

Storm Data and Unusual Weather Phenomena - February 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

02/01/13 00:00 CST	5M	Drought
02/28/13 23:59 CST	5M	

Drought conditions during the month of February were reduced area wide with the greatest improvement observed across the northern Rolling Plains and extreme southeastern Texas panhandle. By the end of the month, four counties had dropped below severe (D2) drought levels: Motley, Cottle, Hall, and Briscoe. Furthermore, Hall county was reduced to abnormally dry (D0), its lowest drought level in over two years. Although the remainder of the region continued to be in severe (D2) drought or worse, exceptional (D4) drought was reduced.

The month of February saw several warm and windy episodes as well as periodic cold fronts and precipitation. In general, total precipitation was at or above seasonal averages for the month and year to date. This is the primary reason why drought levels were reduced area wide. Two notable winter weather events occurred on the 12th-13th and a blizzard on the 24th-25th. The blizzard brought as much as 15 inches of snow to the extreme south-central Texas panhandle. Most areas received several inches of snow with the exception of the southern South Plains and southern Rolling Plains which received little to no snowfall from this event. An extreme gradient of snowfall was observed between areas that received snow and areas that did not receive snow. Slaton in southeastern Lubbock County did not report any snow while Shallowater in northwest Lubbock County reported eight inches from this single event. With several cool periods throughout the month due to strong cold fronts, February was below normal for mean temperature. Lubbock and Childress were both -0.9 and -0.5 degrees, respectively. Temperatures year to date were now slightly below average. Keetch-Byram Drought Index values greatly improved through the month. By the end of February, values between 200 and 300 were observed over the extreme southern Texas panhandle through the northern South Plains and northern Rolling Plains. The rest of the area saw values between 300 and 400 except for the southwestern South Plains and southern Rolling Plains which observed values between 400 and 500.

Despite experiencing several windy days, no significant wildfires were observed through the entire month. Fuel loads remained low across the region because of the drought conditions. Although this is normally a good sign for the area, the peak wildfire season occurs during the months of March and April. Upper soil moisture levels had improved as well as prospects for winter crops with the significant snowfall across the region. However, water supplies were not being recharged and deep soil moisture remained inadequate to affect long term drought problems. Preparation for spring planting was underway over the region with rangelands and pastures in generally poor condition.

Economic losses due to drought through February since the drought began were estimated near \$2.6 billion.

(TX-Z021) PARMER	02/09/13 17:25 CST	0	High Wind (MAX 50 kt)
	02/09/13 17:30 CST	0	

HALL COUNTY --- 0.8 SW TURKEY [34.39, -100.89]	02/09/13 20:32 CST	0	Hail (1.00 in)
	02/09/13 20:32 CST	0	Source: Fire Department/Rescue

The fire department in Turkey reported quarter size hail. No damage was reported.

HALL COUNTY --- 2.0 S ESTELLINE [34.52, -100.43]	02/09/13 21:14 CST	0	Hail (1.00 in)
	02/09/13 21:14 CST	0	Source: Public

The public reported numerous pea sized hail stones with a few stones up to one inch in diameter. No damage was reported.

Strong southwesterly winds and blowing dust overspread the far southwest Texas Panhandle late this afternoon behind a dryline. Winds gusted to 58 mph twice near Friona before subsiding by sunset. By mid-evening, increasingly moist southeast winds ahead of the dryline aided in scattered strong and severe thunderstorm development in the far southern Texas Panhandle. The southernmost of these storms affected portions of Turkey and Hall Counties where hailstones grew to the size of quarters at times.

(TX-Z021) PARMER, (TX-Z026) CHILDRESS, (TX-Z029) HALE, (TX-Z030) FLOYD	02/12/13 06:00 CST	0	Winter Weather
	02/12/13 15:00 CST	0	

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	02/12/13 06:00 CST		0	Heavy Snow
	02/12/13 15:00 CST		0	

Shortly after midnight on the 12th, the base of an upper-level trough exited southern New Mexico before bisecting the South Plains during the day as it moved eastward. With a cold layer of air already in place at the surface, very mild and moist southerly winds aloft developed ahead of the trough and led to a plethora of precipitation types developing during the pre-dawn hours. Generally along and south of the storm's track, scattered thunderstorms with locally heavy rains, small hail up to 1/2 inch in diameter and even sleet were observed. Farther north in the northern South Plains and southern Texas Panhandle, the cold air remained deep enough for precipitation to fall as all snow. The snow fell heavy at times during the morning, but did not result in any known travel problems. By mid-day, the snow tapered from west-to-east behind the departing storm system, but not before depositing up to 5 inches of wet snow in some locales.

Selected snow totals include: 5 inches at Happy (Swisher County) and Memphis (Hall County), 4 inches at Nazareth (Castro County), Tulia (Swisher County), Silverton (Briscoe County), and Flomot (Motley County), 3 inches at Dimmitt (Castro County) and Plainview (Hale County), 2 inches at Friona (Parmer County), 1.5 inches at Floydada (Floyd County) and Matador (Motley County), and 1 inch at both Farwell (Parmer County) and Childress (Childress County). Also, this storm produced beneficial liquid equivalent precipitation of 1/3 to nearly 1 inch over all but the far western South Plains where little if any precipitation materialized.



Bison contend with heavy wet snow in Caprock Canyons State Park. Photo courtesy of Caprock Canyons State Park officials.

