational Weather Squadron (OWS). The 28th OWS has a unique mission in that its members provide weather watches, warnings, advisories and airfield forecasts for Army and Air Force locations operating in the United States Central Commands theater of operations which encompasses most of the countries throughout Southwest Asia. He was responsible for the activities of

"Scott Smith comes to us [NWS Wichita] after serving in the Air Force for 10 years."

Scott Smith getting down to work at NWS Wichita. Welcome Scott!

55 weather forecasters as they provided 24/7 weather support for over 200,000 Coalition forces operating mostly in the countries of Afghanistan, Iraq, and Qatar. He then supervised the unit's 70 day theater technical training program for brand new officers and enlisted forecasters.

Scott has a Bachelor's Degree in Aeronautical Science and obtained a Mater's of Meteorology from, ironically, a naval institution known as the Naval Postgraduate School located in Monterey, California. He is married with two children. After many moves from place to place, Scott and his family are excited to be in Kansas and hope to call it home for quite a while.

Winter 2010-11 Starts Quiet & Dry…Then Ends With 'Flurry' of February Activity as Old Man Winter Pulls 2 Major 'Snowjobs'

By: Eric Schminke, General Forecaster

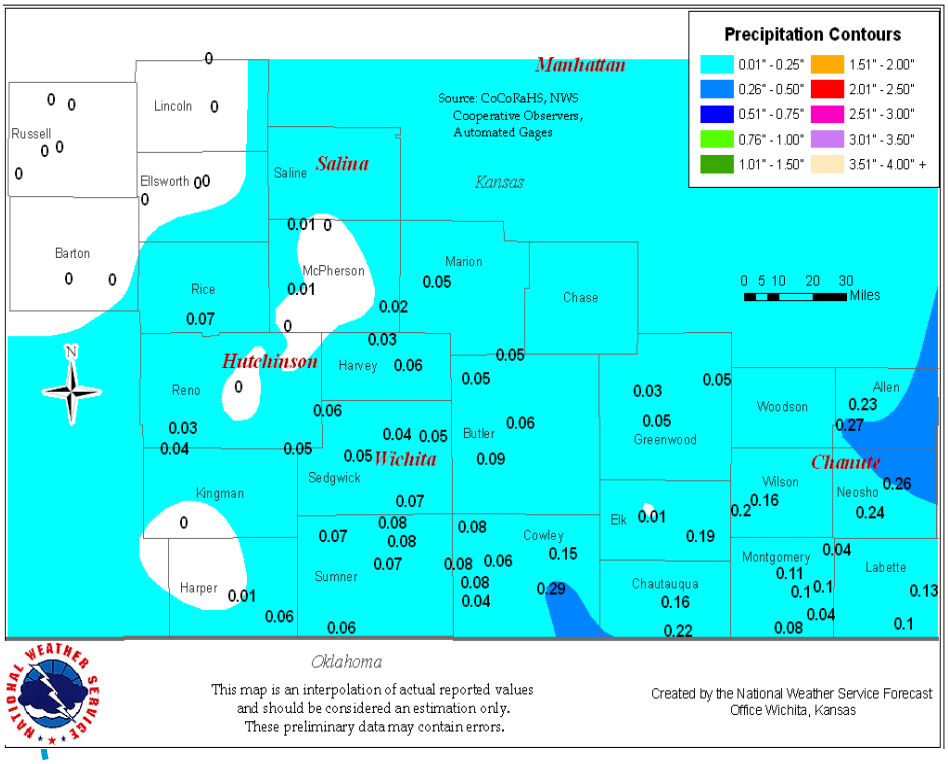
The way this most recent winter started, one had to wonder if any snow would visit Central, South-Central or Southeast Kansas.

Astronomically speaking, Winter 2010-11 officially arrived on December 21st at 538PM CST. However, meteorologically speaking, winter arrived on December 1st. It wasn't until almost Christmas, the 23rd to be more exact, that any precipitation occurred in the WFO Wichita jurisdiction.

