March 2017 Quick Summary

Maximum 31-Day Mean Avg Temperature for Brownsville Area, TX (ThreadEx)

Click column heading to sort ascending, click again to sort descending.

Rank	Value	Ending Date	Missing Days
1	74.9	1953-03-31	0
2	74.8	1945-03-31	0
3	74.4	2000-03-31	0
4	74.4	1921-03-31	0
5	74.2	1938-03-31	0
6	74.2	2017-03-31	0
7	74.0	2006-03-31	0
8	73.4	1991-03-31	0
9	73.1	1974-03-31	0
10	73.0	2011-03-31	0

Period of record: 1878-01-01 to 2017-04-11

Maximum 31-Day Mean Avg Temperature for MCALLEN MILLER INTL AP, TX

Click column heading to sort ascending, click again to sort descending.

Rank	Value	Ending Date	Missing Days
1	76.3	2017-03-31	0
2	76.2	2016-03-31	0
3	75.6	1991-03-31	0
4	75.4	2011-03-31	0
5	75.3	2000-03-31	0
6	74.8	2006-03-31	0
7	74.2	2012-03-31	0
8	73.5	1974-03-31	0
9	73.3	1999-03-31	0
10	73.2	1972-03-31	0

Period of record: 1961-01-14 to 2017-04-11

Maximum 31-Day Mean Avg Temperature for HARLINGEN, TX

Click column heading to sort ascending, click again to sort descending.

Rank	Value	Ending Date	Missing Days
1	76.5	1953-04-01	0
2	76.5	1945-04-01	1
3	74.4	1938-04-01	0
4	74.2	1921-04-01	0
5	74.1	2017-04-01	0
6	73.6	2000-04-01	2
7	73.4	1928-04-01	0
8	73.3	1935-04-01	0
9	73.3	1929-04-01	1
10	73.0	2006-04-01	0

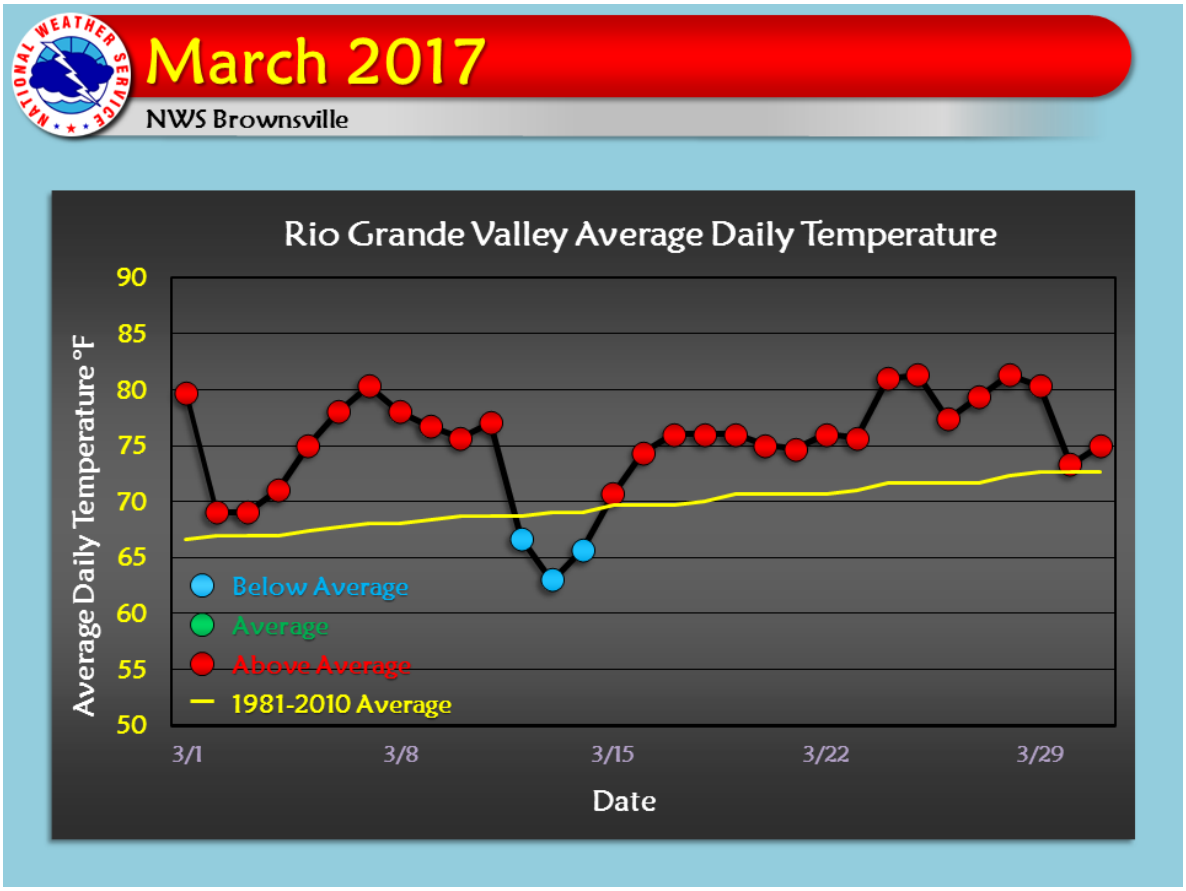
Period of record: 1912-02-07 to 2017-04-12

