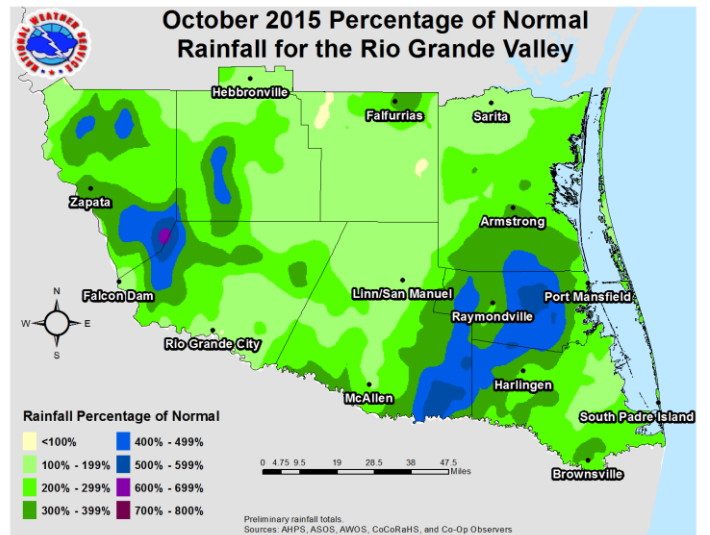
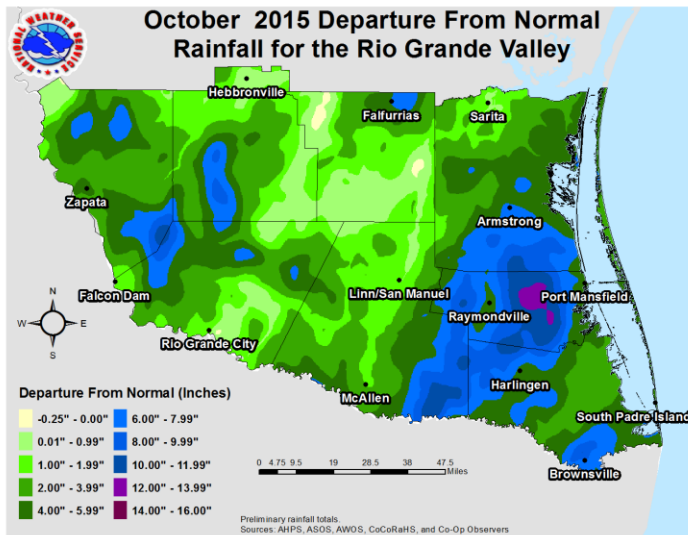


Above: Bias-corrected rainfall for October 2015.



Above: Left – Departure from average rainfall, in inches. Right – Percentage of average rainfall. Note the swath of 400 to 600% of normal in the Lower Valley, as well as a pocket of 600%+ along the Starr/Zapata County line.

In October, Wet Was the Word

Second Half Slam Dumps More than a Foot of Rainfall Across Portions of Lower RGV

After generally warm to hot first half of the month with only local downpours...a general shift in the weather pattern which favored high levels of tropical moisture and perhaps the first imprint of El Niño for the final ten days.

Beginning on October 22 when a pocket of an estimated 4 to 9 inches flooded rural, agriculturally rich regions of northeastern Cameron through eastern Willacy county, and continuing on the 24th with the combination of an upper level disturbance with the remains of Pacific Hurricane Patricia, and ending on the 30th with more torrential rains ahead of an upper level disturbance - between 10 and perhaps 18 inches of rain soaked and flooded parts of the region including southeastern Hidalgo...northwest and southern Cameron...Willacy...and southern Kenedy County.

Area-wide, rainfall for October 2015 was the most since October 2002 for much of the region. October 1997 was the last time a similar trend and strength of El Niño, and a potentially related teleconnection known as the Pacific Decadal Oscillation combined in this manner.

