

Note: Map colors are best bias-corrected, areal averages and may not represent localized rainfall totals, which may be slightly higher or lower. Certain locations, such as Port Mansfield (shown as 7.37) and South Padre Island (shown as 4.47) may be different from Table 2 (below) as they may have included non-calendar day rainfall from midday on October 31, 2014, which is posted on November 1.

# Wet and Cool Was the Rule in November 2014 Temperature/Rainfall Among Top 15 Coolest/Wettest All-Time

### **Quick Summary**

After October returned warm and relatively dry weather to most of the Rio Grande Valley, November 2014 turned the tables dramatically. The season's first (and relatively late) "true 'Norther" arrived late on the 5<sup>th</sup>, dropping temperatures and producing widespread, locally heavy rainfall to all of Deep South Texas and finally ending the moderate drought in the Jim Hogg and Starr ranchlands, clearing the region of drought for the first time since the end of April. The following week brought an early (winter) "Polar Express" that crashed temperatures into the 30s on the 13<sup>th</sup>, with readings remaining below 60°F for the 12<sup>th</sup>-14<sup>th</sup>, more than 20°F below average for the period in most areas. A reinforcing shot of chilly air on the 17<sup>th</sup> and 18<sup>th</sup> pushed month-to-date average temperatures to 5 to more than 9°F below the 1981-2010 standard, and ensured the month would finish below average, as the mild spell that closed the month was too little, too late, to alter the chilly memory.

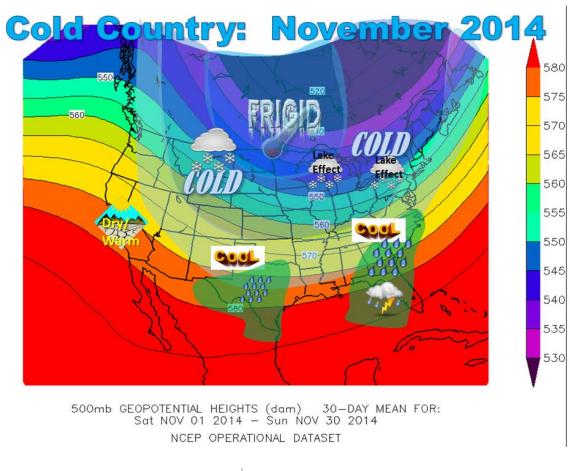
Locally heavy rain across portions of Deep South Texas and the Rio Grande Valley, accompanied by damaging wind storms and hail across portions of the Rio Grande Plains (Zapata) on November 22<sup>nd</sup> added to the monthly totals.

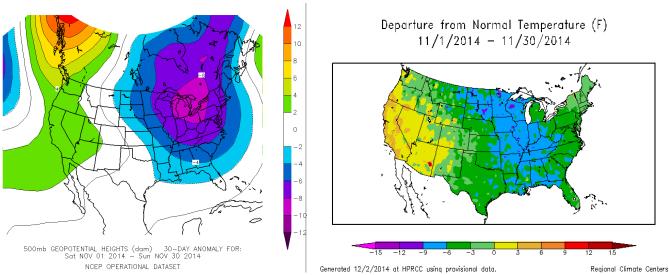
#### **Pattern Matters**

The welcome rains continued to improve soil moisture conditions, and keep things green, for most of the Valley's population in November. Most people will remember November for the unusual and prolonged midmonth cold snap. The Valley's chill was nothing compared with frigid temperatures including many locations across the northern Great Plains and northern Rockies. Several all-time November record lows were set, including -27°F in Casper, Wyoming, on the 12<sup>th</sup>. The combination of the -27°F minimum with an icy 3°F

maximum (-12°F) was a full <u>47 degrees below average</u> for the date, and more than 35 degrees colder than the lowest **January** average!

A single, <u>record breaking storm system</u> that broke low pressure records in the Bering Sea in early November set off the atmospheric "chain reaction" that emptied the arctic/polar region and brought it full bore into the eastern half of the U.S. The final signature of this system and its downstream effects was nearly 90 inches of Lake Effect snow in the south suburbs ("Southtowns") of Buffalo, NY, between November 17 and 21.





Pattern matters: *Left* – Departure from normal of the height of the 500 mb pressure surface. Negative values generally suggest below average temperatures (including along the "back edge"); positive values, average to above average temperatures (including the "back edge"). *Right:* Temperature departure from average, November 2014. Note the general agreement between the negative (positive) anomalies and the below (above) average temperatures.

Table 1. Temperatures, Departures, and Rankings for November, 2014, for Available Rio Grande Valley Locations

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Location	Avg. Temp	Departure	Record Cold (year)	Rank	Since	
Edinburg	63.0	-4.7**	New	1	2000	
Harlingen/Valley	62.8	-5.6	62.4 (1959)	2*	1952-61; 1997-2014	
McAllen/Miller	62.8	-6.6	58.7 (1976)	2	1961	
Port Mansfield	61.4	-7.0**	57.6 (1976)	5	1958	
Rio Grande City	62.0	-4.9**	56.2 (1976)	8*	1900-05; 1928-2014	
Falcon Dam	63.4	-4.4**	57.4 (1976)	11	1962	
McAllen/Coop	64.1	-4.3**	60.2 (1976)	12	1941	
Harlingen/Coop	64.5	-3.9**	56.1 (1976)	15	1911	
Brownsville	64.7	-4.7	60.8 (1976)	18	1878	

<sup>\*</sup>Ranking does not include missing years in "Since" column.

