Comanche County Tornado History
1950 to 2020

Comanche County is home to Fort Sill, a military base known as the center for US Army Field Artillery. Many soldiers and families come to Fort Sill to train or serve at the base. Moving to Tornado Alley can seem daunting to those from other regions of the country. The goal of this project was to educate Lawton newcomers on the history of tornadoes in the county. While dangerous, the number of tornadoes is relatively average when compared to surrounding counties in Oklahoma.

Fujita Scale

F0: Winds from 40 to 72 mph. Light Damage. Some damage to chimneys; branches broken off trees, shallow-rooted trees uprooted, sign boards damaged.

F1: Winds from 73 to 112 mph. Moderate damage. Roof surfaces peeled off; mobile homes pushed foundations or overturned; moving autos pushed off road.

F2: Winds from 113 to 157 mph. Considerable damage. Roofs torn from frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light objects become projectiles.

F3: Winds from 158 to 206 mph. Severe damage. Roofs and some walls torn from well- constructed houses; trains overturned; most trees in forested area uprooted; heavy cars lifted and thrown.

F4: Winds from 207 to 260 mph. Devastating damage. Well-constructed houses leveled; structures with weak foundation blown some distance; cars thrown; large missiles generated.

F5: Winds from 260 to 318 mph. Incredible damage. Strong frame houses lifted off foundations, carried considerable distances, and disintegrated; auto-sized missiles airborne for several hundred feet or more; trees debarked.

Enhanced Fujita Scale

The Enhanced Fujita Scale or EF Scale, which became operational on February 1, 2007, is used to assign a tornado a 'rating' based on estimated wind speeds and related damage. When tornado-related damage is surveyed, it is compared to a list of Damage Indicators (DIs) and Degrees of Damage (DoD) which help estimate better the range of wind speeds the tornado likely produced. From that, a rating (from EF0 to EF5) is assigned.

The EF Scale was revised from the original Fujita scale to reflect better examinations of tornado damage surveys so as to align wind speeds more closely with associated storm damage. The new scale has to do with how most structures are designed.

EF0: 3 second gust of wind between 65 and 85 mph

EF1: 3 second gust of wind between 86 and 110 mph

EF2: 3 second gust of wind between 111 and 135 mph

EF3: 3 second gust of wind between 136 and 165 mph

EF4: 3 second gust of wind between 166 and 200 mph

EF5: 3 second gust of wind over 200 mph

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May 24th, 1957

This violent tornado originated east of the town of Ahpeatone in northwestern Cotton County and moved northeast to 7 mile southeast of Lawton in Comanche County before it lifted. The tornado had a multi-vortex phase as observers reported seeing 3 funnels at one time on the ground. Unfortunately, 2 couples were killed when their 2 homes were leveled. One person was seriously injured when his house was destroyed. Four other persons received minor injuries from flying debris. At least 12 homes and many farmsteads were also destroyed along the damage path, and F4 damage occurred 6 miles south of Lawton. A total of 5 cars were also destroyed, and fences were rolled into balls 50-foot in diameter. Up to 70 head of cattle and a number of chickens were killed.

