Brownsville, TX (BR0): February, 2013 Monthly Observed Precipitation Valid at 3/1/2013 1200 UTC- Created 3/3/13 21:36 UTC



Brownsville, TX (BRO): February, 2013 Monthly Percent of Normal Precipitation Valid at 3/1/2013 1200 UTC- Created 3/3/13 21:41 UTC



**Above Left**: February rainfall estimate from combination of radar and rain gage data. **Right**: Percentage of "normal" (1981-2010) rainfall for February 2013. Values in dark red range from zero to 5 percent. The only "significant" rains fell from northern Zapata through extreme northern Brooks County with two thunderstorms on the  $6^{th}$  and  $7^{th}$ .

## Ho-Hum: Another Month, Another Top Ten Finish February 2013 Ends Among Top Ten Driest and Warmest for Most

## Streak of Above Average Months Continues; Drought Worsens

February continued the string of warmer than average months across the Rio Grande Valley, with nearly all locations settling into the Top Ten warmest, all time. For many areas, the month was also among the all time driest as rainfall averaged well below an inch, and the only notable event occurred overnight on the 6<sup>th</sup> into the early morning hours on the 7<sup>th</sup> across the Rio Grande Plains and northern ranchlands; a severe thunderstorm evolved into a mini squall while moving from Zapata through Brooks County. Another storm during the afternoon on the 7<sup>th</sup> clipped Falfurrias and Sarita. Other than a few localized subtropical showers, the Rio Grande Valley remained dry, and Hidalgo County continued to miss the action as Exceptional Drought (D4 – the worst condition) dominated. For Lower Valley climate locations, the above average streak based on the 1981-2010 baseline reached 25 in Brownsville (since 1878), 14 at Harlingen/Cooperative (since 1911), and 14 consecutive with 35 of 36 months above average at McAllen/Miller (since 1961). The following table tells the dry, warm tale of "April in February" across the Valley:

Location	Avg. Temp.	Rank	Record (year)	Total Rainfall	Rank	Record (year)		
Brownsville	68.66	9	70.45 (1962)	0.01	3	0 (1974)		
Harlingen/Coop	67.5	16	71.1 (1962)	0.25	18	0 (1925)		
McAllen/Miller	69.5	6	71.4 (1962)	0.01	5	Trace (1976)		
La Joya/Mission	70.1	4	71.3 (1932)	Trace (60	0	0 (1974+)		
Falcon Dam	67.6	4	69.9 (2000)	0.03	3	0 (1976)		
Hebbronville*	64.5	7	68.5 (2000)	0.13	19	0 (1974)		
Sarita	No Comp			0.55	33	0 (1976)		
Raymondville	67.6	9	70.4 (1962)	0	1	0 (1962)		
Port Mansfield	66.4	5	68.5 (2000)	0.01	4	0 (1975)		

\*May be missing precipitation from February 6<sup>th</sup>.

## Winter, Overall

Only <u>January's cool and relatively wet start</u> saved the meteorological/boreal winter (December-February) from a Valley-wide top 5, or even record, warm period. The table below shows <u>preliminary</u> average temperatures and rainfall totals for the period:

Location	Avg. Temp.	Rank	Record (year)	Total Rainfall	Rank	Record (year)
Brownsville*	65.8	7	68.0 (1949/50)	1.80	19	0.45 (1951/52)
Harlingen/Coop	64.4	12	67.9 (1949/50)	4.08	55	0.45 (1950/51)
McAllen/Miller	66.3	3	66.5 (1970/71)	0.99	7	0.33 (1961/62)
La Joya/Mission	65.9	2	67.3 (1949/50)	0.93	12	0 (1920/21)
Falcon Dam	63.9	3	64.2 (1999/00)	0.97	6	0.17 (1970/71)
Hebbronville**	Low Data			1.49**	24	0.29 (1950/51)
Sarita	No Comp			1.57	16	0.20 (1950/51)
Raymondville	64.2	10	67.7 (1951/52)	1.73	17	0.33 (2008/09)
Port Mansfield	63.4	4	65.0 (1999/00)	2.57	16	0.81 (1974/75)

\*Preliminary data; several years missing from this particular sample.

\*\*May be missing precipitation from February 6 2013.

Still, the mid Valley continued to suffer as they largely missed the somewhat beneficial rainfall of January 8<sup>th</sup> and 9<sup>th</sup>. It's no surprise that locations in Hidalgo County landed in or near the top ten warmest and driest for the winter overall. Drought persisted at Extreme to Exceptional levels in Hidalgo County through the entire three month period.



**Above:** Left – 500 mb (~18,000 foot) mean flow pattern for December 2012 through February 2013. **Right** – Anomalies from climatological values (cool colors = below average; warm colors = above average). The Rio Grande Valley sat on the edge of the above average flow; the general west to east configuration was matched by fast moving systems, particularly during the latter half of winter, which passed well north of the region and pulled Gulf moisture well north of the Valley. Fast moving fronts brought repeated bursts of dry air; winds from the surface to at least 10,000 feet turned northerly or westerly, ending precipitation threats.