Climate and Weather Summary for September 2017

Table 1 summarizes September 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 September Precipitation (In.)
Abilene	75.6°	0.1°	75.5°	4.43”	2.19”	2.24”
San Angelo	77.2°	1.6°	75.6°	3.46”	1.00”	2.26”

Table 1: September 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	100° Sep. 14	75° Sep. 11	63° Sep. 29	55° Sep. 11	1.85” Sep. 26
San Angelo	104° Sep. 14	76° Sep. 21	66° Sep. 27, 29	51° Sep. 8	1.48” Sep. 27

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

- Temperatures for the month averaged slightly above normal at Abilene, and to a greater extent at San Angelo.
- At San Angelo, record high temperatures were set (104 degrees) on Sep. 14 and tied (102 degrees) on Sep. 20. Record low temperatures were set (53 degrees) on Sep. 10 and tied (52 degrees) on Sep. 11. Record high minimum temperatures were set on Sep. 19 (75 degrees), Sep. 21 (76 degrees), and Sep. 22 (75 degrees).
- At Abilene, a record high minimum temperature was tied on Sep. 21 (75 degrees). A record for daily precipitation was set on Sep. 26 (1.85 inches).
- Number of days in September with high temperatures 100 degrees or more:
  3 at San Angelo, 3 at Junction, and 1 at Abilene.

Rainfall for the month varied from well-below to well-above normal. A map of total precipitation for September is shown in Figure 1. Percentage of normal precipitation for September is shown in Figure 2.

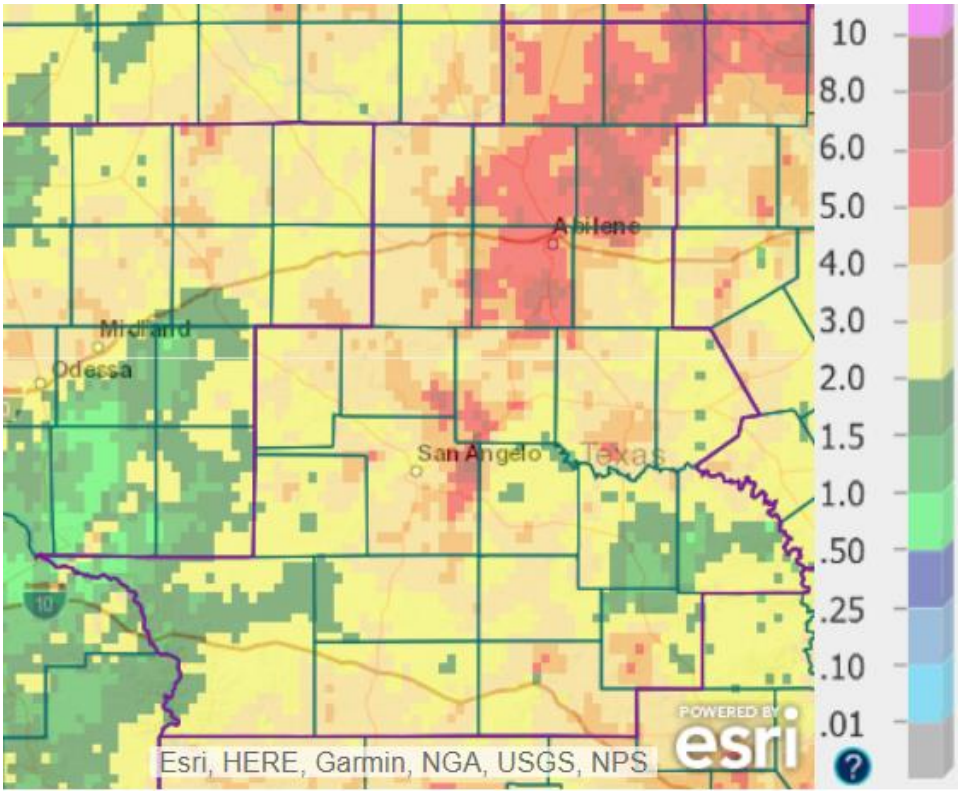


Figure 1: Total Precipitation for September.

