Climate and Weather Summary for January 2024

Temperatures in January averaged well-below normal at Abilene and San Angelo. Precipitation was below normal at San Angelo, and well-above normal at Abilene. Table 1 summarizes January 2024 temperature, precipitation, and departure from normal for Abilene and San Angelo.

Site	Average Temperature (°F)	Departure from Normal (°F)	Normal Average Temperature (°F)	Total Precipitation (In.)	Departure from Normal (In)	Normal Jan. Precipitation (In.)
Abilene	42.7°	-3.6°	46.3°	2.29"	1.19"	1.10"
San Angelo	43.8°	-3.6°	47.4°	0.51"	-0.41"	0.92"

Table 1: Jan. Climate Data for Abilene and San Angelo.

Additional temperature and precipitation data for Abilene and San Angelo is summarized in Table 2.

Site	Warmest High Temperature (°F)	Warmest Low Temperature (°F)	Coldest High Temperature (°F)	Coldest Low Temperature (°F)	Maximum Daily Precipitation (In.)
Abilene	74° on Jan. 11	46° on Jan. 26	18° on Jan. 14	8° on Jan. 15	082" Jan. 26
San Angelo	77° on Jan. 18	48° on Jan. 24	24° on Jan. 14	11° Jan. 14, 15	0.15" Jan. 21

Table 2: Additional Jan. Climate Data for Abilene and San Angelo.

- Total snowfall for January was 1.6 inches at San Angelo, and a Trace at Abilene.
- 12th wettest January on record at Abilene.

Maps of total precipitation and percentage of normal precipitation, for January, are shown in Figures 1 and 2 (next page).



Figure 1: Total Precipitation for January.



Figure 2: Percentage of Normal Precipitation for January.

Precipitation for January varied from well-above to well-below normal across <u>west-central Texas</u>. The monthly precipitation was well-above normal in most of <u>the Big Country</u>, and parts of the <u>northern</u> <u>Concho Valley and northern Heartland</u> (light purple and dark purple shading in Fig. 2). For most of the southern half of west-central Texas, January precipitation was below normal, and well-below normal in scattered areas of the <u>Northern Edwards Plateau and Northwest Hill Country</u> (orange shading in Fig. 2).

January 2024 Weather Highlights

Following a cold frontal passage Dec. 31, temperatures were chilly with dry conditions Jan. 1. With the approach of a strong upper level disturbance from the west, showers occurred across mainly the eastern third of the area Jan. 2. Skies were cloudy and temperatures remained chilly. With the approach and arrival of a strong upper level disturbance from New Mexico, a band of rain showers moved east across west-central Texas during the evening and early nighttime hours of Jan. 4, and exiting far eastern counties after Midnight. Rainfall of one quarter to one half inch (with a few locally higher amounts) occurred across much of the eastern half of the area, and varied under one quarter of an inch in the western half.

Jan. 5 started with early morning areas of fog and patchy dense fog, in southern and eastern parts of the area. Gusty west to northwest winds followed in the afternoon, and a peak gust of 40 mph was recorded at the Abilene Regional Airport.

The weather was more active Jan. 7-8, when a strong upper level storm system tracked from the southwestern part of the country across the southern Plains. On Jan. 7, gusty south winds developed by late morning and continued into the evening. Strong, gusty south winds occurred through the night. A band of showers and thunderstorms moved east across the Big Country between 2 AM and 7 AM Jan. 8.

Following passage of a Pacific cold front Jan. 8, strong, gusty west winds occurred from midday through late evening. Winds shifted to the northwest with a secondary cold frontal passage in the evening, and remained gusty through the night.

The highest wind gusts occurred mostly on Jan. 8, and were 50 mph or more at <u>numerous locations</u>. In addition, the Abilene Regional Airport recorded a peak wind gust of 66 mph, and a peak wind gust of 54 mph was recorded at the San Angelo Airport.

Warm and dry conditions followed passage of a dryline Jan. 11. Afternoon highs were well-above normal and in the 70s across the area.

