## Climate and Weather Summary for August 2023

Temperatures in August averaged well-above normal at San Angelo and Abilene. Precipitation was well-below normal at both locations. Table 1 summarizes August 2023 temperature, precipitation, and departure from normal for Abilene and San Angelo.

| Site | Average <br> Temperature <br> $\left({ }^{\circ} \mathrm{F}\right)$ | Departure <br> from <br> Normal <br> ($\left.{ }^{\circ} \mathrm{F}\right)$ | Normal <br> Average <br> Temperature <br> ($\left.{ }^{\circ} \mathrm{F}\right)$ | Total <br> Precipitation <br> (In.) | Departure <br> from <br> Normal <br> (In) | Normal Aug. <br> Precipitation <br> (In.) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Abilene | $90.8^{\circ}$ | $6.6^{\circ}$ | $84.2^{\circ}$ | $0.46^{\prime \prime}$ | $-2.07^{\prime \prime}$ | $2.53^{\prime \prime}$ |
| San <br> Angelo | $89.5^{\circ}$ | $5.4^{\circ}$ | $84.1^{\circ}$ | $0.29^{\prime \prime}$ | $-2.13^{\prime \prime}$ | $2.42^{\prime \prime}$ |

Table 1: Aug. 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 <br> Temperature <br> $\left({ }^{\circ} \mathrm{F}\right)$ | Warmest Low <br> Temperature <br> $\left({ }^{\circ} \mathrm{F}\right)$ | Coolest High <br> Temperature <br> $\left({ }^{\circ} \mathrm{F}\right)$ | Coolest Low <br> Temperature <br> $\left({ }^{\circ} \mathrm{F}\right)$ | Maximum Daily <br> Precipitation <br> (In.) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Abilene | $111^{\circ}$ on Aug. 17 | $84^{\circ}$ on Aug. 8 | $94^{\circ}$ on Aug. 27 | $67^{\circ}$ on Aug. 29 | $0.32^{\prime \prime}$ Aug. 10 |
| San <br> Angelo | $111^{\circ}$ on Aug. 10 | $81^{\circ}$ Aug. 6,7 | $97^{\circ}$ Aug. 23, 28 | $61^{\circ}$ on Aug. 29 | $0.29^{\prime \prime}$ Aug. 10 |

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

- Average temperature for August was the warmest of any month on record at Abilene $\left(90.8^{\circ}\right)$.
- Average high temperature for August was the warmest of any month on record, at San Angelo (104.4 ${ }^{\circ}$ ) and Abilene ( $104.5^{\circ}$ ).
- Abilene tied the all-time record high temperature (and month of August record high) of $111^{\circ}$ on Aug. 17.
- San Angelo tied the record high for the month of August with $111^{\circ}$ on Aug. 10.
- At Abilene, a new record warm low temperature for the month of August was set on Aug. 8 $\left(84^{\circ}\right)$.
- New record high number of days in August with low temperatures $80^{\circ}$ or above at San Angelo (10 days) and Abilene (13 days).

Maps of total precipitation and percentage of normal precipitation, for June, are shown in Figures 1 and 2 (next page).


Figure 1: Total Precipitation for August.


Figure 2: Percentage of Normal Precipitation for August.
Precipitation for August was well-below normal across most of the area. The only exception was in a small part of Crockett and western Sutton Counties. The monthly rainfall ranged from less than onetenth of an inch (light blue shading in Fig. 1) to over 3 inches (beige shading in Fig. 1 in a small part of Crockett and Sutton Counties). For most of the area, August rainfall was less than 25 percent of normal (red shading in Fig. 2).

## August 2023 Weather Highlights

August 2023 was marked by numerous heat-related records.
A strong upper level high pressure system was over Texas during much of August. This setup resulted in intense and record-breaking heat Aug. 1-13, and again Aug. 17-21.

The tables below (and on the next page) show the numerous daily record high and record warm low temperatures which were set or tied during the month, at San Angelo and Abilene.