During the wet periods to close out October, conditions were tropically soupy, with a number of nights and mornings in the sultry 70s to low 80s. If not for the season's first mini-cool down following the development of a "Texas Nor'easter" following the passage of Patricia's remnants, temperatures would have averaged 3 to 5 degrees above the 1981-2010 benchmark. The cool down was not enough to remove the above average readings that had built up through the 24th; for the month, preliminary temperatures averaged around 2 to 3 degrees higher than the 1981-2010 benchmark across the region.

Preliminary rainfall totals and rankings follow.

Cooperative and airport (ASOS) data used by NWS:

LOCATION	RAIN	RANK	RECORD (YEAR)	REC SINCE
BROWNSVILLE/SPI ARPT	13.68	4	17.12 (1958)	1878
RAYMONDVILLE CO-OP	9.41	3	9.83 (1958)	1910
HARLINGEN CO-OP	9.41	3	11.09 (2003)	1911
PORT MANSFIELD CO-OP	7.46	4	17.78 (1958)	1958
HARLINGEN/VALLEY ARPT	6.91	4*	9.74 (2003)	1952*
SARITA 7 E CO-OP	6.74	10	15.60 (1973)	1899
BAYVIEW/CAM CO ARPT	5.67	3	8.04 (2002)	1998
EDINBURG CO-OP	3.77	5**	6.35 (2002)	1889**
MISSION/LA JOYA CO-OP	3.50	18	11.42 (1954)	1910
MCALLEN CO-OP	3.24	17	8.90 (1966)	1941
RIO GRANDE CITY CO-OP	2.79	26	9.20 (2003)	1892

*DATA FROM 1952-1962 AND 1998 TO PRESENT.

**DATA FROM 1889-1890...THEN 2000 TO PRESENT.

Airport data (awos-faa): note...values may be incomplete

WESLACO/MID VALLEY ARPT.....6.14
 EDINBURG/INTL AIRPORT.....3.74
 ZAPATA COUNTY AIRPORT.....2.50

Select Community Collaborative Rain Hail and Snow network (CoCoRaHS) In inches

CAMERON COUNTY...

BROWNSVILLE	1.9	ESE	13.61
BROWNSVILLE	4.1	ENE	13.01
HARLINGEN	4.4	W	10.07
BROWNSVILLE	2.2	WNW	9.87
BROWNSVILLE	0.1	SSE	9.53
BROWNSVILLE	1.7	NNE	9.48
LAGUNA VISTA	0.3	N	9.41
HARLINGEN	0.4	N	9.34
SAN BENITO	0.6	SSE	9.17
RIO HONDO	9.4	NE	8.82
HARLINGEN	4.7	WSW	7.77
BROWNSVILLE	2.2	W	7.60
BROWNSVILLE	12.6	E	7.49
BROWNSVILLE	6.4	WNW	7.44
RIO HONDO	7.9	E	6.63
BROWNSVILLE	4.3	NW	6.27
HARLINGEN	6.2	WSW	5.85
LOS FRESNOS	0.3	NE	4.67

HIDALGO COUNTY...

