



## TOP 25 HISTORICAL WEATHER EVENTS NWS DODGE CITY COUNTY WARNING AREA (Listed in Chronological Order)



### **April 21, 1885 – Barber County Flood**

At least 19 people died from the flood along the Elm Creek and Medicine River during the early morning hours. Heavy rains fell for six hours the previous evening in northwestern Barber County, southern Pratt County and the eastern edge of Comanche County. Most, if not all, of the people who died, lived along the Elm Creek. Up until that time no one had seen water that high on the Elm Creek.

### **January 1-7, 1886 – Back-to-Back Western Kansas Blizzards**

The first blizzard began on the 1<sup>st</sup> around noon at Dodge City and continued until the early morning hours of the 3<sup>rd</sup>. During this time, seven and a half inches of snow fell, and wind speeds averaged 20 to 30 mph from the north to northwest. The lowest temperature was 12°F on the 3<sup>rd</sup>. A second, more severe blizzard followed on the 6<sup>th</sup> and 7<sup>th</sup> and was accompanied by Arctic air that sent temperatures plummeting to well below zero. Even though only two inches of new snow fell, the combination of very strong north wind, brutally cold temperature around -10°F, and the remaining snowpack from the first storm made this second blizzard as severe, if not more severe than the first storm.

During the snow with the second blizzard, the combined north wind and actual air temperature resulted in a Wind Chill Index of around -40°F! The temperature did not rise above 10°F at Dodge City until the 11<sup>th</sup>. The coldest air temperature was -16°F on the 8<sup>th</sup>. It was estimated that 75-80 percent of cattle had been killed in some counties. The combined blizzards and brutally cold arctic air during the first 10 days of January 1886 made this one of the, if not the worst large scale natural disasters in Kansas history. Local office research of historical meteorological observations from the time indicated that the back-to-back blizzards resulted in upwards of 54 hours of true blizzard conditions (1/4 mile or less visibility with 35+ mph wind in snow and/or severe blowing and drifting snow).

### **January 31- February 12, 1899 – Prolonged Arctic Outbreak**

An arctic outbreak moved into western Kansas. From January 31<sup>st</sup> until February 12<sup>th</sup>, the temperature did not rise above 20 degrees at Dodge City. In fact, the highest temperature from January 31<sup>st</sup> to February 8<sup>th</sup> was only 14°F. From the 3<sup>rd</sup> until the 12<sup>th</sup> the low temperatures were -3°F or colder. The lowest temperature was -26°F on the 12<sup>th</sup>, which is still the all-time record low for Dodge City.

### **March 23, 1913 – Dust Storm and Wildfire**

Parts of southwestern and west central Kansas were struck by at least seven wildfires that began during the afternoon. Hundreds of square miles were devastated by the fires. Feed and forage, stacks of hay, barns, buildings and some houses were consumed by the on-rushing fires. In addition to the fires, there were also high winds and dust storms. Fires were reported in Finney, Kearny, Lane, Gray, Ford, Hodgeman and Scott counties. Two fires went through the northwest part of Ford county north of Dodge City and as far east as the Sawlog country. There were two other fires in southern Ford county. The Finney county fire burned 2000 feet of the Santa Fe railroad track. Fortunately, there were no deaths reported. Wind gusts at Dodge City were as high as 80 mph. The wind died down during the night and the fires were extinguished.

### **May 22, 1933 – Liberal Tornado**

A tornado moved north northeast from 7 miles south southwest of Liberal, Kansas, through the city. This tornado also struck in the total darkness of a depression-era dust storm. It masked this entire western Kansas outbreak. It destroyed the business district and the northwest residential area. At least 165 homes and 44 businesses were badly damaged or destroyed. Four people were killed and 150 injured. Damage was \$750,000.

### **April 14, 1935 – Black Sunday Dust Storm**

A dust storm initiated across central Nebraska during the mid-morning hours of April 14 behind a very strong spring cold front. Grand Island, Nebraska experienced a northerly wind shift around 930 am with visibilities dropping down to around  $\frac{1}{4}$  mile. Gusty winds and very low visibilities persisted all day. The front passed through the Goodland, Kansas area around midday and through Dodge City around 3 pm. At 3 pm, the temperature in Dodge City was 84°F with a north wind at 15 mph and zero visibility. Shortly thereafter, the temperature fell into the 60s and then the 50s along with north to northeast winds at 20 to 30 mph and visibilities near zero. The dust storm lasted for several hours behind the cold front. The dust and high winds arrived in Waynoka (Oklahoma), Wichita (Kansas), and Emporia (Kansas) around 4 pm with visibilities near zero and 35 to 50 mph north to northeast winds.

