## Storm Data and Unusual Weather Phenomena - July 2020

Location Date/Time Deaths & Property & Event Type and Details Injuries Crop Dmg

## **TEXAS, South Panhandle**

(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z023) SWISHER, (TX-Z024) BRISCOE, (TX-Z027) BAILEY, (TX-Z028) LAMB, (TX-Z029) HALE, (TX-Z030) FLOYD, (TX-Z031) MOTLEY, (TX-Z039) YOAKUM, (TX-Z040) TERRY 07/01/20 00:00 CST Drought 07/31/20 22:59 CST 0 After almost a two year hiatus, drought conditions returned to the South Plains of West Texas in July. Some areas of the South Plains experienced much below normal rainfall in the spring months. The most extreme deficits occurred in both Yoakum and Terry Counties which saw rainfall amounts between four and five inches below normal. Much of the area in these counties were raised to D2 (Severe Drought) or D3 (Extreme Drought) by the end of July. These same drought levels also covered the extreme southwestern and south-central Texas Panhandle southward into the northern South Plains. These additional areas of drought experienced rainfall deficits around 1.5 inches. The lack of rainfall contributed to the extreme heat that was observed in July. At Lubbock Preston Smith International Airport, an all-time July temperature record was set on the 14th of 111 degrees Fahrenheit. The mean temperature for July was 85.5 degrees Fahrenheit. This value was the second warmest July on record only to the year 2011 when the last D4 (Exceptional Drought) occurred. Dryland crops had mostly failed by June with the lack of significant rainfall in addition to isolated hail storms destroying crops. Some irrigated crops were generally in poor to very poor condition due to deteriorating soil moisture. Despite the very dry conditions across the South Plains and extreme southern Texas Panhandle, there was a lack of significant wildfire activity. No known estimates of crop losses were known at this time. LUBBOCK COUNTY --- REESE AFB [33.60, -102.05] 07/05/20 20:11 CST 0 Thunderstorm Wind (MG 59 kt) 07/05/20 20:11 CST 0 Source: Mesonet A Texas Tech University West Texas mesonet site at Reese measured a wind gust to 68 mph. LUBBOCK COUNTY --- (LBB)LUBBOCK INTL AR [33.67, -101.82] 07/05/20 21:07 CST 0 Thunderstorm Wind (MG 50 kt) 07/05/20 21:07 CST 0 Source: ASOS The automated surface observing system at Lubbock Preston Smith International Airport measured a wind gust to 58 mph. On the afternoon of the fifth, scattered thunderstorms developed in eastern New Mexico ahead of an upper level shear axis. These storms became outflow dominant by the time they reached West Texas. A cluster of thunderstorms was able to produce a couple of severe wind gusts in Lubbock County. (TX-Z024) BRISCOE 07/09/20 14:00 CST **Excessive Heat** 07/09/20 17:00 CST 0 HALL COUNTY --- 1.0 NE MEMPHIS [34.73, -100.52] 07/09/20 17:30 CST 0 Thunderstorm Wind (MG 55 kt) n 07/09/20 17:35 CST Source: Mesonet A Texas Tech University West Texas mesonet site near Memphis measured a peak wind gust of 63 mph at 1730 CST. Severe winds were measured between 1730 and 1735 CST. HALL COUNTY --- ESTELLINE [34.55, -100.43] 07/09/20 17:34 CST 0 Hail (1.00 in) 07/09/20 17:34 CST 0 Source: Trained Spotter A trained spotter in Estelline reported quarter size hail. HALL COUNTY --- 4.0 ENE PLASKA [34.61, -100.56], 2.1 ENE HULVER [34.53, -100.50] 07/09/20 17:45 CST 0 Thunderstorm Wind (EG 87 kt)

07/09/20 17:45 CST

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Source: NWS Storm Survey

0

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|---|-------------------------------------|------------------|----------------------|--------------------------------|-----|
|   |                                     | Injuries         | Crop Dmg             |                                |     |
| A NWS storm survey was conducted in easter  | ern Hall County near Estelline. The | survey found con | siderable damage     | to homes, metal structures, an | d   |
| outhuildings and trace at several homestead | This damage was along Toyes 9       | State Highway 96 | to the west of Estal | line and at another homestood  | 1 - |

