

Storm Data and Unusual Weather Phenomena - May 2008

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

ZAPATA COUNTY --- 1.5 NNE ZAPATA ARPT [26.90, -99.27]

	05/14/08 19:43 CST	0	Hail (1.00 in)
	05/14/08 19:58 CST	0	Source: Emergency Manager

Zapata County emergency manager reported quarter size hail fell in downtown Zapata. The public also reported quarter size hail with some even larger hail stones fell in Zapata.

ZAPATA COUNTY --- 1.5 NNW ZAPATA ARPT [26.90, -99.29], 2.0 ESE ZAPATA ARPT [26.87, -99.25]

	05/14/08 19:50 CST	0.75M	Thunderstorm Wind (EG 65 kt)
	05/14/08 20:05 CST	0	Source: NWS Storm Survey

Damage from the microburst was first surveyed about 2 miles west of the center of town along and near Farm to Market (FM) Highway 496. In the neighborhood of Falcon Mesa, along FM 3074, numerous barrel tiles were torn from the roof; in the same neighborhood, numerous large limbs from ebony and live oak trees were blown down, and minor damage to roofs was noted at other homes. Similar tree and roof damage was noted at another neighborhood along Oak Street, just south of the Zapata Cemetary.

Farther east along FM 496, several large fiberglass storage tanks were rolled, and damaged beyond repair, at a facility between FM 3074 and the Zapata County cemetary. On the same property, a manufactured home had numerous holes in its west facing wall, from wind driven pebbles and stones. The same home had fairly significant asphalt shingle damage to its roof. A nearby low metal tower was bent in half.

The worst-looking damage was seen just west of the center of town, along FM 496 only 1/3 mile west of the intersection of Federal Highway 83. Here, significant damage was incurred to many units at the Highway 496 Storage facility.

The microburst slammed into the west facing wall of the first of two long, cinderblock structures, and lifted most of the roof up and over the first building, slamming it into the second building about 50 feet to the east. While the truss and bracing of the roof appeared sound, only long nails were found at the connections of the eaves. Missiles generated by the broken roof drove into both cinderblock, and an individual metal garage, in the second building. Another light metal structure, housing another set of individual storage units, separated and collapsed on the leeward side of the second building.

The microburst continued moving steadily southeast, causing notable damage to neighborhoods in the southwest part of town. Dozens of homes and other structures with poorly anchored roofing material sustained significant damage; a large portion of tin roof was removed from a two story church a few blocks from the center of town. Another barrel-tile roof was damaged at a motel, and the water leak caused at least one unit to be uninhabitable.

In all neighborhoods, hundreds of mesquite and ebony tree limbs of many shapes and sizes were snapped off, some onto roofs, including the town's public library. As the storm finally edged south, additional tree damage was noted in the Falcon Lake Estates subdivision, just south of the bridge, where a report of a blown down roof of a two story house was also received as the storm weakened slightly.

The Zapata County Emergency Manager reported power lines and several trees were down in Zapata and approximately 200 to 300 people were without power at 9 pm.

Wind speeds were estimated to be between 70 and 75 mph area wide, with the strongest speeds generally along and just south of FM 496 from just west of the cemetary to highway 83. Total path length was estimated to be a little more than 3.5 miles long; width was estimated to be about 1.5 miles.

ZAPATA COUNTY --- 2.2 NNE ZAPATA ARPT [26.91, -99.27]

	05/14/08 19:59 CST	0	Hail (1.00 in)
	05/14/08 20:14 CST	0	Source: Public

The public reported that nickel to quarter size hail continued to fall across much of the city of Zapata. The event, which began at 8:43 PM CDT, may have lasted for a total of 40 minutes in some locations in and around Zapata.

ZAPATA COUNTY --- 6.0 SE ZAPATA [26.84, -99.16]

	05/14/08 20:15 CST	0	Hail (1.75 in)
	05/14/08 20:25 CST	0	Source: Public

The public reported hail up to 1.75 inches was observed falling approximately 6 miles southeast of Zapata along US highway 83, as the supercell thunderstorm began edging toward Starr County.

