Climate and Weather Summary for November 2016

Temperatures averaged well-above normal for the month. Table 1 summarizes November 2016 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 November Precipitation (In.)
Abilene	60.0°	5.4°	54.6°	2.51"	1.10"	1.41"
San Angelo	61.0°	5.7°	55.3°	2.73	1.59"	1.14"

- For San Angelo, the average temperature for November was the 2rd warmest on record. November total Precipitation at San Angelo (2.73 inches) ranks as the 12th wettest.
- For Abilene, the average temperature for November was the 4th warmest on record.

Table 1: November 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)	Coolest Low Temperature (°F)	Maximum Daily Precipitation (In.)
Abilene	88° on Nov. 1	63° on Nov. 2	57° on Nov. 30	31° on Nov. 19	0.84" on Nov. 3
San Angelo	91° on Nov. 1	64° on Nov. 1, 2	58° on Nov. 9, 26	29° on Nov. 19	0.81" on Nov. 10

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

Maps of total precipitation for November (Figure 1) and percent of normal precipitation for the month (Figure 2) are shown below.

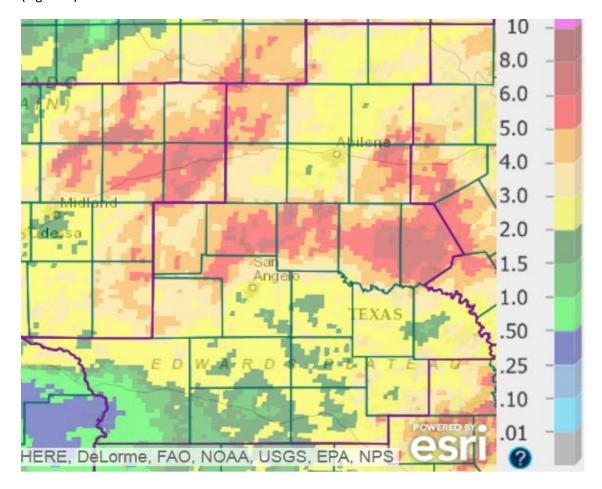


Figure 1: Total Precipitation for November.

November precipitation varied considerably from around one-half inch in southwestern Crockett County, to over 5 inches in northern parts of the Concho Valley and Heartland, and southeastern parts of the Big Country.

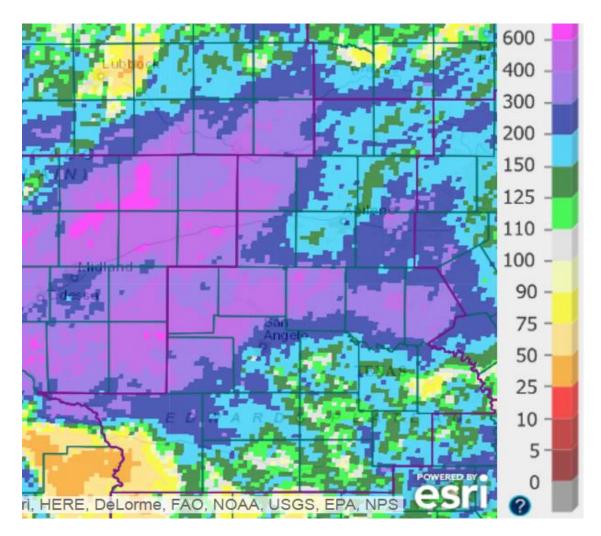


Figure 2: Percentage of Normal Precipitation for November.

The monthly precipitation was above normal across most of west-central Texas, and much above normal for some of the central and northern sections of the area into northern Crockett County (dark blue and purple shading). November precipitation was below normal in scattered areas across the southern half of west-central Texas, most notably across western and southwestern Crockett County.

Weather Highlights:

Well-above normal temperatures continued into the first couple of days in November. A record high temperature (91 degrees) was set at San Angelo on the 1st, and this record was only 2 degrees lower than the record high for the month of November (93 degrees, set on November 8, 1980). At Abilene, a record high temperature (84 degrees) was tied on the 2nd.

A significant change to an unsettled pattern occurred early in the month, beginning on the 3rd. Numerous showers and scattered thunderstorms occurred late on the 2nd across the Big Country, and farther south across west-central Texas on the 3rd. This occurred as an upper level disturbance and

slow-moving cold front interacted with an unusually moist airmass. Rainfall amounts for November 2-3 are shown in Figure 3.

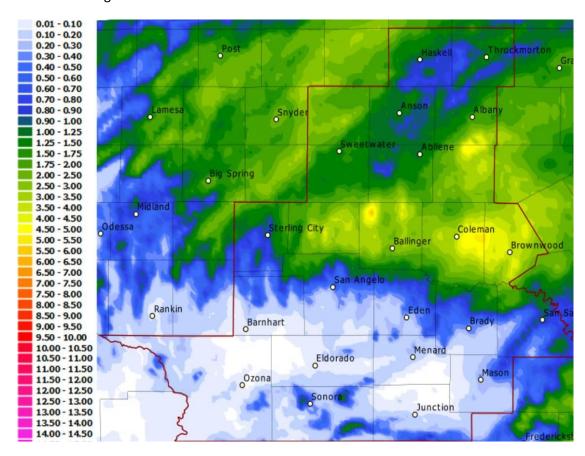


Figure 3: West-Central Texas Rainfall for the 7-Day Period Ending at 7 AM, November 4.

The coverage of rain was widespread across the northern half of West Central Texas, and scattered farther south along the I-10 corridor. The heavier rainfall occurred north and west of Sweetwater, and southeast of a line from Albany to Abilene to Sterling City. A few areas (northwestern Runnels County near Wingate, along the Callahan/Shackelford County line, and in Brown and eastern Coleman Counties) received 2-4 inches, with isolated totals over 5 inches.

Moist conditions and mostly cloudy skies prevailed on November 4-7, with less of a range between daytime and nighttime temperatures. As an upper level disturbance entered the area from the southwestern states, another round of showers and scattered thunderstorms occurred on the 6th. Rainfall amounts for November 6 are shown in Figure 4.

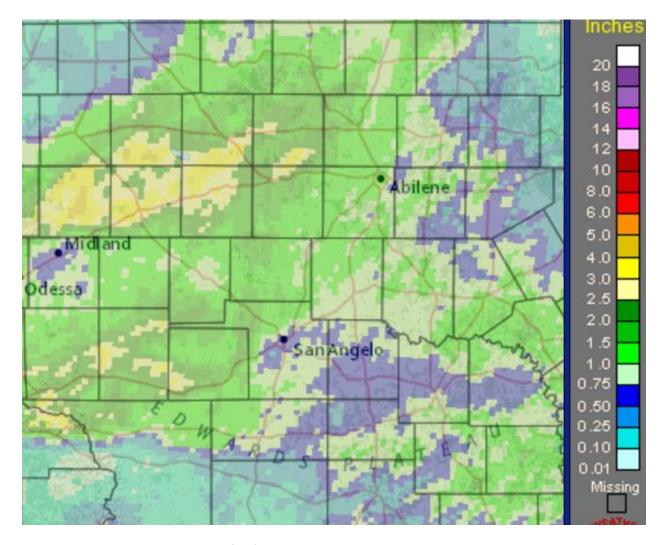


Figure 4: West-Central Texas Rainfall for the 24-Day Period Ending at 5 PM, November 6.

Rainfall amounts of 1-2 inches were common across much of the area west of a line from Throckmorton to Abilene to San Angelo to Mertzon, in northern Crockett County, and in parts of the Heartland and Northwest Hill Country. The highest amounts (2-3 inches) occurred in parts of the western Big Country and western Concho Valley.

Numerous showers and scattered thunderstorms with locally heavy rainfall occurred on the 7th, across the area east of a line from Rotan to San Angelo to Telegraph. Localized amounts of 1.5 to 3 inches occurred, with the highest amounts (over 3 inches) in a small part of extreme eastern Kimble County.

In the wake of a cold frontal passage (overnight hours of November 7-8), cool and moist conditions occurred on the 8th and continued through the 10th. Patchy light rain occurred on the 8th, and daytime temperatures were confined to the mid to upper 50s on the 9th across much of west-central Texas. With an upper level disturbance remaining to the west of the area, an area of rain overspread the southern half of west-central Texas on the 9th, and lingered into the morning of the 10th over western parts of the area. Rainfall amounts between 0.75 inches and 1.5 inches were common across the area southwest of

a Big Spring to San Angelo to London line. Amounts over 1.5 inches occurred in a narrow band from east-central Schleicher County into northwestern Kimble County.

Patchy dense fog affected southern parts of west-central Texas on the early morning of the 14th, with visibility less than one quarter of a mile at times.

Warm days with well-above normal high temperatures occurred on November 14-17, as an upper level high pressure system moved east across Texas. The warmest days (highs in the lower to mid 80s) were on the 15th and 16th, and new record highs were set at San Angelo on those dates.

A strong cold front advanced southeast across west-central Texas during the early morning hours of the 18th. A narrow band of showers accompanied this front across parts of the Heartland and Northwest Hill Country. Much cooler and drier air followed passage of this front, accompanied by gusty north winds.

The first freeze of the fall season occurred on the 19th and 20th. As a strong high pressure system settled south into west-central Texas, the combination of clear skies, dry air and light winds allowed temperatures to drop to and below the freezing mark for early morning lows across much of the area on the 19th, and across southeastern parts of the area on the 20th.

On the 25th, an area of rain showers overspread much of west-central Texas to the south of Interstate 20 and north of Interstate 10. Rainfall amounts were one-half to one inch (with a few higher amounts) along an east-west band across much of the Concho Valley and northern Heartland.

Rather windy conditions occurred on the 27th with south winds, and on the 28th with west winds. This occurred as a potent upper level storm system moved east across the Rockies and into the Plains. On the 27th, peak wind gusts were 46 mph at Abilene and 45 mph at San Angelo. On the 28th, a peak wind gust of 44 mph was recorded at San Angelo.

The month ended with dry and tranquil weather conditions.