Climate and Weather Summary for January 2023

Temperatures in January averaged well-above normal at Abilene and San Angelo. Precipitation was below normal at both locations. Table 1 summarizes January 2022 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	50.9°	4.6°	46.3°	0.73"	-0.37″	1.10"
San Angelo	50.1°	2.7°	47.4°	0.55"	-0.37"	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	84° on Jan. 10	53° Jan. 16, 18	26° on Jan. 31	20° Jan. 30, 31	0.73" Jan. 24
San Angelo	84° on Jan. 10	50° Jan. 2, 15, 18	27° on Jan. 31	23° on Jan. 31	0.54" Jan. 24

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

- 9th warmest January on record at Abilene.
- Winter weather event with freezing precipitation at the end of the month.

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>. For the areas which received less than one half inch (blue shading in Fig. 1), January precipitation was less than 50 percent of normal (orange shading in Fig. 2). The highest January precipitation (between 1.5 and 2 inches) occurred in widely scattered pockets (dark green shading in Fig. 1).

January 2023 Weather Highlights

Dry weather prevailed during at least the early and middle parts of January. Temperatures were wellabove normal on New Year's Day and Jan. 2.

With the track of an upper level storm system from the southern Rockies into the southern and central Plains, a (Pacific) cold front surged east across the area in the late afternoon and evening on Jan. 2. Gusty west winds followed passage of this front, and blowing dust was transported east into the Big Country and Concho Valley. This scenario was shown in one of our <u>social media posts</u>. Peak wind gusts were over 40 mph at the San Angelo Airport, and at Mesonet sites 5 miles west of Rotan and 11 miles southwest of Sweetwater.

Record warm temperatures occurred Jan. 10-11, with dry conditions. At Abilene, new record highs were set on Jan. 10 (84 degrees) and Jan. 11 (83 degrees). At San Angelo, a new record high was set on Jan. 10 (84 degrees), and a record high was tied on Jan. 11 (83 degrees). With breezy southwest winds, highs Jan. 11 were in the lower to mid 80s. With gusty southwest to west winds, highs Jan. 12 were mostly 80-85 degrees. With very dry air, afternoon relative humidity values dropped to 10-15 percent across the area. With these conditions, a grass fire was reported in Throckmorton County (approximately 6 miles west-northwest of Throckmorton).

Gusty northwest winds followed passage of a cold front in the overnight hours of Jan. 11-12. Temperatures were much cooler and closer to normal Jan. 12.

Afternoon temperatures were warm and well-above normal on Jan. 16-17. Highs were in the 70s on Jan. 16, with breezy west winds in the afternoon. Highs Jan. 17 were in the mid 70s to lower 80s. After passage of an early day Pacific cold front Jan. 18, strong, gusty west winds occurred from late morning into the evening hours. Peak wind gusts were 40 mph or higher across much of the Big Country and Concho Valley. The highest recorded wind gusts were 52 mph at San Angelo, and 50 mph at Wall. The west winds accompanied an intrusion of dry air, and afternoon relative humidity values dropped below 20 percent. Some blowing dust was carried aloft over northern and western parts of west-central Texas in the afternoon and early evening.

Temperatures were cooler and closer to normal Jan. 19-21. Below normal temperatures followed a cold frontal passage Jan. 21.

A precipitation event occurred Jan. 24, with cold temperatures. With the track of an upper level storm system east into the area, a cold rain initially occurred on the morning of Jan. 24. Temperatures across the Big Country were cold enough for a mix of rain and snow. A transition to snow occurred across the Big Country in the afternoon, as temperatures dropped into the mid 30s. As the upper level storm system moved out of the area, light snow ended in the evening. Snow accumulations were less than an inch in the Big Country, mainly north of Interstate 20 and on grassy surfaces.

Precipitation for this event is shown in Fig. 3.



Figure 3: Precipitation for the 24-hour Period ending at 6 AM, Jan. 25.

The highest precipitation amounts (1.5 to over 2 inches) occurred in eastern and northeastern parts of the Big Country. Most of the northern and central parts of west-central Texas received one half to one inch. This was the first precipitation event to affect the area in more than one month.

Dry weather followed Jan. 25-26 with generally clear skies, cold nights (lows mostly in the 20s), and chilly days (highs in the upper 40s and lower 50s).

A brief warmup followed Jan. 27-28, with south-southwest winds. Much colder air invaded the area after a strong cold frontal passage Jan. 29.

A winter weather event occurred at the end of the month (Jan. 30-31). With temperatures below freezing and generally in the 20s, periods of freezing drizzle and light freezing rain occurred, as a series of upper level disturbances moved over the area in southwest flow aloft. At times, sleet was mixed with the light freezing rain. This precipitation caused a glaze of ice to form on area roads, bridges and overpasses, along with tree branches and elevated objects. Travel conditions were very hazardous across the area.

Additional Tabular and Graphical Daily Climate Data