A weak low pressure area spread light rain and light freezing rain across much of the area. Unfortunately, the low pressure area was slow to vacate the Kansas premises which resulted in a gray Christmas as all areas were shrouded in low clouds both Christmas Eve and Christmas Day. There was barely a flake to be found in South-Central Kansas; Wichita received a trace on Christmas Day. This marked the 15th Christmas which the Air Capital had failed to record any measurable snow. It was third time this decade and the fifth time in the last 20 years. It also enabled 2010 to finish as the 10th driest December in Wichita's climate history with a scant 0.12 inches and in a five way tie for 2nd with only a trace of snowfall. Salina was even drier with only 0.06 inches of precipitation. Based on the available climate record, December 2010 was the 2nd driest on record.

It appeared 2010 would end on a balmy note when a warm front

24 hr Precipitation Total as of 7am on December 24th, 2010



Precipitation totals on the morning of Christmas Eve 2011.

lifted almost due north across Kansas. Areas of light rain pattered many areas but amounts were light. In fact, the 30th would be the warmest day of the month particularly for South-Central and Southeast Kansas where highs soared into the 60s. No records were set, but it was close. If residents of South-Central and Southeast Kansas thought winter was on permanent sabbatical, they would be in for a big surprise. A strong cold front plowed through Central Kansas. Temperatures plunged into the lower 20s that afternoon. Meanwhile, Southeast Kansas was basking in the 50s.

When the cold front invaded South-Central and Southeast Kansas, it decelerated. It encountered sufficient moisture to trigger thunderstorms. One was quite strong and produced nickel-sized hail and 55 mph gusts in Labette County early New Year's Eve morning. In fact, thunderstorms occurred as far west as Winfield.

Neat wind contours in the snow at the Mid-Continent airport. Image courtesy of Victor White.

Then came New Year's Eve which was bitterly cold, especially in Central Kansas, where thermometers started their New Year's resolutions by running on thermal treadmills as temperatures held steady in the teens. South-Central Kansas saw temperatures in the 20s, but west winds of 20 to 25 mph produced wind chills of zero to 10 below. That afternoon, Southeast Kansas began to chill as temperatures tumbled from around 50 degrees at noon to around 30 by sunset.

When 2010 handed off the baton to 2011, it was mostly clear and bitterly cold as temperatures ranged from around 5 above in Russell and Great Bend to the upper teens in Coffeyville. However, the positioning of a strong, persistent high pressure ridge over the Western U.S. and an equally persistent low pressure trough over the Eastern U.S. induced a strong west to northwest flow regime over the Great Plains. The result: A wide daily temperature range across Kansas. By the middle of the first full week of the New Year, temperatures had reached the upper 50s in many areas.

Image of a snow drift in Bartlett. Picture courtesy of Jennifer Mathes.

However, the persistent northwest

Towns Setting February snowfall records

City	New Record in 2011	Old Record	Year of Old Record
Iola	23.5 Inches	18.1 Inches	1914
Eureka	22.0 Inches	17.9 Inches	1875
Oswego	20.0 Inches	17.0 Inches	1905
Yates Center	19.0 Inches	19.0 Inches—Tied	1894
Parsons	17.0 Inches	12.5 Inches	1980

flow regime enabled an occasional cold front to cross Kansas thereby resulting in some bitterly cold nights. The first such front invaded Kansas on the 9th and 10th to produce the 1st winter storm of 2011. This two day event produced 6-7 inches over Lincoln, Russell, and Barton counties with 3-5 inch accumulations common elsewhere. See *The Abominable Snowman Scores Winter Storm 'Hat Trick' for Winter 2010-2011* previously in this newsletter.

An Arctic invasion immediately followed, to produce the coldest weather of January. The mornings of the 11th, 12th and 13th saw lows plunge to between 5 below and 10 below in most of Central Kansas. On the 11th and 12th, Russell chilled out with lows of 8 below and 7 below respectively. Salina dropped below the "coveted" zero degree mark on the 12th and 13th with lows of 6 below and 5 below respectively. Wichita's low of 1 below on the 13th marked the first time since December 8th, 2005 that the Air Capital had dipped below zero. Although on the 12th, Wichita literally "zeroed" in with a low of, well, zero.

Image of snow from Caney on February 1st, 2011 . Photo courtesy of Pascal Van Schijndel.