Maximum 31-Day Mean Avg Temperature for PORT MANSFIELD, TX

Click column heading to sort ascending, click again to sort descending.

Rank	Value	Ending Date	Missing Days
1	72.8	2017-04-01	1
2	72.3	2000-04-01	2
3	71.7	2016-04-01	2
4	71.5	1974-04-01	0
5	71.2	2006-04-01	5
6	71.1	1972-04-01	0
7	70.9	2012-04-01	2
8	70.8	2007-04-01	0
9	70.3	1963-04-01	0
-	70.3	1961-04-01	0

Period of record: 1958-02-07 to 2017-04-12

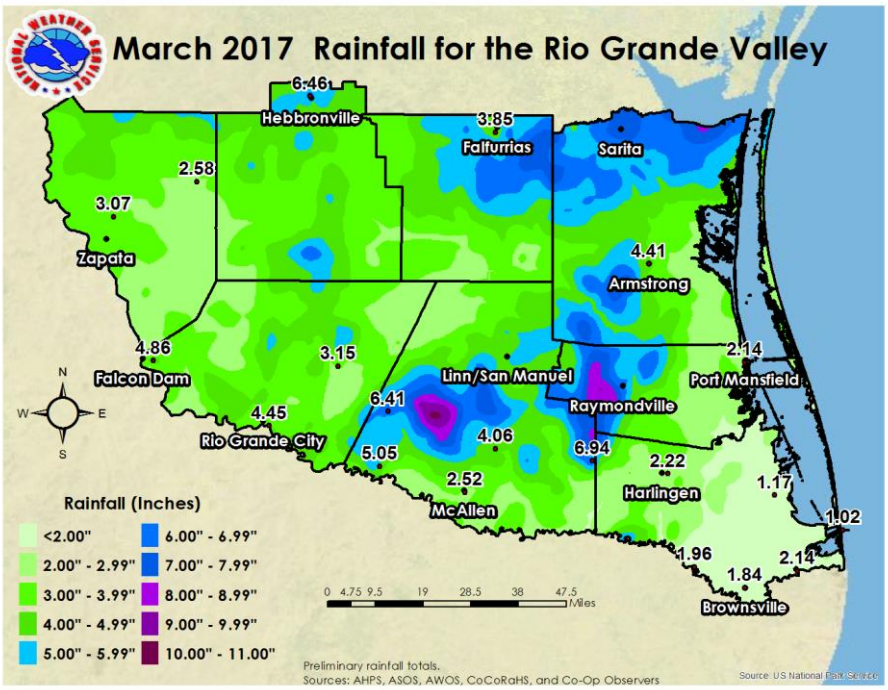


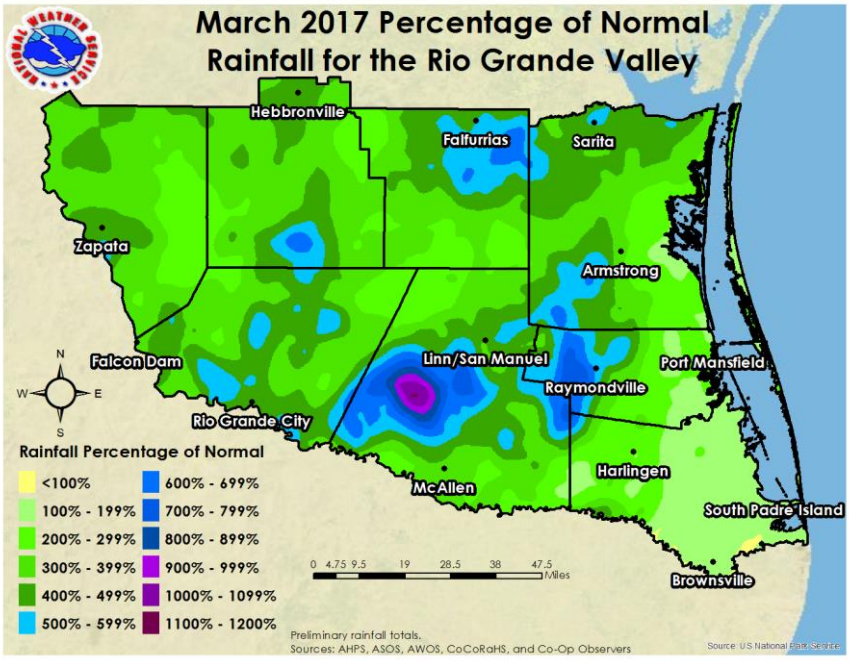
March 2017: The Heat Stayed On

McAllen Sets All-Time Record for Third Month in Row

Overview

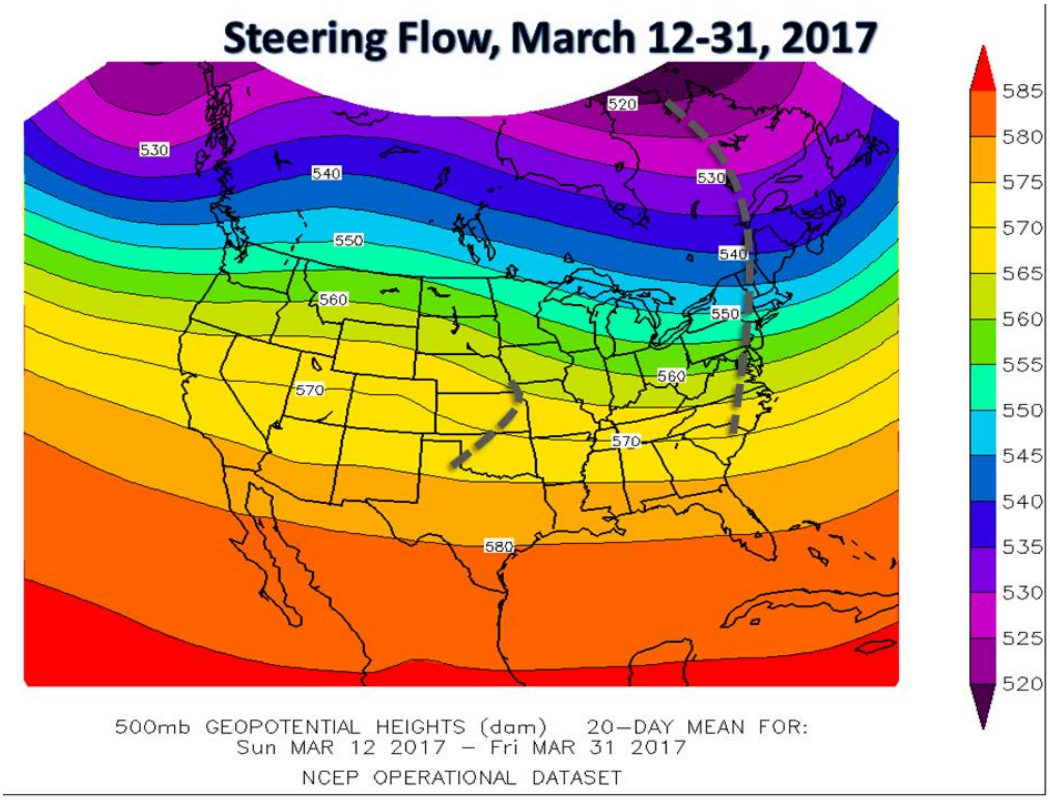
The heat beat kept on going. Started in July 2016, monthly records were broken or challenged once again in March 2017, as the unrelenting pattern of warm weather continued to make "seasons" irrelevant, as the latter half of the month returned to late spring/early summer heat and sealed another Top 10 warmest month in what had become de rigeur for the Rio Grande Valley for nearly all of the nine-month period. Fortunately, the soaking period between March 4th and 10th relieved the drought for most of the Valley, save for the southern Cameron County area which held abnormally dry and would soon revert back into moderate drought by early April, as the torrents of early March largely missed the Tip of Texas (though rainfall for the month was still slightly above "normal", below) while the heat (above) did not.



