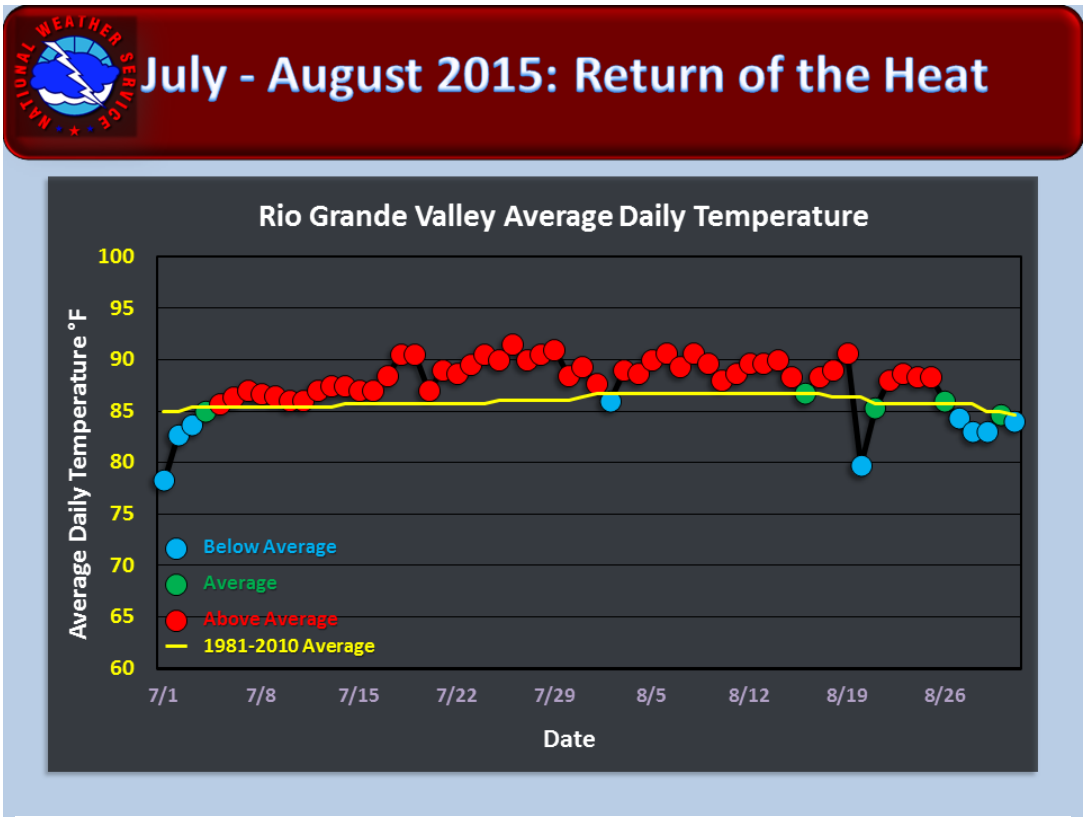
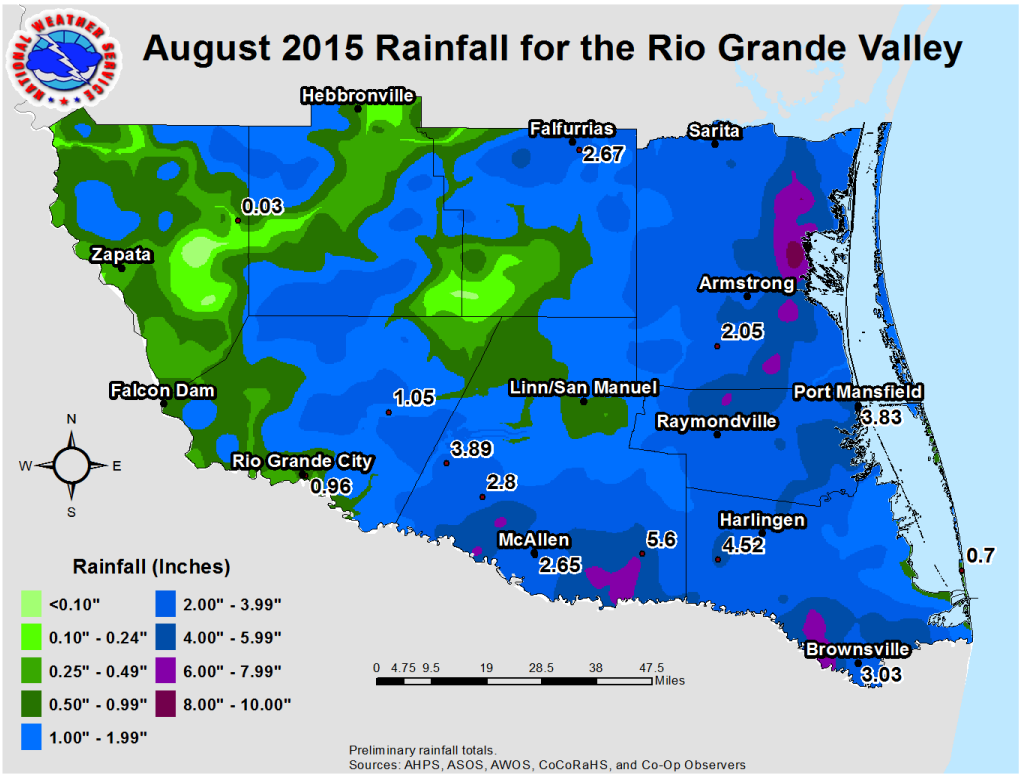


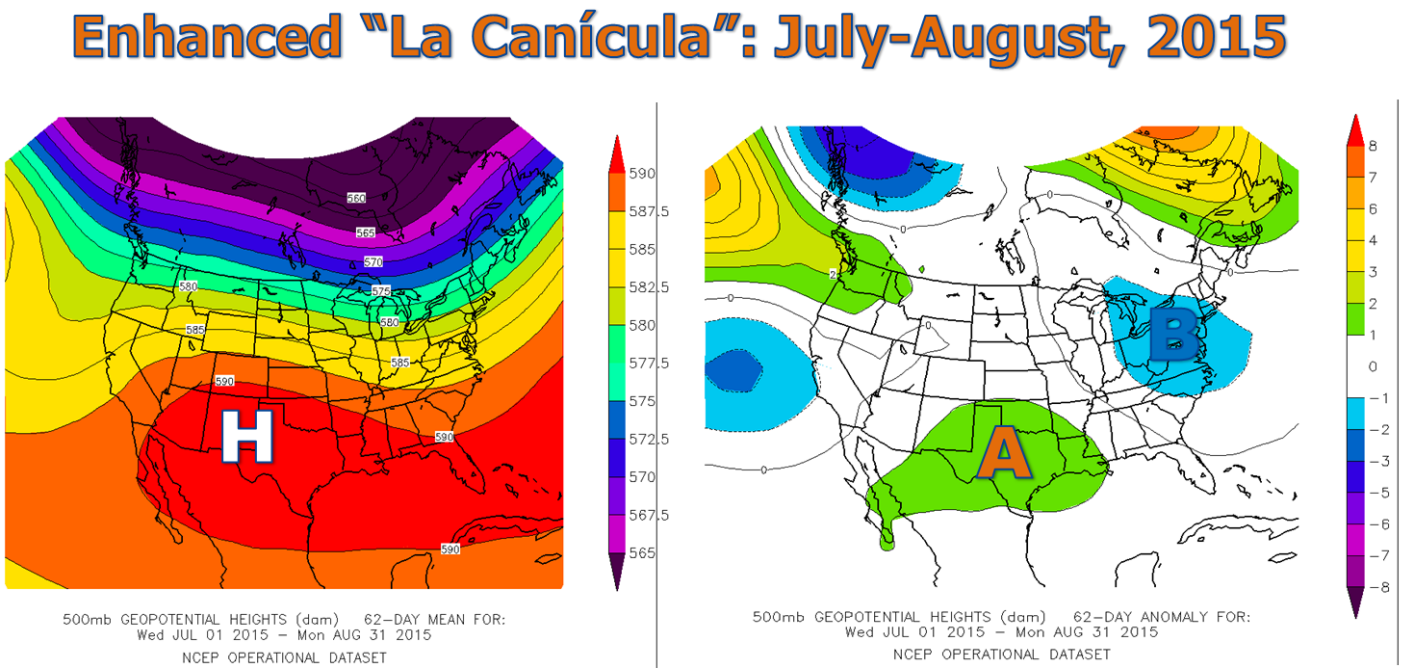


Above: ***Top*** **–** Temperature departures from average for the Rio Grande Valley (full day) for July-August 2015. ***Bottom*** **–** August rainfall for the Rio Grande Valley

