

## Storm Data and Unusual Weather Phenomena - October 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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**TEXAS, South Panhandle**

**YOAKUM COUNTY --- 9.0 E PLAINS [33.18, -102.67]**

10/21/10 14:44 CST	0	Hail (1.75 in)
10/21/10 14:45 CST	1.50M	Source: Public

The public reported quarter to golfball size hail east of Plains along U.S. Highway 82/380. The hail damaged an estimated 2,500 acres of cotton crops.

**TERRY COUNTY --- TOKIO [33.18, -102.58], MEADOW [33.33, -102.20]**

10/21/10 15:05 CST	10K	Hail (1.75 in)
10/21/10 16:10 CST	15M	Source: Public

A long-lived supercell thunderstorm produced a swath of destructive hail across much of western and northern Terry County between 15:05 CST and 16:10 CST. The public initially reported large hail that ranged in size from quarters to golfballs in Tokio at 15:05 CST. Very large hail stones were subsequently reported by storm chasers and law enforcement in the immediate Tokio area. Hailfall and its parent storm continued to move northeastward during the next hour, resulting in extensive damage to approximately 40,000 acres of mature cotton crops. By 16:05 CST quarter size hail was reported in Meadow, where hailstones increased to the size of golfballs by 16:10 CST. A Texas Department of Public Safety cruiser was severely damaged by the hail along U.S. Highway 62/82 near Meadow. No injuries were reported.

**TERRY COUNTY --- 2.0 E TOKIO [33.18, -102.55]**

10/21/10 15:10 CST	0	Hail (2.50 in)
10/21/10 15:10 CST	5M	Source: Storm Chaser

Storm chasers and law enforcement officials reported tennis ball size hail along U.S. Highway 380 near Tokio. The very large hailstones were accompanied by more numerous quarter to golfball size stones. The giant hail contributed to locally intense damage to approximately 5,000 acres of cotton.

**TERRY COUNTY --- MEADOW [33.33, -102.20]**

10/21/10 16:10 CST	0	Heavy Rain
10/21/10 17:10 CST	0	Source: Public

Heavy rainfall and hail resulted in minor street flooding in Meadow. Water ponded curb-to-curb in several streets and resulted in brief lane closures. No damages were reported.

**HOCKLEY COUNTY --- ROPESVILLE [33.42, -102.15]**

10/21/10 16:20 CST	0	Thunderstorm Wind (EG 61 kt)
10/21/10 16:20 CST	0.10M	Source: Newspaper

Newspaper articles and local farmers reported that thunderstorm wind gusts up to 70 mph combined with torrential rainfall and small hail to cause sporadic and light damage to approximately 2,000 acres of cotton crops in the immediate vicinity of Ropesville.

**TERRY COUNTY --- BROWNFIELD [33.18, -102.28], 1.0 SE BROWNFIELD [33.17, -102.27]**

10/21/10 16:45 CST	0	Hail (1.50 in)
10/21/10 16:45 CST	0	Source: Broadcast Media

Additional convection developed south of the initial long-lived supercell. The newly developed storms also produced large hail. Multiple reports of quarter to ping pong ball size hail were recieved from the Brownfield vicinity at 16:45 CST.

**LUBBOCK COUNTY --- 4.3 S WOLFFORTH [33.44, -102.03], LUBBOCK [33.58, -101.85]**

10/21/10 16:50 CST	0	Hail (1.75 in)
10/21/10 17:10 CST	2.50M	Source: Broadcast Media

A thunderstorm produced a swath of large hail as it tracked northeastward over portions of southwestern and central Lubbock County around 17:00 CST. Damage to cotton crops was continuous from northern Terry County into southwestern Lubbock County. Approximately 5,000 acres of cotton were severely damaged or destroyed in cropland south of Wolfforth between 16:50 CST and 17:00 CST. Numerous reports of large hail were additionally received as the severe thunderstorm impacted Lubbock between roughly 17:00 CST and 17:10 CST. Initial reports from the broadcast media indicated that quarter size hail fell near 73rd Street and Slide Road in southwest Lubbock at 16:59 CST. By 17:05 CST, golfball size hail was reported near 55th Street and Utica. Additional reports of quarter size hail were received near 17th Street and Chicago Avenue at 17:10 CST. No damages were reported.

**LUBBOCK COUNTY --- 1.1 NE DOUD [33.58, -101.92], LUBBOCK [33.58, -101.85]**

10/21/10 17:00 CST	10K	Heavy Rain
10/21/10 19:00 CST	0	Source: Trained Spotter

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Skywarn storm spotters reported that heavy rainfall which accompanied a severe thunderstorm resulted in minor flooding in some Lubbock city streets. By 19:30 CST, 2.31 inches had been measured by the Automated Surface Observing System at Lubbock's Preston Smith International Airport. The Lubbock Police Department reported that vehicles stalled in ponding water along portions of the Buddy Holly Avenue and Marsha Sharp Freeway underpass, and along Slide Road and Fourth Street. No injuries or major damages were reported.				

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**LUBBOCK COUNTY --- 3.2 N LUBBOCK [33.63, -101.84]**

10/21/10 17:15 CST		1K	Thunderstorm Wind (EG 52 kt)
10/21/10 17:15 CST		0	Source: Law Enforcement

The Texas Department of Public Safety reported that thunderstorm winds blew a road sign into a car as it travelled along Interstate 27 near Regis Street. No injuries were reported.