The cold front arrived in Canadian, Texas shortly after 5 pm with visibilities dropping to zero, temperatures dropping from the 80s into the lower 60s, and northeast winds at 50 mph. The dust storm arrived in Amarillo, Texas between 6:50 and 7:15 pm with visibilities dropping to zero with northeast winds at 50 mph. Oklahoma City experienced a wind shift to the northwest around 7 pm with near zero visibility. By 7:42 pm, the temperature had dropped to 64°F with a 42 mph north to northeast winds. The cold front passed through Ardmore, Oklahoma, near the Red River, at 10 pm, with visibilities dropping to  $\frac{1}{2}$  mile. The large-scale dust storm included eastern New Mexico as well, as Clayton experienced very low visibilities. In fact, the dust storm arrived in Roswell after midnight with visibilities dropping to  $\frac{1}{8}$  mile. The dust storm weakened after crossing into north central Texas around midnight as visibilities dropped to around two miles with northeast winds around 25 mph at Gainesville. Farther west, however, the dust storm charged south into the Texas Big Bend region around 2 am with near-zero visibilities before finally winding down near the United States-Mexico border around 4 to 5 am on April 15.

When all was said and done, this dust storm had covered a very large region of the western Great Plains about 800 miles long (from central Nebraska to the Mexico border) and 300 to 500 miles wide (from eastern Colorado and New Mexico to eastern Kansas and central Oklahoma).

### **May 22, 1951 – Hays Flood**

Extremely heavy rains (including eleven inches of rain in just two hours!) from late night of May 21 into the early morning hours of May 22 produced one of the worst flooding disasters in the history of Hays. The severe flooding of Big Creek significantly impacted the campus of Fort Hays State University as well as much of the rest of the city. Six people were killed in the flood. Heavy rains fell earlier in the month, and this also contributed to the flooding. 1951 ended up as the wettest year for Hays with 43.34 inches of precipitation recorded. For May and June, 20.42 inches of rain was recorded at the Kansas State University Agricultural Research Center just south of Hays.

### **June 27, 1951 – Wakeeney Tornado**

Shortly after midnight, an F4 tornado struck the northern part of Wakeeney killing 4 people and completely destroying 45 homes. Around 60 more homes were heavily damaged. The loss was estimated at nearly two million dollars.

### **March 22-25, 1957 – Blizzard**

A great blizzard which began March 22nd and continued until the 25th. Snow had fallen every hour from 10 pm on the 22nd until 1 pm on the 25th. The storm dropped an estimated 18.5 inches of snow in Dodge City. Southwest Kansas had been completely paralyzed from the storm. Every highway in the western part of the state was closed by drifts of 10 feet and more. Local motels, churches, and schools were packed with stranded travelers and several people were reported missing as a result of the great blizzard in southwest Kansas. Three passenger trains had become stuck in the storm; one four miles east of Dodge City, one west of Garden City and another near Meade. An estimated 600-700 head of cattle were lost. The southern sides of most buildings were completely covered with drifts, and 20 to 30 foot drifts were not uncommon. In terms of a single winter storm, this blizzard still stands as the benchmark blizzard for Dodge City given the combined quantity of snow, very strong north winds, and duration – 44 hours of blizzard conditions!

### **June 17, 1957 - Ellis Flood**

The worst flood in the history of Ellis caused millions of dollars in damage. Heavy rainfall of around 10 to 12 inches along Spring Creek and Big Creek west of Ellis the previous evening brought a wall of water to the town. Almost every business and house in Ellis had at least some damage – ranging from just a little bit of water damage, to filled basements, to complete destruction. The wall of water did not follow the Big Creek but went down Highway 40 and the railroad, Ross Street, and West 11<sup>th</sup> Street. A transient who asked to sleep in the local jail could be heard screaming for help, but no one was able to get to him before he perished.