The last full week of January saw a pronounced west to northwest flow prevail which enabled much drier air to spread across Kansas. This allowed temperatures to soar to around 70 which gave everyone a little spring appetizer. On the 28th, Wichita reached 72 degrees; this broke the record of 69 set in 1968. Wichita's high of 70 on the 29th tied the mark set for the date in 1971. Such unseasonably warm weather was short-lived, for on the 30th and 31st, a second Arctic front invaded Kansas. This one packed a powerful punch that would have February start with a furious 'flurry' of activity.

In February, Old Man Winter and his sidekick, The Abominable Snowman,

Image from Bartlett, Kansas. Accumulated snowfall around 14 inches. Drifts nearby were anywhere from 7- 14.5 inches. Some drifts on a nearby east-west road were 4 feet high. Picture courtesy of Jennifer Mathes.

were in the mood for lots of fun and games. several daily and monthly snowfall records were set thanks to two vicious snowstorms; Southeast Kansas bore the brunt of both snowstorms.

The furious 'flurry' of activity started on the 1st when a blizzard blasted through Southeast Kansas with very heavy snows that were driven by 40-50 mph winds. Most of these areas were buried by 8 to 16 inches of snow, but the vicious winds produced drifts that reached 4-5 feet high! In fact, the 2-day blizzard proved historic; a few towns had already set February snowfall records by the 9th! For more information on the blizzard, see *The Abominable Snowman Scores Winter Storm 'Hat Trick' for Winter 2010-2011* previously in this newsletter.

"Chanute's low of 16 below [zero] obliterated the previous mark of 8 below..."

After the blizzard ended, another nasty Arctic outbreak invaded Kansas. This sent temperatures below zero across all of Central, South-Central, and Southeast Kansas on the 3rd. Chanute's low of 16 below obliterated the previous mark of 8 below set in 1996. Not counting the Rocky Mountain region, it appeared that Parsons may have been the coldest location in the nation with a low 20 of below!

By the following weekend, a pronounced warming trend arrived as highs reached 45 to 55 degrees in most areas, but it proved to be a teaser. On the 8th, the second winter storm in a week plowed across the region. Widespread 8 to 15 inch accumulations buried Central and South-Central Kansas. Gusty north winds of 25 to 35 mph caused equally widespread blowing and drifting snow which produced drifts that reached 3-4 feet deep. The two-day total of 8 inches measured at Wichita's Mid-Continent Airport on the 8th and 9th brought the February snowfall to an even 13 inches. This made 2011 the 6th snowiest February on record for the Air Capital.

Like its predecessors, this vicious storm was immediately followed by another blast of Arctic air that once again sent temperatures tumbling into thermal abysses. On the morning of 10th, Wichita free-fell to a numbing 17 below zero! This obliterated the previous mark of 5 below set in

Moving snow in the January 8th-9th Snow Storm. Image courtesy of Denise Schwantes near Lindsborg.

Picture taken 5 miles west of Sedan around 640pm. Picture taken by David Sallee.

Large hail which fell over Caney Kansas. Picture taken by Pascal Van Schijndel.

1980. Salina set record lows of 13 below and 15 below on the 9th and 10th respectively. Salina's "high" temperature of 15 degrees set a record for coldest high temperature for February 9th edging the previous mark of 17 degrees set in 1994. Russell joined the "freeze fest" by setting record lows of 9 below and 10 below on the 9th and 10th respectively.

As surprising as it may seem, the 2011 edition failed to gain admission into the 10 coldest Februaries on record! The reason was a majestic warming trend ensued on the 11th. Wichita's high of 44 degrees that afternoon was a staggering 61 degrees warmer than the record low of 17 below set the previous morning! The majestic warming trend continued through the 20th with a peak of 78 degrees on the 17th. In just one week, the Air Capital had soared from a record-shattering 17 below on the 10th, to a record-setting high of 78 on the 17th, a 95-degree swing! During this same one week period, Chanute experienced a nifty 94-degree swing from the record-setting low 16 below on the 10th to a record-setting high of 78 on the 17th! Salina also experienced a wondrous warmup with 15 below on the 10th to a high of 74 degrees on the 17th, an 89-degree swing. The 74-degree high on the 17th fell just 1 degree shy of the record of 75 set in 2009 and in 1970. A plot of February's temperatures would have resembled a seismograph during a 7.5 magnitude earthquake. So, if you live in Kansas and don't like Arctic outbreaks just wait a week, and it may be springtime!

