

Climate and Weather Summary for September 2023

Temperatures in September averaged above well-above normal at Abilene and San Angelo. Precipitation was well-above normal at San Angelo and below normal at Abilene. Table 1 summarizes September 2023 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 Sep. Precipitation (In.)
Abilene	84.0°	7.2°	76.8°	2.43"	-0.24"	2.67"
San Angelo	82.3°	5.3°	77.0°	3.92"	1.41"	2.51"

Table 1: Sep. 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	108° on Sep. 8	81° on Sep. 5	73° on Sep. 12	64° on Sep. 18	1.11" Sep. 16
San Angelo	106° on Sep. 5	76° on Sep. 4	77° on Sep. 12	63° Sep. 27, 30	2.27" Sep. 12

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

- New record high temperature for month of September set at Abilene (108° on Sep. 8).
- New record for highest number of days in September with highs 100° or more at both San Angelo (12 days) and Abilene (11 days).
- Warmest September on record tied at Abilene (monthly average temperature 84.0°).
- 3rd warmest September on record at San Angelo (monthly average temperature 82.3°).

Maps of total precipitation and percentage of normal precipitation, for June, are in Figures 1 and 2.

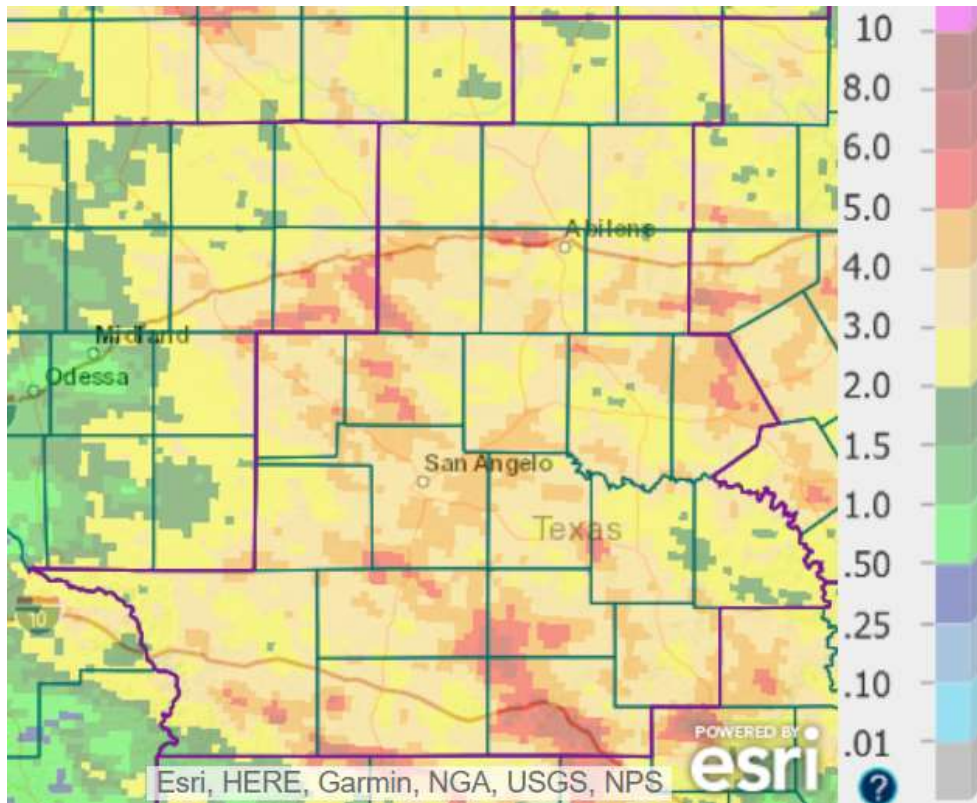


Figure 1: Total Precipitation for September.

