

Storm Data and Unusual Weather Phenomena - May 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
GULF OF MEXICO				
WATERS FROM BAFFIN BAY TO PT MANSFIELD TX EXT FROM 20 TO 60NM COUNTY --- 45.1 ESE S BAFFIN BAY [26.97, -96.69]				
	05/15/10 09:06 CST		0	Marine Thunderstorm Wind (MG 35 kt)
	05/15/10 09:06 CST		0	Source: Buoy

A developing line of thunderstorms accelerated into the Lower Texas Gulf waters east of Kenedy County, producing a 35 knot wind gust during the mid morning hours of May 15th.

Thunderstorms intensified into a line as they moved into the Lower Texas Gulf waters east of Kenedy County, producing gale force wind gusts, torrential rains, and frequent cloud to ground lightning.

LAGUNA MADRE FROM PORT OF BROWNSVILLE TO ARROYO COLORADO COUNTY --- 8.6 ENE ARROYO CITY [26.26, -97.29]				
	05/18/10 06:12 CST		0	Marine Thunderstorm Wind (MG 39 kt)
	05/18/10 06:35 CST		0	Source: C-MAN Station

The Texas Coastal Ocean Observing Network location at the Realitos Peninsula recorded nearly a half hour of gale force wind gusts associated with an intensifying and slow moving thunderstorm. Peak winds of nearly 39 knots occurred at 624 AM CST.

LAGUNA MADRE FROM PORT OF BROWNSVILLE TO ARROYO COLORADO COUNTY --- 8.6 ENE ARROYO CITY [26.26, -97.29]				
	05/18/10 06:54 CST		0	Marine Thunderstorm Wind (MG 48 kt)
	05/18/10 07:11 CST		0	Source: C-MAN Station

The Texas Coastal Ocean Observing Network site at Realitos Peninsula reported nearly 12 minutes of unbroken wind gusts in excess of 45 knots. Peak winds were 48.2 knots, or 56 mph, at 706 AM CST.

LAGUNA MADRE FROM PORT OF BROWNSVILLE TO ARROYO COLORADO COUNTY --- 2.0 E PORT ISABEL [26.07, -97.17]				
	05/18/10 09:24 CST		0	Marine Thunderstorm Wind (MG 56 kt)
	05/18/10 09:53 CST		0	Source: Coast Guard

The U.S. Coast Guard station along the bayside of South Padre Island recorded a peak gust of 55.6 knots as the squall line and associated microburst raced across the Lower Texas coast. Duration of gale force or greater gusts was nearly a half hour; in fact, the sensor recorded storm force (48 knots) gusts through the entire period.

COASTAL WATERS FROM PT MANSFIELD TO RIO GRANDE RIVER TX OUT 20NM COUNTY --- 1.5 W SOUTH PADRE ISLAND [26.08, -97.15]				
	05/18/10 09:27 CST		0	Marine Thunderstorm Wind (EG 56 kt)
	05/18/10 09:56 CST		0	Source: Coast Guard

The U.S. Coast Guard station along the bayside of South Padre Island recorded a peak gust of 55.6 knots as the squall line and associated microburst raced across the Lower Texas coast. Duration of gale force or greater gusts was nearly a half hour; in fact, the sensor recorded storm force (48 knots) gusts through the entire period. The combined data from land and marine sites, as well as rapid propagation across a one-half mile wide barrier island, strongly suggests that similar winds continued at least several nautical miles into the Lower Texas Gulf waters east of South Padre Island.

LAGUNA MADRE FROM PORT OF BROWNSVILLE TO ARROYO COLORADO COUNTY --- 1.1 WSW PORT ISABEL [26.06, -97.22]				
	05/18/10 09:30 CST		0	Marine Thunderstorm Wind (MG 39 kt)
	05/18/10 09:47 CST		0	Source: C-MAN Station

The NOAA C-MAN station just southeast of Port Isabel recorded a peak gust of 39.1 knots as the squall line and associated microburst raced across the Lower Texas coast. Duration of gale force or greater gusts was a little more than 15 minutes; protection from nearby land and buildings may have reduced the speeds when compared with those recorded at the fully exposed U.S. Coast Guard site at South Padre Island (55.6 knots).