Midsummer Heat Dominates the Valley…

…but Increasingly Dry Period Erased for Most in Late August

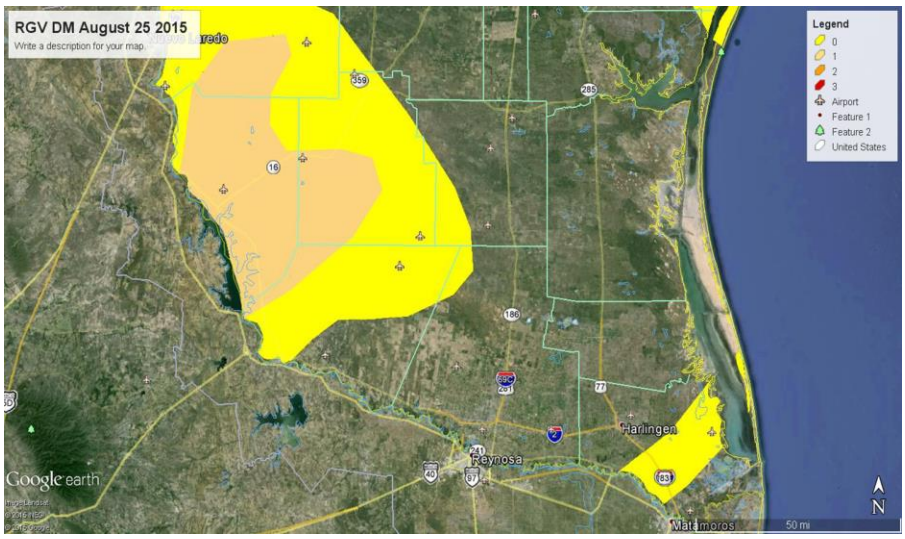
As expected, “La Canícula” settled in for most of the sixty-two days that made up July and August 2015 across the Rio Grande Valley and Deep South Texas ranchlands. While the “Canícula” pattern (Dog Days, dominant from July 3 through August 11 on average) is common during the peak of summer, the strengthening El Niño likely contributed to the intensification and duration of the pattern, which prevailed until the waning days of August 2015 (below). Rainfall for nearly all of the period was below average, and zero in nearly every location from July 5th through early on August 20th – 46 days in total. With no rainfall, residual moisture from record to near record spring rains dried up quickly, and abnormally dry to moderate drought conditions returned prior to the arrival of the late August rain events (below, right).



Above: *Left* – 500mb (~18,000 feet) average steering pattern for July and August, 2015. Note the position of the “H” over west Texas and New Mexico, extending into northern Mexico, the classic “Canícula” pattern. *Right* – Departure from average of the 500 mb steering pattern. Note the slightly above (A) and below (B) average areas across the U.S. The “A” area indicates a stronger Canícula pattern than normally expected.

