

February 2012: Welcome Rain Relief

In Like a Lamb, Out Like a Lamb, with plenty of “Lion” in Between

Brief Review

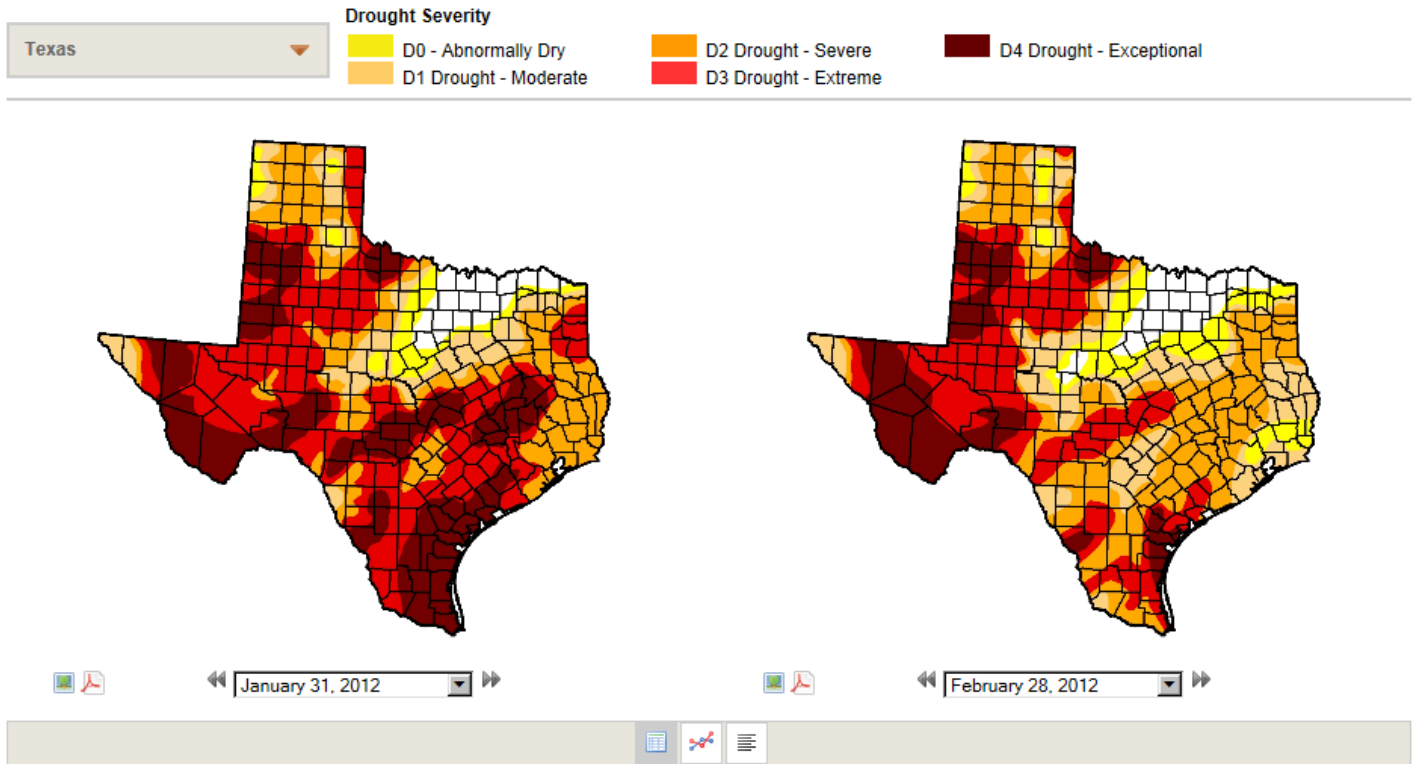
At last. The pattern of warm, humid, breezy weather which moved [January 2012 into the top twenty warmest](#) for a number of Rio Grande Valley locations, which continued for the first four days of February, was sharply broken by late afternoon of the 4th, when a cluster of strong storms (box, below right) pummeled the Lower Valley, dropping more than an inch and a half of rainfall in only an hour for portions of Cameron and Willacy County, as well as some hail north of Rio Hondo along the Cameron/Willacy County line. The cold front that spawned the heavy weather was followed by a chilly light rain overnight on the 4th and into early morning of the 5th, which dropped another ½ to 1 inch across the Lower and mid Valley.

