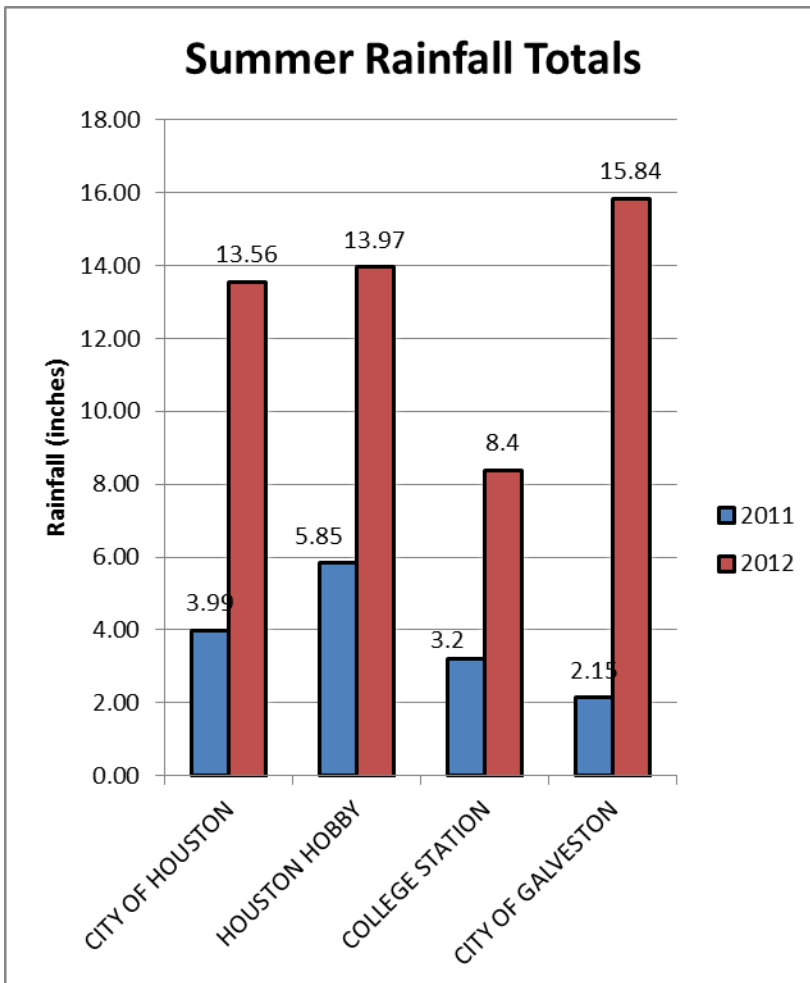




August Climate Summary for SOUTHEAST TEXAS WFO Houston/ Galveston



August 2012 concluded a much wetter summer than last summer (summer is defined climatologically as June, July, and August). An upper level ridge was displaced to the northwest for most of August, and by the second week in the month an upper level trough was off to our northeast. The displacement of the upper level ridge allowed for showers



and thunderstorms to develop across the area. This summer was much wetter than last summer, with all first order climate sites receiving at least twice as much rain as in the summer of 2011 (Figure 1).

This summer's rainfall totals were helped by a heavy rain event in July, but this summer still had a higher number of days with measurable rainfall (≥ 0.01 ""). Figure 2 clearly shows this.

