Storm Data and Unusual Weather Phenomena - December 2009

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

TEXAS, South

(TX-Z248) ZAPATA, (TX-Z249) JIM HOGG, (TX-Z250) BROOKS

	12/01/09 00:00 CST	0	Drought
	12/21/09 23:59 CST	0	

Welcome rains on November 30th and December 1st, combined with increased groundwater retention as autumn moved into winter, helped stabilize drought conditions across Zapata, Jim Hogg, and Brooks County. However, long term dry conditions and the reality that these rains were quickly absorbed into the soil maintained severe to extreme drought conditions through the first half of the month.

(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

	12/04/09 22:00 CST	0	Frost/Freeze
	12/05/09 08:00 CST	0	

A deep trough of mid level low pressure, extending from the Upper Midwest southwest into Texas brought a period of cold rain and snow to South Texas on the 4th. When the clouds cleared at the end of an unusually cold afternoon on the 4th, Canadian high pressure overspread the region overnight on the 4th and into the 5th, bringing the coldest surface temperatures in nearly 5 years to all of Deep South Texas.

Morning lows on the 5th dropped to the mid 20s to around 30 in all counties, with freezing or lower temperatures lasting up to 6 hours in typically colder pockets. The freeze was "frosty" for many critical agricultural areas of the Rio Grande Valley; temperatures hovering just below 32 combined with calm winds limited notable damage to protected crops and plants.

(TX-Z248) ZAPATA, (TX-Z249) JIM HOGG

	12/15/09 00:00 CST	0	Drought
	12/21/09 23:59 CST	0	

Steady rainfall on December 1st, followed by lighter rains on the 4th and 8th, would bring up drought levels from Extreme (D3) in some areas to Severe (D2) in all areas by the 15th. A significant rainfall event, dropping 1 to 4 inches from Zapata County east through the Deep South Texas ranchlands from December 14th through 16th would finish the 2009 drought for all of Deep South Texas by the 22nd.

HIDALGO COUNTY --- MC ALLEN [26.20, -98.23], PHARR [26.20, -98.18]

	12/16/09 06:00 CST	0	Heavy Rain
	12/16/09 15:00 CST	0	Source: CoCoRaHS

Rain, heavy at times between the pre dawn hours and mid afternoon on the 16th, accumulated to more than 2 1/2 inches between midnight and noon at McAllen's Miller Airport and likely across nearby areas including Pharr and Edinburg. The rainfall caused widespread, nuisance (minor) flooding of poor drainage roadways especially in Pharr and Edinburg during the daylight hours of the 16th, slowing traffic. Event totals in Hidalgo County were among the highest in the Rio Grande Valley, including 4.22 inches at La Joya, 4.40 inches a little north of Pharr, and 3.66 inches at the McAllen/Miller Airport.

CAMERON COUNTY --- BROWNSVILLE [25.92, -97.50], HARLINGEN [26.18, -97.70]

	12/16/09 12:00 CST	0	Heavy Rain
	12/16/09 18:00 CST	0	Source: CoCoRaHS

Rain, heavy at times during the daylight hours of the 16th, accumulated between 1 1/2 and 2 1/2 inches between 6 AM and 6 PM in a pocket of central Cameron County along and near Highway 77, between Brownsville and Harlingen. The rainfall caused areas of nuisance (minor) flooding of poor drainage roadways in the area during the daylight hours of the 16th, slowing traffic. Event totals in Cameron County included 4.52 inches in Rancho Viejo, 3.82 inches near Brownsville, and 3.79 inches just west of Harlingen.

WILLACY COUNTY --- LYFORD [26.42, -97.78], RAYMONDVILLE [26.48, -97.78]

	12/16/09 12:00 CST	0	Heavy Rain
	12/16/09 18:00 CST	0	Source: CoCoRaHS

Rain, heavy at times during the daylight hours of the 16th, accumulated an estimated 1 1/2 to 2 inches between 6 AM and 6 PM in along the Highway 77 corridor of Willacy County. High standing water occurred in these areas. Event totals in Willacy County included 3.33 inches in Raymondville, and 2.92 inches in Port Mansfield.

A vigorous upper level disturbance crossing from Southwest Texas into the Big Bend Region helped intensify a Gulf Low, or "Texas Nor'easter", just south of the mouth of the Rio Grande River late on December 15th and 16th. Moderate to heavy rain developed across the region overnight on the 15th, and continued through the day and evening of the 16th as the system gradually tracked northward along the coast.

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Event total rainfall in Hidalgo, Cameron, Willacy, and southern Kenedy County ranged from 3 to 4 1/2 inches, with peak values occurring in the more populated portions of the area including Pharr and McAllen in Hidalgo County, and Brownsville through Harlingen in Cameron County in particular.

The steady rains, falling on increasingly saturated soils, eventually produced pockets of nuisance flooding in typically poor drainage locations across the Lower and Middle Rio Grande Valley from mid morning through early evening on the 16th.

(TX-Z253) HIDALGO, (TX-Z255) CAMERON

12/24/09 03:30 CST	3.50K	Strong Wind (MAX 42 kt)	
12/24/09 15:00 CST	0		

An intensifying cyclone which moved from North Texas into Arkansas before easing northward through the Mississippi Valley, pushed a vigorous front through Deep South Texas during the pre-dawn hours of Christmas Eve, 2009. As the cyclone deepened, a low level northwesterly jet developed around its southern and western flank, with wind speeds ranging from 50 to more than 60 knots just above the earth's surface, extending south through Deep South Texas.

Two wind peaks occurred in Deep South Texas: First, along and just behind the early morning front, where northwest winds gusted between 40 and 50 mph, causing most of the damage reports. During the afternoon, a second peak developed as a warming low level atmosphere mixed down some of the 50 to 60 mph winds associated with the developing jet. Afternoon gusts reached 50 mph along the Laguna Madre in Kenedy County, and generally ranged from 35 to 45 mph elsewhere.