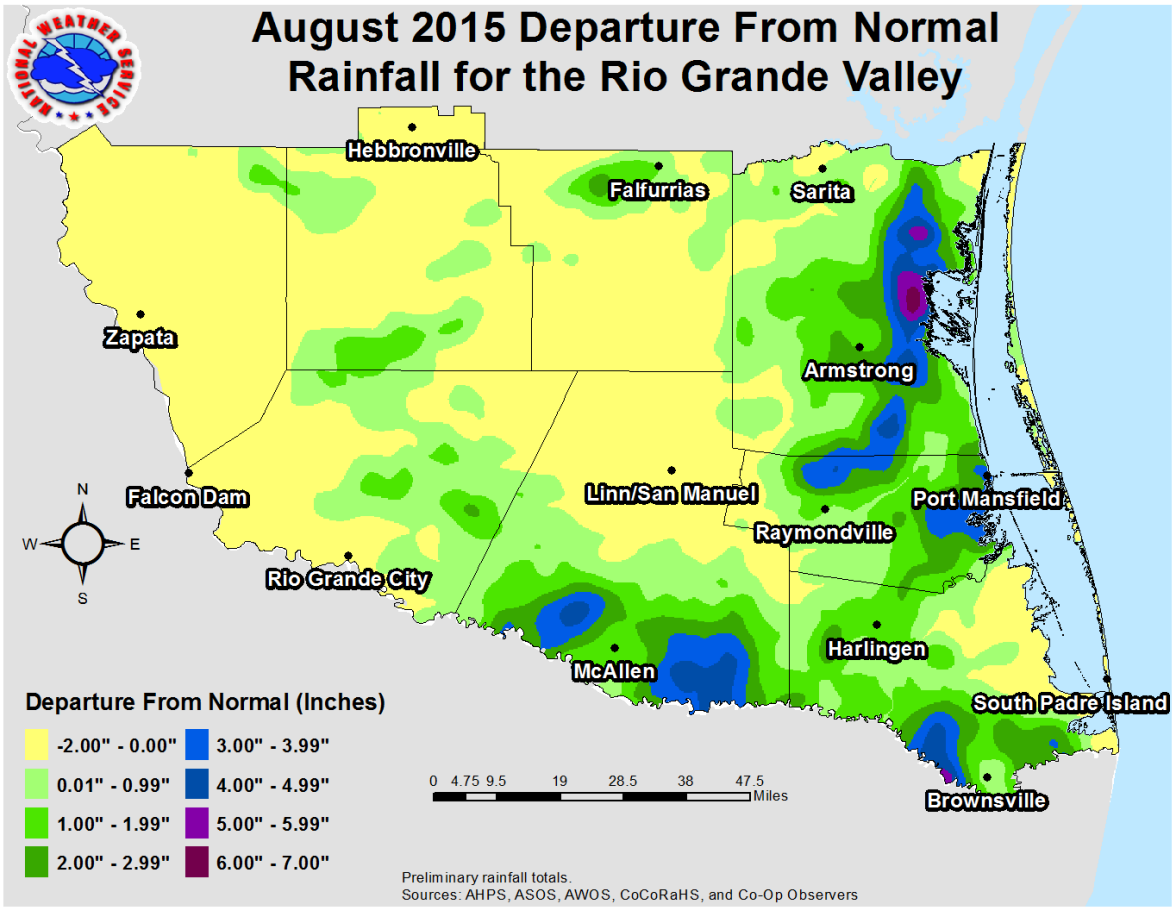
Stat Pack

- High soil moisture, which dominated central and northern Hidalgo County, played a role in heat rankings compared with other locations
  - McAllen Miller, with a July-August average temperature of 89.6°F, finished 4th all time (#1 – 2009, at 92.1°F). Records date back to 1961.
  - McAllen Water Plant (nearby), finished 8th at 87.8°F (#1 – 90.2°F, 2009). Records date back to 1941.
  - Falcon Dam finished 5th, at 89.8°F (#1 – 90.8°F, 1998).
- La Joya, however, finished 19th (of 20 since 1995) with 85.3°F. Rio Grande City finished 41st warmest, above the median but generally in the “middle of the pack”, with 87.3°F (#1 – 91.7°. 1998; records since 1897).
- The higher soil moisture in rural Hidalgo and Starr County likely played a role in holding down afternoon temperatures compared with more urban McAllen and Falcon Dam, which



missed much of the big spring rains.

- McAllen/Miller Airport began August with 19 straight days at or above 100 degrees, ranking the streak tied for 5th longest all time and just behind 2014's 20 straight between July 12 and August 7.
- Ironically, the spell of overall 100°F days in 2015 began on July 12th
- As of September 4th, McAllen/Miller had reached 40 days of 100°F or higher, ranking #11 all time with the potential for more before the end of October. 2014's total was 48 days, which put the 2015 final number in reach.
- Despite the two torrential rain events on August 19/20 (much of the Lower and Mid Valley) and August 31 (Greater Brownsville), July and August totals did not rank among the top twenty at any official site. With few exceptions, the rainfall "missed" those locations, even though flooding was noted among the populations of Weslaco/Donna and Pharr (August 20) and Brownsville (August 31).



Note the difference across the Rio Grande Valley and ranchlands for August rainfall. Zapata county remained dry, and held "Moderate" Drought conditions at the end of the month. Meanwhile, much of the populated Rio Grande Valley saw between 1 and 5 inches above the August average (roughly 2.5 inches), as well as a good portion of the King Ranch (Kenedy County, upper right portion of the map).