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**TERRY COUNTY --- WELLMAN [33.05, -102.43]**

10/21/10 17:40 CST		0	Hail (1.00 in)
10/21/10 17:40 CST		0.10M	Source: Public

The public reported quarter size hail in Wellman. Sporadic and light damage to approximately 2,000 acres of cotton crops was reported.

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**TERRY COUNTY --- BROWNFIELD [33.18, -102.28], 12.0 NE BROWNFIELD [33.30, -102.13]**

10/21/10 19:45 CST		0	Hail (1.75 in)
10/21/10 20:20 CST		15M	Source: Emergency Manager

Storm chasers and the local emergency manager reported quarter to golfball size hail just northwest of Brownfield along U.S Highway 385 around 19:45 CST. By 20:00 CST, storms and associated hailfall had expanded across the Brownfield vicinity and half dollar size hail was reported at the Terry County Airport along U.S. Highway 380 east of Brownfield. A swath of damaging hail then damaged and destroyed 25,000 acres of cotton crops as the parent thunderstorm complex moved northeastward toward the Terry and Lynn County line southeast of Meadow.

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**MOTLEY COUNTY --- 1.0 S NORTHFIELD [34.27, -100.60]**

10/21/10 20:00 CST		0	Thunderstorm Wind (MG 53 kt)
10/21/10 20:00 CST		0	Source: Mesonet

The Texas Tech University West Texas Mesonet site near Northfield recorded a peak thunderstorm wind gust of 61 mph at 20:00 CST. No damage was reported.

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**HOCKLEY COUNTY --- 5.0 SSW LEVELLAND [33.51, -102.40]**

10/21/10 20:30 CST		0	Hail (1.75 in)
10/21/10 20:30 CST		0.10M	Source: Newspaper

Newspaper reports indicated that a short and narrow swath of golfball size hail accompanied a thunderstorm southwest of Levelland. The report indicated that light damage to cotton crops occurred. The hail event time is estimated.

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**LUBBOCK COUNTY --- 2.0 SSE POSEY [33.45, -101.69], 3.0 N SLATON [33.47, -101.65]**

10/21/10 20:30 CST		0	Hail (1.00 in)
10/21/10 20:30 CST		5M	Source: Public

Nickel to quarter size hail was reported north of Slaton along Farm to Market Road 400. Post-storm surveys indicated that 5,000 acres of cotton were damaged.

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**LYNN COUNTY --- 3.9 WSW LAKEVIEW [33.31, -102.12], LAKEVIEW [33.33, -102.05]**

10/21/10 20:30 CST		0	Hail (1.50 in)
10/21/10 20:35 CST		5M	Source: Public

A swath of damaging hail accompanied a severe thunderstorm that impacted portions of northwestern Lynn County around 20:30 CST. Up to 10,000 acres of mature cotton crops were damaged or destroyed. Residents of Lakeview reported that quarter to ping pong ball size hail fell between 20:30 CST and 20:35 CST.

**Severe thunderstorms impacted the west Texas South Plains during the afternoon and evening of the 21st. This severe weather event brought the region's most monetarily significant weather-related impacts of 2010, and dealt an extensive loss to South Plain's cotton crops - the staple of the local economy.**

**Thunderstorms developed as discrete supercells over the southwestern South Plains during the mid afternoon hours. As storms increased in number and intensity, swaths of large hail devastated cotton crops. The most significant damages occurred in Terry, Lynn, and Lubbock Counties. At the time, South Plains crops were at maturity and farmers had just begun harvests and cotton markets were trading at a historic high of \$1.26 per pound.**

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Post-storm surveys indicated that an estimated 100,000 acres of cotton were severely degraded or destroyed. Total economic damages were estimated to approach \$50 million by state officials. Newspaper articles across the region contained interviews from individual farmers that claimed losses in excess of \$50,000. Losses were not fully recouped from insurance, since pay-outs were based upon decade-long earning histories and not reflective of record high cotton prices that would have been realized by a healthy harvest. Further, local agricultural officials stated that the devastating storms struck at a time when producers had the maximum investment in crops, so the true impact on the local economy may be immeasurable.

Damages to South Plains cotton crops were later exacerbated by strong winds and blowing dust on the 25th.



*Destructive hail storms heavily damaged or destroyed an estimated 100,000 acres of cotton crops across the west Texas South Plains on the 21st. The most significant damage occurred in Terry County. Photo courtesy: National Weather Service - Lubbock, Texas.*

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**(TX-Z035) LUBBOCK, (TX-Z040) TERRY, (TX-Z041) LYNN**

10/25/10 11:00 CST	0	Strong Wind (MAX 43 kt)
10/25/10 14:00 CST	1M	

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**(TX-Z024) BRISCOE**

10/25/10 12:35 CST	0	High Wind (MAX 50 kt)
10/25/10 12:35 CST	0	

The passage of an intense upper air storm system resulted in sustained southwest to westerly wind speeds between 25 and 35 mph over much of the South Plains of west Texas on the 25th. Although most gusts were in the 40 to 50 mph range, a 58 mph wind gust was measured by the Texas Tech University West Texas Mesonet near Silverton (Briscoe County).



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The strong winds and associated blowing dust further damaged and degraded cotton crops which had already sustained extensive harm during severe thunderstorms on the 21st. Dis-coloring and stranding of already damaged cotton plants by the winds likely resulted in an additional \$1 million in economic losses.

Total weather-related monetary losses to the South Plain's cotton industry between the 21st and 25th were estimated near \$50 million.



*Strong winds accompanied by blowing dust on the 25th exacerbated the extensive hail damage inflicted on South Plains cotton crops during the severe weather episode on the 21st. Photo courtesy: KCBD-TV - Lubbock, Texas.*