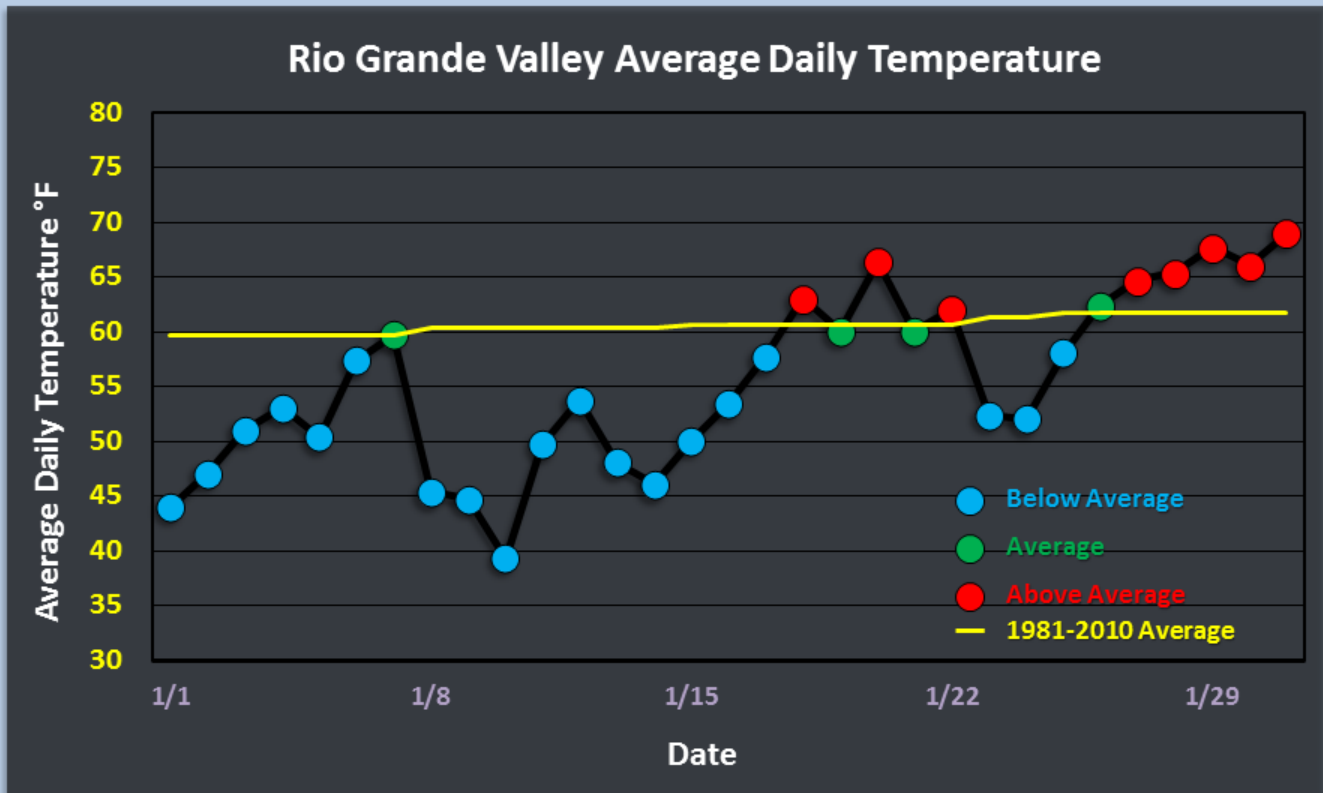




January 2015: Two Months in One?



From Winter to Spring, RGV?

