Climate and Weather Summary for December 2022

Temperatures in December averaged above normal at Abilene and San Angelo. Precipitation was above normal at San Angelo and well-normal at Abilene. Table 1 summarizes December 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 Dec. Precipitation (In.)
Abilene	48.9°	1.6°	47.3°	0.47"	-0.79"	1.26"
San Angelo	50.7°	2.3°	48.4°	1.03"	0.14"	0.89"

Table 1: Dec. 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	79° on Dec. 5	60° on Dec. 6	26° on Dec. 23	10° Dec. 22, 23	0.33" Dec. 10
San Angelo	78° Dec. 2, 7, 8	62° Dec. 7, 8	27° on Dec. 23	12° on Dec. 23	0.82" Dec. 10

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

- Well-above normal temperatures Dec. 5-8 across the area.
- Rain event on Dec. 10 in northern and central parts of the area.
- Arctic air intrusion on Dec. 22 and very cold daily lows through Dec. 25.

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

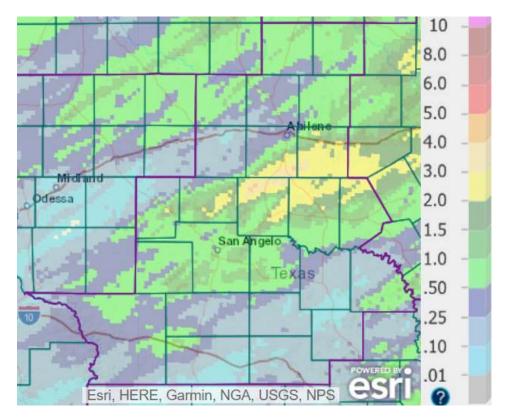


Figure 1: Total Precipitation for December.

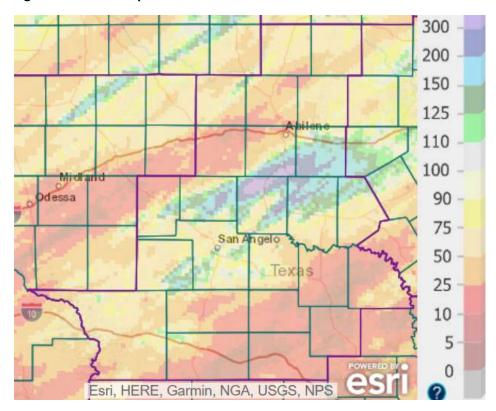


Figure 2: Percentage of Normal Precipitation for December.

Precipitation for December varied widely, from well-above to well-below normal across <u>west-central Texas</u>. The higher monthly rainfall amounts (2-4 inches, with isolated higher amounts) occurred in parts of the northern Concho Valley, northern Heartland, and southern Big Country. In parts of the Big Country west of Abilene, and in much of the southeastern part of west-central Texas, December precipitation was less than one quarter of an inch (Fig. 1), and less than 25 percent of normal (Fig. 2).

December 2022 Weather Highlights

Cloud cover was persistent on a number of days in early December. Temperatures averaged well-above normal Dec. 5-12. Considerable low-level moisture remained over the area, with weak southerly winds. Daily highs were well-above normal in the 70s, and the nights were especially mild. Daily low temperatures on a few days were close to the normal high temperatures. At Abilene, a new record warm low of 58 degrees was set Dec. 7. At San Angelo, new record warm low temperatures were set Dec. 7 (62 degrees) and Dec. 8 (62 degrees). Weak upper level disturbances moved over the area and resulted in light rain showers Dec. 6-7. A weak cold front sagged south into the Big Country on Dec. 7, and a few showers occurred in the Big Country north of this front. Patchy fog also occurred in mainly the southern half of the area, on a few days during the early to mid-morning hours.

Dense fog (with visibility one quarter of a mile or less) developed across southern and central parts of the Big Country Dec. 9 in the afternoon and evening, and persisted into the morning of Dec. 10. Foggy conditions became more widespread across the area in the early morning of Dec. 10. Scattered to numerous showers and thunderstorms, with locally heavy rainfall, occurred along and just behind a cold front as it sagged slowly south across northern and central parts of the area Dec. 10. Rainfall for Dec. 10 is shown in Figure 3.

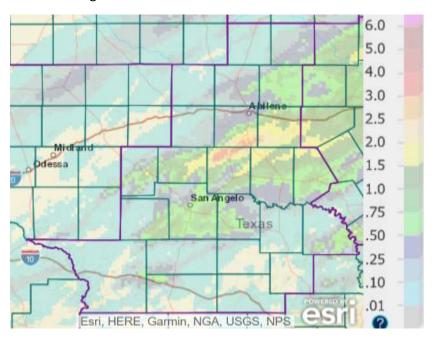


Figure 3: Rainfall for the 24-hour Period ending at 6 AM, Dec. 11.

A few bands of showers accompanied an upper level disturbance and cold front, across mainly the northern and central parts of the area, on Dec. 13. Rainfall amounts (not shown) varied mostly under one-half inch. A narrow band of one-half to three quarters of an inch of rainfall occurred between Ballinger and Cross Plains.

Drier weather occurred in the second half of December, and the main highlight was the intrusion of an arctic airmass in the days leading up to Christmas.

The passage of an arctic front on the morning of Dec. 22 was followed by brisk north winds and falling temperatures. Prior to the frontal passage, temperatures were in the 40s in northern and central parts of the area, to 50s along and south of Interstate 10. After the frontal passage, temperatures quickly dropped below freezing, and plunged into the 7-12 degree range for lows on the early morning of Dec. 23. Wind chill values dropped mostly into the single digits above and below zero. The very cold airmass remained over the area into Christmas Day, and skies were mostly clear. Highs Dec. 23 were in the 20s across most of the area, with lower 30s along and south of Interstate 10. On Dec. 24, morning lows were in the teens, with afternoon highs above freezing and in the 30s. On Christmas Day, after very cold morning lows generally in the teens to lower 20s, temperatures recovered into the upper 40s to lower 50s for afternoon highs, with a return of south winds.

A considerable warming trend ensued during the last several days of the month. Winds were gusty from the south-southwest Dec. 27, and from the southwest Dec. 28. Abilene recorded peak wind gusts of 46 mph on the 27th, and 47 mph on the 28th. San Angelo recorded a peak wind gust of 45 mph on the 28th.

Additional Tabular and Graphical Daily Climate Data