The event during the [first weekend of February 2012](#) was the first in a series of rain makers, courtesy of repeated energy waves moving across northern Mexico and Texas for the next week (Figures 3 to 5, below). Then next round arrived on the evening of [February 7th and continued through the 8th](#). Another ¾ to 1 ½ inches of rain fell Valley- wide. A weak disturbance followed a day later, with another ¼ to ½ inches falling from the morning into the early afternoon [of February 9th](#). More light rain and drizzle made for another cool-ish weekend, particularly on the 12th and 13th. Additional light to moderate rains fell during a relatively warm/humid period from the 16th through 18th, and one final disturbance followed the last cold front of the month, dropped one half inch to nearly 2 inches in a progressive swath from Starr and Jim Hogg County east to the Lower Valley and King Ranch on the 25th.

In between the bouts of rain and chill, warm, humid conditions dominated. February 1-4 were more like mid April than early February, with temperatures 10 to 15°F above average. February 22nd and 23rd were similarly warm, and after the final weekend chill-down, the 27th through 29th ended with a springtime flourish with temperatures 8 to 15°F above average once again. These very warm periods more than countered the longer duration chilly days, and monthly temperatures ended up 1 to 3° above the most recent 30 year average (1981 to 2010). For a summary of Brownsville, Harlingen, and McAllen, click [here](#).

How Now, Drought?

The combination of persistent rain, moderate to cool temperatures, thick cloud cover, and humidity generally at or above 75% for one long stretch (February 5-13) and several shorter stretches (February 16-18, 24-26) water to soak into heretofore parched soils across the Lower and Mid Valley. These conditions improved drought conditions one or two levels across Deep South Texas, from Extreme to Exceptional to start the month down to Moderate to Extreme, area wide, to end it (below).



Week	Nothing	D0-D4	D1-D4	D2-D4	D3-D4	D4
January 31, 2012	4.93	95.07	90.66	80.78	59.79	27.36
February 28, 2012	6.05	93.95	85.21	67.48	38.68	14.75

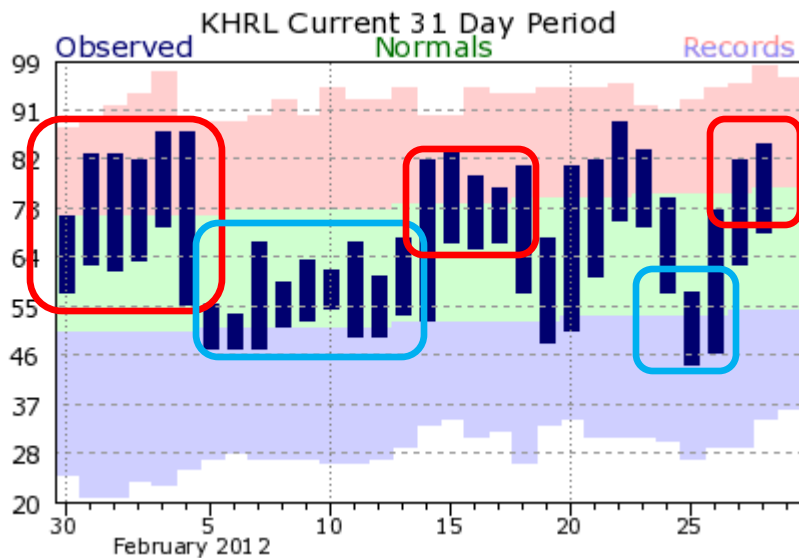


Figure 1: February, 2012, temperatures for Harlingen/Valley International Airport. Top of bars show daily high temperature; bottom of bars show daily low temperature. Red circled dates are warm periods; blue circled dates are cool snaps.