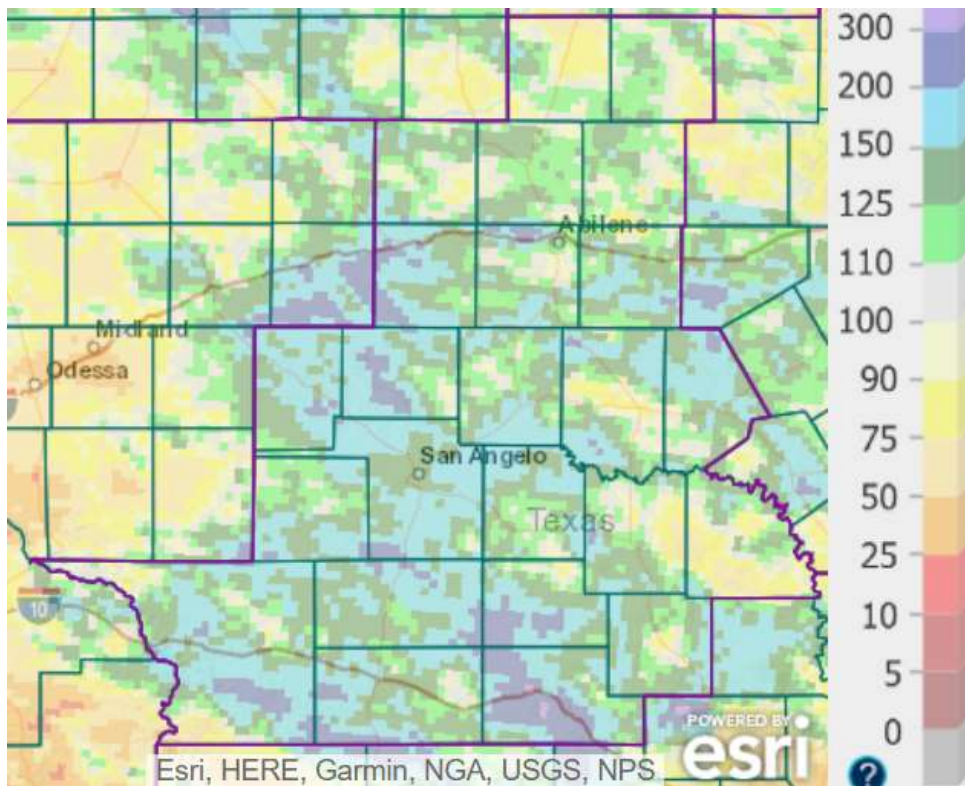


Figure 2: Percentage of Normal Precipitation for September.

Precipitation for September varied from slightly below to well-above normal in [west-central Texas](#). Scattered pockets east of Abilene, and in central and southern parts of the area received above normal rainfall. For much of the area, September rainfall was above normal (green and blue shading in Fig. 2).

September 2023 Weather Highlights

Temperatures were hot and well-above normal in the early part of September, when an upper level high pressure system was in close enough proximity to be the main weather influence.

A cluster of strong to severe thunderstorms developed and moved southeast across some of the Concho Valley on the late evening and nighttime hours of Sep. 5. The storms were accompanied by frequent lightning, strong, gusty winds and brief heavy rainfall. The Mesonet site near Wall recorded a 58 mph wind gust. In eastern Irion County (approximately 7 miles northwest of Tankersley), small tree limbs were blown down. The San Angelo Airport experienced a variety of conditions, with thunderstorms (0.75 inches of rainfall) and a 54 mph wind gust, followed by a heat burst. During the heat burst, temperatures rose from 76 to 90 degrees between 1131 PM and 1140 PM, and relative humidity values dropped into the 25-30 percent range. Rainfall with this cluster of storms (not shown mostly varied between 0.5 and 1.5 inches.

A number of daily record warm temperatures were set or tied. At San Angelo, new record high temperatures were set Sep. 8 (105°) and Sep. 9 (105°). A record high temperature was tied Sep. 5 (106°).

At Abilene, new record high temperatures were set Sep. 3 (105°), Sep. 7 (106°), Sep. 8 (108°), and on Sep. 9 (103°). A record high temperature was tied Sep. 5 (107°). In addition at Abilene, new record warm low temperatures were set Sep. 7 (78°) and Sep. 8 (78°).

Some changes in the pattern resulted in cooler temperatures and unsettled conditions Sep. 11-19. The upper level high pressure system shifted a bit south of the area, allowing upper level disturbances and cold fronts to move across the area. Among the cooler days were Sep. 12-13, when highs were in the 70s across various parts of the area.

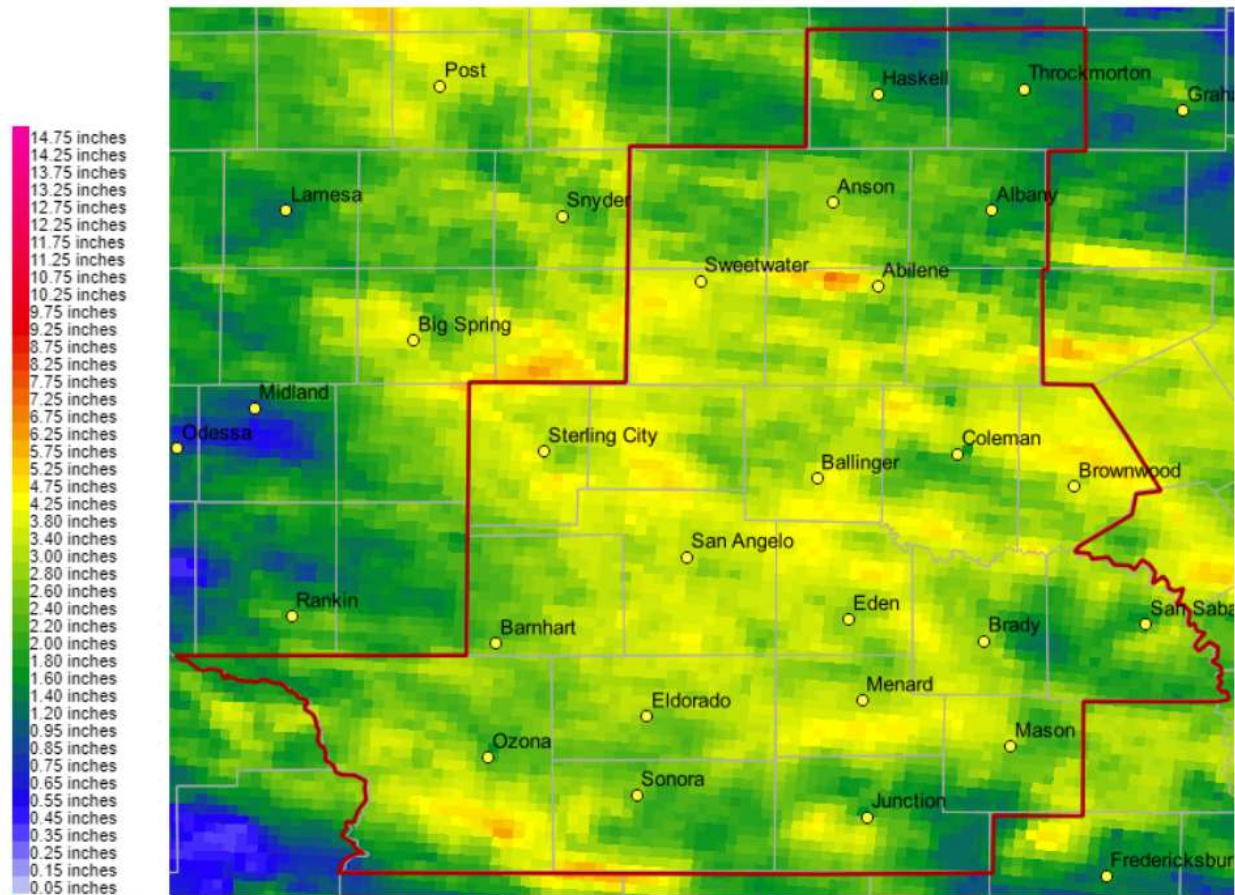
A couple of thunderstorm complexes affected most of west-central Texas Sep. 11-12. Strong, gusty winds were on the leading edge of the thunderstorm complexes, and a peak gust of 53 mph was recorded at San Angelo Sep. 11. Heavy rainfall accompanied the thunderstorm complexes, and rainfall coverage was widespread. At San Angelo, a new daily rainfall record was set Sep. 12 (2.27 inches).

Additional complexes of thunderstorms moved southeast across various parts of the area Sep. 14-16. With strong, gusty winds on the leading edge of one of the storm complexes, a peak wind gust of 74 mph occurred at a Mesonet site 3 miles west-northwest of Doole (Concho County). A 50 mph wind gust was recorded at the San Angelo Airport. Heavy rainfall also accompanied the thunderstorms.

Fig. 3 shows rainfall amounts for the 7-day period ending at 7 AM, Sep. 18.

Seven Day Rainfall Total

7 Day Rainfall Ending: Sep 18 2023 7:00AM



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

Figure 3: Total Rainfall for the 7-Day Period ending at 7 AM, Sep. 18.

In general, rainfall amounts for this 7-day period ranged from 1.0-1.5 inches (dark green and blue-green shading), to 4-6 inches (bright yellow and orange shading). After the extended period of very hot and dry conditions in August and early September, this rainfall was of short term benefit to the area.

Isolated strong to severe storms occurred in the late evening hours of Sep. 19 in [Coke](#) and [Throckmorton](#) Counties.

A few additional days with triple digit heat occurred in some of the area Sep. 20, 23 and 24. A couple of new record high temperatures were set at San Angelo (103° Sep. 23-24), and a new record high was set at Abilene (101° Sep. 23). Temperatures remained above normal late in the month.

Showers and thunderstorms occurred on a few days late in the month, across the southern half of the area. From the evening of Sep. 24 into the morning of Sep. 25, showers and storms with localized very heavy rain occurred over mainly the southeastern part of west-central Texas (east of Highway 277 and south of a Christoval to Pontotoc line). The highest rainfall (3-4 inches) occurred in parts of Kimble, extreme southwestern Menard, and extreme southeastern Schleicher Counties.

Widely scattered showers and storms occurred in the Northern Edwards Plateau and southwestern Concho Valley in the late afternoon into the evening of Sep. 25.

On Sep. 27, scattered showers and thunderstorms occurred mostly south of a Brownwood to Sterling City line in the afternoon and evening hours.

[Additional Tabular and Graphical Daily Climate Data](#)