(TX-Z023) SWISHER, (TX-Z035) LUBBOCK				
	02/21/13 02:00 CST		85K	Winter Weather
	02/21/13 07:00 CST		0	

Light snow and sleet during the early morning hours of the 21st caused several traffic accidents in Lubbock (Lubbock County) and Tulia (Swisher County). Only about one inch of a wintry mix was reported but it was enough to create hazardous roadways. Several roads were blocked off in Lubbock because of the icy conditions.

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	02/24/13 19:30 CST		0	Blizzard
	02/25/13 17:00 CST		0	
KENT COUNTY --- 0.7 SSE JAYTON [33.24, -100.57], 1.0 E JAYTON [33.25, -100.56]				
	02/24/13 22:02 CST		0	Hail (1.25 in)
	02/24/13 22:05 CST		0	Source: Law Enforcement
Law enforcement reported half dollar size hail in and around Jayton. No damage was reported.				
(TX-Z039) YOAKUM, (TX-Z040) TERRY, (TX-Z041) LYNN, (TX-Z042) GARZA				
	02/25/13 08:30 CST		0	High Wind (MAX 43 kt)
	02/25/13 16:30 CST		0	

A powerful upper level storm system brought a wide variety of hazardous weather conditions to the South Plains and Rolling Plains of West Texas from the evening of the 24th through the daytime on the 25th. This storm system moved out of Colorado into New Mexico then east across the Texas panhandle on the 24th. As the system moved across New Mexico it was able to tap into rich moisture from the Gulf of Mexico. As a result, on the evening of the 24th, severe thunderstorms developed across the southern Rolling Plains. A strong cold front quickly moved through the region late in the evening on the 24th which brought noticeably cooler temperatures and high winds.

Rain showers quickly changed over to sleet then snow by late in the evening of the 24th. High winds caused blizzard conditions to almost the entire South Plains, Rolling Plains, and extreme southern Texas panhandle for much of the morning into the afternoon of the 25th. Snowfall was heaviest in the south-central Texas panhandle where over one foot of snowfall was observed. Snow finally tapered off from west to east from the late afternoon through the early evening of the 25th. Areas across the southern South Plains and southern Rolling Plains received little to no snow but still recorded high winds.

Because of the blizzard conditions, travel became treacherous across the region. Numerous roads were closed including Interstate 27 between Lubbock and Amarillo. Several vehicle accidents were reported throughout the day on the 25th. Additionally, slick roads on the evening of the 25th lead to a serious vehicle accident where an ambulance flipped over and the paramedics were transported to the hospital with non-life threatening injuries. Lubbock Preston Smith International Airport was closed for all outbound and inbound flights on the 25th. Damage estimates from traffic accidents were unavailable.

Snow amounts below are from NWS cooperative weather observer reports:

Tulia (Swisher County)...15.0 inches, Silverton (Briscoe County)...13.0 inches, Happy (Swisher County)...12.0 inches, Dimmitt (Castro County)...10.0 inches, Hart (Castro County)...9.0 inches, Shallowater (Lubbock County)...8.6 inches, Muleshoe (Bailey County)...8.0 inches, Plainview (Hale County)...8.0 inches, Vigo Park (Swisher County)...8.0 inches, Olton (Lamb County)...7.5 inches, Abernathy (Hale County)...7.0 inches, Matador (Motley County)...7.0 inches, Littlefield (Lamb County)...7.0 inches, Turkey (Hall County)...7.0 inches, Friona (Parmer County)...7.0 inches, Northfield (Motley County)...6.0 inches, Bovina (Parmer County)...6.0 inches, Roaring Springs (Motley County)...6.0 inches, Memphis (Hall County)...6.0 inches, Paducah (Cottle County)...5.0 inches, WFO Lubbock (Lubbock County)...4.5 inches, Childress (Childress County)...4.5 inches, Ralls (Crosby County)...4.5 inches, Levelland (Hockley County)...4.5 inches, Afton (Dickens County)...4.0 inches, Morton (Cochran County)...4.0 inches, Floydada (Floyd County)...3.5 inches, Plains (Yoakum County)...3.0 inches, Jayton (Kent County)...1.0 inch, Brownfield (Terry County)...1.0 inch, and Denver City (Yoakum County)...1.0 inch.

Sustained maximum high wind reports below are from the Texas Tech University West Texas mesonet and Automated Surface Observation System:

O'Donnell (Lynn County)...50 mph, Graham (Garza County)...50 mph, Amherst (Lamb County)...47 mph, Hart (Castro County)...46 mph, Tulia (Swisher County)...45 mph, Dimmitt (Castro County)...44 mph, Anton (Hockley County)...44 mph, Plains (Yoakum County)...44 mph, Abernathy (Hale County)...43 mph, Childress ASOS (Childress County)...43 mph, Brownfield (Terry County)...43 mph, Friona (Parmer County)...42 mph, White River Lake (Crosby County)...42 mph, Memphis (Hall County)...41 mph, Muleshoe (Bailey County)...40 mph, and Paducah (Cottle County)...40 mph.

Maximum high wind gust reports below are from the Texas Tech University West Texas mesonet and Automated Surface Observation System:

O'Donnell (Lynn County)...67 mph, Graham (Garza County)...65 mph, Olton (Lamb County)...59 mph, Levelland (Hockley County)...59 mph, Reese Center (Lubbock County)...58 mph, Wolfforth (Lubbock County)...58 mph, and Lubbock ASOS (Lubbock County)...58 mph.

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A picture of large snow drifts in Tulia. Photograph courtesy Kristina Alexander.