

Storm Data and Unusual Weather Phenomena - August 2013

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

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

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|--------------------|----|---------|
| 08/01/13 00:00 CST | 0 | Drought |
| 08/31/13 23:59 CST | 5M | |

Drought conditions generally improved one level through the month of August. This was due to widespread rainfall around the middle of the month which brought several inches of rainfall. Bailey, Hall, and Parmer Counties dropped down to moderate (D1) drought levels. Only a small strip of exceptional (D4) drought remained mostly across Floyd County.

Much of the month of August saw fairly consistent temperatures with the end result being slightly above seasonal average. The first and last part of the month were generally warmer than normal with a reprieve in temperatures coming during the middle of the month. This was mostly due to repeated widespread rainfall events. Much of the region observed between one to three inches of rainfall during this period with much of it falling from the 14th through the 16th. Despite the rainfall, Keetch-Byram Drought Index values increased from the beginning to the end of the month. Most areas saw values between 500 and 600 with values between 300 and 500 across the southwestern Texas Panhandle.

Rainfall during the middle of the month greatly improved crops, rangelands and pastures. Although, area lakes, ponds, and stock tanks remained low due to long term drought conditions. Warmer and drier conditions toward the end of the month began to increase crop stress. Fire weather activity remained low as it typically does in late summer with relatively little cured fuel.

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

LUBBOCK COUNTY --- 1.0 WSW (LBB)LUBBOCK INTL AR [33.66, -101.83], 0.6 WNW (LBB)LUBBOCK INTL AR [33.67, -101.83]

| | | |
|--------------------|---|--------------------------------------|
| 08/01/13 15:42 CST | 0 | Tornado (EF0, L: 0.74 mi , W: 25 yd) |
| 08/01/13 15:47 CST | 0 | Source: Official NWS Observations |

The first of two brief landspout tornadoes occurred near Lubbock Preston Smith International Airport. The tornado began around 1542 CDT and lasted until 1547 CDT. No damage was reported.

LUBBOCK COUNTY --- 0.8 NNW (LBB)LUBBOCK INTL AR [33.68, -101.83], 1.1 N (LBB)LUBBOCK INTL AR [33.69, -101.82]

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|--------------------|---|--------------------------------------|
| 08/01/13 15:46 CST | 0 | Tornado (EF0, L: 0.43 mi , W: 25 yd) |
| 08/01/13 15:53 CST | 0 | Source: Official NWS Observations |

The second of two brief landspout tornadoes occurred near Lubbock Preston Smith International Airport began around 1546 CDT and lasted until 1553 CDT. No damage was reported.

On the afternoon of the first, scattered thunderstorms developed across the South Plains. The most concentrated area of storms was located over Lubbock County. Several outflow boundaries from convection collided near Lubbock Preston Smith International Airport which created two brief landspout tornadoes in close proximity to each other.

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View of both landspout tornadoes from a webcam located on top of the terminal at Lubbock Preston Smith International Airport. Image capture is from NWS Lubbock.

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|---|--------------------|---|------------------------------|
| LUBBOCK COUNTY --- (LBB)LUBBOCK INTL AR [33.67, -101.82] | 08/06/13 22:29 CST | 0 | Thunderstorm Wind (MG 54 kt) |
| | 08/06/13 22:29 CST | 0 | Source: ASOS |

The ASOS site at Lubbock Preston Smith International Airport reported a gust to 62 mph under a decaying thunderstorm.

During the afternoon and evening hours of the fifth, isolated thunderstorms developed across the South Plains. One of these thunderstorms significantly weakened near Lubbock Preston Smith International Airport (KLBB). A few minutes after the last reported lightning strike, the Automated Surface and Observation Station (ASOS) at KLBB reported a severe wind gust to 62 mph.

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| LUBBOCK COUNTY --- 2.0 N WOLFFORTH [33.53, -102.02], 2.0 N WOLFFORTH [33.53, -102.02] | 08/07/13 15:48 CST | 0 | Tornado (EF0, L: 0.01 mi , W: 10 yd) |
| | 08/07/13 15:49 CST | 0 | Source: Trained Spotter |

A brief landspout tornado was reported by a local meteorologist north of Wolfforth underneath a developing cumulus cloud. No damage or injuries occurred.

