

Storm Data and Unusual Weather Phenomena - December 2015

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-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, (TX-Z042) GARZA

12/26/15 22:00 CST	2	32.63M	Blizzard
12/27/15 22:30 CST		0	

Direct Fatalities: M61OU, U????

(TX-Z025) HALL, (TX-Z026) CHILDRESS, (TX-Z031) MOTLEY, (TX-Z032) COTTLE, (TX-Z038) KING, (TX-Z043) KENT, (TX-Z044) STONEWALL

12/26/15 22:30 CST		10K	Winter Storm
12/28/15 03:00 CST		0	

(TX-Z037) DICKENS

12/26/15 23:00 CST		0	Ice Storm
12/28/15 01:00 CST		0	

Following a mild Christmas, a strong cold front arrived early on the morning of the 26th ahead of temperatures falling to freezing territory throughout the course of the afternoon all in advance of a slow-moving upper low in the Desert Southwest and far north-central Mexico. Northerly winds increased in intensity during the day and by early evening were frequently gusting between 50 and 60 mph over the entire South Plains. These winds created several power outages, minor roof damage, downed tree limbs, and even toppled some trees completely. By mid-evening on the 26th, exceptionally rich moisture from the Gulf of Mexico deepened over the shallow dome of cold air and resulted in large areas of freezing rain and sleet punctuated by thunderstorms. This wintry mix quickly changed over to all snow by late evening over the western South Plains as an elevated layer of warm air was eroded. With winds still frequently gusting to 60 mph, instant whiteout conditions were reported from Morton south to Seminole from heavy snow and blowing snow.

The blizzard expanded slowly east through the night to the edge of the Caprock until mid-level dry slotting arrived on the morning of the 27th which produced a distinct lull in snow and sleet. Even without falling snow, winds were still gusting from 50 to 60 mph which created ground blizzard conditions even in the city of Lubbock where a mere 2.7 inches of sleet and snow was measured through 6 A.M. NWS forecasters were keen to alert residents that a second and more potent round of snow was to arrive later in the day once the upper low lifted northeast across central Texas. Although this second round was initially complicated by sleet at times thanks to a redeveloping warm nose, by late afternoon on the 27th the warm nose disappeared for good as several bands of heavy snow enveloped the South Plains before shifting into the Rolling Plains and the southeast Texas Panhandle overnight and slowly dissipating. Until that point, areas off the Caprock contended with as much as three inches of sleet and up to 1/2 inch of freezing rain. Several snowbursts with rates measured as high as 2.7 inches at the NWS Lubbock office produced whiteout conditions and compounded already treacherous travel conditions. The snow and strong winds quickly tapered off in coverage and intensity from southwest-to-northeast late on the 27th through the pre-dawn hours of the 28th.

Unfortunately, there were two fatalities from this blizzard. A homeless man in Lubbock succumbed to hypothermia late in the night on the 27th. He was found wearing only a light jacket, jeans and a thin blanket. No information was known on the second fatality.

Despite full sun and high temperatures reaching the middle 30s on the 28th, thousands of South Plains residents found themselves marooned by tall snow drifts that blocked roads and driveways. In Lubbock alone, the city Police Dispatch estimated that about 1400 motorists became stuck in snow drifts. In many areas of the southwest South Plains, rescue operations were conducted for up to 32 consecutive hours to free stranded motorists. Fortunately, there were very few vehicle accidents as most people became stuck in snow instead of sliding into obstacles or other vehicles. A large percentage of area residents heeded warnings and avoided travel altogether for several days. The alarming lack of snow removal resources, particularly in the city of Lubbock which only owned two snow plows at the time, was heavily criticized by taxpayers and some city council members as a total of 98 emergency vehicles became immobilized in snow and were unable to respond to Lubbock residents in a timely manner. Lubbock Mayor Glen Robertson declared a state of disaster for Lubbock during the height of the blizzard which opened the door to additional state aid and resources, however he later stated the city "diverted a disaster" and could not have prepared any more than it did. Regional commerce was ground to a halt for two days following the blizzard as many roads were simply too dangerous for travel even for high clearance 4x4 trucks and SUVs. All flights into and out of Lubbock International Airport were cancelled from the evening of the 26th through the morning of the 28th which left thousands of post-Christmas travelers stranded. Even USPS Offices region wide were forced to suspend all services on the 28th and 29th due to streets and roads being blocked with snow, although many rural areas did not see normal mail service resume until the following weekend.