It was only fitting that February ended on a stormy note. This time severe thunderstorms were the culprits and produced a trifecta of hail as large as golfballs, 60 mph winds, and a weak tornado in parts of Southeast Kansas.

After a dormant December, the winter of 2010-11 proved to be wondrously wild with blizzards and other vicious winter storms, record-setting snowfalls, frequent Arctic outbreaks that sent the entire region into abysmal cold snaps, and truly bizarre temperature swings that saw several areas warm up some 90-95 degrees in one week.

If this is a precursor to spring 2011, one can only imagine what awaits us this spring.

Your help is needed!

By: Chance Hayes, Warning Coordination Meteorologist

The National Weather Service is the main source of weather information for the various media outlets across the country which holds true here in Kansas. With the majority of you getting vital weather information via the television or radio, it is imperative that we relay the potentially dangerous weather situations to the media outlets in as real time as possible. Then they may in turn provide you with enough information to make a sound decision. Therefore, we are planning to send out email reminders to you so that you are aware that a possible hazardous weather situation may occur. We are also going to provide you with our toll free phone number in hopes that you will report any hazardous weather that may be occurring in your area. When you experience any hazardous weather, please keep in mind how important your report is to your fellow neighbors.

What to report

Hail		Wind	
Plain M&M	0.50 inches	25-31 mph	Large tree branches move, telephone wires begin to "whistle", and umbrellas are difficult to keep under control.
Penny	0.75 inches	32-38 mph	Large trees sway and becoming difficult to walk.
Nickel	0.88 inches	39-46 mph	Twigs and small branches are broken from trees; walking is difficult.
Quarter (Severe)	1.00 inch	47-57 mph	Slight damage occurs to buildings; shingles are blown off of roofs.
Half Dollar	1.25 inches	58-63 mph (Severe)	Trees are broken or uprooted, and building damage is considerable.
Ping Pong Ball	1.50 inches	64-72 mph	Extensive widespread damage.
Golf Ball	1.75 inches	73+ mph	Extreme destruction and devastation.
Lime	2.00 inches		
Tennis Ball	2.50 inches		
Baseball	2.75 inches		
Apple	3.00 inches		
Grapefruit	4.00 inches		
Softball	4.50 inches		

National Weather Service Gives Back for Christmas

By Jerilyn Billings - General Forecaster

"What a joy to give to the community during the holiday season..."

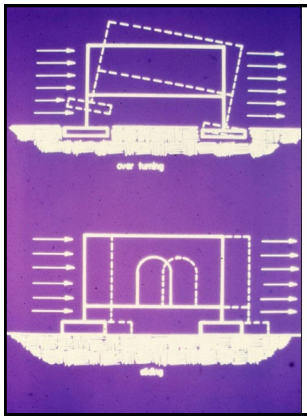
The Leadership Enrichment Team (LET) organized a donation drive to give back to the community for the holiday season. As part of this drive, the Wichita National Weather Service staff donated toys and/or money to be used for the purchase of new toys. The LET leaders chose two children off of a local Angel Tree to fulfill their wishes. LET members Stephanie Dunten and Jerilyn Billings headed out on a Friday evening to choose toys for the children. Enough money was donated to give each child a set of plentiful gifts. The girl, we chose, liked the Littlest PetShop, and the team was able to get a house and a set of 10 figurines to play with, some jewelry, and socks. The chosen boy wanted building blocks and liked dinosaurs. Legos, a truck, socks, and some toy dinosaurs were chosen to fulfill the child's wishes. What a joy to give to the local community during the holiday season which helped bring smiles to a couple children on Christmas morning.

Toys purchased by the LET team with money donated by the staff of the Wichita National Weather Service Office.

Mobile Home Safety

- The average annual death rate in mobile homes due to tornadoes is **20 times** higher than in permanent homes.
- Mobile homes **(44%)** were the most common location for **tornado fatalities** from 1985 to 2005, followed by permanent homes (25.3%) and vehicles (9.9%). This disparity is more striking when considering that mobile homes accounted for a mere 5%–8% of U.S. housing units during this period.
- The National Weather Service (NWS) considers mobile homes unsafe during a tornado.
- Mobile home residents should go to the nearest sturdy building or storm shelter. Do NOT shelter inside your mobile home!
- In many cases, your car can be a safer sheltering option than staying in your mobile home.

