# Climate and Weather Summary for December 2017

Temperatures for the month averaged slightly below normal at Abilene and slightly above normal at San Angelo. Table 1 summarizes December 2017 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 December Precipitation (In.) | Total Snowfall (In.) |
|---|---|---|---|---|---|---|---|
| Abilene | 44.6° | -0.7° | 45.3° | 1.05” | -0.18” | 1.23” | Trace |
| San Angelo | 47.0° | 0.3° | 46.7° | 1.13” | 0.28” | 0.85” | Trace |

**Table 1: December 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) | Coolest High Temperature (°F) | Coldest Low Temperature (°F) | Maximum Daily Precipitation (In.) |
|---|---|---|---|---|---|
| Abilene | 78° Dec. 4 | 55° Dec. 2 | 26° Dec. 31 | 16° on Dec. 31 | 0.90” Dec. 19 |
| San Angelo | 81° Dec. 4 | 54° Dec. 4 | 32° on Dec. 27, 31 | 19°on Dec. 31 | 0.56” Dec. 19 |

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

- Monthly temperature range (from warmest high temperature to coldest low temperature) was 62 degrees at both Abilene and San Angelo.
- No daily record high or low temperatures were set or tied at San Angelo and Abilene in December. In addition, no daily precipitation records were set or tied at San Angelo and Abilene during the month.

A map of total precipitation for December is shown in Figure 1. Percentage of normal precipitation for December is shown in Figure 2.

