

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

12/01/13 00:00 CST	0	Drought
12/31/13 23:59 CST	5M	

A slight expansion in worsening drought conditions occurred during the month of December. Despite two winter storms and below average temperatures, no large scale improvement to the drought was noted. Only Bailey County and Hall County remained in drought conditions less than severe (D2).

The month of December saw unusually cool temperatures across the entire region. Arctic outbreaks occurred over much of the eastern U.S. with some of this frigid air spilling into West Texas. By the end of the month, Lubbock was 1.9 degrees below normal while Childress was 2.5 degrees below normal. This marks the second consecutive month of below normal temperatures. Precipitation was spotty through the first half of the month with a more widespread precipitation event occurring on the 20th and 21st. While the central Texas Panhandle saw several inches of snow, the extreme southern Texas Panhandle into the Rolling Plains saw freezing rain and rain. The Rolling Plains measured between one and two inches of rainfall from this single event. Several inches of snow were observed over the Rolling Plains and extreme southeastern Texas Panhandle on the 5th and 6th. Also, significant ice accumulations were experienced in the southern South Plains for the same time period. Keetch-Byram Drought Index values over the South Plains remained unchanged with observed values between 400 and 500. Over the Rolling Plains and extreme southeastern Texas Panhandle, values improved to between 400 and 500.

Wildfire activity was very low through December however fuels reached a cured state. Following a year with precipitation values between 50 and 75 percent of normal, there was an increase in tall cured grasses. These grasses were less than normal but increased from the previous two years. The areas with greatest fuel loads were the eastern South Plains into the Rolling Plains and extreme southeastern Texas Panhandle. Cotton harvesting was complete by the end of December with winter wheat crops having mixed results thus far.

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

(TX-Z034) HOCKLEY	12/05/13 07:00 CST	0	0	Winter Weather
	12/05/13 14:00 CST	2	0	

(TX-Z036) CROSBY, (TX-Z040) TERRY, (TX-Z041) LYNN, (TX-Z042) GARZA	12/05/13 07:00 CST	0	0	Ice Storm
	12/06/13 05:00 CST		0	

(TX-Z026) CHILDRESS, (TX-Z031) MOTLEY, (TX-Z032) COTTLE, (TX-Z035) LUBBOCK, (TX-Z037) DICKENS	12/05/13 07:30 CST	0	0	Winter Storm
	12/06/13 06:00 CST		0	

A strong cold front plowed through the extreme southern Texas Panhandle, South Plains, and Rolling Plains on the 4th, causing temperatures to plummet into the 20s overnight. This was the beginning of a three and a half day period of subfreezing temperatures in West Texas.

The first batch of wintry precipitation fell on the extreme southern Texas Panhandle, South Plains, and Rolling Plains as an upper level disturbance moved through ahead of a parent trough during the early morning hours of the 5th. The precipitation fell as mainly freezing rain and sleet. A large swath of freezing rain impacted locations in the southern South Plains into the southern and central Rolling Plains, with amounts up to one quarter of an inch reported. Parts of King and Cottle counties observed up to two and a half inches of sleet and snow combined. Nearly 100 traffic accidents were attributed to icy roads in and around Lubbock, while icy conditions on Texas Highway 114, one mile west of Smyer in Hockley County, caused a two-vehicle crash producing one fatality and two injuries.

As the upper trough pushed out of the Great Basin and into the Desert Southwest, another round of frozen precipitation impacted the southern South Plains and Rolling Plains into the far southeastern Panhandle throughout the evening of the 5th into the morning of the 6th, consisting of mostly sleet early before transitioning to snow as cooling occurred aloft throughout the atmosphere. Up to five inches of storm total snow and sleet occurred in Paducah, with parts of Childress and Motley Counties reporting three and a half to four inches.

Storm Data and Unusual Weather Phenomena - December 2013

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

Selected snow/sleet totals from the 5th-6th:

- 5 inches snow/sleet at Paducah...
- 4 inches snow/sleet at Kirkland...
- 3.5 inches snow/sleet at Roaring Springs...
- 3 inches snow/sleet at Childress...
- 3 inches snow/sleet at Matador.

Selected ice totals from the 5th-6th:

- 0.50 inches at Crosbyton...
- 0.25 inches at Tahoka...
- 0.25 inches at Post...
- 0.25 inches at Brownfield...
- 0.20 inches at Plains.

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

12/08/13 00:00 CST	0	Winter Weather
12/08/13 08:00 CST	0	

Freezing drizzle developed across portions of the Caprock during the evening of the 7th and lasting into the early morning of the 8th. This was due to very warm and moist air advecting from the southwest and overrunning subfreezing air at the ground. Multiple traffic accidents were reported in Plainview and Lubbock as a thin icy glaze developed on roadways. Conditions improved by early to mid morning on the 8th as the warm layer of air deepened and eroded the remaining shallow layer of arctic air. Following 84 consecutive hours of temperatures at or below 32 degrees, the Lubbock airport rose to above freezing around 1100 CST on the 8th. This was an impressive feat considering Lubbock achieved record cold the day prior, only to rocket to 58 degrees by the afternoon of the 8th.

(TX-Z022) CASTRO, (TX-Z023) SWISHER, (TX-Z032) COTTLE, (TX-Z037) DICKENS

12/20/13 15:30 CST	5K	Winter Weather
12/21/13 15:00 CST	0	

(TX-Z026) CHILDRESS

12/20/13 15:30 CST	50K	Ice Storm
12/21/13 12:53 CST	0	

In advance of an upper low in the Desert Southwest, a very rich feed of subtropical and Gulf moisture overspread much of west and northwest Texas by the afternoon of the 20th resulting in a widespread rain event. In Childress County and into parts of the Rolling Plains, marginally freezing temperatures following a weak cold front from earlier in the day resulted in several hours of light to moderate freezing rain. Roughly 16 hours of freezing rain fell in Childress from the afternoon of the 20th before ending late in the morning on the 21st. Although ground temperatures remained above freezing through the event, exposed objects such as trees, power lines and fences in Childress County ended up with 0.1 to nearly 0.3 inches of ice. The ice buildup on power lines resulted in over 700 residents in Childress losing power, but fortunately area roads remained warm enough through the event and Christmas travel was not seriously impacted.

Light freezing rain was also observed farther south in Cottle and Dickens counties, and the wintry precipitation was able to form a light accumulation on trees, power lines, and vehicles. Near the end of the event, precipitation fell as snow across the extreme south-central Texas Panhandle. A cooperative weather observer reported 2.0 inches of snow in Dimmitt (Castro County) and law enforcement reported 3.0 inches in Happy (Swisher County). One motorist fatality was reported due to slick roads on Interstate 27 near Tulia.