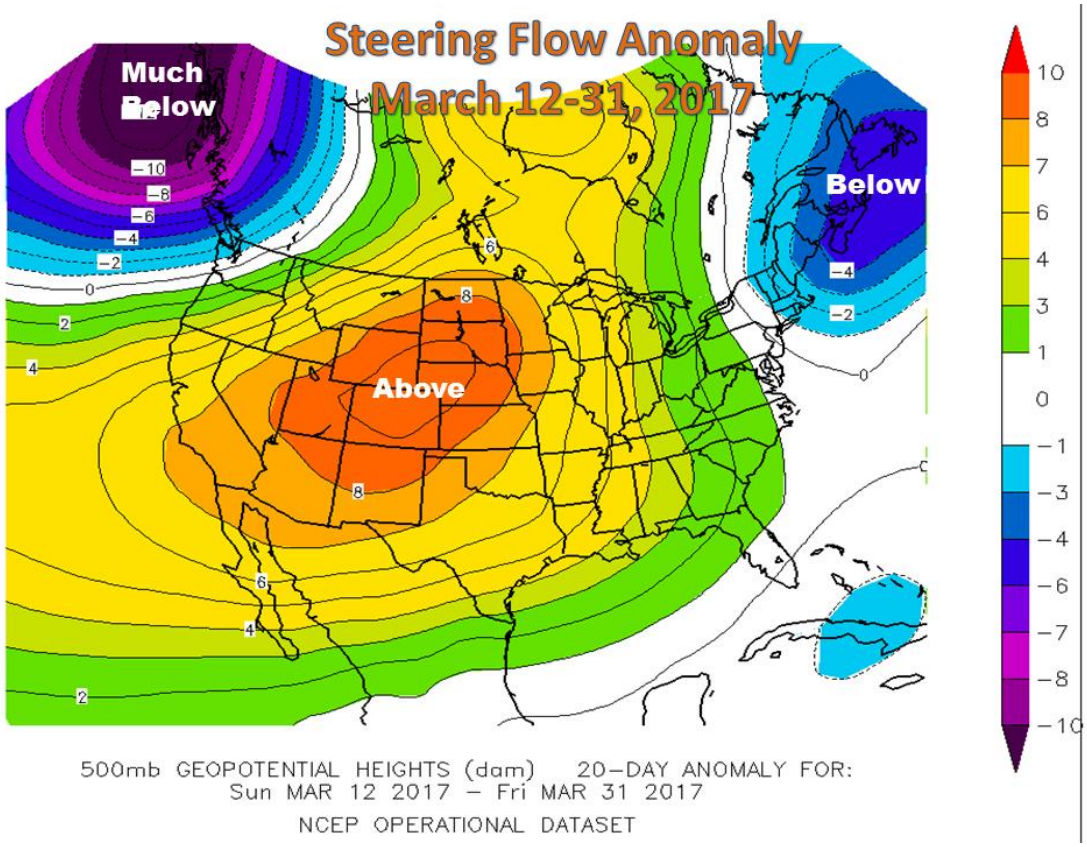


Pattern Matters

Following the second week soaking, an upper level high pressure ridge built across northern Mexico and the southwestern United States, with west to northwest flow associated with the system driving dry air across most of Texas for the period of March 12 through 23. A brief period of cool weather would soon become mild to warm but only by a few degrees, before the heat returned at the end of the period. At that point, Texas became a state of two weather regimes, as a series of fairly vigorous upper level low pressure areas moved progressively from the California coast into the U.S. Four Corners region before lifting northeast into the southern Plains, including north Texas and the Texas Panhandle. While showers and thunderstorms, some with heavy rainfall, occurred ahead of each trough mainly from south central Texas through north and east Texas, the Rio Grande Valley "waved" to the energy, while feeling the heat of downslope southwest to west winds in the mid-levels of the atmosphere. This brought a period of 90°F+ afternoons for most areas; overnights warmed as well with morning lows in the upper 60s to lower 70s except on the final day of the month. These temperatures were between 5 and 10°F above average, and locked in the top ten finishes in most observing stations, with records in some cases dating back more than 100 years.



Above: Mean steering pattern for the final two thirds of March 2017. Notice the flat ridge across northern Mexico, as well as two mean low pressure troughs – a larger one on the east coast (that led to cool to cold temperatures and wintry precipitation at times) and a smaller one in the southern Plains. This smaller mean trough was a reflection of the four to five individual systems that scooted north of the Valley and kept the heat on while keeping rain north of the population. A full video loop, including troughs (gray dashed lines) and precipitation areas (green shaded areas) can be found here.



March 12-31, 2017 departures from average, 500 mb (~18,000 feet) flow, across the U.S. and Canada. Above aveage dominated all but the Pacific Northwest and New England states, areas where temperatures were at or just below normal and precipitation was a bit higher, including large snowfalls for interior New England.