Climate and Weather Summary for May 2021

Temperatures in May averaged below normal at Abilene and San Angelo. Precipitation was well above normal at Abilene, and well-below normal at San Angelo. Table 1 summarizes May 2021 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 May Precipitation (In.)
Abilene	70.4°	-3.7°	74.1°	8.20"	4.99"	3.21"
San Angelo	72.7°	-2.8°	75.5°	1.43"	-1.62	3.05"

Table 1: May 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	92° on May 8	73° on May 27	62° on May 10	48° on May 5	3.56" May 31
San Angelo	96° on May 27	73° on May 25	67° on May 12	47°on May 5	0.59" May 18

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

- 8th wettest May on record at Abilene
- May was active with numerous severe weather events and heavy rainfall

A Map of total precipitation for May is shown in Figure 1 (below). Percentage of normal precipitation for May is shown in Figure 2.

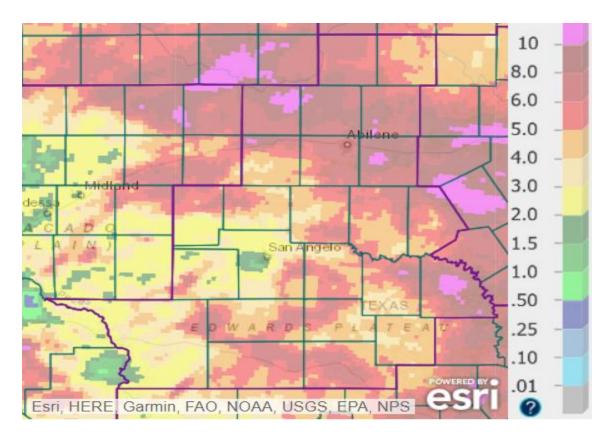


Figure 1: Total Precipitation for May.

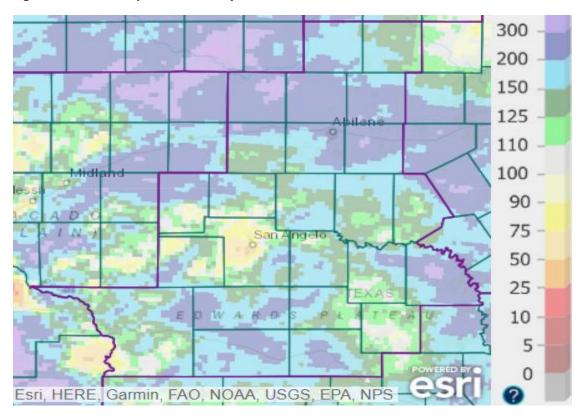


Figure 2: Percentage of Normal Precipitation for May.

Precipitation for May was well-above normal across most of the Big Country, and in scattered areas farther south across central and southern parts of west-central Texas. The areas shaded in red (Fig. 1) received 5-10 inches of rainfall, with locally higher totals (purple shaded areas) in the Big Country and Heartland. The only notable area with below normal precipitation was in parts of the Concho Valley (eastern Irion and Tom Green County, including the San Angelo area).

May 2021 Weather Highlights

<u>Severe weather occurred in the Big Country on May 3</u> (between 7 PM and 1015 PM), as a few storms moved east across that area. The severe weather reports included <u>damaging winds</u> and <u>large to very large hail</u>. A Mesonet site 5 miles east-southeast of Stamford (Jones County) recorded a peak wind gust of 84 mph. The largest reported hail was baseball size at Rotan (Fisher County).

A couple of supercell severe storms affected southeastern parts of west-central Texas on the evening of May 9. One of the storms moved southeast across northern and eastern Mason County. Tennis ball size hail was reported with this storm 4 miles east of Mason. Two house windows were broken from the very large hail. The other storm moved northeast across far eastern Mcculloch County and northwestern San Saba County. With this storm, hail to ping pong ball size was reported in Richland Springs. These storms developed in very unstable air, just behind a cold front.

In the wake of the cold frontal passage, temperatures were much cooler across most of the area May 10, with cloudy skies. With the exception of the Northern Edwards Plateau, highs were in the upper 50s to upper 60s.