### **June 19, 1965 – Arkansas River Flood**

Heavy rains in Eastern Colorado, combined with three broken dams, started the torrent of water along the Arkansas River through Colorado and Kansas. When the water reached Dodge City, the river rose 7 feet in 15 minutes between 9 am and 9:15 am. The flood waters reached from the railroad tracks on the north side to just barely covering Beeson street on the south. The deepest part of south Dodge was about 7 feet under water. The deep water created other problems when gas regulators were covered. Pressure built up in the gas lines and portions of Dodge City were rocked by explosions. Total urban losses in Dodge City and Wilroads Gardens were estimated at nearly 3.8 million dollars, including damages to 615 residences and 155 businesses. Twenty four Kansas counties were declared flood disasters. The Arkansas River crested at 15.68 feet in Dodge City from this flood, which remains the flood of record at Dodge City.

### **June 23, 1967 – Garden City Tornado**

A tornado moved southeast from 12 miles north of Lakin, devastating the north half of Garden City, passing 8 miles north of Charleston, and ending 7 miles north of Ingalls. Over 40 homes were damaged and about 150 lost the roof and at least some homes were completely leveled. Losses in Garden City totaled \$4,000,000. Rural losses added about \$1,000,000.

### **February 21, 1971 – Blizzard**

Blizzard conditions raged across western and central Kansas. Much of the area received at least 10 inches of snow with 20 to 24 inches from Greensburg to Coldwater. Strong winds gusted to 50 to 60 mph producing large drifts. Food had to be dropped for cattle in Clark, Comanche, Barber and Kiowa counties. This blizzard ranks high with the ones that occurred in January 1886, February 1912, April 1938, and March 1957.

### **December 17-25, 1983 – Prolonged Arctic Outbreak**

An outbreak of arctic air hit Dodge City during the early morning hours of the 17<sup>th</sup>. The temperature at midnight was 26°F and had fallen to 8 degrees by early afternoon. From 11 am on the 17<sup>th</sup> to 2 pm on the 25<sup>th</sup> the temperature did not rise above 9°F. At late morning on the 24<sup>th</sup> the wind chill at Dodge City reached -56°F using the old wind chill chart. Using the new wind chill chart that was implemented in 2001, the wind chill was -33°F. The actual air temperature was -5°F, but winds were gusting to 32 mph from the north. At that time, the barometric pressure at Dodge City reached 31.18 inches, setting a highest pressure reading for Dodge City. The previous record was 31.14 inches back in 1898 and 1899. High temperatures on the 20<sup>th</sup> and 21<sup>st</sup> were only -2°F and -4°F respectively. The coldest temperature was -10°F late in the evening on the 19<sup>th</sup>. Light snow fell on the 19<sup>th</sup>, 20<sup>th</sup>, and 21<sup>st</sup> for a total of 2.6 inches.

### **1992-93 Winter Snowfall Season**

Dodge City ended up with 61.1 inches of snow for the winter season. This was the snowiest season on record. There was snow almost continuously on the ground from November 24, 1992 until March 7, 1993. There were only four days where the snow depth was zero from February 7<sup>th</sup> to February 10<sup>th</sup>.

### **October 25, 1997 – Blizzard**

A major late fall blizzard struck part of west central and southwest Kansas dumping 10 to 20 inches of snow across the area. A strong north wind whipped the snow into 15 to 20 foot drifts. Most roads were impassable for several days after the snow ended. 22,000 head of cattle died both in pastures and in the feedlots. Monetarily, this amounted to \$11 million in losses. Additionally, the cattle that did not die during the blizzard suffered severe weight loss which led to higher operating costs for feedlots. Over 35,000 head of cattle perished across western Kansas.

### **December 29, 2006 – Winter Storm**

A major winter storm crippled much of southwest Kansas from December 29<sup>th</sup> to December 31<sup>st</sup>. Widespread total precipitation from this storm ranged from 2 to 4 inches, in the form of all winter precipitation types: rain, freezing rain, sleet, and snow. There was a corridor from roughly Garden City to Dighton that saw 4 to 6 inches of precipitation, mainly in the form of freezing rain! This is incredible for any time of the year, let alone for December. Significant, widespread damage to trees and especially utility lines, poles, and towers resulted from one half to two and a half inches of ice accumulation. An area from Sublette to Garden City, north through Dighton had the most severe ice storm damage. Over 60 thousand people were without electricity at one time or another from the nearly 10 thousand power poles that were taken down from the weight of the ice. Some of these structures were high transmission towers. In addition to the ice accumulation, large amounts of snow were reported in the western part of the area, especially near the Colorado state line. Amounts of at least 10 inches were measured from Hamilton County to Morton County. A location 15 miles west of Johnson had 32 inches of snow! This was one of the most monumental winter storms to affect eastern Colorado and western Kansas in history, given just how much precipitation fell over such a large region.