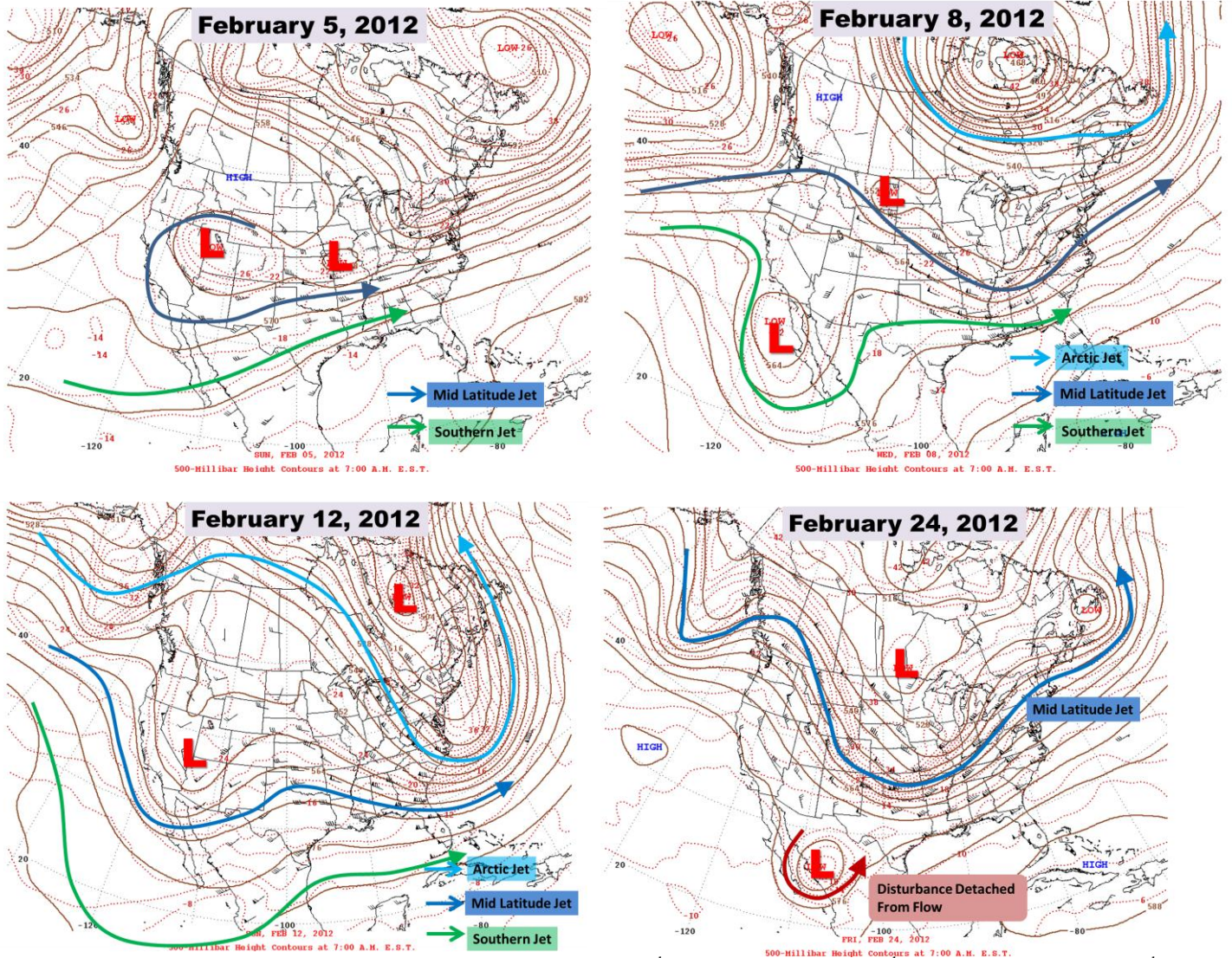


Figure 2. Upper level wind pattern across North America, February 5th (upper left), February 8th (upper right), February 12th (lower left), and February 24th (lower right). Note the recurrence of the Southwest U.S. upper level low pressure system, which led to a persistent south to southwest flow of moisture rich air across northern Mexico into South Texas through the week. Unlike an El Niño winter, when the southern jet (green arrow) is more robust and “linked” to the eastern Pacific tropical zone, this version appeared to be fed by the southward moving upper level low pressure systems which originate in the Gulf of Alaska or off the western Canadian coast – a much different source region than the tropics.