STARR COUNTY --- 0.7 S EL SAUZ [26.57, -98.87]

	05/14/08 20:41 CST	1K	Thunderstorm Wind (EG 55 kt)
	05/14/08 20:41 CST	0	Source: Law Enforcement

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Law enforcement in Starr County reported numerous trees blown down on FM 649 near El Sauz.				
STARR COUNTY --- 2.0 S VIBORAS [26.72, -98.83], LA GLORIA [26.72, -98.52]				
	05/14/08 20:48 CST		2K	Thunderstorm Wind (EG 55 kt)
	05/14/08 21:03 CST		0	Source: Law Enforcement
Power lines down, and power outages, were reported across a large part of Starr County as a developing line of severe thunderstorms moved through. One of the strongest cells likely produced some of these power outages between Viboras and La Gloria along Farm-to-Market road 2686.				
BROOKS COUNTY --- 0.5 NW ENCINO [26.94, -98.14]				
	05/14/08 20:57 CST		5K	Thunderstorm Wind (EG 50 kt)
	05/14/08 21:00 CST		0	Source: Law Enforcement
Law enforcement in Brooks County reported power lines down and power outages near Encino due to a thunderstorms moving through the area with high winds.				
STARR COUNTY --- ROMA [26.42, -99.02]				
	05/14/08 21:30 CST		5K	Thunderstorm Wind (EG 50 kt)
	05/14/08 21:35 CST		0	Source: Law Enforcement
Law enforcement in Starr County reported power lines down and power outages occurred in Roma due to high winds from strong to severe thunderstorms in and near the area.				
<p>The combined effects of a developing subtropical jet stream, a weak upper level disturbance propagating northeastward from Mexico, a weak surface boundary moving south into Deep South Texas, and a very unstable atmospheric profile across the western Lower Rio Grande Valley and Rio Grande Plains, produced strong to severe thunderstorms over northern Mexico and the western and central counties of the Lower Rio Grande Valley during the late evening of May 14th.</p>				
(TX-Z248) ZAPATA, (TX-Z249) JIM HOGG, (TX-Z250) BROOKS, (TX-Z251) KENEDY, (TX-Z252) STARR, (TX-Z253) HIDALGO, (TX-Z254) WILLACY, (TX-Z255) CAMERON				
	05/08/08 00:00 CST		0	Drought
	05/31/08 23:59 CST		0	
Severe to Extreme drought conditions were noted in Deep South Texas and the Lower Rio Grande Valley at the start of May, but an update to the State Drought Monitor based on locally heavy rainfall at the end of April would briefly reduce conditions in some areas.				
(TX-Z248) ZAPATA, (TX-Z249) JIM HOGG, (TX-Z250) BROOKS, (TX-Z252) STARR, (TX-Z253) HIDALGO				
	05/22/08 00:00 CST		0	Drought
	05/31/08 23:59 CST		0	
<p>A week long period of unsettled weather across Deep South Texas and the Lower Rio Grande Valley between May 11th and May 17th not only brought scattered severe thunderstorms to the region, but also periods of light to moderate rain which put a brief, but notable, dent into the drought in some areas. Unfortunately, a return to dry and hot weather toward the end of the month would largely erase the relief brough by the unsettled conditions.</p>				
(TX-Z249) JIM HOGG, (TX-Z250) BROOKS, (TX-Z251) KENEDY, (TX-Z252) STARR, (TX-Z253) HIDALGO				
	05/29/08 00:00 CST		0	Drought
	05/31/08 23:59 CST		0	
<p>After some mid month relief in the form of unsettled and locally wet weather, dry and hot conditions returned to close out May, with near record heat just before Memorial Day helping increase the rate of drying. Extreme and severe drought areas had expanded slightly by the end of May due to below normal rainfall occurring over most of Deep South Texas; continued hot and dry weather into June would further expand these Drought areas, though not to the levels seen in mid April, when Exceptional Drought touched the western Lower Rio Grande Valley.</p>				
HIDALGO COUNTY --- 6.4 N LINDSAY GARDENS [26.37, -98.34], 1.7 ENE EDINBURG YARD [26.34, -98.14]				
	05/16/08 02:02 CST		0.13M	Thunderstorm Wind (EG 61 kt)
	05/16/08 02:20 CST		0	Source: Law Enforcement