LAGUNA MADRE FROM 5NM N OF PT MANSFIELD TO BAFFIN BAY TX COUNTY --- 6.9 NNW S BAFFIN BAY [27.30, -97.40]				
	05/18/10 11:36 CST		0	Marine Thunderstorm Wind (MG 36 kt)
	05/18/10 12:11 CST		0	Source: C-MAN Station

The Texas Coastal Ocean Observing Network site at Baffin Bay, just a few miles north of the Kenedy/Kleberg County line, recorded more than a half hour of nearly uninterrupted gale force wind gusts just after midday. The wind surge was from the southeast, a result of outflows behind an intense squall line which had moved off the coast more than an hour earlier.

A fast moving squall line, associated with a mesoscale convective system, produced relatively long duration Gale to Storm force wind gusts during the late morning of May 18th. Peak gusts across the Laguna Madre and adjacent Lower Texas gulf waters ranged from 49 to 56 knots as the line swept through. One storm well ahead of the line produced a gust to 39 knots earlier in the morning.

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TEXAS, South

JIM HOGG COUNTY --- 2.3 N HEBBRONVILLE [27.35, -98.67], 1.4 SSW HEBBRONVILLE [27.30, -98.69], 9.6 E HEBBRONVILLE [27.31, -98.53], 9.4 E HEBBRONVILLE [27.34, -98.53]

05/14/10 19:15 CST	2K	Flash Flood (due to Heavy Rain)
05/14/10 20:00 CST	0	Source: Emergency Manager

Persistent heavy thunderstorms dropped several inches of rainfall from Hebbroville to the northeast Jim Hogg/Brooks County line for a couple hours around sunset. Emergency management reported extensive street flooding in downtown Hebbroville, but water heights and structural damage information was unavailable as of this writing. Radar estimated heavier rains along and north of Highway 285 east of town. Removing possible hail contamination, perhaps 6 inches fell in the northeast quarter of the county, similar to observed values just north in Duval County. The cooperative observation at Hebbroville (north side of town) recorded 2.32 inches.

An impulse of upper level energy provided enhanced lift along and near and old frontal boundary from the Brush Country northward to the Texas Hill Country, generating clusters of very slow moving storms in Webb, Duval, and Jim Hogg County during the late afternoon and evening hours of May 14th. The southern edge of stronger storms, which dropped more than 6 inches of rain in Duval County and produced significant flash flooding there, impacted Highway 285 out to Hebbroville, causing high water and local flooding in the area.

HIDALGO COUNTY --- 0.9 SE HARGILL [26.44, -98.01]

05/16/10 13:25 CST	0	Hail (1.50 in)
05/16/10 13:35 CST	0	Source: Public

The public reported ping pong size hail fell across FM 490 east of Hargill.

A cluster of thunderstorms developed during the early afternoon of May 16th, eventually covering portions of Kenedy, Willacy, and Hidalgo Counties before dissipating by late afternoon. One storm pulsed high into the atmosphere in eastern Hidalgo County near the Willacy County line, dropping large hail in Hargill. Locally heavy rains fell elsewhere, but significant flooding was not reported.

HIDALGO COUNTY --- 0.5 SSW MC ALLEN [26.19, -98.23]

05/18/10 07:25 CST	0	Hail (1.50 in)
05/18/10 07:25 CST	0	Source: Emergency Manager

The Hidalgo County Emergency Manager reported hail up to one and one half inches in diameter fell at the La Quinta Inn on south 10th Street during a thunderstorm which moved through the area.

CAMERON COUNTY --- 1.2 W PORT ISABEL [26.07, -97.22]

05/18/10 07:41 CST	0	Tornado (EF0, L: 0.01 mi , W: 10 yd)
05/18/10 07:45 CST	0	Source: NWS Employee

An off duty Central Region National Weather Service Employee reported a waterspout that briefly moved onshore near Port Isabel. No damage was reported.

HIDALGO COUNTY --- 2.3 W MISSION [26.22, -98.36], 2.0 SW MISSION [26.20, -98.34], 2.0 SE MISSION [26.20, -98.30], 1.1 SSE MC ALLEN [26.19, -98.22], 1.6 NNE MC ALLEN [26.22, -98.22], 0.8 ENE EDINBURG [26.30, -98.16], 1.0 NW EDINBURG MUNI ARPT [26.31, -98.21]

05/18/10 07:45 CST	15K	Flash Flood (due to Heavy Rain)
05/18/10 08:30 CST	0	Source: Fire Department/Rescue

The squall line that tore through the heart of populated Hidalgo County dropped very heavy rainfall in an hour or less, creating numerous reports of urban flooding with embedded, more dangerous flash flooding especially in poor drainage locations of Mission, McAllen, and Edinburg. Four inches fell at the McAllen Cooperative (water plant) location, 2.82 inches at McAllen/Miller Airport, and 2.95 inches just southeast of McAllen. In Mission, the Fire Department reported several roads throughout were under two to three feet of water. In McAllen, the City transportation department reported 7 to 9 automobiles stalled in floodwaters halfway up the doors at 10th and Pecan. A video submitted via Twitter showed the depth of the water, at least 2 feet in some places, on the sides of the road. Attendees of the Texas Hurricane Conference in McAllen reported significant high water along the Expressway 83 Frontage Road during the same time.