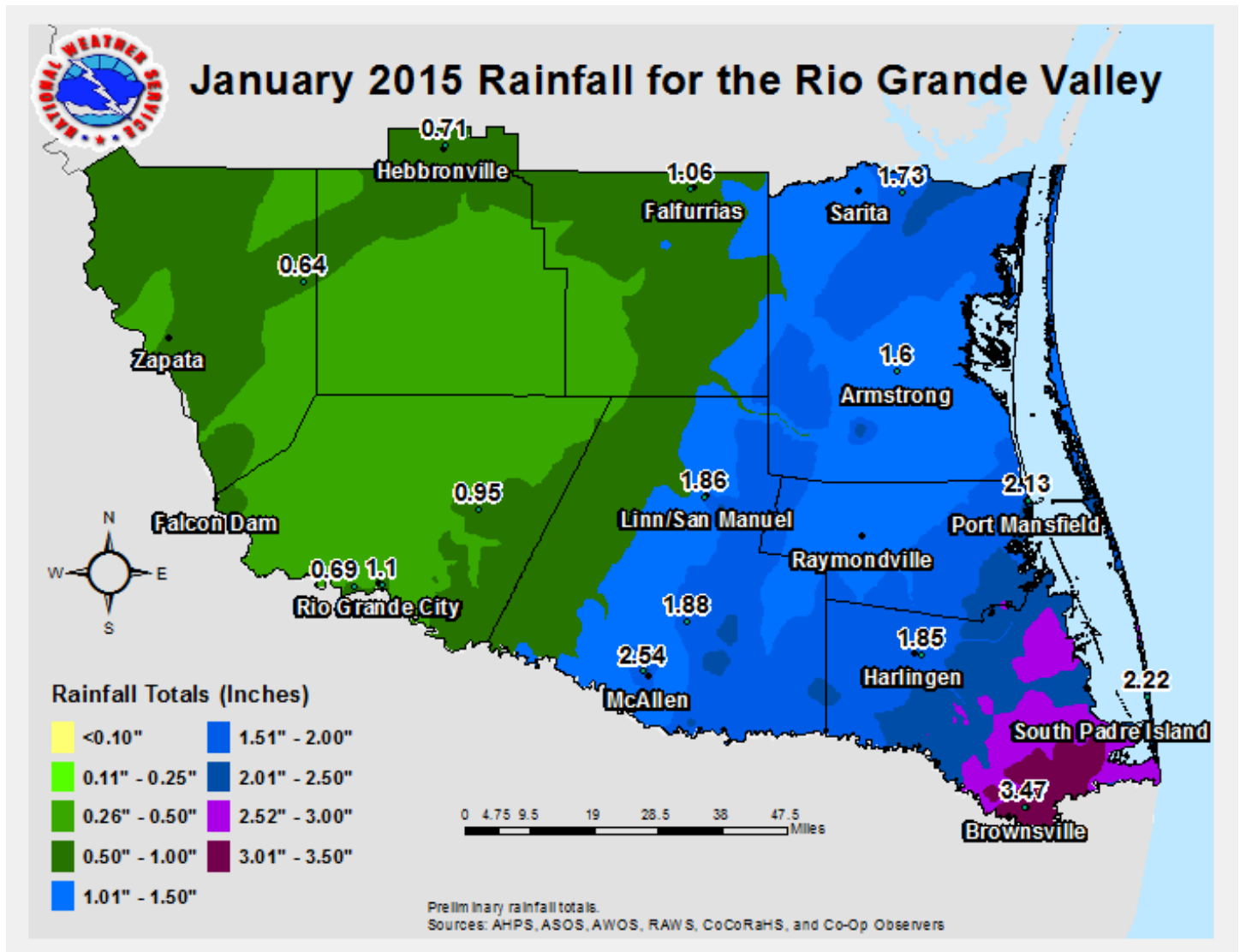
January 2015 Starts Miserably Chilly and Damp but Finishes Rather Mild

After a [rather rotten](#) start to the first half of January, 2015, which resulted in record to near-record cold for the sixteen day period from [New Year's Eve through the 15th](#), the tables turned nicely during the second half of the month, with a number of generally sunny, mild to warm afternoons with crisp overnights, all featuring generally light winds and “good hair days” between the 16th and 31st. The chilly start, where temperatures ranged from 11 to 13°F below average across the Rio Grande Valley, was too much to overcome during the final fifteen days of the month. At month's end, temperatures were 4 to 7° below average, courtesy of a brief cold snap on the 23rd through 25th, which include a brief glance at 32°F temperatures for the ranchlands on the morning of the 24th. The following table shows the final values and rankings for a chilly start to 2015.

Location	Avg. Temp (°F)	Rank (records since)	Record (year)
La Joya/Mission	52.9	6 (1911)	50.8 (1978)
Port Mansfield	52.9	9 (1959)	50.5 (1985)
Harlingen/Cooperative	53.9	9 (1912)	51.2 (1977)
Rio Grande City	52.0	12 (1897)	49.8 (1940)
Falcon Dam	53.6	12 (1966)	49.8 (1963)
McAllen/Miller	55.5	12 (1962)	52.2 (1977)
McAllen/Cooperative	55.3	14 (1942)	50.8 (1985)
Brownsville	55.7	19 (1878)	50.3 (1881)

Rainfall: After a wet start that saw nuisance light rain between the 1st and 3rd followed by a robust disturbance that dropped between 1 and 3 inches from the populated Rio Grande Valley through the King Ranch of Kenedy County on the 9th and 10th, little rain fell to close out the month. The tale of two months was also the tale of two regions. While the Cameron/Hidalgo/Willacy region ended between 100 and 250% of monthly average courtesy of the early month activity, the Rio Grande Plains from Starr through Jim Hogg and Zapata County ended at 25-50 percent of normal, which matched the actual rainfall at 0.25 to 0.5 inch. Fortunately, light winds, clear/calm nights with plenty of dew, and generally low evaporation rates common in January allowed limited degradation in soil moisture conditions.

