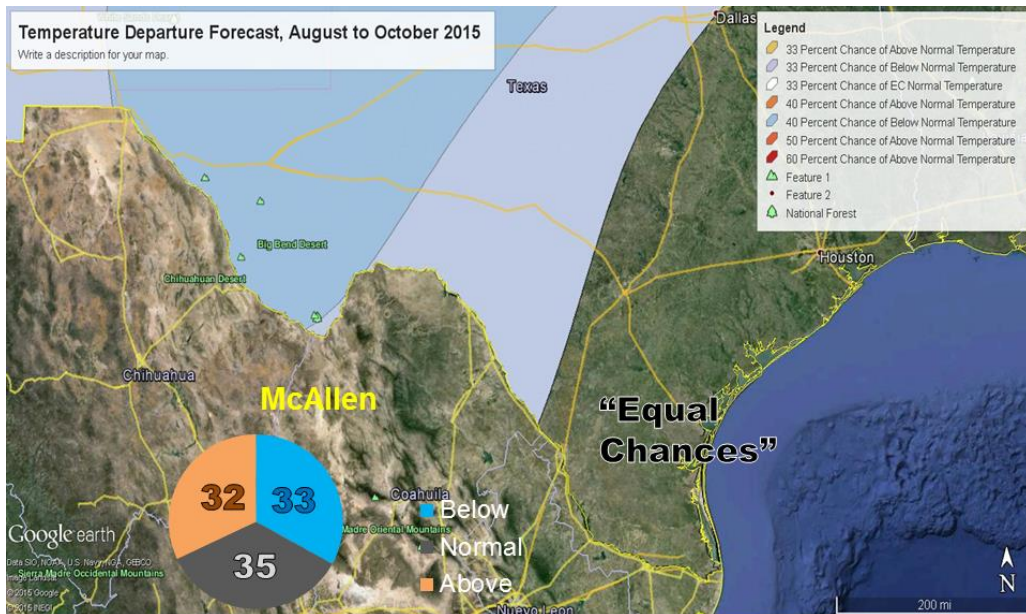
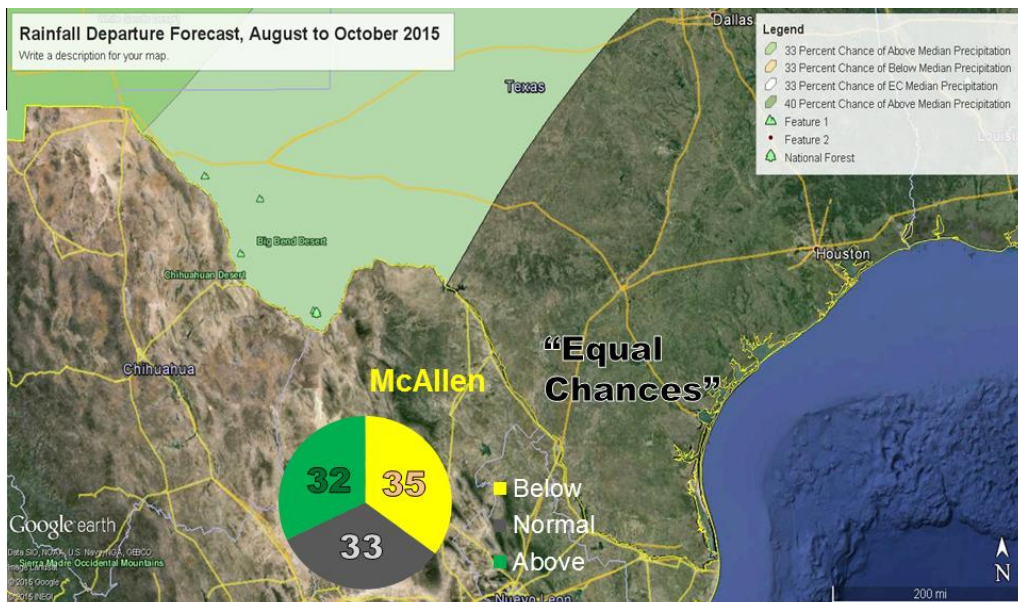