Table 2. Precipitation, Departures, and Rankings for November, 2014, for Available Rio Grande Valley Locations

Table 2. Precipitation, Departures, and Rankings for November, 2014, for Available Rio Grande Valley Locations							
Location	Rainfall	Departure	Record Wet	Rank	Since		
			(year)				
Edinburg	4.56**	+3.42	New	1	2000		
Harlingen/Valley	5.11	+3.61	7.36 (2013)	2*	1952-61; 1997-2014		
Harlingen/Coop	6.16**	+4.81	8.21 (2013)	2	1911		
Port Mansfield	6.82**	+5.09	7.87 (1995)	3	1958		
South Padre Island	3.87**	+2.42	6.51 (1998)	4	1994		
McAllen/Coop	2.82**	+1.87	4.03 (1976)	5	1941		
Falcon Dam	3.03**	+1.85	4.87 (1976)	5	1962		
Rio Grande City	2.23**	+1.09	7.70 (1914)	13*	1900-05; 1913-2014†		
Brownsville	3.46	+1.54	7.69 (1986)	17	1878		
Sarita 7 E	2.63**	+0.86	6.56 (1902)	25	1899		

<sup>\*</sup>Ranking does not include missing years in "Since" column.

<sup>\*\*</sup>Departure based on 1981-2010 average but <u>not</u> on calendar month (1981-2010 temperature average for these sites is from Oct. 31 to Nov. 29)

<sup>\*\*</sup>Departure based on 1981-2010 average as proxy, but not on calendar month (1981-2010 rainfall average for these sites is generally from Oct. 31 to Nov. 29)

#### **Cameron County**

Station Number			Multi- Day Precip in.	<u>Total</u> Precip <u>in.</u> →
TX-CMR-35	Rio Hondo 9.4 NE	6.90		6.90
TX-CMR-96	San Benito 6.3 ENE	6.07		6.07
TX-CMR-36	Harlingen 4.7 WSW	2.77	2.69	5.46
TX-CMR-85	Harlingen 0.4 N	5.40		5.40
TX-CMR-78	Harlingen 3.8 W	5.28		5.28
TX-CMR-93	Harlingen 4.2 W	5.28		5.28
TX-CMR-12	Harlingen 2.6 ESE	5.12	0.02	5.14
TX-CMR-97	Rio Hondo 7.9 E	5.01		5.01
TX-CMR-92	San Benito 8.7 ENE	0.82	3.86	4.68
TX-CMR-8	Brownsville 6.4 SE	4.09		4.09
TX-CMR-51	Brownsville 0.1 SSE	4.04		4.04
TX-CMR-91	Brownsville 2.9 NNE	4.04		4.04
TX-CMR-21	Los Fresnos 0.3 NE	4.02		4.02
TX-CMR-94	Brownsville 12.6 E	4.01		4.01
TX-CMR-84	Brownsville 2.2 WNW	0.51	3.48	3.99
TX-CMR-90	Brownsville 1.5 WNW	3.99		3.99
	Brownsville 1.0 N	1.42	2.48	3.90
TX-CMR-16	Brownsville 3.5 N	3.90		3.90
TX-CMR-70	San Benito 0.6 SSE	3.88		3.88
	Brownsville 2.2 W	3.87		3.87
TX-CMR-17	Brownsville 4.1 E	1.51	2.33	3.84
	Laguna Vista 0.3 N	3.77		3.77
	Brownsville 1.7 NNE	3.69		3.69
	Brownsville 6.4 WNW	3.60		3.60
TX-CMR-43	Brownsville 4.1 ENE	1.49	2.04	3.53
TX-CMR-56	Los Fresnos 0.8 SSE	0.94	2.53	3.47
TX-CMR-50	Brownsville 5.0 NW	3.23		3.23

## Hidalgo County

Station Number	Station Name	<u>Daily</u> Precip Sum in.	<u>Multi-</u> Day Precip <u>in.</u>	<u>Total</u> Precip <u>in.</u> ≁
TX-HDL-21	McAllen 2.4 NE	3.81		3.81
TX-HDL-9	Mission 1.9 ENE	3.62		3.62
TX-HDL-34	Mission 3.1 NE	3.61		3.61
TX-HDL-5	La Joya 11.1 N	1.23	2.20	3.43
TX-HDL-19	Mission 4.3 WSW	3.22		3.22
TX-HDL-6	Alamo 1.5 NNE	2.00	0.32	2.32
TX-HDL-32	Linn 8.4 WNW	1.76		1.76

### **Brooks County**

3 Stations with 53 Reports over 30 Days

<u>Station</u> <u>Number</u>	Station Name	<u>Daily</u> Precip Sum in.	Multi- Day Precip in.	<u>Total</u> Precip in. →
TX-BRK-3	Falfurrias 8.9 SSW	3.35		3.35
TX-BRK-2	Falfurrias 0.5 WNW	3.30		3.30
TX-BRK-4	Falfurrias 6.2 E	2.92		2.92

## Starr County

3 Stations with 64 Reports over 30 Days

Station Number	Station Name	<u>Daily</u> Precip Sum in.	Multi- Day Precip in.	<u>Total</u> Precip in. ≁
TX-ST-3	Rio Grande City 13.8 NNW	3.27		3.27
TX-ST-2	Rio Grande City 17.7 NE	3.00		3.00
TX-ST-1	Rio Grande City 2.8 W	2.66		2.66

Measured rainfall from Valley/Deep South Texas Community Collaborative Rain, Hail, and Snow Network (CoCoRaHS) locations.