San Angelo

| Date | Temperature | Type of Temperature Record |
| :---: | :---: | :---: |
| Aug 5 | $108^{\circ}$ | Tied Record High |
| Aug 6 | $81^{\circ}$ | Tied Record Warm Low |
| Aug 6 | $108^{\circ}$ | New Record High |
| Aug 7 | $81^{\circ}$ | Tied Record Warm Low |
| Aug 7 | $109^{\circ}$ | New Record High |
| Aug 8 | $109^{\circ}$ | New Record High |
| Aug 9 | $110^{\circ}$ | New Record High |
| Aug 10 | $111^{\circ}$ | New Record High |
| Aug 11 | $108^{\circ}$ | New Record High |
| Aug 12 |  | New Record Warm Low |
| Aug 12 | $108^{\circ}$ | New Record High |
| Aug 13 | $80^{\circ}$ | Tied Record Warm Low |
| Aug 14 |  | Tied Record Warm Low |
| Aug 17 | $109^{\circ}$ | New Record High |
| Aug 18 | $108^{\circ}$ | New Record High |
| Aug 19 | $107^{\circ}$ | New Record High |
| Aug 21 | $107^{\circ}$ | New Record High |

## Abilene

| Date Temperature | Type of Temperature Record |
| :---: | :---: |
| Aug $280^{\circ}$ | Tied Record Warm Low |
| Aug $5108^{\circ}$ | New Record High |
| Aug $6108^{\circ}$ | New Record High |
| Aug 7 81 ${ }^{\circ}$ | Tied Record Warm Low |
| Aug $7108^{\circ}$ | New Record High |
| Aug 8 84 ${ }^{\circ}$ | New Record Warm Low |
| Aug $8 \quad 108^{\circ}$ | New Record High |
| Aug $988{ }^{\circ}$ | New Record Warm Low |
| Aug $9109^{\circ}$ | New Record High |
| Aug $10110^{\circ}$ | New Record High |
| Aug $1288{ }^{\circ}$ | New Record Warm Low |
| Aug $1381^{\circ}$ | Tied Record Warm Low |
| Aug $13107^{\circ}$ | New Record High |
| Aug $1780^{\circ}$ | Tied Record Warm Low |
| Aug 17 111 ${ }^{\circ}$ | New Record High |
| Aug 18 819 | Tied Record Warm Low |
| Aug $18109^{\circ}$ | New Record High |
| Aug $19106^{\circ}$ | New Record High |
| Aug $20106^{\circ}$ | Tied Record High |
| Aug $21106^{\circ}$ | New Record High |
| Aug 25 105 $^{\circ}$ | New Record High |

Isolated to scattered showers and thunderstorms occurred in mainly the northern half of the area Aug. 7-11. This was a result of slight weakening of the upper level high pressure system, the arrival of a few weak, embedded disturbances in the flow aloft, the brief arrival of a couple of weak cold fronts, and a few outflow boundaries. A few locations received over an inch of rainfall during this time frame, but temperatures remained very hot across west-central Texas.

A disruption to the record heat occurred in the middle of the month, when the trailing portion of a weak cold front moved south across west-central Texas Aug. 14. Behind this front, highs were in the mid to upper 90s in the Big Country on the $14^{\text {th }}$, and across most of the area on the $15^{\text {th }}$.

With very dry vegetation, a combination of dry and very hot conditions, with occasionally breezy winds, led to critical fire weather conditions on several days in August. Several grass/brush fires were reported during the month. Among the most significant of these was the Hill Top Fire in Taylor County. This fire was approximately 10 miles south of Abilene, and was started by lightning on Aug. 18. Approximately 200 acres were burned.

Tropical Storm Harold made landfall on the Texas coast (South Padre Island) on the morning of Aug. 22. The system subsequently weakened to a depression, and its remnants moved west-northwest into the Big Bend area, on the morning of Aug. 23. Circulation around this tropical system brought an increase in moisture to west-central Texas. Showers occurred Aug. 22 along and south of the Interstate 10 corridor. In addition, widely scattered showers and a few thunderstorms occurred Aug. 23 southwest of a line from Snyder to Eden to Fredericksburg. With increased cloud cover, temperatures were slightly cooler with highs in the 90s across much of the southwestern half of the area Aug. 22-23.

Isolated to scattered showers and thunderstorms occurred, mostly in the afternoon and evening hours, Aug. 25-28. This occurred as an upper level high pressure system weakened over the area and retreated to the west.

Dry conditions with hotter temperatures (triple digit heat) returned to the area Aug. 30-31. An upper level high pressure system gradually shifted east over New Mexico, with its position in closer proximity to west-central Texas.

The following graphics for Abilene and San Angelo (courtesy of Abby Pettett), forecaster at National Weather Service San Angelo), show daily highs and lows compared to normal and the records.


