

## Climate and Weather Highlights for 2017

Temperatures averaged above normal for the year, and to a greater extent at San Angelo than Abilene. Table 1 summarizes Year 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 Annual Precipitation (In.) | Total Snowfall (In.) |
|------------|--------------------------|----------------------------|---------------------------------|---------------------------|----------------------------|-----------------------------------|----------------------|
| Abilene    | 65.6°                    | +1.0°                      | 64.6°                           | 20.94"                    | -3.88"                     | 24.82"                            | Trace                |
| San Angelo | 67.9°                    | +2.4°                      | 65.5°                           | 18.48"                    | -2.77"                     | 21.25"                            | Trace                |

- For San Angelo, the annual average temperature (67.9 degrees) tied for the 7<sup>th</sup> warmest on record.
- For Abilene, the annual average temperature and precipitation did not rank in the top 10 (warmest/coolest for temperature and wettest/driest for precipitation).

Total snowfall for the year was: a trace at Abilene, and a trace at San Angelo.

**Table 1: Year 2017 Temperature and Precipitation Data for Abilene and San Angelo.**

Additional annual 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    | 103° on Jun. 23, Jul. 29      | 77° on Jun. 30, Jul. 28-30   | 25° on Jan. 6                 | 9° on Jan. 7                 | 2.13" on Aug. 14                  |
| San Angelo | 109° on Jun. 17, 23           | 79° on Jun. 18               | 31° on Jan. 6                 | 11° on Jan. 7                | 1.48" on Sep. 27                  |

**Table 2: Additional Year 2017 Climate Data for Abilene and San Angelo.**

The number of days in 2017 with high temperatures 100 degrees or more were: 33 at San Angelo, 8 at Abilene, and 15 at Junction. The average annual number of days with high temperatures 100 degrees or more are 18 at San Angelo, and 12 at Abilene.

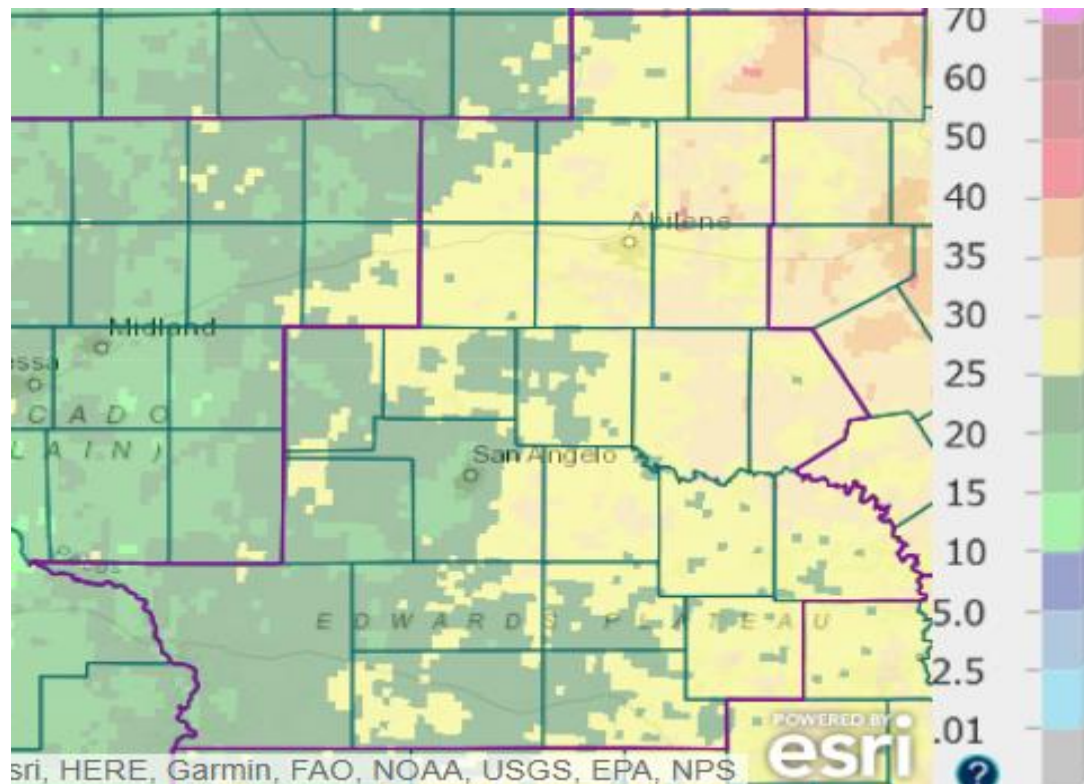
The growing season information for the year is summarized in Table 2, for Abilene and San Angelo.