In Edinburg, University Drive was blocked by high water just east of the courthouse due to high water, which threatened businesses but appeared to have remained outside of them.

HIDALGO COUNTY --- SAN CARLOS [26.28, -98.08]

05/18/10 07:45 CST	0	Hail (0.88 in)
05/18/10 07:45 CST	0	Source: Public

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Nickel sized hail was reported in San Carlos, 4 miles east of Edinburg.				
HIDALGO COUNTY --- 0.4 SSW EDCOUCH [26.30, -97.97], 0.9 ESE EDCOUCH [26.29, -97.96]				
	05/18/10 07:55 CST		5K	Thunderstorm Wind (EG 52 kt)
	05/18/10 07:55 CST		0	Source: Broadcast Media
Broadcast media reported a roof was blown off a mobile home during a thunderstorm that produced high winds across the area. Radar indicated a couplet of winds, as well as a reflectivity "overhang", had moved across the area, suggesting a possible tornado. There were no confirmed reports of a tornado, however.				
HIDALGO COUNTY --- 0.9 WSW WESLACO [26.16, -97.99], 0.6 NNW WESLACO MID VLY ARPT [26.18, -97.97]				
	05/18/10 08:06 CST		2K	Thunderstorm Wind (EG 39 kt)
	05/18/10 08:12 CST		0	Source: Emergency Manager
The Hidalgo County Emergency Manager reported strong winds occurred during a thunderstorm which knocked down some power lines in Weslaco. A funnel cloud was reported by the emergency manager approximately two miles west of Weslaco as the thunderstorm moved through the area. Peak winds of 43 mph were reported at the Mid Valley Airport, 2 miles east of Weslaco, estimated at around 812 AM CST.				
WILLACY COUNTY --- RAYMONDVILLE [26.48, -97.78]				
	05/18/10 08:10 CST		3K	Thunderstorm Wind (EG 52 kt)
	05/18/10 08:20 CST		0	Source: Emergency Manager
Trees and large limbs were blown down on various streets in Raymondville. Time and duration are estimated by radar, based on core of estimated winds between 50 and 52 knots a few thousand feet above the surface.				
CAMERON COUNTY --- 0.7 NW SANTA ROSA [26.26, -97.84], 0.3 ESE SAN BENITO [26.13, -97.63]				
	05/18/10 08:20 CST		5K	Thunderstorm Wind (MG 52 kt)
	05/18/10 08:35 CST		0	Source: ASOS
Winds within and ahead of the squall line increased to severe levels as they swept across Cameron County. Racing from from west northwest to east southeast across the County, the winds, both measured and estimated at 60 mph, knocked down hundreds of different sized tree limbs and caused power outages from Santa Rosa through Harlingen and San Benito. The ASOS (KHRL) at the Valley International Airport recorded a 60 mph gusts, and the public estimated a 60 mph gust moments later in San Benito.				
CAMERON COUNTY --- 1.5 WSW BROWNSVILLE [25.91, -97.52], 1.7 SE PORTWAY ACRES [25.90, -97.45]				
	05/18/10 09:05 CST		10K	Thunderstorm Wind (EG 50 kt)
	05/18/10 09:20 CST		0	Source: Newspaper
A 20 year old cottonwood tree, renowned and visited often for having a purported image of the Virgin Mary on its bark, was blown down by strong thunderstorm winds estimated to have occurred between 905 and 910 AM CST at the intersection of East Levee and 10th Streets in downtown Brownsville. Numerous, varying sized limbs were blown down in Greater Brownsville, with peak gusts recorded at the Brownsville/South Padre Island Airport reaching 54 mph at 928 AM CST, 5 miles east of downtown.				
CAMERON COUNTY --- 1.1 W PORT ISABEL [26.07, -97.22], 3.0 NE PORT ISABEL [26.10, -97.16]				
	05/18/10 09:25 CST		25K	Thunderstorm Wind (MG 56 kt)
	05/18/10 09:40 CST		0	Source: Coast Guard
The thunderstorm complex continued to generate strong, damaging winds as it moved across southeast Cameron County, affecting Bayview, Port Isabel, and South Padre Island. The strongest wind core appeared to rip through Port Isabel across the southern portion of the Town of South Padre Island. At Port Isabel, numerous power outages were the result of power lines and poles blown down at several locations throughout the city.				
As the storm reached South Padre Island, the U.S. Coast Guard Station located in the Bayside recorded a 64 mph wind gust (at 936 AM CST, a six minute recorded observation). At nearly the same time (937 AM CST), a 60 mph gust was recorded by a Citizen Weather Observer Program sensor on Sheepshead Street. In the same area, palm trees were blown down along Coral Street; large metal signs were blown from their mounts along the Queen Isabella Causeway Bridge, and more power lines and a transformer were blown down at the intersection of Constellation Dr. and Laguna Boulevard, all between 930 and 940 AM CST (end time estimated by radar).				
The combination of upper level energy, overnight remains of outflow boundaries from storms near the Lower Rio Grande River, and the approach of thunderstorms from south Texas toward the Rio Grande Highlands along with a very unstable atmosphere helped intensified these storms into a mesoscale convective system which raced through the Rio Grande Valley between 8 AM and 1045 AM CDT (7 AM and 945 AM CST). The storms produced urban and flash flooding, minor wind damage, pockets of large hail, and frequent cloud to ground lightning. An earlier cluster of storms east of the Port Isabel/Laguna Vista produced a brief "landspout" tornado.				
JIM HOGG COUNTY --- HEBBRONVILLE [27.32, -98.68], 1.0 S HEBBRONVILLE [27.31, -98.68]				