Date/Time

A NWS storm survey was conducted in eastern Hall County near Estelline. The survey found considerable damage to homes, metal structures, and other outbuildings and trees at several homesteads. This damage was along Texas State Highway 86 to the west of Estelline and at another homestead roughly seven miles south-southwest of Memphis. The damage was found to be in generally uniform direction from northeast to southwest or southeast to northwest and in a broadly divergent pattern indicative of severe straight line winds associated with microbursts. Also, several power poles were downed and center pivots overturned across eastern Hall County.

| MOTLEY COUNTY NORTHFIELD [34.28, -100.60] |   |                       |
|---|---|-----------------------|
| 07/09/20 19:13 CST                        | 0 | Hail (1.25 in)        |
| 07/09/20 19:13 CST                        | 0 | Source: COOP Observer |

A NWS cooperative weather observer in Northfield estimated half dollar size hail.

| LUBBOCK COUNTY 1.1 NNW LUBBOCK [33.60, -101.86], 1.3 NE LUBBO | OCK [33.59, -101 | .83] |                              |
|---|------------------|------|------------------------------|
| 07/09/20 19:42 CST  |                  | 0    | Thunderstorm Wind (EG 70 kt) |
| 07/09/20 19:46 CST  | 2                | 0    | Source: Emergency Manager    |

A thunderstorm formed to the southwest of Lubbock Preston Smith International Airport and moved east bringing damaging winds gusts to the north part of the city of Lubbock. The winds toppled a brick wall of an old roofless structure, downed power poles, and caused considerable property damage at Joyland Amusement Park. In addition, a few people were injured by falling tree limbs at Joyland.

Intense heat fueled severe thunderstorms on the afternoon and evening of the ninth. Afternoon temperatures peaked between 105 and 110 degrees which combined with enough moisture to create isolated thunderstorms late in the afternoon. Two storms in particular both produced wind damage as they tracked to the south.

The first storm was in the southeastern Texas Panhandle which produced a series of microbursts in Hall County. An initial severe wind gust was observed near Memphis by the Texas Tech University West Texas mesonet at 1730 CST. Approximately ten minutes later, a homestead was heavily damaged about seven miles south-southwest of Memphis. At 1810 CST, a metal building, several more homesteads, and trees were damaged along Texas State Highway 86 west of Estelline. Microburst winds were estimated between 80 and 100 mph based on the damage indicators gathered during a NWS storm survey.

A second severe storm formed south-southwest of Lubbock Preston Smith International Airport around 1930 CST. This storm then tracked to the east-southeast developing severe wind gusts within the city of Lubbock. The winds toppled a brick wall of an old roofless structure, downed power poles, and caused considerable property damage at Joyland Amusement Park. In addition, a few people were injured by falling tree limbs at Joyland.

Additionally, the intense heat required a helicopter rescue of an individual from Caprock Canyons State Park in Briscoe County. The Texas Tech University West Texas mesonet at Caprock Canyons State Park measured temperatures at high as 110 degrees Fahrenheit.

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Photo of a heavily damaged home northwest of Estelline from a microburst. Photograph from a NWS storm survey.

| HALL COUNTY | 2.0 WSW TURKEY | [34.39, -100.91] |
|-------------|----------------|------------------|
|-------------|----------------|------------------|

07/12/20 04:45 CST 0 Thunderstorm Wind (MG 56 kt)

07/12/20 04:45 CST 0 Source: Mesonet

A Texas Tech University West Texas mesonet near Turkey measured a wind gust to 64 mph.