### **May 4, 2007 – Greensburg Tornado**

A destructive tornado hit Greensburg Kansas, the first 5 rating on the new Enhanced Fujita Scale and the first 5 classification since May 3, 1999, when an F5 tornado ripped through Moore, Oklahoma. There were 12 tornadoes that evening from Clark and Comanche counties to Edwards and Stafford counties during about a 4 hour period, one a little over two miles wide! Two of the tornadoes existed for over an hour as they churned up the ground, leveling homes and causing fatalities along their path. Miraculously, only 13 people perished (11 in Greensburg), given the scale of complete destruction, including 90% of Greensburg.

### **May 23, 2008 – Tornado Outbreak**

May 22nd started a remarkable period when a record number of tornadoes occurred across the area. Although there were six tornadoes on the 22nd, the following day will go down as an extremely active severe 24 hour period when an astonishing 55 tornadoes raked the area. Unfortunately, the tornadoes caused serious injuries and even loss of life. One long tracked tornado of EF3 intensity killed a couple traveling along US Highway 54 in Pratt county and also caused two other injuries at that location. Another large and long tracked tornado caused serious injury to an occupant in Edwards county while yet another tornado injured a female in Ellis county. At one time another very large tornado had its sights on Greensburg! However, that 1.8 mile wide monster weakened and turned north before it reached the 2007 tornado ravaged town. There were other smaller tornadoes that occurred in close proximity to the town. Of the 55 tornadoes that day, there were 28 EF0's, 14 EF1's, 8 EF2's and 5 EF3's. Ten of the tornadoes were ½ mile wide or wider and two were a mile wide or wider!

### **March 27, 2009 – Blizzard and State Record Snowfall**

A major winter storm began on March 27th and ended by the 28th. More than a foot of snow accumulated across a large part of southwest and south central Kansas with the heaviest snowfall in south central Kansas. Nearly all roads were closed for an extended period due to zero visibilities and widespread 10 to 20 foot drifts. Snowfall from the event was heaviest from southeast Clark to Pratt Counties where 28 to 30 inches fell in a 24 hour period. The cooperative observer in Pratt reported 30 inches of snow in 24 hours which established a state record.

### **Summers of 2011 and 2012 – Heat Wave and Exceptional Drought**

The biggest weather story for 2011 was the intense heat and the exceptional drought conditions that intensified in 2011 and continued into 2012. Like much of western and south central Kansas, the extreme drought continued as the meteorological summer (June, July, and August) ended at Dodge City. In addition, the extreme heat experienced during the summer did not let up even into September. For the three summer, daily high temperature records at the Dodge City airport were broken 14 times and tied 7 times. There were 9 daily high temperature records broken or tied in August alone. For the entire calendar year 2011, daily high temperature records were broken or tied 27 times! The average daily temperature for the summer at Dodge City was 83.5 and this is the hottest on record (since 1875), well above the normal of 77.2 degrees.

The biggest story for 2012 also had to be the heat and drought that continued during the summer. The first six months of 2012 averaged out to be the warmest start to the year on record. For Dodge City, the average temperature of 55.5 degrees for that six month period was over a half degree warmer than the previous record and statistically very significant. The warm start (and especially the extremely warm March) helped carry the year to be the 2nd warmest on record, despite below normal temperatures from August through October. The all-time record high temperature was set in Dodge City when the mercury rose to 111 degrees on June 27th. The previous record high was 110 and records date back to 1875! The number of 100-degree days at the Dodge City airport reached 35, and with the 54 days of 100+ in

2011, the total of 89 days for 2011 and 2012 combined is by far the most recorded for two years in a row – far surpassing the back-to-back hot summers of 1933-34 dust bowl years when there were 63 days of 100+ highs.