August-October 2015 Outlook



Average Afternoon: 88° Beaches, 90° Lower Valley, 94° Mid-Upper Valley
Average Wake-Up: ~75° Beaches, 72 Lower/Mid Valley, 68 Ranches

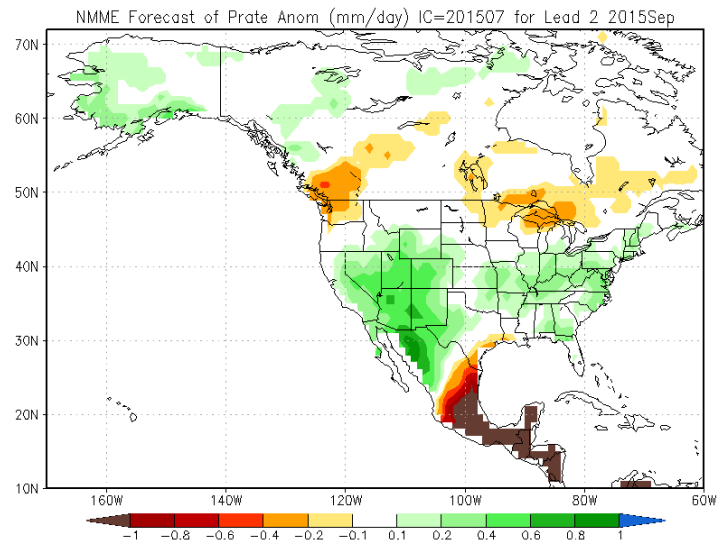
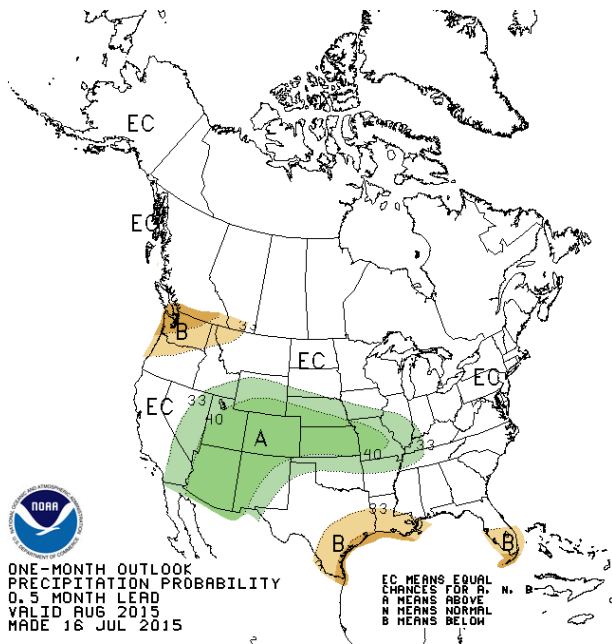


Average Rainfall:
7 to 9 Inches West
9 to 12 Inches East

**The Heat Rolls On Early...
 But Will Significant Rain Return By October?**

September and October Remain a “Wild Card”; Eye on the Southwest Gulf

As El Niño's monthly values cranked into the "strong" category (next page) through June and July, the atmospheric "coupling" that began with [record to near record spring rains](#) (March-May) and extended at times into [June](#), the expected transition to an enhanced "La Canícula" (Dog Days) began a few days into July, and ratcheted up by late month with all locations headed for a hotter and drier than average month for the first time, in general, since August 2014. Based on similar analogs (see the [July-September 2015 Outlook](#)), August 2015 is almost guaranteed to end up hotter and drier than average as well (below, left). September remains a "wild card" due to uncertainty for the rare tropical cyclone that could develop in the southwestern Gulf, in *any* season, as well as the potential for a break in the pattern that would allow at least some feed of tropical moisture from the southern Gulf and Caribbean to arrive. However, the "lean" for September is now dry based on the increasing strength of the El Niño, which is expected to maintain high wind shear across the main development region of the western Atlantic and potentially leave a dominant remnant of the "[La Canícula](#)" pattern of Texas and northeastern Mexico atmospheric ridging.



