

## Storm Data and Unusual Weather Phenomena - November 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-Z026) CHILDRESS, (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

11/01/13 00:00 CST

0

Drought

11/30/13 23:59 CST

0.20B

Drought levels generally remained the same throughout the month of November despite the dry season being upon the region. Most counties remained anywhere between severe (D2) to exceptional (D4) drought conditions. Lamb County dropped from severe (D2) to moderate (D1) conditions.

Temperatures in November saw a reversal from previous months and were below averages by several degrees. Lubbock's monthly average was 1.3 degrees below normal while Childress was 2.3 degrees below normal. Temperatures remained below freezing for 80 continuous hours or more for many locations on the South Plains. This was mainly due to a significant winter storm that affected the region from the 22nd through 24th. This winter storm resulted in a large swath of sleet, freezing rain, and snow. Areas across the southwestern Texas panhandle into the northwestern South Plains saw the highest snowfall totals. A maximum of 10.5 inches was reported at Happy (Swisher County). Between one tenth and three tenths of an inch of ice was reported from the southern South Plains through the Southern Rolling Plains. Similar to drought levels, Keetch-Byram Drought Index values were nearly unchanged. Values between 400 and 500 were observed on the South Plains with 500 to 600 over the Rolling Plains.

All locations across the South Plains and Rolling Plains have now experienced a killing frost. No significant wildfires were reported despite most vegetation in a dormant state. Harvesting was nearly complete with estimates of nearly a 30% reduction of crops from the 10-year average.

Economic losses due to drought through November since the drought began were estimated near \$3.0 billion.

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*Blowing dust and suffering cotton plants in Ropesville, TX on November 16th. Photograph relayed by Brian A. Fuchs of the University of Nebraska-Lincoln.*

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(TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z040) TERRY

11/16/13 20:00 CST	0	Dust Storm
11/16/13 22:00 CST	0	

In advance of a large upper trough, southwesterly winds increased to 30 to 40 mph over much of the South Plains with gusts measured as high as 55 mph at the Lubbock International Airport. Recently harvested cotton fields in Terry, Hockley and Lubbock County produced a large plume of blowing dust that reduced visibilities to as low as one quarter mile or less at times in rural areas - particularly along U.S. Highway 82/62 between Lubbock and Brownfield.

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(TX-Z031) MOTLEY, (TX-Z036) CROSBY, (TX-Z041) LYNN

11/22/13 05:00 CST	0	Ice Storm
11/22/13 15:00 CST	0	

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(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-Z033) COCHRAN, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z036) CROSBY, (TX-Z039) YOAKUM, (TX-Z040) TERRY, (TX-Z041) LYNN, (TX-Z042) GARZA, (TX-Z043) KENT

11/23/13 07:00 CST	0	Winter Storm
11/24/13 15:00 CST	0	

Following a period of balmy late Fall temperatures, a significant arctic front plunged through the South Plains during the afternoon of November 21st. In the wake of this front, an extended period of moist overrunning flow developed across West Texas in advance of a slow moving upper low in the Desert Southwest.

As early as the pre-dawn hours on November 22nd, a swath of freezing rain developed in the Permian Basin and lifted north-northeast

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across the southeast South Plains and into the northern Rolling Plains. The worst of this freezing rain struck portions of Crosby and Lynn Counties by late morning where up to 1/4 inch of ice was reported. Portions of Motley County also reported near 1/4 inch of icy precipitation. Farther northwest, some locales in Castro County saw light snow accumulate to nearly 1 inch. In Lubbock alone, nearly 200 motor vehicle accidents occurred between 3 AM CST and 1 PM CST after a thin glaze of ice plagued area roads.

Following a lull in precipitation from the evening of the 22nd through early on the 23rd, a large area of lift and deep moisture entered West Texas late in the afternoon on the 23rd - well in advance of the upper low. The result was two rounds of mixed wintry precipitation, including periods of heavy freezing rain, sleet and heavy snow. The first round was localized, but produced heavy snow mainly across northern Swisher County. The second round struck early in the evening and lasted through the early morning of the 24th. This latter round affected all of the South Plains, southern Texas Panhandle and the Rolling Plains with significant precipitation. Marginal instability above a shallow dome of arctic air produced multiple bands of heavy snow, freezing rain and sleet. A large swath of heavy snow between 6 and 10.5 inches blanketed all of the northwest South Plains and much of the far southern Texas Panhandle. In the Rolling Plains, freezing rain and sleet was prevalent with ice accumulations generally around 1/10th to 1/4 of an inch. In the city of Lubbock, freezing rain for much of the evening eventually changed over to all snow, but not before forcing the closure of two major overpasses on the west side of the city and causing hundreds of vehicle accidents. Fortunately, no serious injuries or fatalities occurred.

Wintry precipitation began diminishing in coverage and intensity by early morning on the 24th, but nearly all roads remained slick and hazardous due to high temperatures below freezing. On the Caprock, road cleaning efforts were seriously hampered during this multi-day storm as many locations remained below freezing for 80 continuous hours or more. Temperatures finally thawed out by the afternoon of the 25th as the decaying upper low passed over the region. Some very light mixed wintry precipitation accompanied this low late on the 25th, but did not result in any adverse impacts.


### Selected snow totals from the 23rd-24th:

- 10.5 inches at Happy...
- 9 inches at Muleshoe...
- 8 inches at Friona and Dimmitt...
- 7 inches at Memphis and Tulia...
- 6 inches at Silverton and Hart...
- 5 inches at Morton and Lakeview (Hall County)...
- 4 inches at Littlefield and Childress...
- 3 inches at Plainview...
- 2.2 inches at Lubbock Int'l Airport...
- 2 inches at Plains.

### Selected snow/sleet and ice totals (estimated) from the 23rd-24th:

- 3 inches snow/sleet and 0.1 inches ice at Flomot...
- 2.5 inches snow/sleet and 0.3 inches ice at Crosbyton...
- 2 inches snow/sleet and 0.3 inches ice at Brownfield...
- 1.5 inches snow/sleet and 0.3 inches ice at Levelland...
- 1 inch sleet and 0.2 inches ice at Jayton...
- 0.25 inches sleet and 0.3 inches ice at Tahoka...
- 0.3 inches ice at Post.

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*Snow on the back patio of an NWS cooperative weather observer in Muleshoe, Texas. Photograph courtesy Jack Rennels.*