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	05/25/10 10:45 CST		0	Heavy Rain
	05/25/10 13:15 CST		0	Source: COOP Observer

BROOKS COUNTY --- 1.4 WNW FALFURRIAS ARPT [27.21, -98.14], 1.5 SSW FALFURRIAS [27.21, -98.16], 0.9 SW FALFURRIAS [27.22, -98.16], 0.4 N FALFURRIAS [27.24, -98.15], 0.9 NNE FALFURRIAS [27.24, -98.14], 1.1 NE FALFURRIAS [27.24, -98.14], 0.9 E FALFURRIAS [27.23, -98.14]				
	05/25/10 12:30 CST		75K	Flash Flood (due to Heavy Rain)
	05/25/10 15:00 CST		0	Source: Broadcast Media

The cooperative observer in Hebbronville recorded 4.47 inches of rain in several hours as a cluster of slow moving storms moved across the Brush Country of Deep South Texas into the King Ranch region of Brooks and Kenedy County. This one day rainfall was well above the monthly average and shattered the single day record for May 25th. Urban type nuisance flooding occurred in town, with no threat to property.

Slow moving and redeveloping thunderstorms dumped torrential rainfall in and near Falfurrias during the afternoon of May 25th. Urban flooding began in poor drainage locations soon after the rain began, and a little after 1 PM a semi trailer careened off Highway 281, destroying a health care clinic which was later condemned. The driver sustained a minor head injury.

As the rain continued, about a foot of standing water covered a 500 foot section of business Federal Highway 281 on the south side of town. Traffic slowed to a crawl, with several vehicles stalled in the middle of the road. There were several other areas of Business Federal Highway 281 that had at least 8 inches of water on the roadway for 300 to 400 foot stretches. Firemen rescued an elderly woman from her home on Noble street which had 4 inches of water inside the house; fire fighters on a nearby location on Noble Street reported nearly waist-deep water while trudging to the house.

There were several other areas in Falfurrias that had up to two feet of water on the roadway or in the alleys. A media report indicated 3 to 5 feet of water flooding on other streets, including some water reaching the lower floors of a Motel 9 on S. St. Mary's Street in the south portion of town.

Impressive rainfall totals were reported along and near State Highway 285. The Falfurrias cooperative observation at the Hollywood Hunting Camp just west of town blew away the entire monthly average with nearly 6 inches of rain during the event (5.94). An unconfirmed report of at least 8 inches was received from another location near Falfurrias, which was within reason based on the nature of the storms.

Flooding along and near Federal Highway 281 was exacerbated by construction of an elevated highway; dirt berms and dirt "dams" trapped water that would otherwise have drained more efficiently.

A weak upper level disturbance combined with differential heating and old outflow boundaries to produce a large cluster of slow moving thunderstorms across Brooks and Kenedy County during the afternoon of May 25th. Measured and Estimated Rainfall of 5 to 8 inches fell in eastern Brooks County, producing significant flooding in developed locations such as Falfurrias.