Late on the 11th, deep convection in the central Texas Panhandle sent an outflow boundary to the south. Elevated showers and thunderstorms, rooted above a deeply mixed boundary layer, developed along this boundary in the extreme southern Texas Panhandle. One of these storms became severe as it moved near Turkey (Hall County) producing a wind gust to 64 mph.

| FLOYD COUNT | Y 2.0 NNE | <b>FLOYDADA</b> | [34.01, -101.32] |
|-------------|-----------|-----------------|------------------|
|-------------|-----------|-----------------|------------------|

07/14/20 19:30 CST 0 Thunderstorm Wind (MG 58 kt)

07/14/20 19:35 CST 0 Source: Mesonet

A Texas Tech University West Texas mesonet near Floydada measured a peak wind gust of 67 mph at 1935 CST. Severe wind gusts were observed from 1930 through 1935 CST.

Another day of record heat allowed isolated thunderstorms to develop late in the afternoon of the 14th. One of these storms produced a severe wind gust to 67 mph near Floydada (Floyd County).

| HALL COUNTY | 2.0 WSW | TURKEY | [34.39, | -100.91] |
|-------------|---------|--------|---------|----------|
|-------------|---------|--------|---------|----------|

07/20/20 13:15 CST 0 Thunderstorm Wind (MG 54 kt)