MISSION	4.3	WSW	5.77
MCALLEN	2.4	NE	4.63
LINN	8.4	WNW	4.24
MISSION	1.9	ENE	3.97
LA JOYA	11.1	N	3.72

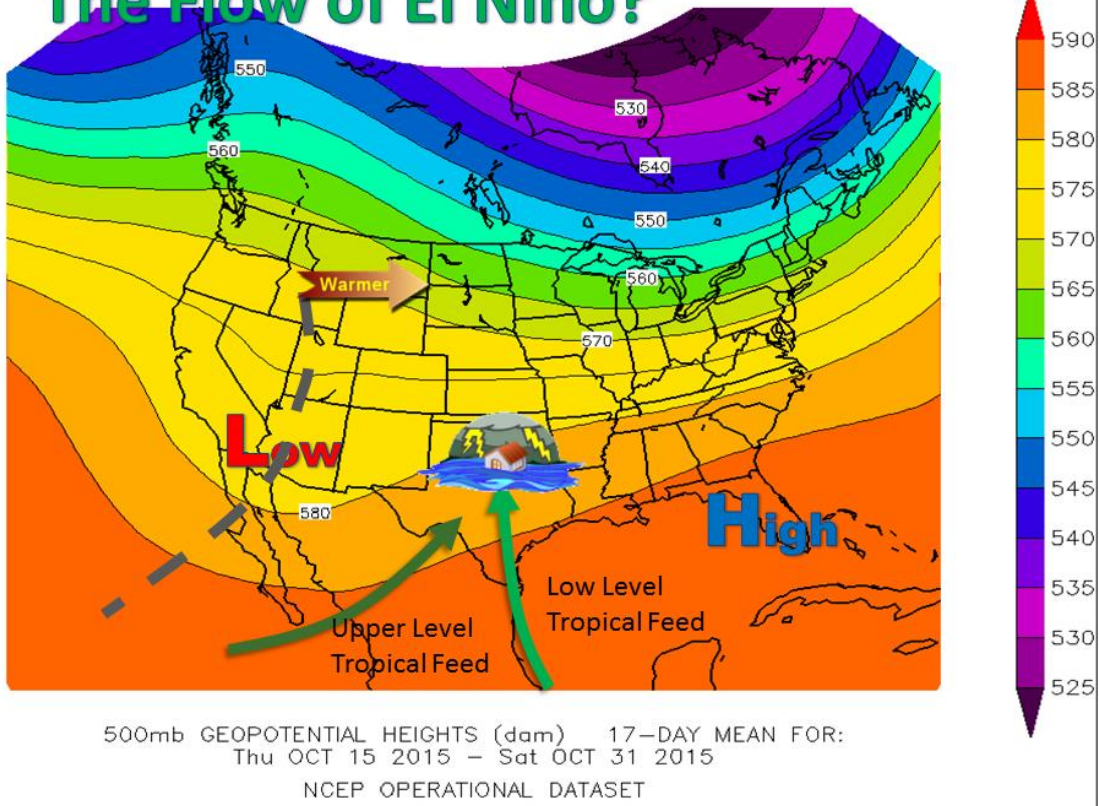
STARR COUNTY...

RIO GRANDE CITY	17.7	NE	3.10