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<p>A microburst descending from a potent severe thunderstorm first produced damage just north of Alton, at a mobile home park near the intersection of Moorefield (Farm to Market Road 681) and Monte Cristo (Farm to Market Road 1925). In this neighborhood, at least six mobile homes were overturned by the winds, generally along and near the intersection of 9 1/2 Mile Road and Inspiration Road. Just to the northeast, in the Las Cañas colonia along and north of Monte Cristo, the combination of a pulse microburst striking a number of very poorly constructed homes led to the destruction of 14 mainly trailer-type residences, near the intersection of Monte Cristo (Farm to Market Road 1925) and Farm to Market (FM) 681.</p> <p>In a number of cases, the residences were completely demolished. A total of 13 persons sustained minor injuries requiring transport to local hospitals. By mid afternoon on the 16th, all were released. While the majority of injuries were minor, in one instance, a 3 year old girl had to be rescued from a pile of rubble that was once an unanchored trailer home. In addition to the building damage, at least eight wooden telephone poles were pulled down.</p> <p>The damage track continued to the east southeast, generally along and north of FM 1925, at least to the intersection of FM 1925 and Federal Highway 281, twelve miles away. The vast majority of damage beyond the Las Cañas neighborhood was hundreds of downed limbs from mesquite trees. Based on assessment from an NWS survey team, peak winds were between 65 and 70 mph, with the highest values likely where the telephone poles were pulled down in the Las Canas colonia, and again in the mesquite stand about two miles east.</p> <p>Based on radar signatures, it is possible that winds of 60 mph or greater continued into rural locations of eastern Hidalgo County, north of Edcouch and Elsa.</p>				

CAMERON COUNTY --- SANTA ROSA [26.25, -97.83]

05/16/08 02:50 CST	50K	Thunderstorm Wind (EG 70 kt)
05/16/08 02:53 CST	0	Source: Law Enforcement

The same severe thunderstorm that rolled a number of trailer homes, ripped a roof off of an industrial building, and blew down hundreds of trees and limbs in central Hidalgo County continued to maintain strength while racing into northwest Cameron County. Wind gusts estimated near 80 mph damaged homes in Santa Rosa, and flipped two vehicles along Farm to Market Road 506, including a pickup truck on a driveway near the intersection of Orphanage and Louisiana. A number of power lines were also down in the area.

CAMERON COUNTY --- 2.0 WSW HARLINGEN AIRPARK AR [26.22, -97.68], 3.4 SSE MONTE GRANDE [26.22, -97.51]

05/16/08 03:00 CST	0.20M	Thunderstorm Wind (MG 75 kt)
05/16/08 03:15 CST	0	Source: ASOS

The severe thunderstorm which caused structure, vehicle, and power line damage moments earlier in Santa Rosa roared into the northern portion of Harlingen, eventually producing an 86 mph wind gust at Valley International Airport (KHRL) at exactly 405 AM, which blew off portions of three hangar roofs on the airport grounds. Pieces from one of these roofs, made of heavier asphalt underlines, knocked out at least two large windows in the control tower! In a nearby neighborhood just west of the airport, generally well constructed buildings fared well; however, dozens of large tree limbs were snapped and some fences were partially blown down.

The storm continued to produce damage farther east, with a 25 square foot portion of one residence's roof ripped away by the winds in Las Yescas. The storm gradually weakened as it headed through largely uninhabited eastern Cameron County, on its way to dissipation in the Gulf.

A strong thunderstorm developed in Starr County line a little after 2 AM on the 16th, than quickly strengthened and became severe while moving from eastern Starr County in Hidalgo County a little before 3 AM. The potent and persistent cell then swept rapidly east through central Hidalgo and into northern Cameron County between 3 AM and 415 AM, finally weakening as it approached the coast.

The storm, which produced 70 mph and higher gusts in its long lived core, left more than \$250 thousand in propety damage in its wake, along with at least 9,000 customers powerless from Alton and Edinburg in Hidalgo County to Harlingen and Las Yescas in Cameron County.

(TX-Z248) ZAPATA, (TX-Z252) STARR, (TX-Z253) HIDALGO, (TX-Z255) CAMERON

05/22/08 14:00 CST	0	Heat
05/23/08 17:00 CST	0	

Deepening surface low pressure across the western Great Plains increased south to southeasterly flow of warm and very humid air into the Lower Rio Grande Valley toward the end of the week prior to the Memorial Day Holiday weekend. This flow pattern combined with a warmer than average middle and upper atmosphere to allow temperatures to surge well above normal, culminating in the hottest ambient temperatures of the spring on May 23rd, ranging from 102 in Hidalgo County to near 110 in Zapata County. Unusually high dew point temperatures brought heat index values to between 110 and 121 in the same area.