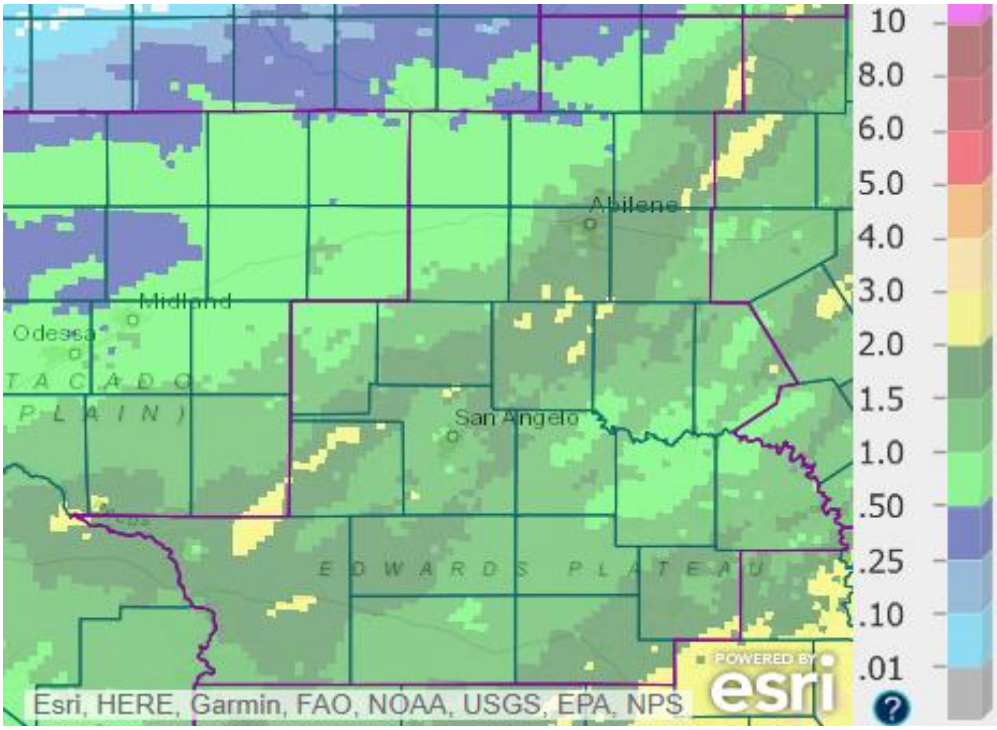


**Figure 1: Total Precipitation for December.**

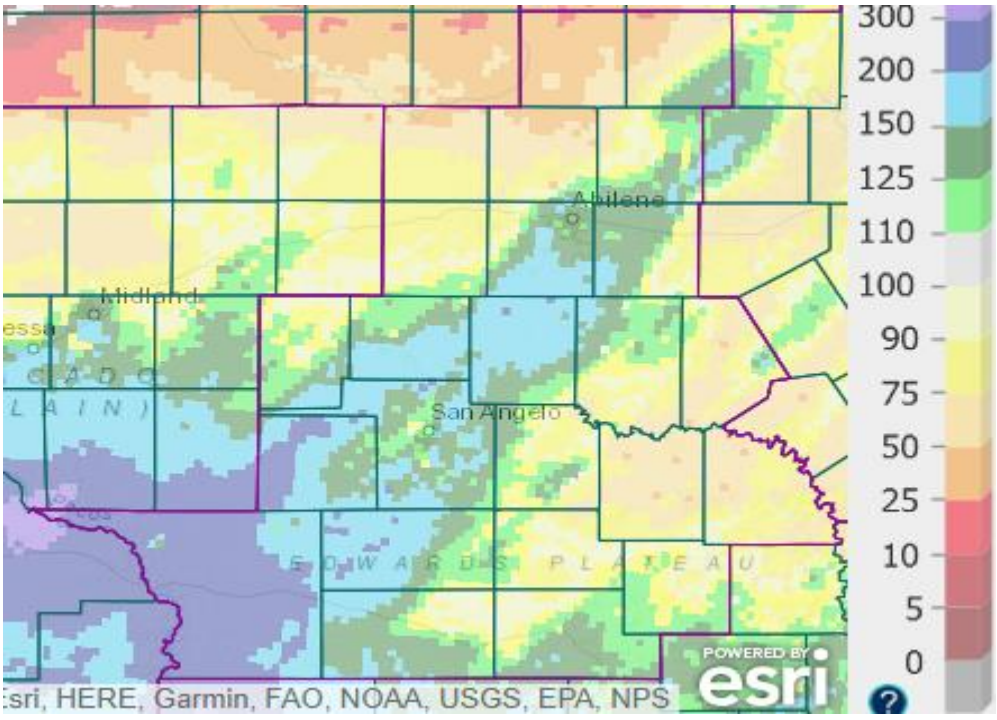


**Figure 2: Percentage of Normal Precipitation for December.**

Precipitation for December ranged from well-above to well-below normal across west-central Texas. The monthly precipitation was well-above normal normal across western Irion and much of Crockett Counties, where the amounts were over 1.5 inches. December precipitation was well-below normal (less

than 50% of normal with orange shading in Figure 2) across parts of the far northern Big Country, to the north of Abilene.

**Weather Highlights:**

Temperatures were well-above normal across the area Dec. 1-4. With a change in the weather pattern, a strong cold front moved south across west-central Texas during the overnight hours of Dec. 4-5. Gusty north-northeast winds followed passage of this front, and temperatures were colder Dec. 5-7.

A cold rain event occurred in early December. This event began as light rain on the 5th, and continued through the 6th into the early morning of the 7th. Some sleet was mixed with the rain on the 6th and 7th. Rainfall amounts for this event are shown in Figure 3.

