

Storm Data and Unusual Weather Phenomena - July 2013

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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TEXAS, South Panhandle

(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z023) SWISHER, (TX-Z024) BRISCOE, (TX-Z025) HALL, (TX-Z026) CHILDRESS, (TX-Z027) BAILEY, (TX-Z028) LAMB, (TX-Z029) HALE, (TX-Z030) FLOYD, (TX-Z031) MOTLEY, (TX-Z032) COTTLE, (TX-Z033) COCHRAN, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z036) CROSBY, (TX-Z037) DICKENS, (TX-Z038) KING, (TX-Z039) YOAKUM, (TX-Z040) TERRY, (TX-Z041) LYNN, (TX-Z042) GARZA, (TX-Z043) KENT, (TX-Z044) STONEWALL

07/01/13 00:00 CST	0	Drought
07/31/13 23:59 CST	10M	

Drought conditions across the region slightly lessened through the month of July with an unusual weather pattern emerging toward the end of the month. Almost all areas remained within severe (D3) to exceptional (D4) drought. However, an extremely small pocket of moderate (D1) drought was observed over the northern Rolling Plains.

Much of the month of July saw typical hot and dry conditions with an upper level high pressure system controlling the southwestern United States. This upper level ridge brought hot temperatures and little rainfall. However, in the second half of the month, an unusual upper level low pressure system moved from east to west. This system brought cooler than seasonal average temperatures and much needed rainfall, and in some areas, excessive rainfall. In fact, Lubbock observed a record minimum high temperature for three consecutive days as well as daily rainfall records. Many areas received one to three inches of rainfall with some pockets observing four to six inches. Some selected sites recorded four day totals of 6.41 inches at Plainview (Hale County), 5.26 inches at Amherst (Lamb County), 5.09 inches at Denver City (Yoakum County), 4.55 inches at Sundown (Hockley County), and 3.13 inches at Lubbock Preston Smith International Airport (Lubbock County). Due to these excessively cool July temperatures, the mean temperature at the end of the month was below average by 1.1 degrees at Lubbock and 1.5 degrees at Childress. Keetch-Byram Drought Index values improved through the month because of the abundant rainfall. Values between 200 and 400 were observed over the southern Rolling Plains and southwest Texas Panhandle. Elsewhere across the South Plains and northern Rolling Plains, values were between 400 and 500.

Fire weather impacts were low which is usual during the summer months. Abnormally high dew point temperatures served to further reduce fire weather potential. Rainfall also produced modest greening across much of the region. The beginning of the month saw crops becoming stressed due to excessively hot temperatures. However, the copious rainfall allowed crops to progress during the second half of the month. Over the Rolling Plains, grasshoppers were taking a devastating toll on crops, trees, and shrubs.

Economic losses due to drought through July since the drought began were estimated near \$2.8 billion.

PARMER COUNTY --- 1.3 WNW FRIONA BENDER ARPK [34.66, -102.70]

07/04/13 01:40 CST	0	Thunderstorm Wind (MG 51 kt)
07/04/13 01:40 CST	0	Source: Mesonet

Measured by a Texas Tech University West Texas Mesonet station near Friona.

HOCKLEY COUNTY --- 6.4 WSW ROUNDUP [33.73, -102.20]

07/04/13 02:35 CST	0	Thunderstorm Wind (MG 50 kt)
07/04/13 02:35 CST	0	Source: Mesonet

Measured by a Texas Tech University West Texas Mesonet station near Anton.

Shortly after midnight, scattered thunderstorms pushed south out of the western half of the Texas Panhandle. Although the airmass ahead of these storms was seasonably cool and dry with dewpoints only in the 40s, a strong low-level jet fed moisture and instability northward and allowed some of these storms to intensify and expand in coverage over the South Plains. A few marginally severe wind gusts were measured by mesonet stations in Parmer and Hockley Counties. The storms did bring some beneficial rains of 1/4 to 1/2 inch to parts of the South Plains.

HALE COUNTY --- 0.7 N (PVW)HALE CO ARPT [34.18, -101.72]

07/17/13 00:00 CST	0	Heavy Rain
07/17/13 06:20 CST	0	Source: Mesonet

From midnight CST through 620 am CST, a Texas Tech University West Texas Mesonet station near Plainview measured 5.26 inches of rain. Rainfall rates were occasionally as high as 4.08 inches per hour.

HALE COUNTY --- 2.0 NE BOONE [34.25, -101.79], 1.9 NNE SETH WARD [34.25, -101.67], 4.4 ESE (PVW)HALE CO ARPT [34.14, -101.65], 1.6 NW FURGUSON STA [34.14, -101.77]

07/17/13 02:30 CST	1.20K	Flood (due to Heavy Rain)
07/17/13 05:30 CST	0	Source: Law Enforcement

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Torrential rainfall created widespread street flooding throughout the city of Plainview with some vehicles reported to be stalled in high water. The rains also caused damage to some buildings, particularly the roof of the city library where an estimated \$1200 worth of books were damaged after water leaked through the roof along the north wall. The city jail also experienced flooding from a faulty roof resulting in an unknown amount of water damage to ceiling tiles.

An unusual westward-moving cold core low entered New Mexico on the 16th ahead of a deep surge of Gulf moisture. Widespread rainfall developed in the Rolling Plains late on the 16th before spreading west onto the Caprock and intensifying with torrential rainfall rates measured as high as 4 inches per hour in some locales. One of these bands tracked very slowly across Plainview during the pre-dawn hours and produced over five inches of rain causing widespread street flooding and some water damage to area buildings. Some streets became impassable and a few vehicles were disabled after motorists attempted to cross high water. Elsewhere on the South Plains, minor flooding of streets and roadways were commonplace, but this was a minor inconvenience considering the need for substantial rainfall. After 999 consecutive days without measuring 1.5 inches of rain or more, Lubbock International Airport finally ended its streak today when it received 2.20 inches.

FLOYD COUNTY --- AIKEN [34.13, -101.50]

07/24/13 16:30 CST	0	Hail (1.25 in)
07/24/13 16:30 CST	0.25M	Source: Trained Spotter

A Skywarn spotter reported half dollar size hail in Aiken. The hail was also reported to have damaged cotton fields in the area.

Abundant low level moisture contributed to widely scattered thunderstorms on the afternoon and evening of the 24th. One of these storms became severe over Floyd and Hale counties, causing extensive crop damage due to hail.