Rolled mobile home – stopped by tree 70 mph



Mobile homes:

- **overturn or slide between 70 and 100 mph**
- **Are completely blown away at 110-137 MPH EF2**

Remember!

1) Participate in a tornado drill in your mobile home community. If you don't have one, organize a tornado drill!

Truck stays - M. Home flipped

Picher, OK 2008

2) Understand the definition of a tornado warning.*

3) Have an emergency response plan for seeking shelter **away** from your mobile home.

By following these three points, you can lower the risk to you and your family from the hazards posed by tornadoes in Kansas.

***A tornado warning means** there is immediate danger for the warned area. All in a tornado warning are urged to shelter immediately as it can be a life-threatening situation. For our residents who live in mobile homes, it means evacuating the mobile home and seeking shelter in the nearest sturdy building or storm shelter.

2010 Cooperative Observer Awards

By: Jerilyn Billings, Meteorologist and

Leon Wasinger, Operations Program Leader

The following Cooperative Observers were presented 2010 Length of Service Awards. 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!

Observer	Station	Years	Observation
Olin Claassen	Potwin 3N	10	Precipitation
Katherine Gibson	Goessel 2NW	10	Precipitation
Scott Gutsch	Lincolnville	15	Precipitation
Richard Fulk	Hesston	15	Precipitation
Michael Gillen	Willowdale 1SW	15	Precipitation
Darla Loyd	Sedan	25	Temperature & Precipitation
Norma Patton	Peabody	25	Precipitation
Richard Robbison	Halstead 3SW	25	Precipitation
Billie Heitzenrater	Beaumont	45	Precipitation
Vernon Hickman	Barnard	45	Precipitation

Handy Severe Weather Reporting Reference Card

Weather to Report:

Hail ≥ 0.75" in Diameter
Wind Speeds ≥ 58 mph
Tree and Structural Damage
Rotating Wall Clouds
Funnel Clouds
Tornadoes

Include with Each Report:

Your Name
Your Call Sign (If Applicable)
Your Spotter Number (i.e. BU100)
Your Location
Time and Date of the Event

National Weather Service

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Email: Jerilyn.Billings@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

NWS Wichita Word Search

Cities in the Wichita Forecast Area
NWS Wichita, KS

Find the Cities in the NWS Wichita county warning area.

E	S	C	N	V	H	S	G	N	O	S	E	L	L	R	D
L	S	N	I	Y	R	E	I	B	L	G	N	A	S	N	T
U	A	O	A	A	E	B	H	A	L	N	N	K	H	T	H
R	L	E	B	D	R	E	K	R	U	I	E	E	P	G	O
A	R	R	I	O	E	N	P	N	S	L	L	E	N	Y	E
Y	T	I	C	S	A	S	N	A	K	R	A	C	T	A	H
A	H	E	S	S	T	O	N	R	R	E	V	T	O	O	S
Y	H	U	U	A	T	I	R	D	L	T	Y	G	W	P	O
S	E	S	M	C	L	U	S	N	O	S	R	A	P	N	O
N	U	V	A	B	S	E	Y	S	I	O	R	I	L	T	T
M	A	D	I	S	O	N	S	A	B	D	E	S	D	O	B
K	A	N	A	P	O	L	I	S	G	S	H	G	R	G	I
I	D	A	A	H	S	E	D	O	E	N	C	O	Y	R	E
D	N	V	T	M	H	N	S	T	W	O	N	S	E	V	U
R	N	N	R	T	I	C	D	M	C	T	G	V	I	O	D
S	A	N	A	L	O	M	S	D	O	O	A	A	G	Y	M

Answer Below:

Anthony
Cherryvale
Hesston
Lindsborg
Parsons
Spivey
Viola

Arkansas City
Corbin
Howard
Luray
Partridge
Sterling
Wonsevu

Barnard
Erie
Humboldt
Madison
Sedan
Susank

Cassoday
Goessel
Kanapolis
Neodesha
Smolan
Toronto