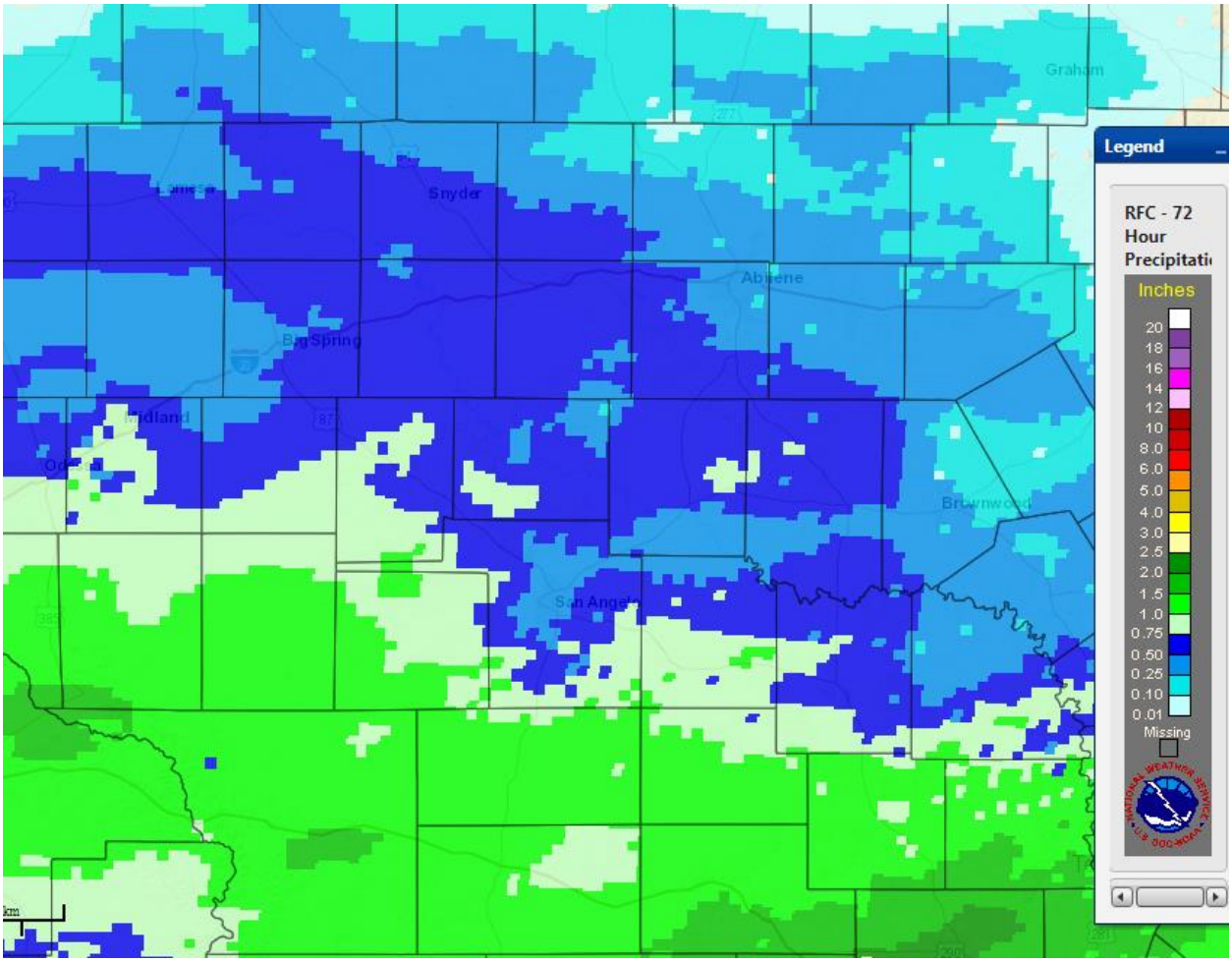


**Figure 3: Rainfall amounts for the 72-hour Period ending at 11 AM Dec. 8.**

The heavier rainfall (over one inch) occurred across roughly the southern third of west-central Texas.

With the rain and cloudy skies, daytime temperatures were colder (mostly in the upper 30s to mid 40s) on the 6th. Following a secondary cold frontal passage, daytime temperatures were confined to the 30s on the 7th. With brisk north winds, wind chill values were in the 20s. With an incoming upper level disturbance, a little light snow occurred southwest of a Sterling City to San Angelo to Sonora line on the

7th. However, with warm ground conditions, no accumulation was reported. Snow flurries occurred as far north and east as Abilene.

Clearing skies and light winds allowed temperatures to drop into the teens and 20s for early morning lows on Dec. 8 (Figure 4).