07/20/20 13:15 CST 0 Source: Mesonet

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|   |   |  | nenomena -   | - July 2020  |
|---|---|--|--|--|
| Location  | Date/Time   | Deaths &<br>Injuries                       | Property &<br>Crop Dmg   | Event Type and Details   |
| A Texas Tech University West Texas m  | nesonet site near Turkey measured a   | wind gust to 62 mph                        |  |  |
| Scattered thunderstorms developed e moved to the northeast. One of these  |   | =  |  | ern Texas Panhandle and  |
| CROSBY COUNTY 5.1 SSE CROSB   | 8YTON MUNI ARPT [33.55, -101.20]<br>07/22/20 13:42 CST  |  | 0  | Tornado (EFU, L: 0.01 mi , W: 10 yd)   |
|   | 07/22/20 13:42 CST  |  | 0  | Source: Broadcast Media  |
| Local broadcast media relayed a picture   | e of a landspout tornado approximate  | ly seven miles south                       | of Crosbyton.  |  |
| On the afternoon of the 22nd, scattere<br>Broadcast media relayed a picture of  | =   |  |  |  |
| SWISHER COUNTY 1.7 WNW TULIA<br>-101.82]  | A ARPT [34.56, -101.81], 3.6 ENE TUL  | -IA [34.55, -101.71],                      | 2.8 NE EUNICE [3   | 4.51, -101.72], 2.8 W TULIA [34.52,  |
| -101.02]  | 07/27/20 16:30 CST  |  | 0  | Flash Flood (due to Heavy Rain)  |
|   | 07/27/20 18:30 CST  |  | 0  | Source: Law Enforcement  |
| flooding along Interstate $27/US$ Highwa On the afternoon of the 27th, scattered  | ay 87 underneath the Texas Highway 8<br>and thunderstorms developed along a   | 36 overpass. weak cold frontal b           | oundary across tl  |  |
| Texas Panhandle. These storms brougaround Tulia (Swisher County) which  | =   |  | <del>-</del>   |  |
|   |   |  |  |  |
| FLOYD COUNTY LOCKNEY [34.12,  | -   |  | 0  |  |
| FLOYD COUNTY LOCKNEY [34.12,  | -101.43]<br>07/28/20 18:25 CST<br>07/28/20 18:25 CST  |  | 0  | Thunderstorm Wind (EG 52 kt) Source: Law Enforcement   |
| FLOYD COUNTY LOCKNEY [34.12, Law enforcement reported widespread damaged.   | 07/28/20 18:25 CST<br>07/28/20 18:25 CST  | derstorm. Large tree                       | 0  | Thunderstorm Wind (EG 52 kt) Source: Law Enforcement   |
| Law enforcement reported widespread   | 07/28/20 18:25 CST<br>07/28/20 18:25 CST<br>wind damage in Lockney from a thund<br>n the central South Plains on the aft  | ernoon of the 28th a                       | 0<br>limbs were downe  | Thunderstorm Wind (EG 52 kt) Source: Law Enforcement ed and numerous fences were   |
| Law enforcement reported widespread damaged.  Scattered thunderstorms developed in  | 07/28/20 18:25 CST<br>07/28/20 18:25 CST<br>wind damage in Lockney from a thund<br>in the central South Plains on the aft<br>kney (Floyd County) causing widesp   | ernoon of the 28th a                       | 0<br>limbs were downered<br>and quickly raced<br>within the town.              | Thunderstorm Wind (EG 52 kt) Source: Law Enforcement ed and numerous fences were east. One of these storms   |
| Law enforcement reported widespread damaged.  Scattered thunderstorms developed in became severe as it moved over Lock  | 07/28/20 18:25 CST 07/28/20 18:25 CST wind damage in Lockney from a thund in the central South Plains on the aft kney (Floyd County) causing widesp ID [33.56, -101.95] 07/30/20 17:21 CST  | ernoon of the 28th a                       | 0 limbs were downered quickly raced within the town.                           | Thunderstorm Wind (EG 52 kt) Source: Law Enforcement ed and numerous fences were east. One of these storms  Thunderstorm Wind (EG 52 kt)   |
| Law enforcement reported widespread damaged.  Scattered thunderstorms developed in became severe as it moved over Lock  | 07/28/20 18:25 CST<br>07/28/20 18:25 CST<br>wind damage in Lockney from a thund<br>in the central South Plains on the aft<br>kney (Floyd County) causing widesp<br>ID [33.56, -101.95]<br>07/30/20 17:21 CST<br>07/30/20 17:21 CST  | ernoon of the 28th a                       | 0 limbs were downered quickly raced within the town.                           | Thunderstorm Wind (EG 52 kt) Source: Law Enforcement ad and numerous fences were  east. One of these storms  Thunderstorm Wind (EG 52 kt) Source: Broadcast Media  |
| Law enforcement reported widespread damaged.  Scattered thunderstorms developed in became severe as it moved over Lock  LUBBOCK COUNTY 1.1 WSW DOUL  Local broadcast media relayed a picture  | 07/28/20 18:25 CST 07/28/20 18:25 CST wind damage in Lockney from a thund in the central South Plains on the after the control County) causing widesp  1D [33.56, -101.95] 07/30/20 17:21 CST 07/30/20 17:21 CST e of a power pole blown over near the  | ernoon of the 28th a                       | 0 limbs were downered quickly raced within the town.                           | Thunderstorm Wind (EG 52 kt) Source: Law Enforcement ad and numerous fences were  east. One of these storms  Thunderstorm Wind (EG 52 kt) Source: Broadcast Media  |