Another episode of strong, gusty west to northwest winds occurred from the late evening of Jan. 11 into the early morning hours of Jan. 12. This was associated with a strong upper level disturbance which moved quickly east across the southern Plains. Strong west winds followed passage of a Pacific front, and northwest winds followed the passage of a secondary cold front form the north. A number of locations in northern and central parts of west-central Texas recorded peak wind gusts 40-60 mph, with the <u>highest gusts (50-60 mph) across the Concho Valley into Crockett County</u>. At the San Angelo Airport, peak wind gusts were 53 mph Jan. 11 and 59 mph Jan. 12.

Abrupt changes to very cold temperatures occurred in the middle of the month with arctic cold frontal passages. In addition, some winter weather occurred Jan. 14. Temperatures were coldest behind the first arctic cold frontal passage Jan. 13-14. The sudden change to very cold temperatures was

accompanied by brisk north to northeast winds. Temperatures plunged to morning lows 5 to 10 degrees across the Big Country and northwest Concho Valley, and mostly 10 to 15 degrees across the Heartland area and south to the Interstate 10 corridor. <u>Bitterly cold wind chill values were -5 to -12 degrees</u> across the northern half of the area in the overnight hours of Jan. 13-14. Afternoon temperatures were only in the teens across most of the area north of Interstate 10. In addition, light wintry precipitation occurred on Jan. 14. The precipitation was in the form of light snow and snow showers in the Concho Valley, and freezing drizzle in the Heartland and Northwest Hill Country areas. Snow accumulations were generally less than 1 inch. <u>This video of snow</u> was taken from the National Weather Service Forecast Office in San Angelo, after 11 PM Jan. 14.

The very cold airmass remained over the area Jan. 15-16, when a strong, cold high pressure system shifted south across the Plains and into Texas. Morning lows Jan. 15 were 5-10 degrees across the Big Country, and generally 10-15 degrees elsewhere. Morning lows Jan. 16 were only a couple of degrees higher than on the 15th. A record low temperature was tied at San Angelo (15 degrees) on the 16th. Temperatures were below freezing across most of the area from the night of Jan. 13 to the late morning and midday hours of Jan. 17.

Temperatures were briefly much warmer Jan. 18. With southwest to west winds and mostly sunny skies, afternoon highs were in the mid to upper 70s across most of the area. The warmest high (81 degrees) occurred at Fort Lancaster (western border of Crockett County). A weak cold front moved into the Big Country and limited highs to the 60s north of Interstate 20.

After another strong cold frontal passage, temperatures were cold and well-below normal Jan. 19-20. Morning lows were in the teens to lower 20s Jan. 19, and afternoon highs ranged mostly from the lower 30s north to lower 40s south.

A significant change in the weather pattern occurred across much of the U.S. Jan. 22-26 with milder temperatures, and wet conditions for much of the southern part of the country. Periodic rain and showers occurred with the approach and arrival of a few upper level disturbances. Rainfall was generally light. A combination of moist air, light winds and a cold ground surface resulted in widespread development of fog. The fog developed at night and lingered well into the morning hours Jan. 22-25. The photo below was taken at the National Weather Service Forecast Office in San Angelo, with dense fog in the early morning of Jan. 24.



A strong upper level disturbance moved east across the Big Country during the evening Jan. 26. With its approach and arrival, showers and thunderstorms occurred on the 26th. The higher coverage was across the Big country north of Interstate 20. Isolated stronger storms occurred in the northern Concho Valley and south of Interstate 20, into the northern Heartland, in the late afternoon and early evening hours. The photo below, from the National Weather Service Forecast Office in San Angelo, shows the cloud buildups and storm to the north in Coke County.



Hail to the size of ping pong ball was reported just south of Robert Lee, in Coke County. Rainfall amounts were over an inch in the Big Country north of Interstate 20.

After a cold frontal passage on the night of Jan. 26, temperatures were cooler with drier conditions Jan. 27-28. The last few days of January were warmer, with daily highs mostly in the upper 60s to lower 70s Jan. 29-31.

Additional Tabular and Graphical Daily Climate Data