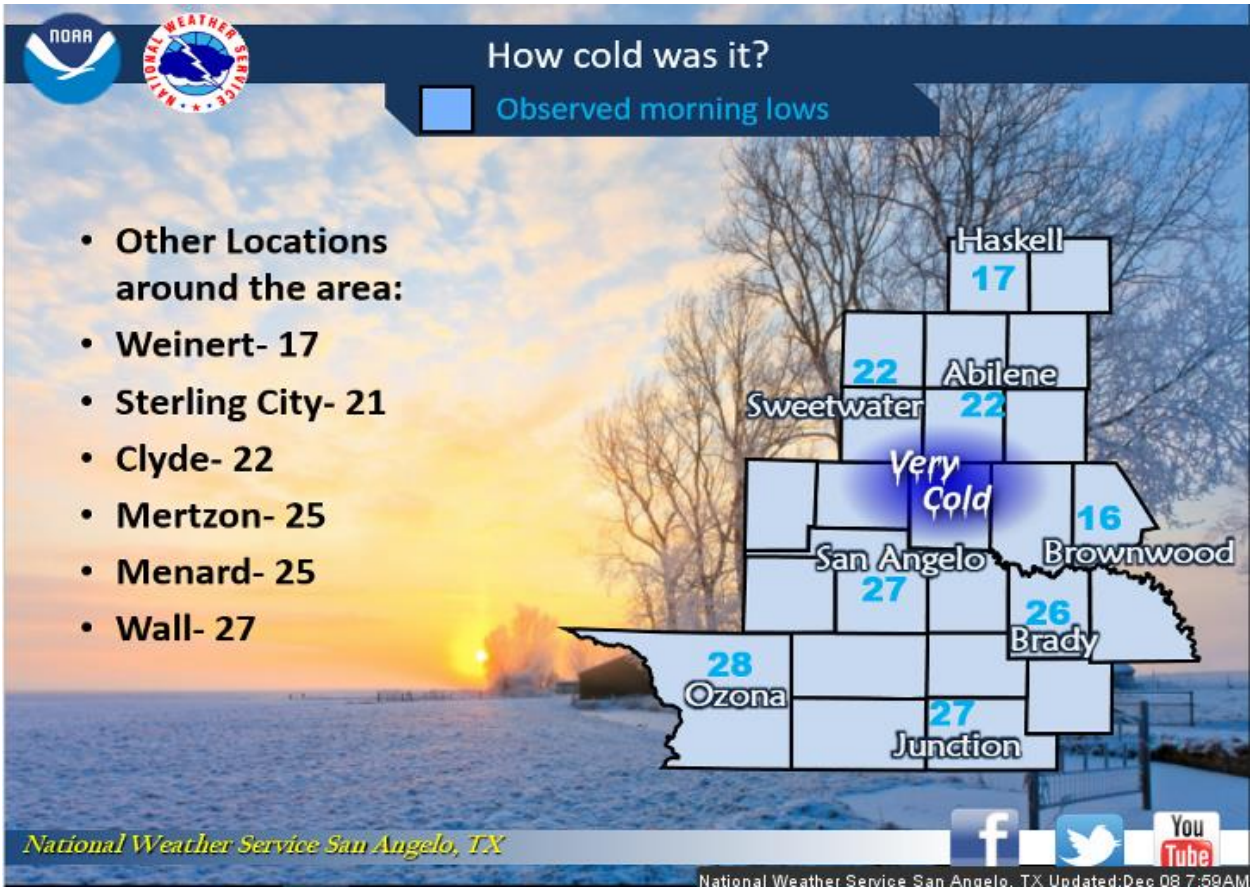


**Figure 4: Early Morning Low Temperatures on Dec. 8.**

A quiet weather pattern followed Dec. 9-15, with dry conditions. With dry airmasses occupying the region and mostly clear skies, daily temperature ranges (between the early morning lows and afternoon highs) were 35-45 degrees on some of the days.

Light rain occurred on Dec. 16, with the arrival of a weakening upper level disturbance. Rainfall amounts across most of the area were less than one tenth of an inch, although a few locations received between one tenth and one quarter of an inch.

Areas of dense fog, with visibilities one-quarter of a mile or less, occurred across much of west-central Texas on the morning of Dec. 18. Rain and scattered thunderstorms occurred on Dec. 19, with the arrival of another upper level disturbance from the southwest. Much of the heavier rainfall occurred along a 50-mile wide swath extending from southwest to northeast across west-central Texas. Rainfall amounts within this swath generally varied from one quarter to three quarters of an inch, with a few locally higher amounts.

Temperatures were unseasonably warm on Dec. 21, when afternoon high temperatures were in the mid 70s to lower 80s across much of the area.

Generally light rain occurred across much of the area on Dec. 22-23, with rainfall amounts varying mostly under one-half inch.

Dry and colder conditions occurred on Christmas Eve and Christmas Day, following a cold frontal passage on Dec. 24.

An unsettled and progressively colder pattern unfolded over the Christmas holidays. Skies were cloudy for an extended period of time.

Following a strong cold frontal passage on Dec. 26, temperatures dropped below freezing, and remained below freezing until Dec. 28 across the Big Country and Concho Valley areas. Freezing drizzle and freezing fog also developed on Dec. 26 and continued into the morning of the 27th. This resulted in icy road conditions across the Big Country and patchy ice across the Concho Valley.

Temperatures remained below normal Dec. 28-29. Some freezing fog occurred on the early morning of the 28th, across roughly the western half of west-central Texas. An arctic cold front advanced south across the area on Dec. 30, followed by a reinforcing surge on Dec. 31. Temperatures dropped below freezing on the 30th across northern and central parts of west-central Texas, and on the 31st along the Interstate 10 corridor. Freezing drizzle and freezing fog developed and become widespread across much of the area. Freezing drizzle ended on the 31st, and temperatures fell into the teens to lower 20s. Brisk north-northeast winds resulted in very cold wind chill values, with readings in the single digits across much of the area on the evening and early nighttime hours of the 31st.

Additional Tabular and Graphical Daily Climate Data