| Site       | Last Spring Freeze | First Autumn Freeze | Length of Growing Season | Normal Length of Growing Season (1981-2010 Average) | Departure from Normal |
|------------|--------------------|---------------------|--------------------------|---|-----------------------|
| Abilene    | Mar. 2             | Oct. 27             | 238 days                 | 234 days  | +4 Days               |
| San Angelo | Mar. 3             | Oct. 28             | 238 days                 | 231 days  | +7 Days               |

**Table 3: Growing Season Information for Abilene and San Angelo.**

The growing season (number of days between the last spring freeze and the first autumn freeze) was several days to 1 week longer than normal at Abilene and San Angelo.

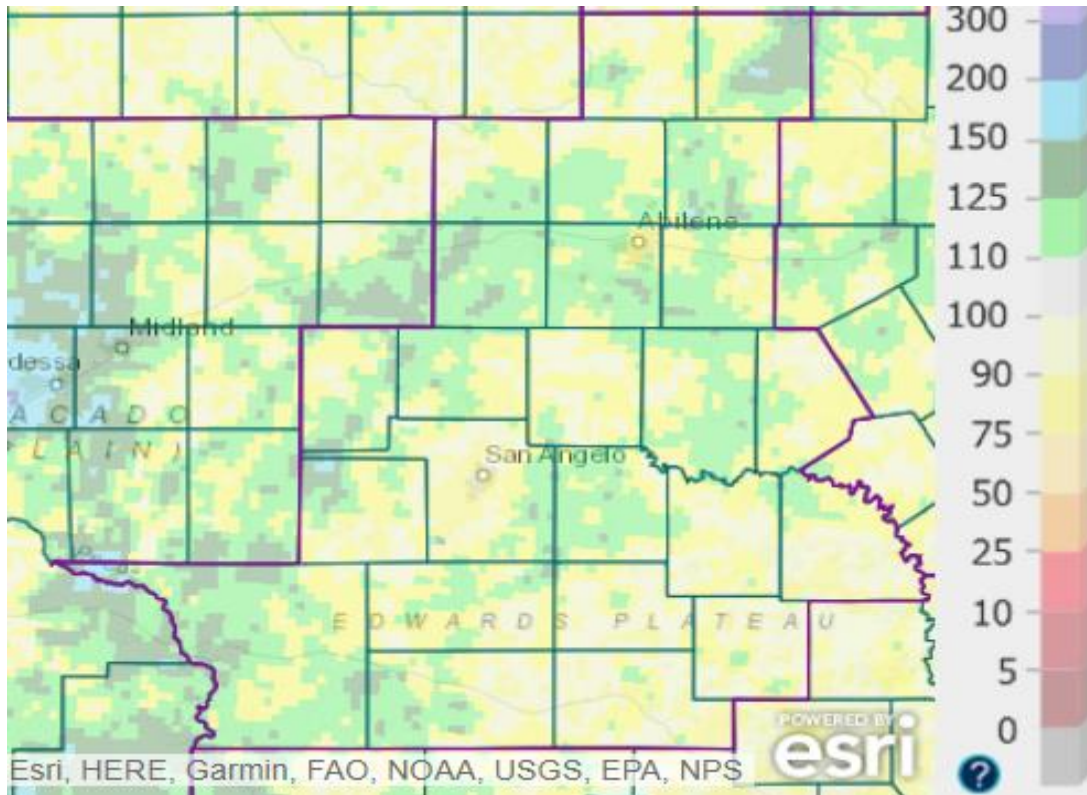
Total precipitation for the year is shown in Figure 1.