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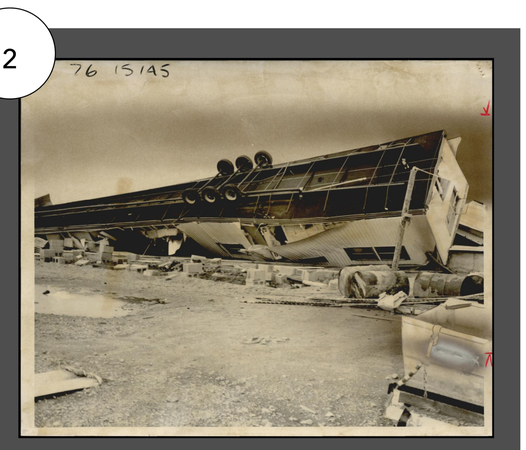
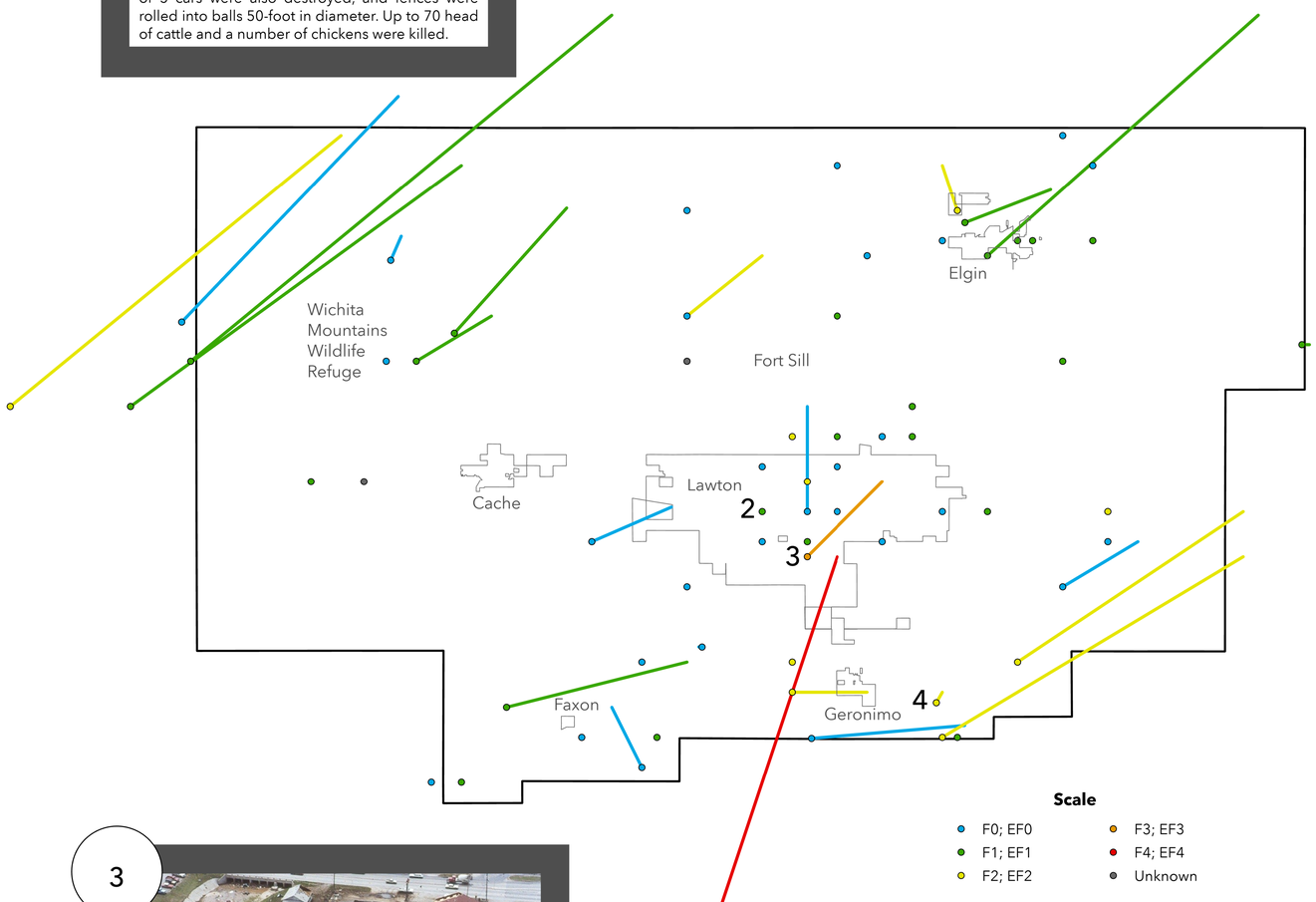


February 18th, 1971

A small, brief tornado struck Fisherman's Cove on the Northeastern shore of Lake Ellsworth near Lawton. Five mobile homes, 2 pickup trucks, and a concession stand were demolished. One woman was injured.



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April 10th, 1979

This tornado touched down about a half-mile north of the terminal building of the Lawton Airport. The path extended northeast to Lee Boulevard and 2nd Street where the tornado made a gentle right turn. It moved east and crossed Cache Creek north of Highway 7. From there it made a series of rather complicated left and right turns before dissipating. Witnesses reported heavy rain and hail before the tornado hit, and a loud roar was heard by many people. One man was killed when a garage wall collapsed on him. An elderly woman died when her home was destroyed. A young child was killed when the car she was riding in was blown off the road. A total of 449 structures received damage and 116 were destroyed. Ninety-two structures received major damage and 241 incurred minor damage. The damage total included 9 destroyed mobile homes and 3 with minor damage.