Left: Climate Prediction Center one-month rainfall potential outlook for August, 2015. Rio Grande Valley region (bottom center of map) has a 35 to 45 percent chance for below average rainfall and only an estimated 20-30 percent chance for above average rainfall. Average rainfall ranges from 2 to 2.75 inches overall. **Right:** The North American Multi-Model Ensemble (NMME) 2-month long lead forecast for September 2015 rainfall departures. While wetness begins to ease farther south into Texas, the RGV remains on the drier side.

With dry weather expected to continue deep into August, there could be an increasing threat for the rapid spread of wildfire (should one start) if temperature, wind, and relative humidity combine to produce dangerous conditions. Those conditions will be compounded by very high "fuel loading" from the excessive grass/rangeland and brush growth, unless tended to. While the heat will make brush clearing difficult, we highly advise everyone from ranchers to residents to trim back brush and cut or graze high grasses that remain across the Rio Grande Valley. Already in mid-July, a few wildfires were reported near the Rio Grande in Hidalgo County; this could be a sign of things to come. We remind everyone to be [firewise](#) and to follow [Smokey Bear's](#) advice when spending time outdoors through August and perhaps into September as well.

The forecast for September has somewhat increased confidence on below average rainfall. As mentioned earlier, that doesn't mean no rain; after all, it would be very difficult to replicate [September 2011](#) had a "parched" monthly total of less than an inch to 2 inches in the Valley and King Ranch, and 2 to 4 inches in the Rio Grande Plains – in a month that typically sees 4.5 to 6 inches (highest east). However, September could end up in the 2 to 3 inch range which would be below average but at least return a little green back to a region which will have dried out significantly by the end of August.

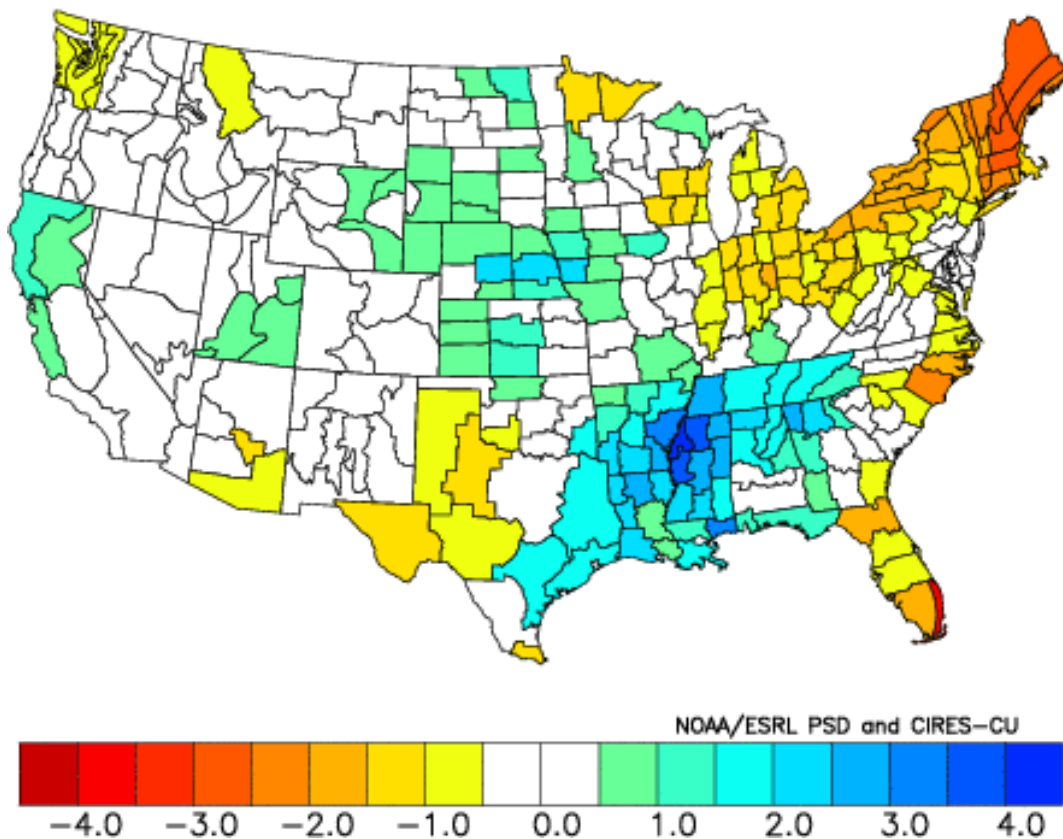
October becomes the true wild card. The question to be answered: When will El Niño's wetter, and somewhat cooler, autumn and winter influence arrive? The best method to dump copious rain on the Valley would be one or more slow moving fronts, which could combine atmospheric lift with the last of the summer's deep tropical