RIO GRANDE CITY	13.8	NNW	2.40
RIO GRANDE CITY	2.8	W	1.98

BROOKS COUNTY...

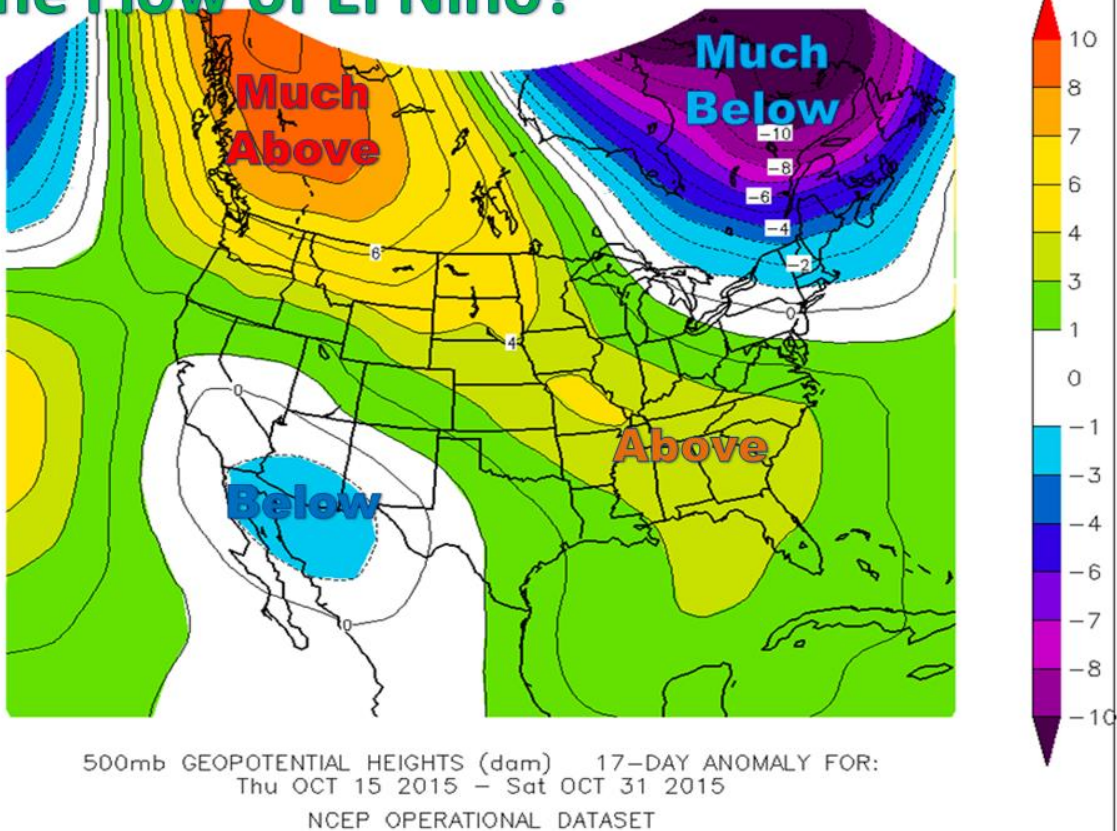
FALFURRIAS	6.2	E	7.23
FALFURRIAS	8.9	SSW	3.75