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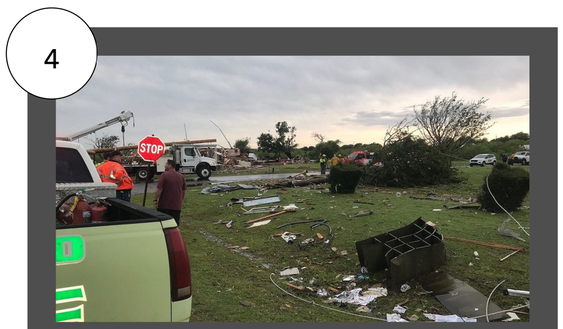
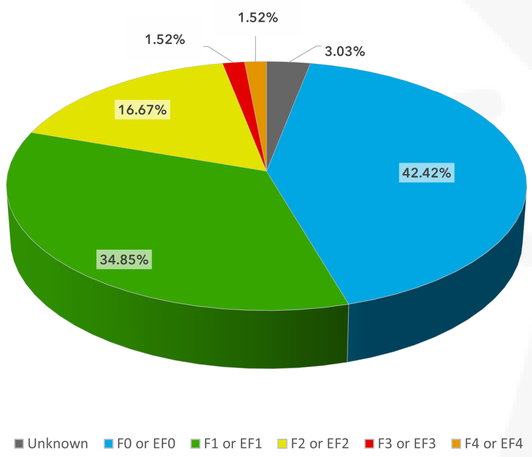


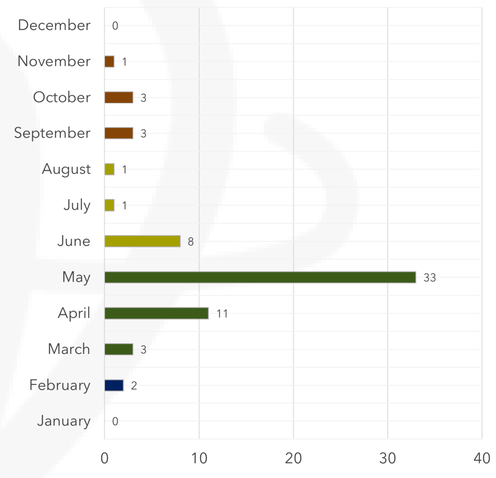
May 18th, 2019

A Quasi-Linear Convective System (QLCS) tornado destroyed two homes about three miles east of Geronimo. One home had most exterior walls collapsed while another house just across the street to the north had its roof removed and many of the exterior walls collapsed. A few power poles were snapped and a tree was uprooted.

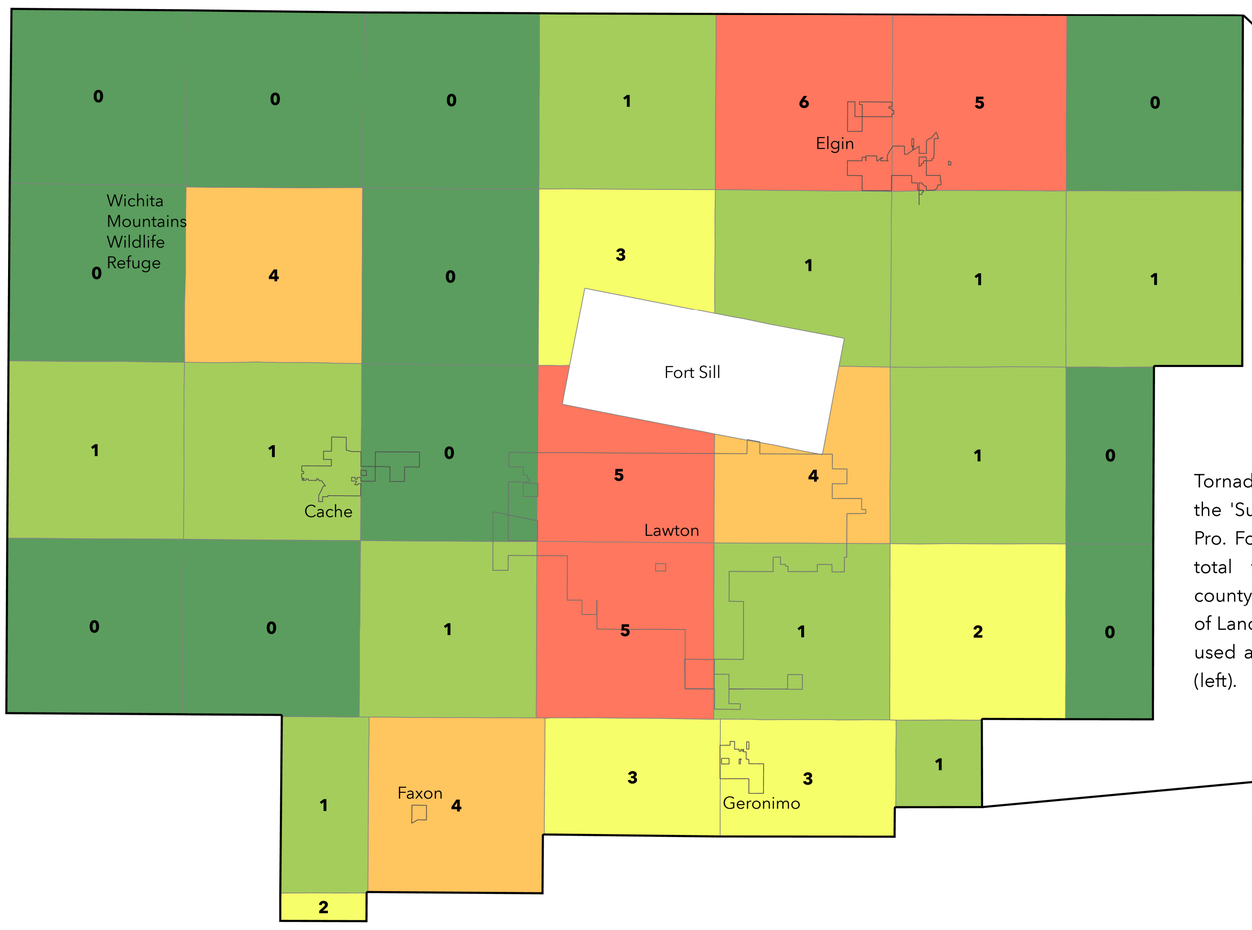
Tornadoes by Type



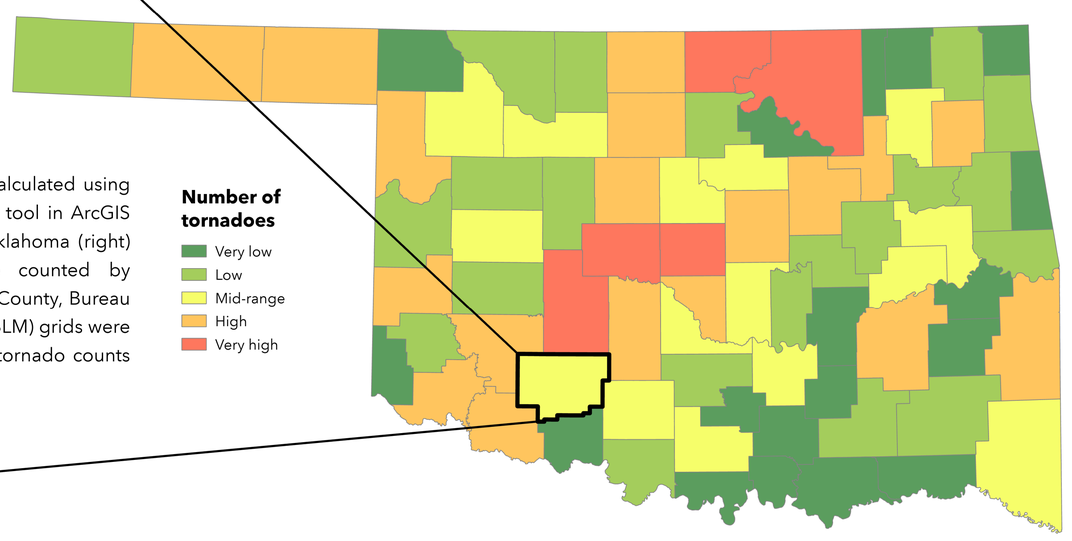
Tornadoes by Month



Comanche County Tornado Counts



Tornado counts were calculated using the 'Summarize Within' tool in ArcGIS Pro. For the map of Oklahoma (right) total tornadoes were counted by county. For Comanche County, Bureau of Land Management (BLM) grids were used as inputs for the tornado counts (left).



Fast Facts

- Only one F4 tornado has been recorded and no F5 or EF5 tornadoes have occurred.

- There were 66 tornadoes in Comanche County from 1950 to 2020.

- The years 1951, 1979, and 1982 had the most tornadoes with 4 each.

- 121 injuries and 10 deaths have been caused by these tornadoes.

- From those tornadoes, $32.3 million in damage is attributed.

Produced by Angela Suffia, City of Lawton GIS Division 8/9/2022
* Photos retrieved from NOAA, KWTV News 9, The Gateway to Oklahoma History, and @OKTornadoDB on Twitter.
* All tornado data provided courtesy of National Oceanic and Atmospheric Administration (NOAA) and National Weather Service (NWS)