A <u>severe weather event</u> occurred with large and very large hail, across southeastern parts of the area on the evening of May 10. Even with cool surface air temperatures, a combination of lift in the atmosphere, colder air aloft and favorable vertical wind shear resulted in an environment supportive of severe storms. With this setup, a number of storm splits occurred. With each of the storm splits, the left-moving storms contained the large hail. The largest hail reported was baseball to softball size 10 miles northeast of Cleo (Kimble County). Other reports in Kimble County included golfball to baseball size hail. Hail up to golfball size was reported in Mcculloch and southern Brown Counties. In Sutton County, hail larger than hen egg size was reported (18 miles east-southeast of Sonora). In all, a total of 15 severe weather reports were received for this event.

With the influence of an upper level disturbance, scattered to numerous showers and thunderstorms moved east across west-central Texas during the day on May 11. The airmass was unusually cool for the second week of May, and highs on May 11 were only in the upper 50s to lower 60s across much of the Big Country, and in the 60s across the rest of the area farther south. Skies were mostly cloudy.

Severe weather occurred May 16-17. This including a tornado at Stamford, which was rated EF1 on the Enhanced Fujita Scale. In addition, Severe weather morning and evening of May 18, including the Sterling County tornado. Flooding/flash flooding May 19.

With very unstable air in place ahead of a dryline in far west Texas, scattered strong to severe thunderstorms occurred across the Big Country on May 16 (between 830 PM and Midnight). A <u>tornado</u> (rated EF-0 on the Enhanced Fujita Scale) caused damage to a few buildings near Stamford, in far

southern Haskell County (one mile north of Stamford). Large hail to around hen egg size occurred in southern Fisher County, and wind damage to a couple of structures was reported in far northern Haskell County.

Outflow with a band of thunderstorms moved south-southeast across eastern parts of west-central Texas on the morning of May 17. Strong winds caused damage to trees and power lines in Coleman County (one mile north-northeast of Coleman). In eastern Brown County, strong winds in the wake of these thunderstorms caused damage in a small area, approximately 5 miles west-southwest of Blanket.

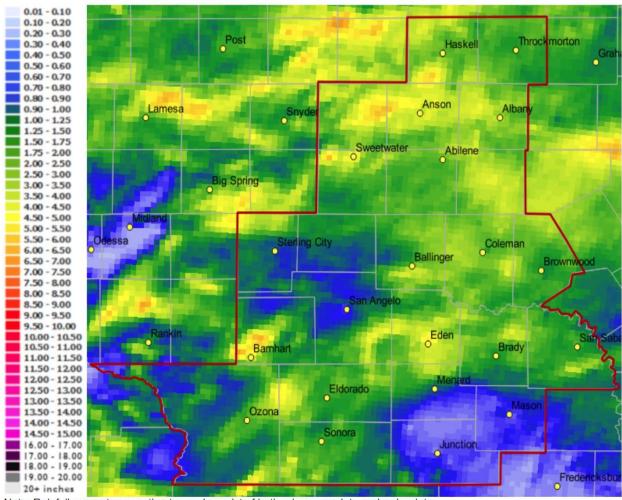
With a severe weather event on the evening and early nighttime hours of May 17, a tornado occurred in northern Sterling County. This tornado, which was rated EF-2 on the Enhanced Fujita Scale, caused damage to a gas plant, along with some other structures. Hail up to baseball size was reported with the tornadic storm in northern Sterling County (12 miles north of Sterling City).

With the gradual approach of an upper level storm system from northern New Mexico, a complex of thunderstorms developed in West Texas and moved east across the area during the early morning hours of May 18. On May 19, a small cluster of thunderstorms with very heavy rainfall caused <u>flash flooding</u> in southwestern Irion County, along Highway 163 north of Barnhart. Rainfall amounts were 2-4 inches across that area.

Rainfall amounts from the middle of May are shown in Figure 3 (below on next page). Numerous rounds of thunderstorms occurred during this time frame. Despite the effects of localized flooding, this heavy rainfall was beneficial in the short-term for the area.

Seven Day Rainfall Total

7 Day Rainfall Ending: May 21 2021 7:00AM



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

Figure 3: Rainfall for the 7-day period, ending at 7 AM on May 21.

The areas on the map shaded in yellow and orange received 3-6 inches of rainfall, while areas with green shading received 1-3 inches.

In late May, a few severe storms occurred on May 25 and May 27.

Over the Memorial Day holiday weekend, severe weather occurred on the <u>evening of May 28 into the post-Midnight hours of May 29</u>. Flash flooding of numerous roads occurred in the Big Country on <u>May 31</u>. This was the result of repeated rounds of showers and thunderstorms with heavy rain, on ground which had become saturated.

Additional Tabular and Graphical Daily Climate Data