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| HOCKLEY COUNTY --- 0.8 W LEVELLAND [33.58, -102.38] | 08/07/13 16:27 CST | 60K | Thunderstorm Wind (EG 39 kt) |
| | 08/07/13 16:27 CST | 0 | Source: Emergency Manager |

Local emergency management officials reported power poles blown down on the west side of Levelland as a thunderstorm moved through. A mobile home under development was also knocked down by strong winds nearby.

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|---|--------------------|---|--------------------------------|
| FLOYD COUNTY --- 0.6 W FLOYDADA [33.98, -101.34] | 08/07/13 18:33 CST | 0 | Thunderstorm Wind (EG 52 kt) |
| | 08/07/13 18:33 CST | 0 | Source: Fire Department/Rescue |

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| Local fire department officials observed severe wind gusts near 60 mph as a thunderstorm moved overhead. | | | | |
| STONEWALL COUNTY --- 3.0 NE ASPERMONT [33.18, -100.19] | | | | |
| | 08/07/13 19:00 CST | | 0 | Thunderstorm Wind (MG 56 kt) |
| | 08/07/13 19:00 CST | | 0 | Source: Mesonet |

The Texas Tech University West Texas Mesonet station near Aspermont recorded a 64 mph wind gust.

Scattered thunderstorms developed during the late afternoon and early evening hours ahead of a shortwave trough in New Mexico. Numerous preexisting outflow boundaries were also present across the South and Rolling Plains from earlier activity, which combined with a frontal boundary across the Texas Panhandle providing lift. A brief landspout tornado formed in southwest Lubbock County prior to thunderstorm initiation, before isolated severe wind gusts and damage occurred underneath more mature storms in Hockley, Floyd, and Stonewall Counties.

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| STONEWALL COUNTY --- 1.0 S ASPERMONT [33.14, -100.23] | | | | |
| | 08/08/13 16:30 CST | | 0 | Thunderstorm Wind (EG 61 kt) |
| | 08/08/13 16:30 CST | | 0 | Source: Law Enforcement |

Law enforcement officials reported their car being blown around by winds estimated to be as high as 70 mph during a severe thunderstorm. No damage or injuries were sustained.

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| STONEWALL COUNTY --- 5.0 S ASPERMONT [33.08, -100.23] | | | | |
| | 08/08/13 16:40 CST | | 0.50K | Lightning |
| | 08/08/13 17:30 CST | | 0 | Source: Law Enforcement |

Law enforcement and local media reported the destruction of two salt water tanks caused by lightning strikes about five miles south of Aspermont. No injuries occurred.

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| CHILDRESS COUNTY --- CHILDRESS [34.42, -100.20] | | | | |
| | 08/08/13 17:00 CST | | 10K | Thunderstorm Wind (EG 52 kt) |
| | 08/08/13 17:00 CST | | 0 | Source: Law Enforcement |

Local law enforcement officials reported an 18 wheel semi truck blown over on Highway 287 just east of Childress as severe thunderstorm winds occurred.

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| HALL COUNTY --- 6.0 W ESTELLINE [34.55, -100.54] | | | | |
| | 08/08/13 17:30 CST | | 0 | Hail (1.75 in) |
| | 08/08/13 17:30 CST | | 0 | Source: Trained Spotter |

A SKYWARN spotter observed golf ball size hail west of Estelline. No damage or injuries were reported.

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| COTTLE COUNTY --- 4.0 W PADUCAH [34.02, -100.37] | | | | |
| | 08/08/13 18:32 CST | | 0 | Lightning |
| | 08/08/13 22:30 CST | | 0.10K | Source: Law Enforcement |

Law enforcement officials reported a wildfire ignited by a nearby cloud to ground lightning strike west of Paducah. The fire was quickly contained by local fire department personnel and no injuries or significant damage occurred.

A broken line of thunderstorms developed during the late afternoon and evening hours toward the edge of the Caprock before pushing into the Rolling Plains and far southeastern Texas Panhandle. This activity was in association with a surface trough, a cold front moving out of the Panhandle, and a shortwave trough pushing across the South Plains. Strong winds and large hail accompanied these storms along with a lightning induced fire which produced damage.