| Law enforcement reported widespread damaged.  Scattered thunderstorms developed in became severe as it moved over Lock  LUBBOCK COUNTY 1.1 WSW DOUL  Local broadcast media relayed a picture  | 07/28/20 18:25 CST 07/28/20 18:25 CST wind damage in Lockney from a thund in the central South Plains on the after the control County) causing widesp  1D [33.56, -101.95] 07/30/20 17:21 CST 07/30/20 17:21 CST e of a power pole blown over near the  | ernoon of the 28th a                       | 0 limbs were downered quickly raced within the town.                           | Thunderstorm Wind (EG 52 kt) Source: Law Enforcement ad and numerous fences were  east. One of these storms  Thunderstorm Wind (EG 52 kt) Source: Broadcast Media  Loop 289.  Thunderstorm Wind (MG 60 kt) |
| Law enforcement reported widespread damaged.  Scattered thunderstorms developed in became severe as it moved over Lock  LUBBOCK COUNTY 1.1 WSW DOUL  Local broadcast media relayed a picture  | o7/28/20 18:25 CST 07/28/20 18:25 CST wind damage in Lockney from a thund in the central South Plains on the after the control County) causing widesp  ID [33.56, -101.95] 07/30/20 17:21 CST 07/30/20 17:21 CST e of a power pole blown over near the  | ernoon of the 28th a                       | limbs were downered quickly raced within the town.  0 0 0 Street and South I   | Thunderstorm Wind (EG 52 kt) Source: Law Enforcement ad and numerous fences were  east. One of these storms  Thunderstorm Wind (EG 52 kt) Source: Broadcast Media  _oop 289.                               |
| Law enforcement reported widespread damaged.  Scattered thunderstorms developed in became severe as it moved over Lock  LUBBOCK COUNTY 1.1 WSW DOU  | 07/28/20 18:25 CST 07/28/20 18:25 CST wind damage in Lockney from a thunce on the central South Plains on the after (Ployd County) causing widesp  1D [33.56, -101.95] 07/30/20 17:21 CST 07/30/20 17:21 CST e of a power pole blown over near the  M CHAPEL [33.08, -101.52] 07/30/20 18:25 CST 07/30/20 18:25 CST | ernoon of the 28th a<br>read wind damage v | limbs were downered and quickly raced within the town.  0 0 Street and South I | Thunderstorm Wind (EG 52 kt) Source: Law Enforcement ad and numerous fences were  east. One of these storms  Thunderstorm Wind (EG 52 kt) Source: Broadcast Media  Loop 289.  Thunderstorm Wind (MG 60 kt) |
| Law enforcement reported widespread damaged.  Scattered thunderstorms developed in became severe as it moved over Lock  LUBBOCK COUNTY 1.1 WSW DOU  Local broadcast media relayed a picture  GARZA COUNTY 5.4 SSW GRAHAM  A Texas Tech University West Texas medianess and severe as it moved over Lock | 07/28/20 18:25 CST 07/28/20 18:25 CST wind damage in Lockney from a thunce In the central South Plains on the after (Floyd County) causing widesp ID [33.56, -101.95] 07/30/20 17:21 CST 07/30/20 17:21 CST e of a power pole blown over near the IM CHAPEL [33.08, -101.52] 07/30/20 18:25 CST 07/30/20 18:25 CST  | ernoon of the 28th a<br>read wind damage v | limbs were downered and quickly raced within the town.  0 0 Street and South I | Thunderstorm Wind (EG 52 kt) Source: Law Enforcement ad and numerous fences were  east. One of these storms  Thunderstorm Wind (EG 52 kt) Source: Broadcast Media  Loop 289.  Thunderstorm Wind (MG 60 kt) |
| Law enforcement reported widespread damaged.  Scattered thunderstorms developed in became severe as it moved over Lock  LUBBOCK COUNTY 1.1 WSW DOU  Local broadcast media relayed a picture   | 07/28/20 18:25 CST 07/28/20 18:25 CST wind damage in Lockney from a thunce In the central South Plains on the after (Floyd County) causing widesp ID [33.56, -101.95] 07/30/20 17:21 CST 07/30/20 17:21 CST e of a power pole blown over near the IM CHAPEL [33.08, -101.52] 07/30/20 18:25 CST 07/30/20 18:25 CST  | ernoon of the 28th a<br>read wind damage v | limbs were downered and quickly raced within the town.  0 0 Street and South I | Thunderstorm Wind (EG 52 kt) Source: Law Enforcement ad and numerous fences were  east. One of these storms  Thunderstorm Wind (EG 52 kt) Source: Broadcast Media  Loop 289.  Thunderstorm Wind (MG 60 kt) |

A Texas Tech University West Texas mesonet site near Denver City measured a peak wind gust of 61 mph at 0210 CST. Severe wind gusts were measured from 0205 through 0210 CST.

Scattered thunderstorms developed across the South Plains ahead of a cold frontal boundary in the extreme southern Texas Panhandle. A very deeply mixed atmosphere allowed for a dry sub cloud layer. This resulted in a couple of severe wind gusts and thunderstorm wind damage. The first round of thunderstorms occurred late in the afternoon with a severe wind gust reported near Graham and a power pole blown over within the city of Lubbock (Lubbock County). An additional round of thunderstorms occurred during the early morning hours of the 31st as a short wave moved overhead. These thunderstorms mostly affected the southwestern South Plains and a severe wind gust was measured at a Texas Tech University mesonet site near Denver City (Yoakum County).

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