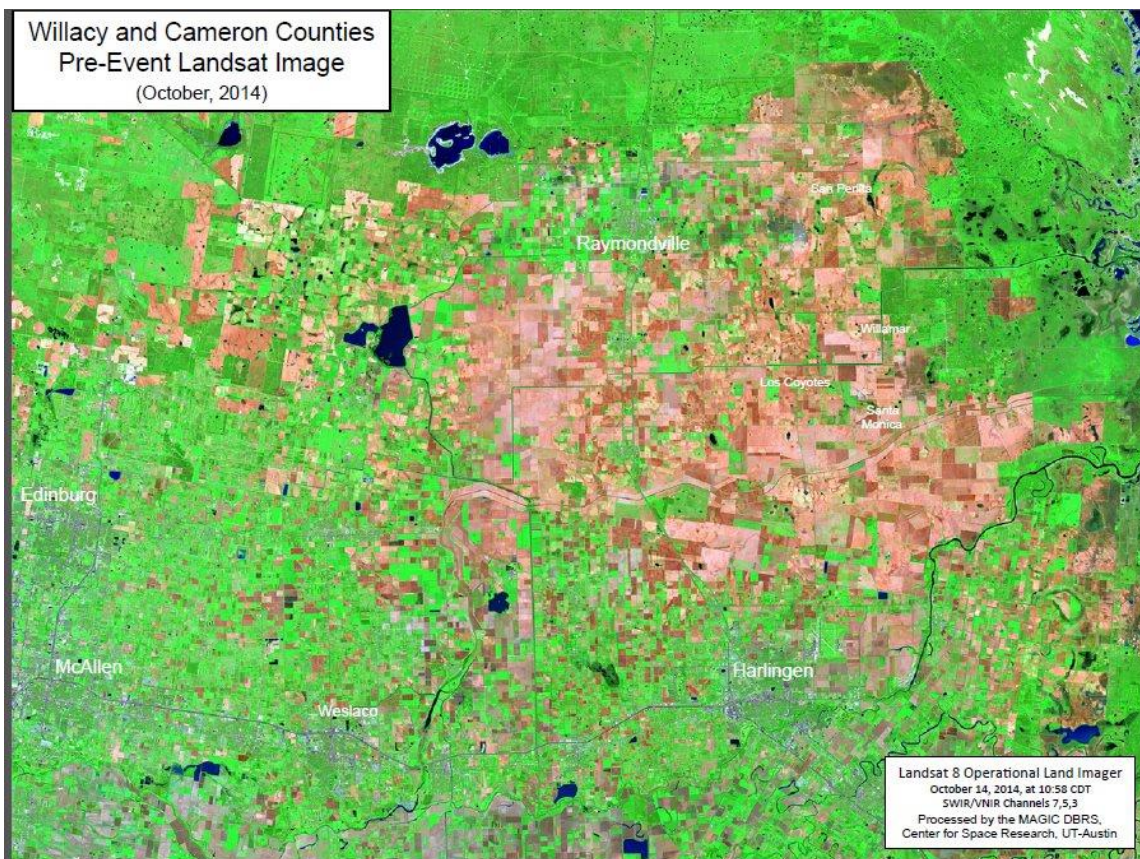
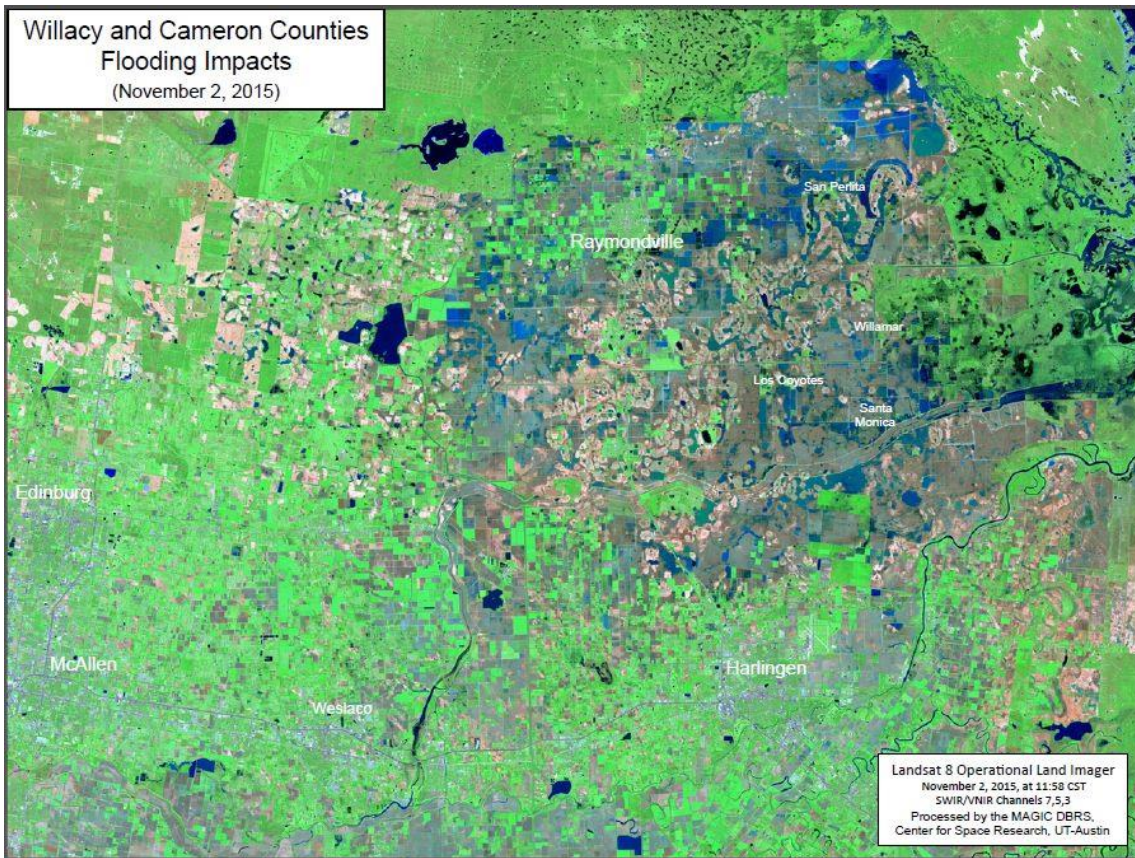
The Flow of El Niño?