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Salt water tanks on fire south of Aspermont. Image courtesy of Alison Gibson.

MOTLEY COUNTY --- 0.7 N NORTHFIELD [34.29, -100.60]

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|--------------------|--|-------|------------------------------|
| 08/11/13 16:00 CST | | 0.20K | Thunderstorm Wind (EG 56 kt) |
| 08/11/13 16:00 CST | | 0 | Source: COOP Observer |

A NWS Cooperative Observer reported tree limbs broken, shingles blown off a roof and a stock trailer blown 200 feet by severe winds. Although a Texas Tech University West Texas Mesonet station located one mile south of Northfield only measured a peak gust of 57 mph at 4:05 pm CST, the winds associated with the damage in Northfield were likely higher.

LUBBOCK COUNTY --- 0.9 SW REESE VLG [33.59, -102.03]

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|--------------------|--|---|------------------------------|
| 08/11/13 16:35 CST | | 0 | Thunderstorm Wind (MG 50 kt) |
| 08/11/13 16:35 CST | | 0 | Source: Mesonet |

Measured by a Texas Tech University West Texas Mesonet station at Reese Center.

Late this afternoon, scattered thunderstorms developed over the South Plains and far southeastern Texas Panhandle within a very moist and moderately unstable atmosphere. Weak wind shear resulted in multiple pulse storms; however, only two of these were known to have reached severe limits. One pulse storm produced minor damage in Northfield while another farther southwest resulted in a marginally severe wind gust at Reese Center.

KING COUNTY --- 10.0 WSW GUTHRIE [33.56, -100.49]

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|--------------------|--|---|-----------------|
| 08/14/13 02:20 CST | | 0 | Heavy Rain |
| 08/14/13 03:20 CST | | 0 | Source: Mesonet |

Heavy rainfall occurred south and west of Guthrie for about a one hour duration, producing 2.64 inches at the Texas Tech University West Texas Mesonet station.

GARZA COUNTY --- 2.8 NE GRAHAM CHAPEL [33.18, -101.44], 1.0 NE POST [33.19, -101.37], 5.3 ENE BUENOS [33.35, -101.39], 2.0 NNW PLEASANT VLY [33.30, -101.51]

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|--------------------|--|---|---------------------------------|
| 08/14/13 03:00 CST | | 0 | Flash Flood (due to Heavy Rain) |
| 08/14/13 04:00 CST | | 0 | Source: Law Enforcement |

Heavy rainfall began to impact the Texas Tech University West Texas Mesonet site northeast of Post shortly after 0130 CST, with rainfall rates approaching four inches per hour. Officially, 3.73 inches fell mainly between 0200 to 0300 CST, with reports of flash flooding received from local law enforcement officials between 0300 and 0400 CST. Portions of Highway 84 between Southland and Post were flooded, leading to eighteen-wheelers having difficulty driving through the water and smaller vehicles being stranded in high water. No significant damage or injuries were reported.

A band of showers and thunderstorms developed along a southeastward propagating gust front, produced by a strong storm moving out of the far southwest Texas Panhandle into the South Plains. Widespread rainfall came to much of the region with the heaviest rainfall and a period of flash flooding taking place in Garza County. Heavy rainfall also occurred south and west of Guthrie in King County.

HALE COUNTY --- 1.0 NNW PLAINVIEW [34.21, -101.71]

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|--------------------|--|---|----------------|
| 08/14/13 20:51 CST | | 0 | Hail (1.00 in) |
| 08/14/13 20:51 CST | | 0 | Source: Public |

A citizen reported quarter size hail and estimated 60 mph winds near Plainview. No damage was reported.

HALE COUNTY --- 4.0 E HALFWAY [34.18, -101.88]

| | | | |
|--------------------|--|-------|----------------|
| 08/14/13 21:19 CST | | 0.30M | Hail (1.75 in) |
| 08/14/13 21:19 CST | | 10K | Source: Public |

A citizen reported golf ball size hail east of Halfway. Damage to center pivots, grain crops, and half a dozen power poles was reported in the area between Edmonson and Hale Center due to the large hail and strong thunderstorm winds.

