

Storm Data and Unusual Weather Phenomena - February 2011

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

TEXAS, South

(TX-Z250) BROOKS

02/01/11 13:00 CST	0	Wildfire
02/01/11 23:00 CST	0	

The combination of dry ground, gusty north winds, and falling humidity behind a strong cold front aided rapid growth of a wildfire across the Deep South Texas Brush Country during the afternoon and early evening of February 1st 2011.

(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, (TX-Z256) COASTAL WILLACY, (TX-Z257) COASTAL CAMERON

02/01/11 23:15 CST	0	Frost/Freeze
02/04/11 11:15 CST	0	

A large dome of Arctic High Pressure spread from the Great Plains southward into Deep South Texas and well into Mexico beginning late on February 1st and continuing into Groundhog Day, February 2nd 2011. Strong northwest winds turned what had been a balmy afternoon February 1st into a dangerously cold morning for unprotected people, pets, and plants on the 2nd. Freezing temperatures arrived in the Brush Country and King Ranch soon after midnight, and drove through the Rio Grande Valley before daybreak. Steely gray stratus behind the front kept temperatures from rising much above 32 degrees through the day .

The combination of northwest winds 20 to 25 mph and gusty near the coast, and 15 to 20 mph and gusty inland, dropped "feels like" temperatures into the low to mid teens in time for the morning school bus. The change from Tuesday afternoon to Wednesday morning was more than 40°F in air temperature, but a whopping 50 to 60° lower in how it actually felt – quite a shock to most residents of the Rio Grande Valley.

Dangerous wind chills held in the teens to lower 20s for the remainder of the daylight hours, one of the coldest feeling days in decades. A number of locations had temperatures drop to or below the freezing point (32°F) for several hours; a brief hard freeze occurred across the northern tier of the brush country and King Ranch.

(TX-Z248) ZAPATA, (TX-Z250) BROOKS, (TX-Z251) KENEDY, (TX-Z252) STARR, (TX-Z253) HIDALGO, (TX-Z254) WILLACY, (TX-Z255) CAMERON, (TX-Z256) COASTAL WILLACY, (TX-Z257) COASTAL CAMERON

02/02/11 19:55 CST	0	Frost/Freeze
02/04/11 12:30 CST	11M	

Arctic air continued plunging through Deep South Texas on February 3rd and 4th, returning freezing temperatures to all areas during the late evening of the 2nd or just after midnight on the 3rd. A weak upper level disturbance combined with just enough low level moisture to develop a mist of freezing drizzle and light freezing rain soon after sunrise on the 3rd across the Lower Valley, spreading west and north through the day. The precipitation combined with gusty north winds to lock down temperatures at or below 32 degrees for more than 30 hours in all areas.

Overnight on the 3rd and into the 4th, temperatures remained steady from the Lower Rio Grande Valley to the King Ranch, but skies cleared before daybreak farther west, allowing temperatures to bottom out in the lower to mid 20s - a hard freeze. The combination of gusty north winds 20 to 25 mph mainly east of highway 281 held wind chill temperatures near or below 20 for much of the day on the 3rd, making it the coldest "feeling" day in more than two decades.

(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, (TX-Z256) COASTAL WILLACY, (TX-Z257) COASTAL CAMERON

02/03/11 09:00 CST	20K	Ice Storm
02/04/11 09:00 CST	0	

The combination of an arctic airmass with the approach of an upper level disturbance lifted a limited amount of low level moisture into light precipitation, which started by mid morning in Cameron and Willacy County, then spread into Hidalgo County during the afternoon and eventually across all of Deep South Texas by evening of February 3rd. The glaze ice became mixed with or changed to sleet across the Rio Grande Plains, from western Starr and Jim Hogg County into Zapata County. Persistent northwesterly winds across the longest fetch of Falcon Lake aided lift downwind, with a band of moderate snow leaving around an inch after midnight in Falcon Heights (Starr County).

The glaze ice, falling on numerous untreated bridges and overpasses, forced these roads to close from the afternoon of the 3rd through the afternoon of the 4th. Early notification may have limited the number of accidents as most school districts in the Lower Valley and a number of businesses closed ahead of the precipitation; still, at least 194 crashes were reported, mostly after the onset of the precipitation during the late morning and early afternoon of February 3rd. Power outages increased through the event, but most were due to rolling blackouts state-wide due to frigid to near record cold temperatures. Nearly 65,000 customers in the Rio Grande

Storm Data and Unusual Weather Phenomena - February 2011

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

Valley were without power during all or part of the Ice Storm.