moisture to dump very heavy rain on the region and potentially flood some areas once again. Such was the case in [October, 1997](#), when upper level energy, the remnant of an eastern Pacific Hurricane, and residual moisture flowed abundant moisture into the region between the 2nd and 12th. The season's first significant cold front hooked up with the residual moisture on the 13th and provided the slam dunk of several inches of rain, with widespread freshwater flooding the result. The current El Niño has similarities to the one that developed and strengthened during the summer and autumn of 1997, so October is a month to be watched. But confidence is very low in predicting a similar result to 1997 at the time of this writing (late July).

El Niño Doubling Down

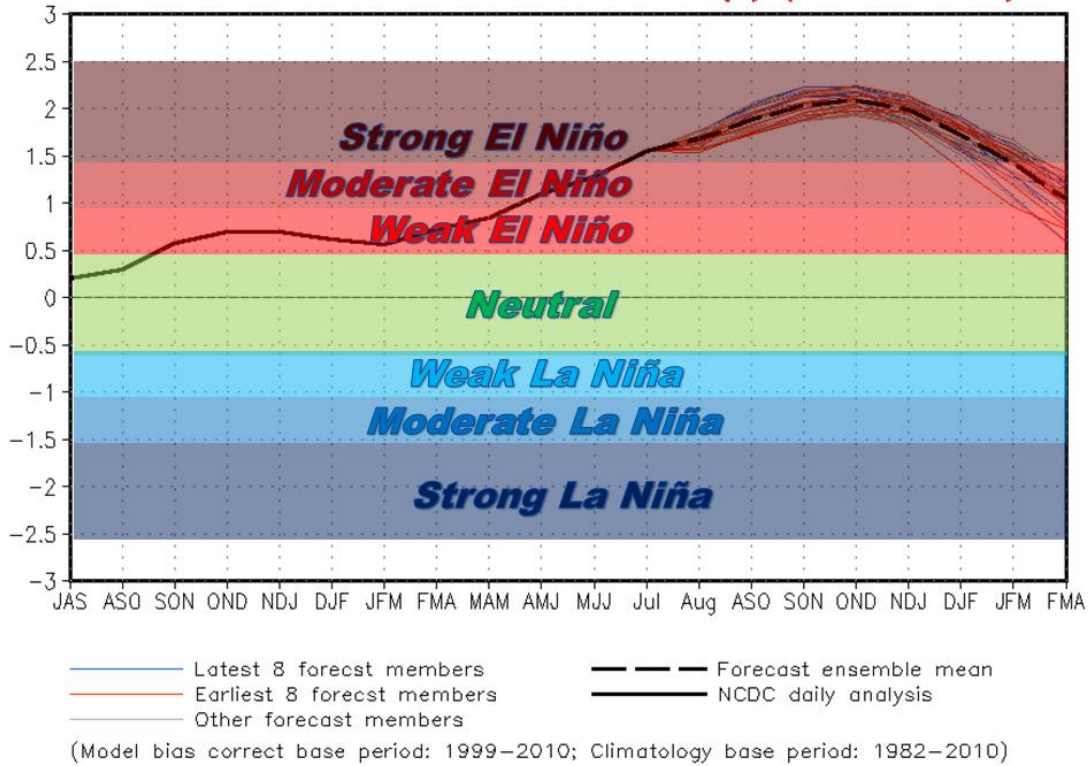
As of this writing (late July), **strong** El Niño conditions had arrived in the eastern/central tropical Pacific Ocean, with an increasing likelihood that strong conditions (an Oceanic Niño Index of 1.5 or greater) would persist through the entire fall of 2015. From late June through this writing (late July), impressive westerly wind shear – a critical “enemy” of hurricanes – had become anchored to the western Caribbean Sea and was expected to continue into the peak of the Atlantic season. Such wind shear is [highly correlated to moderate to strong El Niño](#) episodes and virtually guarantees fewer numbers of cyclones from the Caribbean to points well east in the Main Development Region of the tropical Atlantic. That same wind shear tends to be on the “front” side of “La Canícula” and, based on similar El Niño formation periods and intensity in the past, argues for the continuation of dry, and increasingly hot, late summer. By October, the frontal “wild card” – the transition toward the wetter late autumn – begins to show as the Deep South of the Mississippi Valley into southeast Texas and even the Coastal Bend gets a bit wetter, while the Rio Grande Valley hangs on to slightly drier than average conditions, for the three month period.