### **January 13, 2017 – Ice Storm**

A strong winter storm system affected much of central and southwest Kansas starting as early as Friday, January 13th, at some locations, and ended early Monday, January 16th, 2017. The greatest ice accretion did not occur until late Saturday evening on the 14th and continued into late afternoon on Sunday the 15th. Surface winds increased during Sunday evening and continued through much of Monday the 16th. However, impacts were felt throughout the week due to power loss, school closings, tree and power line damage, etc. The greatest accretion of Ice stretched from Liberal and Ashland, north through Dodge City, Jetmore, Greensburg and Larned. Total precipitation from the storm ranged from 2 to as much as 4 1/2 inches. Damages from the storm were estimated to be well over \$15 million – primarily power poles, power lines, tree damage and removal, and damage to structures from falling tree limbs. Some areas were without electricity for a week.

### **March 6, 2017 – Wildfire Outbreak**

Many devastating wildfires erupted across parts of Kansas, Oklahoma and Texas. Many fires were started by downed power lines as a result from weakened connections from the January ice storm. The fire in Ford County was the result of a brush pile in Dodge City that had not been fully extinguished before the dry, warm winds began. The largest and most costly fire occurred across Clark County. There were seven separate fires that ultimately grew together, making up the Starbuck Fire Complex! Two moved near or through Englewood, originating in Oklahoma. Another consumed several homes just north of Ashland. Four other fires in northern Clark County consumed several homes initially but became a monster fire as a cold front moved through. The fires subsided during the first night but flared back up the following late morning and afternoon on the 7th.

Livestock losses may have been as many as 9,000 head! Total acres burned in just Clark County were estimated at 447,000. There were 31 homes destroyed and 6 damaged. There were a total of 108 outbuildings destroyed and 13 others damaged. Many, many miles of fence were destroyed. Damage was estimated at \$3 million. On the same day in Lane and Ness Counties, a wildfire started after a power line disconnected from an outbuilding and fell to the ground. The fire spread very fast with the high winds and burned 3 dozen outbuildings and damaged or destroyed thousands of fence posts and burned at least 20,000 acres. In Hodgeman County, a fire quickly spread on 50 to 60 mph winds. The ignition point north and west of Jetmore was the result of a downed power line. The fire consumed several homes and buildings. Total acres burned were approximately 18,000 acres. In Comanche County, a fire threatened Protection and the town was evacuated twice but never had damage within the city limits.

### **April 29-30, 2017 – Spring Blizzard**

An intense upper storm moved from the Four Corners region and interacted with an unseasonably cold airmass to produce a major blizzard across far western Kansas with snowfall amounts of 12 to 24 inches common. A cooperative observer in Johnson recorded 25.5" of snowfall and 4.52" of total precipitation from this event! Cattle loss across western Kansas was estimated to be as many as 100,000 head. One electric company alone had around \$75 million in damages to its infrastructure. This unusual late spring storm was made more destructive by the weight of the snow, since it was very wet and driven by 50 to 60 MPH wind gusts. All roads across the western fourth of the state were closed and impassable for 1 to 2 days.

### **December 15, 2021 – Winter Wind Storm and Wildfires**

A rare winter wind storm impacted much of the Great Plains, including western Kansas. The entire area had gusts over 58 mph with the strongest speeds 75 to 100 MPH along and north of the Highway 50 corridor. Due to the combination of intense non-thunderstorm winds of 75-100 mph, very dry air, unusually warm temperatures and low humidity, extremely critical fire weather conditions developed across parts of western and central Kansas during the day. Once wildfires started, they exhibited extreme behavior, including rapid spread at more than 50 mph. This led to extreme fire growth and spread over the course of 6-8 hours during the late afternoon and evening. Per the Kansas Forest Service, total acreage burned across Kansas on December 15 was 163,755.9 acres, of which 67,500 acres burned in our area of responsibility. Unfortunately, these fires did result in a fatality in Ellis county. Once the high winds of 75+ mph developed, widespread blowing dust was observed thanks to the very dry conditions over the previous month and a half. At least one fatality was associated with a car accident in reduced visibility due to blowing dust in western Kansas.

## **HONORABLE MENTIONS**

### **February 26, 1903 – Heavy Snow**

Over about a 3 day period at least 20 inches fell across most of Western Kansas. Elkhart reported 33 inches of snow.