**Figure 1: Total Annual Precipitation for 2017. Scale on right is in inches.**

Total precipitation for the year ranged from less than 20 inches in parts of the western [Concho Valley](#) and Crockett County, to 35-40 inches with locally higher amounts in parts of Throckmorton County.

Departure from normal precipitation for the year is shown in Figure 2.



**Figure 2: Departure from Normal Precipitation for Year 2017.**

The annual precipitation varied from above normal (green shading) to below normal (yellow shading) across [west-central Texas](#).

[Numerous daily temperature records were broken or tied in 2017 at San Angelo, and to a lesser extent at Abilene.](#)

### **Weather Highlights:**

#### ***Winter***

The coldest temperatures for the year occurred in early January. [Early morning low temperatures on Jan. 7th](#) were mostly in the 8-15 degree range across west-central Texas. Very cold temperatures also occurred in late December, toward New Year's Eve.

An uncharacteristic winter season severe weather event occurred in parts of the Northwest Hill Country and Heartland areas on Jan. 15. Strong winds occurred along a band of thunderstorms, and a [tornado](#)

[occurred in Mcculloch County](#). This tornado, rated as EF-2 on the Enhanced Fujita Scale, occurred approximately 8 miles southeast of Brady. Numerous trees were uprooted or had trunks snapped off.

Temperatures averaged well-above normal in February. This was the warmest February on record at San Angelo, and 3<sup>rd</sup> warmest at Abilene. San Angelo also recorded the 2<sup>nd</sup> highest number of days (12) with highs 80 degrees or warmer, for the month of February.

### ***Spring***

Temperatures averaged well-above normal again in March. This was the 4<sup>th</sup> warmest March on record at San Angelo, and Abilene tied the record for its 7<sup>th</sup> warmest March. Precipitation for the month was well-below normal across much of west-central Texas. On the morning of March 7, several area observing stations recorded [hazy conditions](#) with reduced visibility. This was the result of smoke which was carried south into west-central Texas, from large wildfires in the Texas and Oklahoma Panhandles into southwestern Kansas on March 6. Strong, gusty winds occurred on March 23-24, when peak gusts were between 40 mph and 55 mph across much of west-central Texas.

In April, temperatures averaged above normal, but to a lesser extent than in the previous 2 months. Strong, gusty winds affected the Concho Valley during the early morning of Apr. 13, in the wake of dissipating showers and thunderstorms. Peak wind gusts of 40-60 mph were recorded at a few observing sites. The final week of the month was marked by wide temperature variations.

Precipitation for May varied considerably, from well-above to well-below normal across west-central Texas. Temperatures for the month averaged below normal. Record cool temperatures on May 23-24 were followed by record heat a couple of days later on May 26.

Several notable severe weather events occurred in the March-June time frame.

[A severe weather event on March 28](#) affected nearly all of west-central Texas.

[A severe weather event on April 1](#) affected parts of the northern half of west-central Texas.

The following month, severe weather events occurred on [May 18](#), [May 19](#), and [May 22-23](#).

A [severe weather event occurred on June 23](#), with destructive winds in San Angelo.

### ***Summer***

The hot and dry conditions, usually prevalent during the summer, occurred during parts of June and July, sporadically in August, and during the middle of September.

Above normal temperatures prevailed June 10-23, with very hot temperatures on [June 17](#) and [June 23](#). In July, the hottest temperatures, overall, occurred between July 20 and July 30.

There were a couple of notable exceptions during the summer when other significant weather occurred.

In June, a significant flash flood affected the town of Throckmorton on June 2. Persistent thunderstorms with very heavy rain occurred, producing rainfall amounts between 6 and 8.5 inches in the Throckmorton area. This caused the water on Throckmorton Lake to overflow the spillway and flood parts of the nearby town of Throckmorton. With the major flooding which ensued, 15 homes were evacuated in the southern part of Throckmorton, and all roads in and out of the town were closed.

The first week of July in west-central Texas was marked by [unsettled weather](#), with several thunderstorm complexes producing locally heavy rainfall and gusty winds.

Patchy dense fog, uncharacteristic for summer in west-central Texas, affected central and southern parts of the area on the early morning of on Aug. 3. Visibilities dropped to less than one quarter of a mile at times at San Angelo, Sonora and Ozona.