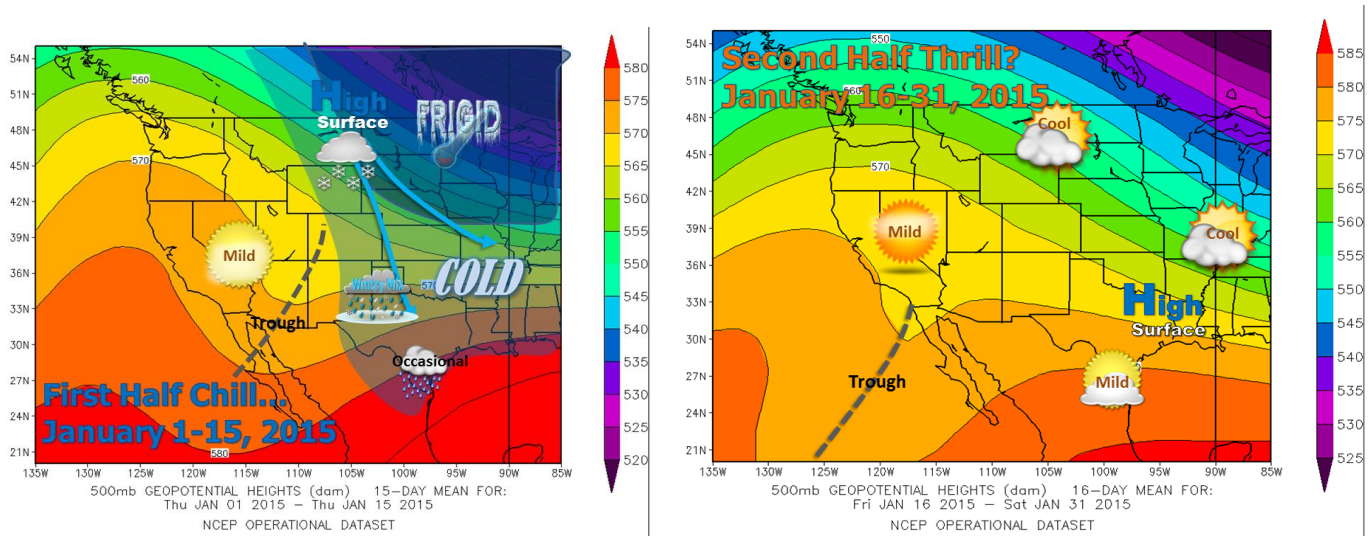
The locally heavy rainfall in the populated Rio Grande Valley ended up among the top fifteen wettest for some locations. Brownsville finished twelfth-wettest at 3.56 inches (nearly 300 percent of the 1.27 inch normal; record – 5.11 in 1945) while Port Mansfield ended at tenth-wettest with 2.13 inches (record: 5.57 in 1984). McAllen/Cooperative (water plant) finished at 2.54 (record: 7.28 in 1958), ranking #10 since 1942.



The Tale of Two Patterns

The pattern which brought the record to near-record December 31 through January 15 moderated for the final fifteen days of the month. The combination of a diving “jet stream” from near the north pole into the Great Plains, Midwest, and Mississippi Valley with repeated upper level energy from a separate jet stream that tapped tropical moisture from the eastern Pacific and moved it through northern Mexico into much of Texas (below left) loosened its grip after January 15th (below right). The month closed with a more west to east flow across the U.S., which kept frigid air locked up near the North Pole from the Great Plains to the Mississippi

Valley, while the more active trough that had aided the cloudy and wet pattern weakened and receded to west of Baja California. The more “relaxed” flow allowed mild high pressure to dominate nearly all of the western two-thirds of the U.S., on average, for the balance of January.