HALE COUNTY --- 4.9 NW ALLEY [33.94, -101.90]

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|--------------------|--|---|--------------------------------|
| 08/14/13 21:58 CST | | 0 | Thunderstorm Wind (EG 70 kt) |
| 08/14/13 21:58 CST | | 0 | Source: Fire Department/Rescue |

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A fire department official estimated winds up to 80 mph and quarter size hail west of Interstate 27 and north of Farm to Market Road 54 northwest of Abernathy.

HALE COUNTY --- 4.9 NW ALLEY [33.94, -101.90], 4.8 NW ALLEY [33.94, -101.90]

| | | | | |
|--|--------------------|--|-------|--------------------------------------|
| | 08/14/13 21:58 CST | | 0.25M | Tornado (EF0, L: 0.07 mi , W: 25 yd) |
| | 08/14/13 21:59 CST | | 0 | Source: Fire Department/Rescue |

A fire department official reported a brief tornado touchdown west of Interstate 27 and north of Farm to Market Road 54 northwest of Abernathy. Several center pivot irrigation systems were damaged before the tornado lifted.

HOCKLEY COUNTY --- 6.0 NNW ROPESVILLE [33.50, -102.19]

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|--|--------------------|--|---|------------------------------|
| | 08/15/13 00:21 CST | | 0 | Thunderstorm Wind (EG 52 kt) |
| | 08/15/13 00:21 CST | | 0 | Source: Trained Spotter |

A local meteorologist observed estimated 60 mph winds and penny size hail near Ropesville. No damage was reported.

LYNN COUNTY --- TAHOKA [33.18, -101.78]

| | | | | |
|--|--------------------|--|---|-------------------------|
| | 08/15/13 00:45 CST | | 0 | Hail (0.88 in) |
| | 08/15/13 01:00 CST | | 0 | Source: Law Enforcement |

Local law enforcement officials reported nickel size hail in Tahoka. No damage was reported.

Isolated storms moved south out of the Texas Panhandle, with an isolated supercell developing downstream across Hale County. This storm produced severe wind gusts and hail, along with a brief tornado west of Interstate 27 which damaged several center pivot irrigation systems. The storms also produced severe winds near Ropesville into the early morning hours.

CHILDRESS COUNTY --- CHILDRESS [34.42, -100.20]

| | | | | |
|--|--------------------|--|---|-------------------------|
| | 08/16/13 03:01 CST | | 0 | Hail (0.88 in) |
| | 08/16/13 03:11 CST | | 0 | Source: Law Enforcement |

COTTLE COUNTY --- 10.0 S PADUCAH [33.88, -100.30]

| | | | | |
|--|--------------------|--|---|-----------------------|
| | 08/16/13 05:10 CST | | 0 | Hail (1.00 in) |
| | 08/16/13 05:10 CST | | 0 | Source: COOP Observer |

A NWS Cooperative Weather observer reported hail to the size of quarters during the early morning hours of the 16th. No damage was reported.

CHILDRESS COUNTY --- 1.9 WNW CHILDRESS [34.43, -100.23], 1.7 WNW CHILDRESS [34.43, -100.23], 1.4 WNW CHILDRESS [34.43, -100.22], 1.6 WNW CHILDRESS [34.43, -100.23]

| | | | | |
|--|--------------------|--|---|---------------------------|
| | 08/16/13 05:22 CST | | 0 | Flood (due to Heavy Rain) |
| | 08/16/13 07:30 CST | | 0 | Source: Law Enforcement |

Local law enforcement officials reported that heavy rainfall from continued thunderstorm activity forced the closure of the Highway 83 underpass on the south side of Childress. The highway reopened a couple of hours later following the end of the intense rainfall. No injuries or damage were reported.

During the pre-dawn hours, a vigorous short wave trough in northwest flow ignited multiple southward-moving thunderstorms in the far eastern Texas Panhandle. These storms soon began training over the same locations in response to a nocturnal low level jet and resulted in sporadic flooding. The axis of heaviest rains between 2 and 3 inches fell roughly along US Highway 83 in Childress County. A couple of these storms produced hail of nickel to quarter size.