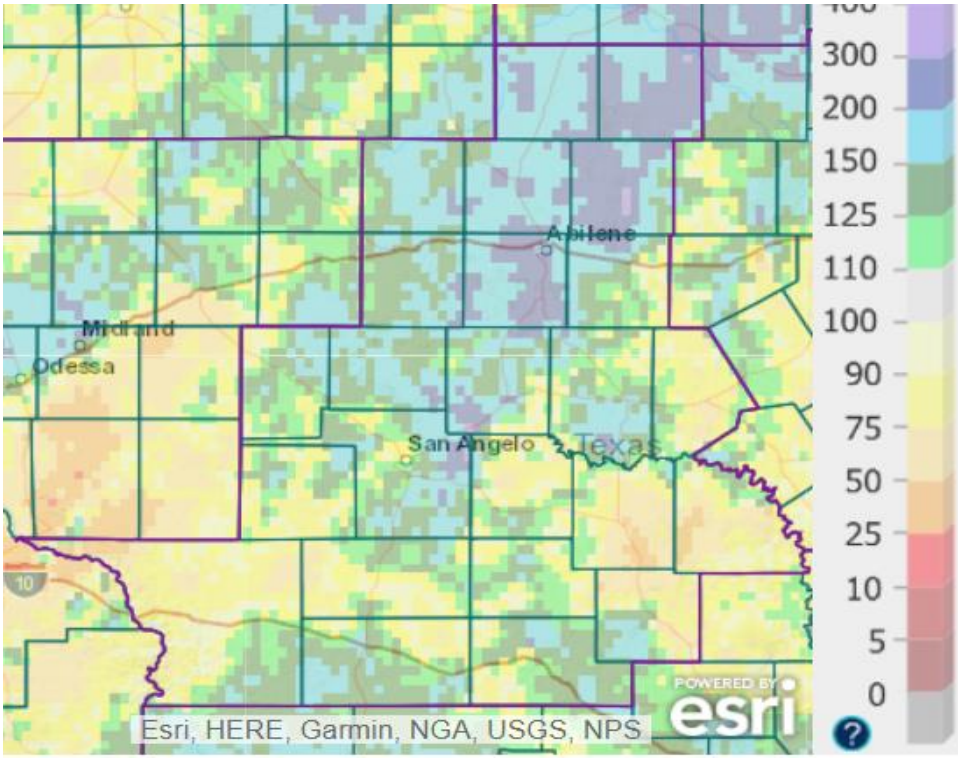


Figure 2: Percentage of Normal Precipitation for September.

Most of the rainfall for September occurred with a significant rain event late in the month. The monthly rainfall was above normal across much of west-central Texas (green and blue shading on the map in Figure 2). Only in parts of northwestern Crockett, southern Mcculloch and western San Saba Counties was the monthly rainfall well-below normal (orange shading in Figure 2). Normal rainfall for September (not shown) is 2-3 inches for nearly all of west-central Texas.

Weather Highlights:

Seasonably hot temperatures occurred Sep. 1-5, with west-central Texas on the southeastern periphery of a large upper level high pressure system over the western U.S. An upper level disturbance moved south into the area on the 2nd, bringing showers and thunderstorms with gusty winds, frequent lightning and heavy rainfall. A wind gust of 63 mph was recorded at Dyess Air Force Base, and strong winds caused localized damage at Tye. In Abilene, a lightning strike caused a large sign to fall into the parking lot of a local restaurant. Much of the rainfall occurred in an area between Interstate 20 to the north, and Interstate 10 to the south (Figure 3).

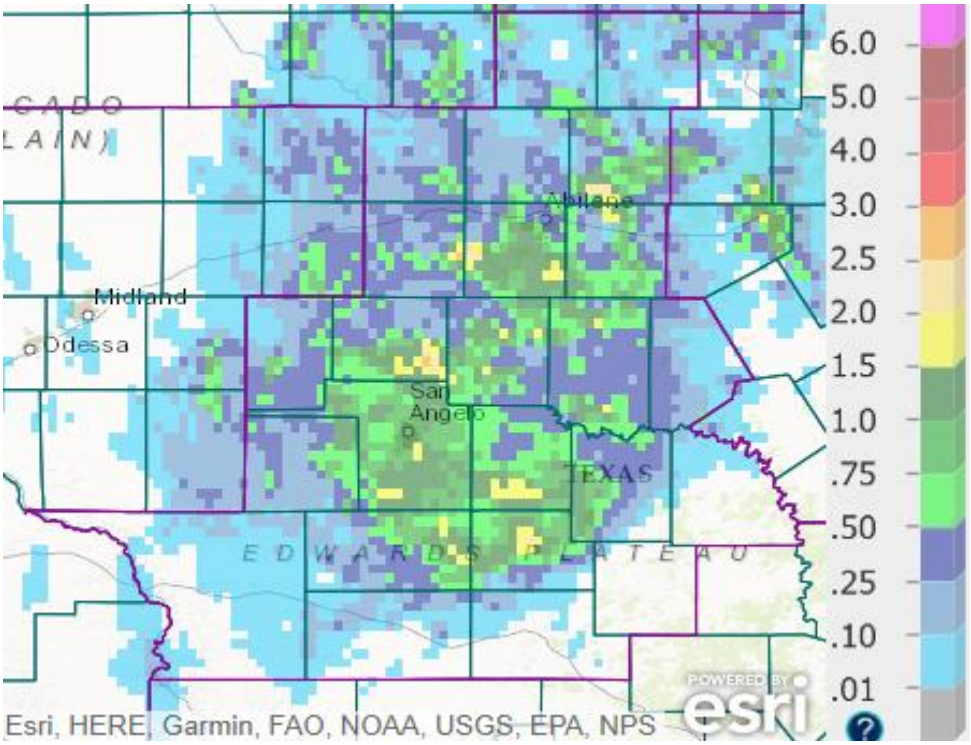


Figure 3: Rainfall for the 24-hour Period ending at 7 AM, September 3.

The higher rainfall amounts (between 1.5 and 3 inches) occurred at scattered locations.

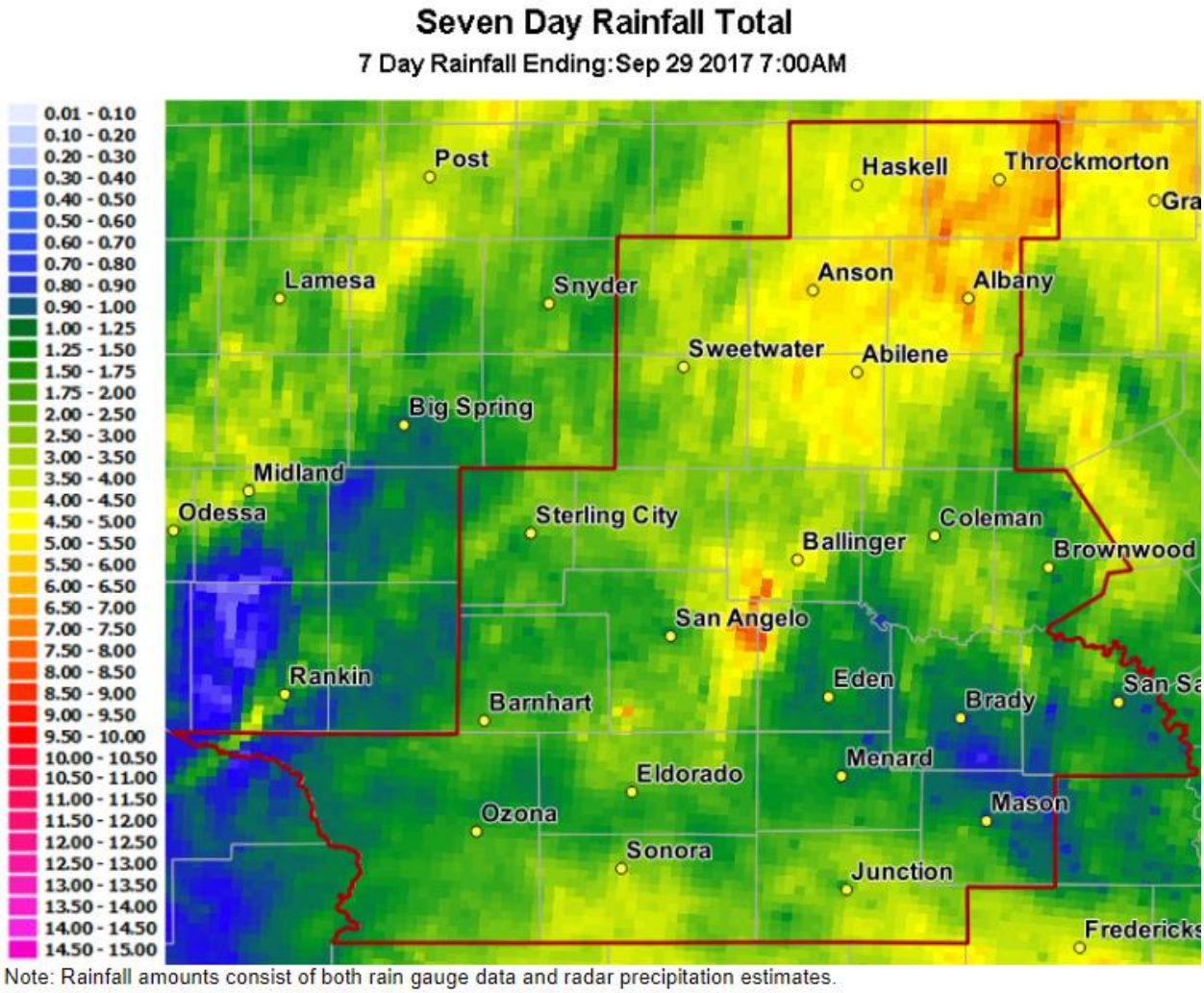
After highs generally in the 90s with somewhat humid conditions, a cold front moved south across west-central Texas on the 5th, bringing cooler and much drier air into the region. With clear skies and light winds, temperatures dropped into the 50-55 degree range for early morning lows at many locations across west-central Texas on the 7th and 8th.

Hotter temperatures returned to the area by the middle of the month, and temperatures were well-above normal through Sep. 22. For west-central Texas, highs were in the 100-105 degree range across the area on Sep. 14, and at a few locations on Sep. 13, 15, and 20.

At San Angelo, record high temperatures were set on the 14th (104 degrees), and tied on the 20th (102 degrees). Record high minimum temperatures were set at San Angelo on the 19th (75 degrees), 21st (76 degrees), and 22nd (75 degrees). At Abilene, a record high minimum temperature (75 degrees) was tied on the 21st.

With an increase in moisture and the influence of weak disturbances aloft, isolated to scattered showers and thunderstorms occurred across various parts of the area on Sep. 19-21. Most of the storms occurred during the late afternoon and evening hours, and a few contained strong, gusty winds and small hail. On the 19th, wind damage occurred in the vicinity of Mason. On the 20th, a wind gust of 74 mph was recorded at a West Texas Mesonet site near Mertzon, and 60 mph wind gusts were reported at Lawn (Taylor County) and three miles southwest of Arden (Irion County). Wind damage was reported at Albany, from gusts estimated at 70 mph.

A significant rain event with widespread coverage occurred late in the month (Sep. 26-28), following a change in the pattern. With the slow approach of a strong upper level storm system from the west, into a rather moist airmass over Texas, several rounds of showers occurred, with a few thunderstorms. Total rainfall for this event is encapsulated in the the graphic below, which shows 7-day rainfall ending September 29 at 7 AM.



Note: Rainfall amounts consist of both rain gauge data and radar precipitation estimates.

The heaviest rainfall (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. The lowest rainfall for this event (less than one inch) occurred in parts of Mason, southern Mcculloch, and northwestern Crockett Counties.

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.

Temperatures were much cooler following a cold frontal passage on the 26th. Patchy drizzle and fog occurred on Sep. 28-29, along with persistent cloud cover and scattered showers. Daily highs were in the 60s across much of the area to the lower 70s south on Sep. 27-28, and in the 60s to around 70 on the 29th.

Additional information with daily climate data in tables and graphs can be accessed at the link below. Select September, 2017 for Abilene or San Angelo (official climate data sites) or Junction (unofficial climate data site).

Additional Tabular and Graphical Daily Climate Data