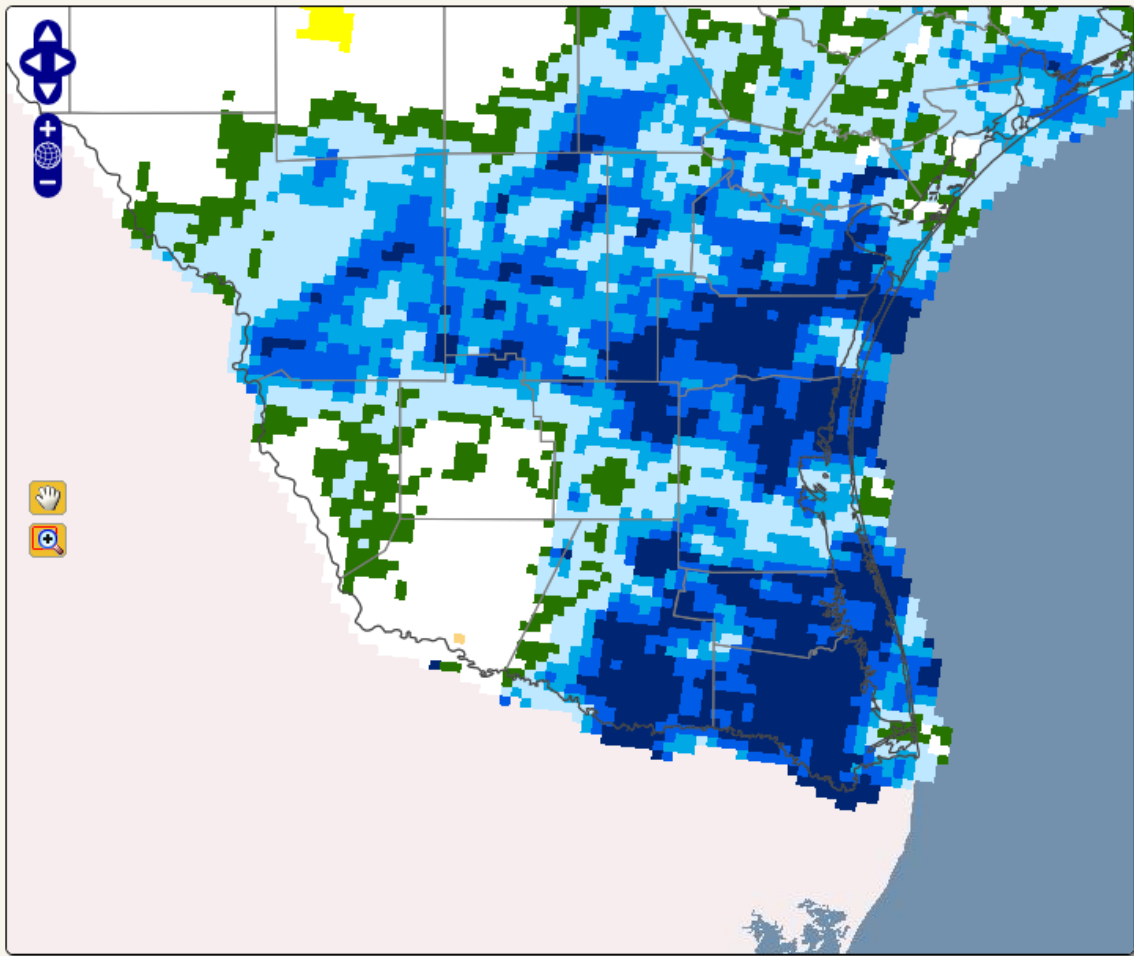


What It Means

For the critical crop growing regions of the Valley, low evaporation rates combined with the high rainfall totals since the spigot turned on in September (see rankings table, below) have maintained “exceptional” moisture across nearly all of these regions, just two scant years after extreme to exceptional drought was keeping parts of the crop growing region on edge (see image on following page; dark blue areas are exceptionally moist regions and cover nearly all of the Valley’s population and growing region). The cool and moist pattern returned to start February, 2015, though there were some indications of a spring-like warm and dry break for the second weekend of the month and beyond. A dry respite coinciding with the start of early blooming season would be a boon to growers, nurseries, and gardeners alike. Additional rains in February were no guarantee, and with the future of the weak El Niño in doubt, many questions remained as to how wet and cool March and April might be. One should always remember the Rio Grande Valley, like much of Texas, is typically in a “state of drought except when it floods” and the return of hot and dry/rain free conditions is never out of the question later in spring and into early summer. Time will tell!

153-Day Precipitation (September 1 2014 through January 31, 2015) and rankings compared with other periods.

Location	Total Precipitation	Rank (records since)	Record (year)
Port Mansfield	26.29	3 (1958/59)	29.57 (1967/8)
McAllen/Coop	17.51	3 (1941/42)	30.45 (1967/8)
Rio Grande City	18.96	5 (1892/93)	31.95 (1967/8)
Falcon Dam	12.93	9 (1962/63)	20.43 (2003/4)
Brownsville	22.63	10 (1878/79)	38.44 (1887/8)
Harlingen/Coop	19.46	11 (1911/12)	30.31 (1967/8)
McAllen/Miller	13.43	12 (1961/62)	21.70 (1967/8)



4 month SPI Blend for February 01, 2015 using NWS MPE data

Transparency:

