

The "Dry's" Have It

Little to No Rain Falls in Month that Ends Near "Normal", Temperature-Wise

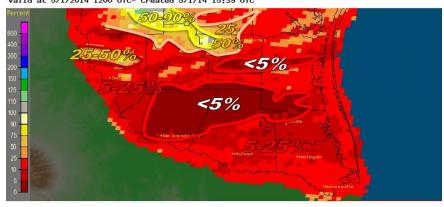
April, a month that tends to feature low rainfall and mild temperatures across the Rio Grande Valley, generally lived up to its billing in 2014. Typically, severe weather starts to arrive during the month, as was the case in 2012 and 2013; in 2014, virtually no rain fell and thunder/lightning were only heard during the latter half of the month near the coast. Despite the lack of big "weather", two notable events occurred in 2014:

- A vigorous cold front swept the Valley on April 14th, accompanied by gusty winds (see sidebar, next page) and followed by several days of much below average temperatures
- A three-day triple digit heat "spike", associated with a slow moving storm system across the nation's midsection that produced dozens of tornadoes that killed nearly three dozen, and record rainfall from the northern Gulf coast through the Mid-Atlantic region.

When all was said and done, the relatively cool early and middle part of April was not able to be overcome by the summer-like heat of the 26th through 29th; for some locations, including McAllen/Miller Int'l Airport (-0.4) and Brownsville/SPI Int'l Airport (-0.2) the just below 1981-2010 average values marked the sixth consecutive month of such a temperature departure.

The "roller coaster" during the second half of the month was best shown by the contrast at McAllen/Miller: On April 16th, the minimum of 44°F was the sixth coldest April morning on record (record: 40 on xxx in xxxx); on April 27th, the maximum of 107°F was tied for the highest April temperature on record with April 26th, 1984. The tri-fecta of Mid and Upper Valley consecutive triple digit temperatures had only been matched once – between April 8 and 11, 1963, McAllen/Miller had four consecutive 100°F+ days.

Brownsville, TX (BRO): April, 2014 Monthly Percent of Normal Precipitation Valid at 5/1/2014 1200 UTC- Created 5/1/14 15:39 UTC

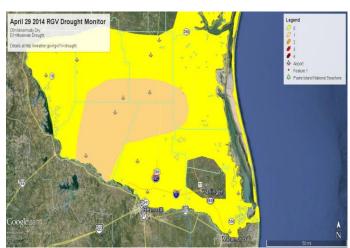


"Normal" April Rainfall (1981-2010) is 1.25 to 1.5 inches.

Above: April 2104 RGV percent of normal precipitation. Most areas in the <5% zone had no rain.

Drought Rising Again?

Though cooler than average weather and a smattering of cloudy and/or humid conditions kept drought at bay for the first two weeks of April, the arrival of a warm and very dry day on April 8th was a harbinger of drying to come; several "flash drought" days, generally defined as several hours with humidity below 15%, winds 15 mph or higher, elevated sun angle, and temperatures above 75°F, would follow, especially along and west of U.S. 281. April 8th and 15th set the table, and up to four days in a row (April 27-30) with several hours of humidity between 5 and 15 percent, with three of the days seeing triple digit heat (April 27-29), locked in the return of Moderate Drought to portions of Hidalgo, Starr, Jim Hogg, Brooks, and Zapata County (below).



End of April, 2014, RGV Drought Monitor. Yellow areas = "Abnormally Dry" and Orange area is classified as Moderate Drought. Details on the classifications can be found at http://droughtmonitor.unl.edu/AboutUs/ClassificationScheme.aspx.





"Tax Day Eve" Blows Across the RGV!

50+ mph gusts cause minor damage April 14th

A strong 'norther (by RGV April standards) swept the region during the late morning through mid afternoon. One to three hours of gusty winds caused minor damage to unfastened, light weight objects such as lawn furniture, trampolines (shown), trash cans, etc. A few limbs crashed down, including this one in the mid Valley (above left). Photo credits: KRGV-Channel 5 Facebook page (viewer photos). Below are observed wind gusts from automated sensors across the RGV and the Deep South Texas Ranchlands.

Location	Peak Wind (mph)	Time
Harlingen/Valley Int'l Arpt	51	307 PM
Buoy 42020 35nm E Port Mansfield	49	1150 PM
TABS Buoy 8nm E South Padre Island	47	4 PM
Realitos Peninsula	47	4 PM
Weslaco/Mid Valley	46	255 PM
Bayview/Cam Co Arpt	46	443 PM
South Padre Is. CG	45	4 PM
Brownsville/SPI Int'l Arpt	44	349 PM
McAllen/Miller Int'l Arpt	44	305 PM
Edinburg/Int'l Arpt	43	235 PM
Zapata Co. Arpt	41	135 PM
Brooks Co. Arpt	38	215 PM
Hebbronville/JH Co Arpt	38	135 PM

The Pattern of April

Shown below is the prevailing mid-level, or "jet stream", pattern for April 2014 across the U.S. The general "dip" in the pattern across the nation's midsection was the result of two primary weather systems: The strong North American cold front that sliced through the nation between the 13th and 15th, and the <u>slow-moving, broad storm system</u> that produced the <u>record heat of April 27th</u> in the Valley and tornado/flood outbreak from the Lower Mississippi Valley through the Tennessee Valley and Mid-Atlantic states between the 27th and 30th. Anomalies (bottom image) more clearly define the areas of cool and wet (northern Plains, within the core of the "dip"), mild and wet (mid Atlantic through northern Gulf Coast, to the east of the "dip"), and mild and dry (Texas through the Southwest U.S., along/to the west(left) of the "dip".

As for May? The eventual cold front associated with the slow moving storm system described above brought several days of well below average temperatures to open the month. However, long term trends suggested above normal temperatures and generally dry weather would prevail through May and into the first part of summer for the Valley.