Above: Has El Niño's autumn influence arrived? Note the "split flow" of the lines across the northern U.S. and the southwest and southern U.S., classic signs of cool season pattern. In 2015, the northward flow of still very warm/humid air from the tropics no doubt contributed to the much above normal rainfall, with the remnants of eastern Pacific Hurricane Patricia providing an additional boost of energy. Departures from average (next graphic) show this even more clearly.

The Flow of El Niño?

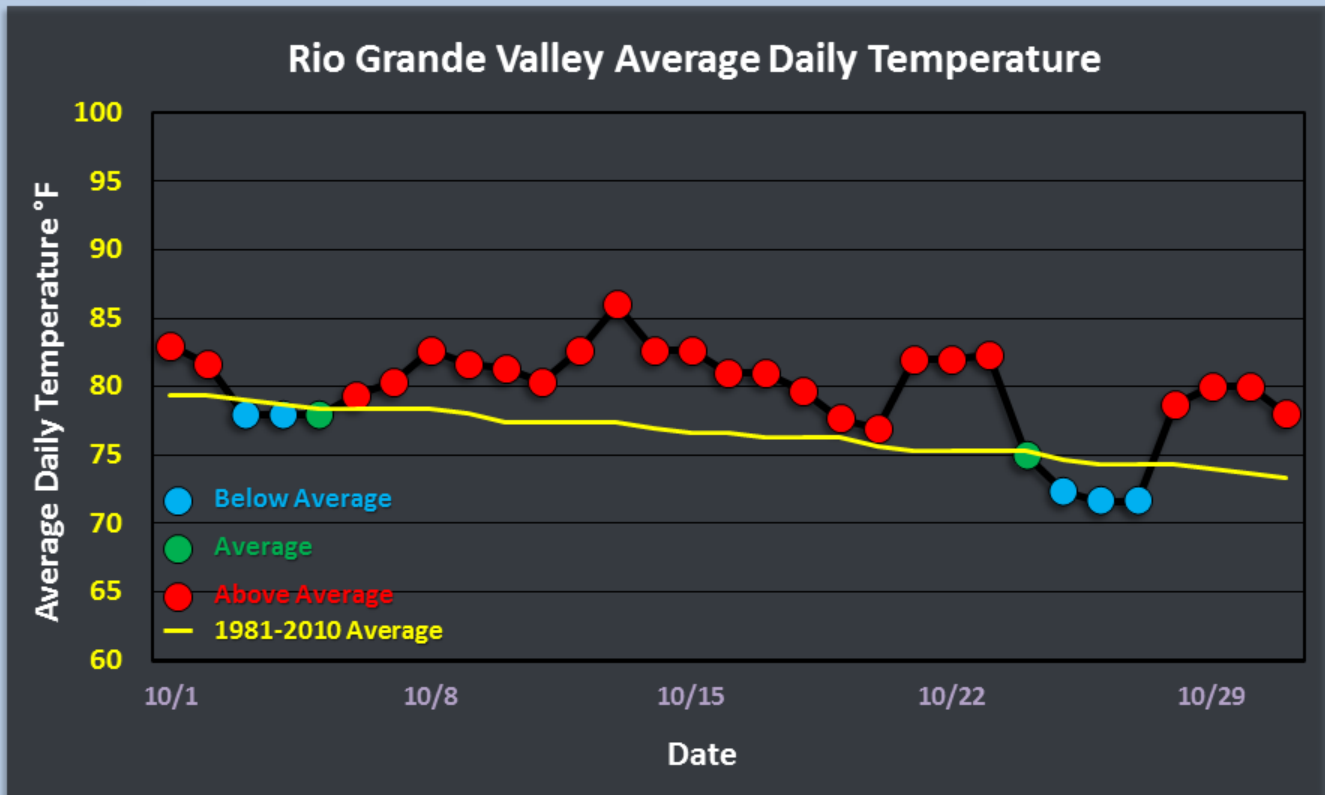




“Lake” Willacy? What a difference a year makes! Top image shows the extent of water inundation, particularly in Willacy County, after an estimated 14 to 18 inches fell in just nine days to close out October 2015. Bottom image showed a more “normal” situation in October, 2014, after a wet September (note the green). The brown fields are a result of end-of-harvest plowing, which leaves them temporarily fallow until the late winter/spring planting season.



October 2015: A Little Warm with the Wet



While October 2015's warmth may not have directly led to the efficient rainfall during the final week of the month, it certainly didn't hurt. Note the prolonged period of above normal (red dots) temperatures beginning on the 6th, and only broken the day after the Weslaco Deluge (October 25). Temperatures across the Valley were generally 2 to 3°F above average.