NOAA/NCDC Climate Division Composite Precipitation Anomalies (in)
 Aug to Oct 1957,1982,1987,1997,2002,2009
 Versus 1981–2010 Longterm Average



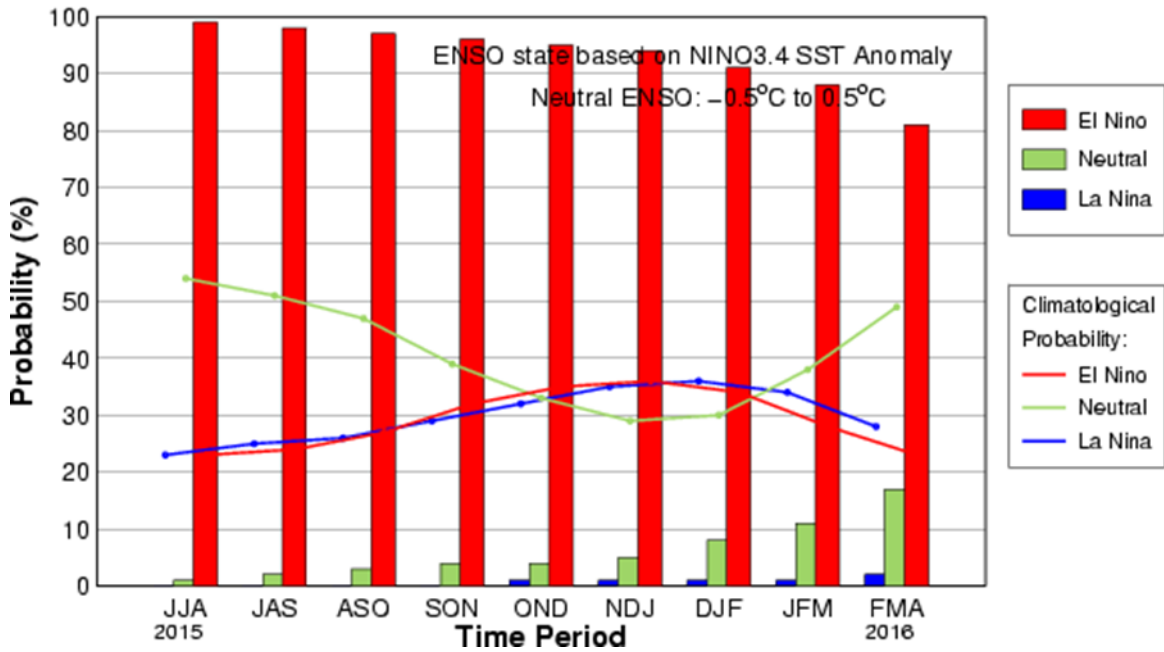
Above: Departure from 1981-2010 rainfall average of these years, combined. Note for the Rio Grande Valley, 1 inch departures for the August-October period hang on, but barely; the Coastal Bend through southeast Texas begin to see above average rainfall, which begins in late September and continues through October.