Photo of ice encased field beyond the runways of Brownsville/South Padre Island International Airport, morning of February 4th, 2011.

(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, (TX-Z256) COASTAL WILLACY, (TX-Z257) COASTAL CAMERON

02/04/11 19:30 CST	0	Frost/Freeze
02/05/11 08:45 CST	0	

A section of modified arctic high pressure settled over Deep South Texas and the Rio Grande Valley late on February 4th into early February 5th, bringing clear skies, nearly calm winds, and the coldest air temperatures of the three day period to most areas.

After an ice storm departed all areas by midday on the 4th, sunshine returned, bringing temperatures above freezing but only into the 40s, except upper 30s along the coast. With low relative humidity, the stage was set for rapid temperature falls during the evening of the 4th; before midnight, most locations away from the coast (where some wind continued) fell below 32F and would continue dropping steadily. By daybreak on the 5th, hard freezes (temperatures below 28 for several hours) covered rural areas north and west of the Lower Rio Grande Valley; sheltered pockets fell into the teens.

Readings quickly rose above freezing by mid morning of the 5th, ending the freeze event - until the next one arrived just five days later.

(TX-Z250) BROOKS

02/07/11 13:30 CST	0	Wildfire
02/08/11 01:00 CST	0	

Storm Data and Unusual Weather Phenomena - February 2011

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

Freeze-dried 1 hour and 10 hour fuels combined with gusty north winds and very low humidities to aid rapid spread of a wildfire on the King Ranch during the afternoon and evening of February 7th.

(TX-Z257) COASTAL CAMERON

	02/09/11 13:00 CST		1K	Strong Wind (MAX 42 kt)
	02/09/11 13:10 CST		0	

Another in a series of modified arctic fronts surged through Deep South Texas during the morning of February 9th, bringing sharply colder temperatures and frequent wind gusts between 40 and 48 mph. Temperatures fell some 15 to 25 degrees in one hour after the front passed, turning spring back into winter and setting the stage for a couple more freezes on the 10th and 11th.

The gusty winds produced minor damage in Port Isabel during the early afternoon of the 9th.

(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, (TX-Z256) COASTAL WILLACY, (TX-Z257) COASTAL CAMERON

	02/10/11 01:30 CST		0	Frost/Freeze
	02/10/11 09:30 CST		0	

A second modified arctic high pressure cell, coming just a week after a more significant and prolonged freeze and ice storm, initially brought afternoon wind chill temperatures down into the mid 20s to mid 30s on February 9th under steel gray skies. By sunset, skies cleared gradually from west to east; with starting temperatures in the low 40s, the stage was set for another widespread freeze.

By daybreak on February 10th, lows ranged from the upper 20s to lower 30s in most areas under clear skies and a range of north winds. Rural locations north and west of the Lower Valley saw winds drop generally below 10 mph, but still produce wind chill close to 20 degrees. Across the Lower Valley toward the coast, the combination of freezing temperatures with sustained 15 to 25 mph wind brought wind chill values to 20F as well.

(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

	02/10/11 11:15 CST		0	Frost/Freeze
	02/11/11 08:30 CST		0	

The core of a modified arctic air mass settled over all of South Texas on the morning of February 11th, providing clear skies and light winds. Cool dry air, with afternoon high temperatures only in the 50s on the 10th, allowed temperatures to tumble after sunset, eventually bottoming out in the 20s in most areas, except upper teens in preferred colder spots of the Brush Country, and just above freezing near the Cameron County coast, where easterly winds arrived prior to daybreak.

Following this freeze, temperatures would soon rise above average by mid month, and remain warm through the 28th.

(TX-Z251) KENEDY

	02/14/11 13:00 CST		0	Wildfire
	02/14/11 18:00 CST		0	

A vehicle fire soon became a conflagration that spread to more than 500 acres across portions of the King Ranch on February 14th. The fire was aided by maximum cured fine and medium fuels from the previous 10 days of frequent hard freezes, an ice storm, and low humidity. During the event, nearby humidity readings fell to near 30 percent, with sustained estimated 20 foot winds of 10 to 15 mph with gusts to 20 mph from the southeast.

(TX-Z252) STARR

	02/22/11 00:00 CST		0	Drought
	02/28/11 23:59 CST		0	

Severe D2 drought conditions developed across portions of Starr County the end of February.