Combined economic losses from businesses being closed for up to four days and regional commerce impacts due to impassable roads may approach \$200 million. Direct losses from the storm were most significant to area ranchers and dairy farmers who suffered

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combined losses of at least \$20 million. The USDA estimated 15,000 head of dairy cattle alone died from snow suffocation in the western South Plains and far southwest Panhandle with similar numbers for non-dairy cattle. This region accounts for 40 percent of Texas' milk supply. Regional commercial power utilities were also dealt a severe blow from the prolonged high winds that downed hundreds of miles of power lines and toppled some power poles outright. Scores of rural residents were left without commercial power for up to two days. Damage estimates for each county listed below also take into account sporadic damage to roofing and shingles, utility sheds, pole barns, gas station overhangs, and countless garage ports. Some businesses and residential buildings reported sections of roofs failing from heavy snow. At Texas Tech University, the inflatable roof to the iconic Athletic Training Center (also known as "The Bubble") collapsed in the days following the storm from strain caused by 12+ inches of snow on the roof. The roof was deemed a total loss valued around \$8 million, but ironically was scheduled for demolition in Spring of 2016.

Historically, this blizzard was the worst to ever strike Lubbock given the magnitude and duration of strong winds combined with record snow totals for both the 27th and the entire month of December. Officially at Lubbock Airport, this storm ranked third for the greatest snow ever with 11.2 inches. From a forecast perspective, the historic potential of this blizzard was explicitly cited three days ahead of time by forecasters at the NWS Lubbock office. Also, NWS Lubbock decision support members provided local and regional disaster planning officials with six days of advance notice that a significant winter storm stood a high probability of impacting much of the region by Christmas weekend - a feat that would have been impossible decades earlier due to lower quality weather models.

Select storm total snow measurements:

Friona...20.0 inches with 10-foot drifts /
Wolfforth 5S...14.0 inches with 7-foot drifts /
Plains...12.0 inches with 7-foot drifts /
Lubbock Airport...11.2 inches with 6-foot drifts /
Denver City...11.0 inches with 6-foot drifts /
Plainview...10.0 inches /
Hart...9.0 inches /
Shallowater, Levelland, Muleshoe, and Tahoka...8.0 inches /
Post...7.0 inches on top of 2 inches of sleet /
Brownfield, Littlefield, Matador, and Morton...6.0 inches /
Abernathy, Lake Alan Henry and Paducah...5.0 inches /
Childress, Crosbyton, and Tulia...4.0 inches /
Floydada...3.0 inches /
Dickens...2.0 inches snow / 0.50 inches of freezing rain.
Aspermont...1.0 inch snow / 3 inches of sleet.

Notable wind gusts (mph) and times as measured by the West Texas Mesonet (except where noted):

Anton and Olton...67 at 905 PM on the 26th /
Sundown...65 at 815 PM on the 26th /
Morton...65 at 805 PM on the 26th /
Muleshoe...65 at 520 AM on the 27th /
Amherst...65 at 220 AM on the 27th /
Reese Center...64 at 930 PM on the 26th /
Levelland...64 at 925 PM on the 26th /
Tulia...64 at 605 AM on the 27th /
Hart...64 at 455 AM on the 27th /
Memphis...63 at 955 PM on the 26th /
Dimmitt...63 at 510 AM on the 27th /
Turkey...62 at 445 AM on the 27th /
Lubbock Int'l Airport ASOS: 61 at 655 AM on the 27th /
Friona...61 at 715 PM on the 26th /
Wolfforth...61 at 540 AM on the 27th /
Denver City...61 at 625 AM on the 27th /
Roaring Springs...60 at 1020 PM on the 26th /
White River Lake...60 at 530 AM on the 27th /
Brownfield...60 at 800 AM on the 27th /
Plains...60 at 445 AM on the 27th /
Abernathy...60 at 755 PM on the 26th /
Spur...59 at 1145 PM on the 26th /
NWS Lubbock Office...52 mph at 817 AM on the 27th.

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A massive drift measuring nearly 10-feet tall in Friona, TX. Photo forwarded by KFDA-TV in Amarillo.

(TX-Z035) LUBBOCK

12/31/15 19:00 CST	0.20M	Winter Weather
12/31/15 23:59 CST	0	

By late afternoon on New Year's Eve, freezing drizzle overspread much of the South Plains and continued into the early morning hours of January 1st. Although very light snow was reported in some areas at times, hours of steady freezing drizzle (particularly in Lubbock) glazed over many roads and overpasses with ice. The treacherous road conditions that ensued caused many holiday revelers to celebrate at home. This dealt one final blow to several downtown Lubbock restaurants and clubs that had already been closed for six consecutive days due to snow-clogged streets following the Christmas weekend blizzard. The ice was so bad along the West Loop 289 flyover in Lubbock that TX-DOT closed this stretch of highway at 10 PM following multiple vehicle spinouts. Lubbock Police Dispatch responded to around 220 vehicle accidents related to icy roads this night, two of which were rollovers with minor injuries. The freezing drizzle ended in many areas near or just after midnight, but icy roads remained through midday on New Year's Day until temperatures rose above freezing.