### **February 26, 1912 – Western Kansas Blizzard**

A blizzard occurred across western Kansas which resulted in 15 inches of snow at Dodge City during a 24-hour period. In addition to the heavy snow, wind speeds averaged 30 to 40 mph with gusts to 60 to near 70 mph. An old timer said this was the greatest storm since the winter of 1875.



### **April 7, 1938 – Western Kansas Spring Blizzard**

This was the worst April blizzard on record for Dodge City. North winds blew in the 30 to 35 mph range. Total snowfall for Dodge City was 10.6 inches. The temperature was between 20 and 25 degrees with visibilities near zero. Streets, roads, and railroads were blocked off and Dodge City was cut-off from the world.

### **March 4, 1948 – Heavy Snow**

Heavy snow blanketed western Kansas. As much as 20 inches of snow was on the ground at Hays. 12 inches of snow was common across the area. Dodge City had 18 inches on the ground, while Garden City had 14.

### **May 20, 1949 – Wilmore Tornado**

When a tornado struck the little town of Wilmore at 7:30 p.m., it lasted only five minutes, but during that time the entire business district was leveled. The tornado damaged nearly every house in town and injured one person. It leveled a clothing store, lumberyards, gasoline station, appliance shop, and grocery store. The funnel lifted a large garage into the air and hurled it a hundred feet into a creek. People came from all over the county to help clean up the debris. The Red Cross opened a stand and distributed sandwiches and coffee to anyone in need, and farmers brought in food for the workers.

### **March 18, 1971 – Wind Storm**

High winds accompanied a low pressure system from the Rocky Mountains to the Great Lakes. Winds gusted to 100 mph at Hastings NE, and reached 115 mph at Hays KS. At Dodge City and Garden City, winds gusted between 60 and 80 mph. High winds caused two million dollars damage in Kansas.

### **March 23, 1987 – Back-to-Back Blizzards**

The first of two blizzards within a week of each other hit southwest Kansas. At Dodge City, strong north winds blew and increased to peak gusts of 78 mph at noon. The very strong winds continued in the 73 to 77 mph range for about 4 hours. Snow and blowing snow continued to reduce visibilities to near zero with wind speeds of 40 to 50 mph until the early morning hours on March 25th. The snow depth was recorded at 11 inches of wet snow. The wet snow helped to prevent a tremendous amount of drifting even with 60 to 70 mph winds. Very solid snow drifts stood 6 feet tall on the Dodge City airport.

### **January 31-February 5, 1989 – Arctic Outbreak**

On January 31st, 1989 a strong arctic front invaded the Central Plains. Ahead of the front record high temperatures were set on the 31st from southwestern Nebraska through western Kansas. Temperatures were mainly in the 70s with Dodge City topping out at 80 degrees. The front moved through southwest Kansas during the late evening of January 31st and the early morning of February 1st. After a record high of 80 degrees at Dodge City on January 31st, the temperature at 1 am the following morning was 46 degrees. By 2 am, the temperature had fallen to 26 degrees as a north wind blew at 29 mph gusting to 36 mph. The north wind was sustained at 30 mph with gusts to around 40 mph for a few hours. The

temperature was in the teens throughout the day. The 2nd was even colder with daylight temperatures only around 5 degrees. For the next three days the temperature never rose above 6 degrees. The highs for the 3rd, 4th and 5th were 4, 0, and 6. The lows were -13, -8 and -10. By February 7th the temperature had finally risen to 32 degrees.

### **February 7-16, 2021 – Prolonged Arctic Outbreak**

Arctic air spilled into western Kansas and remained in place until February 18th. Temperatures at Dodge never rose above 17 degrees from the 8<sup>th</sup> until the 16<sup>th</sup>, a stretch of 9 days. The temperature did not rise above 13 degrees from the 12<sup>th</sup> through the 16<sup>th</sup>.

#### *NWS Dodge City Weather History Contributors:*

*Jesse Lee (Observing Program Leader)*

*Jeff Hutton (Warning Coordination Meteorologist)*

*Jonathan Finch (Meteorologist)*

*Mike Umscheid (Meteorologist)*



**National Weather Service**  
**Dodge City, Kansas**

