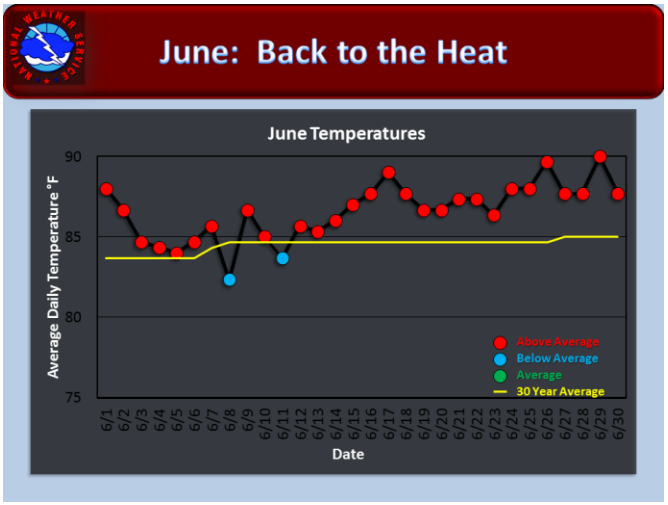

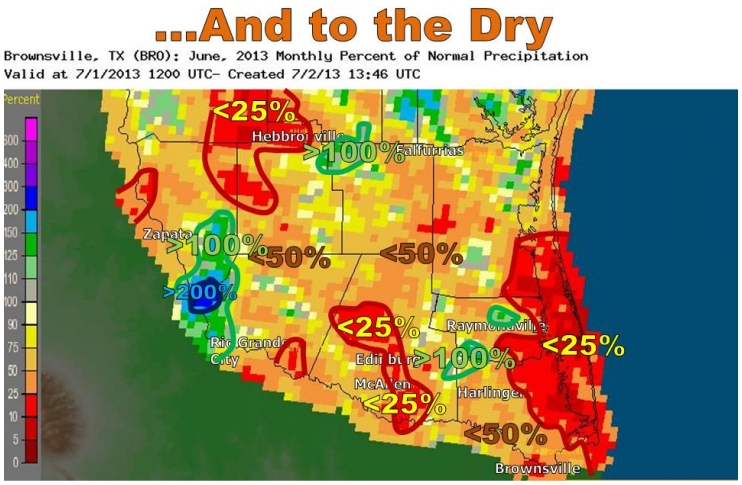

Left: Daily average temperatures for June across the Lower Rio Grande Valley. Daily averages are approximate to the high temperature plus low temperature divided by 2. **Right:** Percent of average rainfall for June. Average (1981-2010) is around 2.5 inches; all but a few pockets had one half average or less.

The Heat Beat Resumes for the Valley in June 2013

Top Ten Hottest Temperature, Below Average Precipitation Returns After Two-Month Hiatus

Summary

We figured it couldn't last.

Normal to slightly below normal temperatures in April and May combined with a little rainfall temporarily stopped the steady worsening of the already notable drought, and early June brought some rain with some changeable temperatures. That changed around the 15th, when breezy, hot, rain-free weather returned to the Valley. Temporary drought relief for grasses and gardens between late April and early June withered under peak sunshine and gusty southerly winds day and night which wicked away any helpful moisture that never could form as dew. By late June, brown fields had returned to most of the Lower Valley (right).

The increasing heat appropriately peaked on the final weekend of the month, with record calendar day temperatures broken at the following locations for June 29th:

Location	New Record	Old Record	Year
McAllen/Miller	**104**	103	2012
Harlingen/Cooperative	**104**	101	1937
Brownsville	**102**	100	1900
Raymondville	**104**	102	1984
Port Mansfield	**97**	93	2012
Armstrong	**106**	102	2009
Hebbronville	**107**	103	2009
Edinburg	**102**	100	2009
Edinburg/17 NE	**105**	102	2009
Mercedes 6 SSE	**106**	101	1937
San Manuel	**105**	102	2012

For the month, average temperatures typically finished between 1.5 and 2 degrees above the 30 year average and 2 to 2.5 degrees above the period of record average across the Valley. Departures were a shade lower across the Upper Valley and western Ranchlands due to additional May and early June rainfall which held daytime temperatures down a little compared with their long term averages, as solar energy was initially used by trees and grasses. For example, Rio Grande City (Starr County) ranked 20th all-time.

For the three primary sites (preliminary data):

- Brownsville finished at 85.5°F, or 1.6° above the 1981-2010 average, and ranked among the top ten hottest all-time
- Harlingen/Cooperative finished at 85.6°, 2.2° above the 102 year average, 1.5° above the 1981-2010 average, and ranked 7th hottest all-time
- McAllen/Miller finished at 87.4°, 2.5° above the 52 year average, 1.5° above the 1981-2010 average, and ranked 7th hottest all-time

The relatively low precipitation values, in comparison with the past three years, placed most of the Valley observing stations among the top third all-time driest for periods of record ranging from around 50 to more than 130 years. On average, the entire region ended up around one-third of average, (around 2.5 inches between 1981 and 2010). Brownsville totaled 0.85 inches; Harlingen/Cooperative totaled 0.8 inches, and McAllen/Miller totaled 0.88 inches.

Other Information

The late month parching brought energy release component, a measure of the potential rapid growth of the flaming front of a wildfire, to just above the 97% percentile across the Lower Valley (bottom left); Middle and Upper Valley locations had a similar spike which was briefly tempered by nearby rainfall on the 30th.

The overall "jet stream" pattern was dominated by the "Canícula" high pressure ridge, which suppressed rain across the Rio Grande Basin (except for a singular event on June 14/15) and help bring the hot temperatures – again – to much of the American Southwest, northern Mexico, stretching into the Lower Mississippi Valley (right). What will the rest of summer bring? For a hint, click here.