On numerous occasions in August, weak upper level disturbances entered the region and interacted with moist and unstable air, resulting in isolated to scattered showers and thunderstorms. In addition to locally heavy rainfall, some of the storms were accompanied by strong, gusty winds over 55 mph during the late afternoon and evening hours.

In late August, Hurricane Harvey made landfall along the Texas coast near Rockport, on the night of Aug. 25. This Category 4 hurricane was the strongest to make landfall in Texas since Hurricane Carla in 1961. The most significant wind damage occurred in Rockport and the surrounding area. When this tropical system weakened to a tropical storm and meandered near the Texas coast for an extended period of time through Aug. 29, the system brought record-setting rainfall to southeastern Texas, which resulted in catastrophic flooding around Houston. With the large distance of this tropical system from west-central Texas, the effects on our area weather were minor.

### ***Fall***

In September, temperatures averaged slightly above normal at Abilene, and to a greater extent at San Angelo. Although September rainfall varied from well-above to well-below normal, the monthly rainfall was above normal for a sizeable portion of west-central Texas. Most of the September rainfall occurred with an event late in the month. With this rain event, the highest amounts (between 5 and 8 inches) occurred across the northeastern Big Country (Throckmorton and Shackelford Counties), and across part of the Concho Valley east of San Angelo (between Rowena and Vancourt). Amounts of 2-4 inches were common across much of the Big Country, Concho Valley and northern Heartland areas, and across parts of the Interstate 10 corridor farther south. This rain event brought short term benefit to vegetation and agricultural crops in west-central Texas, following a prolonged period of dry weather during most of September.

In October, temperatures averaged slightly below normal at Abilene, and slightly above normal at San Angelo. Rainfall for October was well-below normal across nearly all of west-central Texas, and Abilene recorded its 6<sup>th</sup> driest October. An early season light freeze occurred at a few locations (mainly in low-lying areas and along river valleys), on Oct. 16-17, and early morning low temperatures were in the 30s across much of west-central Texas. The first freeze of the fall season occurred across most of west-

central Texas on Oct. 28, when a combination of clear skies, light winds and very dry air allowed temperatures to dip into the upper 20s to lower 30s for early morning lows. This freeze was 1-2 weeks earlier than usual across west-central Texas. Another freeze was recorded early the next morning (Oct. 29) at numerous locations across central and southern parts of west-central Texas, where conditions were similar to the previous night with light winds and dry air. A record low temperature of 30 degrees was tied at San Angelo on Oct. 30.

Some severe weather typically occurs in west-central Texas during the Fall season, and this was the case in 2017. A few severe weather reports were received on September 2, 19 and 20. In October, Several severe thunderstorms with large hail ranging from quarter to golf ball size, occurred across the Big Country on Oct. 21.

Following a chilly end to October, temperatures were much warmer and well-above normal during the first several days of November, with record heat. San Angelo recorded 4 days with high temperatures 90 degrees or above in November. This is the highest number of 90-degree days on record for November. San Angelo also recorded its 4<sup>th</sup> warmest November. Temperatures averaged above normal at Abilene, but to a lesser extent than at San Angelo. Precipitation for November was near to slightly below normal across much of the central and northern parts of west-central Texas, and well-below normal across the southern third of the area and the far northern Big Country.

In December, temperatures averaged close to normal, and precipitation generally varied from above to below normal. After a month with numerous record temperatures in November, no daily record temperatures or precipitation occurred in December at San Angelo and Abilene. Late in December, an unsettled and progressively cold pattern unfolded. Arctic cold frontal passages on Dec. 26, 30 and 31 were followed by falling temperatures. Episodes of freezing drizzle and freezing fog occurred across much of the area. Although this resulted in icy spots on the roads across areas south of Interstate 20, the Big Country area bore the brunt of the impacts with icy road conditions. The year ended on a very cold note with temperatures in the teens to lower 20s, brisk north-northeast winds and wind chill values in the single digits, on the evening and early nighttime hours of Dec. 31.

[Links to Individual Monthly Weather and Climate Summaries for 2017](#)