CFSv2 forecast Nino3.4 SST anomalies (K) (PDF corrected)



Strong weekly El Niño conditions have arrived in late July (edge of solid black line, above). Forecast for strong El Niño continues through end of 2015 and early 2016.

Early-Jul CPC/IRI Consensus Probabilistic ENSO Forecast



El Niño is a near certainty through same period (85% probability or higher).

Preparedness, Awareness

We couldn't ship a late summer outlook without the obligatory need to remind everyone that #ItOnlyTakesOne hurricane to make a season. In 1967 – though not an El Niño summer – there were only eight named storms, five hurricanes, and one major in the Atlantic Basin. That one major was **Beulah**, which arrived in late September. Longtime Rio Grande Valley residents will never forget it. The good news? Residents will have most of August, and perhaps a bit longer, to continue their preparedness activities.

- **Heat.** Most of springtime soil moisture evaporated by mid July, and the strength of the summer “Canícula” ridge has solar energy going largely into heating. The good news? Humidity will drop and keep “feels like” temperatures below 110°F in most inland areas. The bad news? August actual air temperatures are likely to remain at or above 100 in the mid Valley, and near 100 in the Lower Valley (between US 77 and US 281); McAllen is likely to end up with 25 to 40+ days above 100°F before mid September.
 - [RGV Heat Information](#)
 - [Heat Safety Tips](#)
 - [Beat the Heat, Check the Backseat!](#)
- **Wildfire.** Conditions dried out rapidly through July, and the stage is set for the potential for rapid spread of wildfires at points in August and even September (if September somehow ends up like [2011](#)), since fuels in the form of overgrown brush and grasses are at a peak level. We strongly urge residents to ranchers to trim brush and cut/graze grass/ranchland as soon as possible to avoid potential wildfire spread issues. [Be Firewise!](#)
- **Rip and Longshore Currents.** Headed to the beach? Tens of thousands will be through the peak of summer. And rip/longshore currents often lurk along South Padre Island. Be ready and be safe at any time; ensure your time in the surf is safe.
 - [Rip Current Safety](#)
 - [Rip Current Safety, en Español](#)
- **Flooding Rain.** Don't be complacent after 30 to 60 days of nearly rain free weather, dating back to the start of July. Dry ground, particularly the clay soil that is prevalent across the Valley, can initially absorb some rain but tropical downpours could soon runoff and produce localized flooding, even in a September with below average rainfall. We only need to go back to May and June to recall record setting rainfall and localized flooding that brought tens of millions of dollars in property damage to parts of Hidalgo County. October is the wild card month as we transition to a wetter late autumn and winter; if October is “wild” in the form of rain, problems will crop up. After trimming brush and cutting grass, be sure to remove it and never clog drainage ditches or canals!! More here:
 - [Flood Safety Awareness](#)
- **Lightning.** Summer lightning strikes, even few and far between, can be killers. With the increasing possibility of rain sometime in September and especially by October, much of that rain will come with dangerous lightning. Check safety tips and learn much more at <http://www.lightningsafety.noaa.gov> .