Figure 1: Summer Rainfall Totals

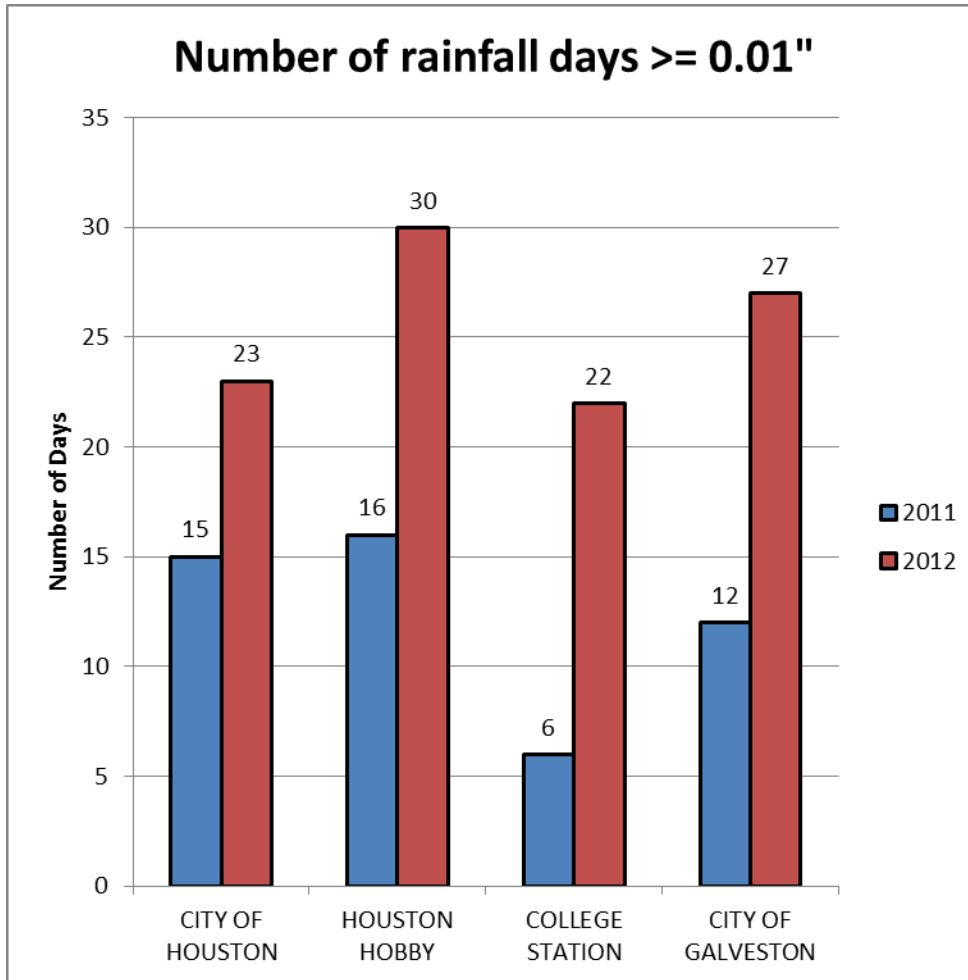


Figure 2: Number of rainfall days > 0.01"

The number of days with measurable rainfall (defined as rainfall of 0.01" or greater) for all climate sites was significantly higher in 2012 than in 2011. College Station (CLL) only had six days of measurable rainfall in the summer of 2011, while in the summer of 2012 they recorded 22 days of measurable rainfall.

Synoptically, the upper level trough was impressive for August with a jet streak just to the north of southeast Texas. We even had some severe weather reported with it on the 10th when strong winds uprooted trees across parts of Walker and Montgomery counties with nickel sized hail also being reported.

August was much cooler this year than last year. For example, the average temperature at CLL for August 2011 was 90.9 °F, while this August had an average temperature of 87.2 °F. Despite August 2012 being cooler than last year, August 2012 was still 1.9 °F warmer than the 30 year normal temperature. Due to this August being much cooler than last year's August, the race for the warmest year on record has tightened. 2012 is now the

second warmest year on record for CLL (trailing only 2011), but 2012 is still the warmest year on record for the other three first order climate sites (Houston Intercontinental Airport (IAH) , Houston Hobby Airport (HOU), and Galveston Scholes Field (GLS)).

This summer has also been characterized by more summer days with high temperatures less than 90 °F than last summer (Figure 3). In July of 2011, GLS reported only one day less than 90 °F, while a year later they recorded 11 days less than 90 °F.

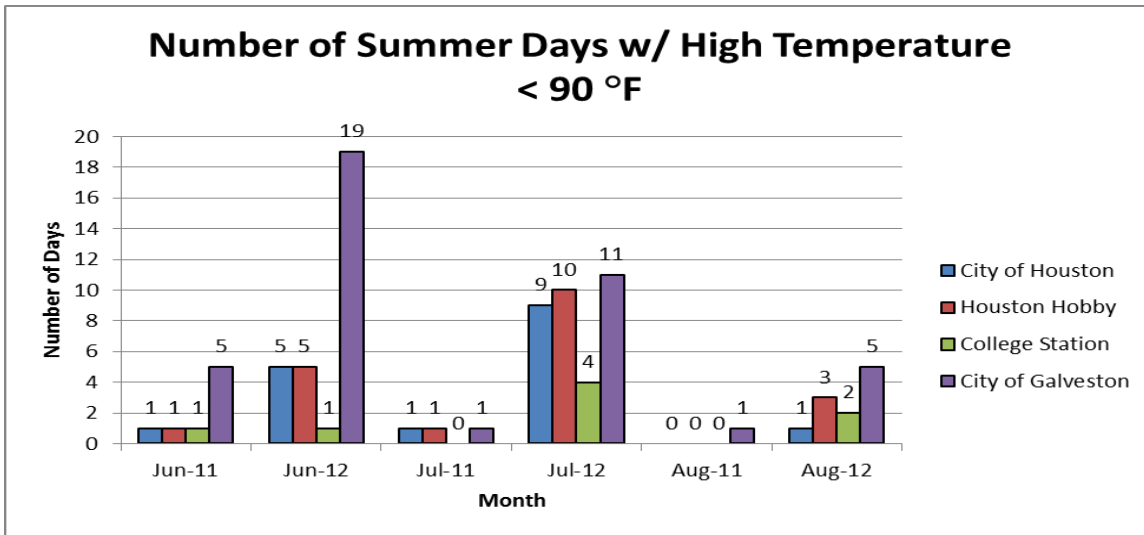


Figure 3: Number of summer days w/ High Temperature <90F

These temperatures was mainly due to more days with rainfall reported across the area. The number of summer days with low temperatures greater than or equal to 80 °F also is worth taking a look at (Figure 4). CLL reported seven days in August of 2011 with low temperature at least 80 °F or warmer, while in August of 2012 they reported none.

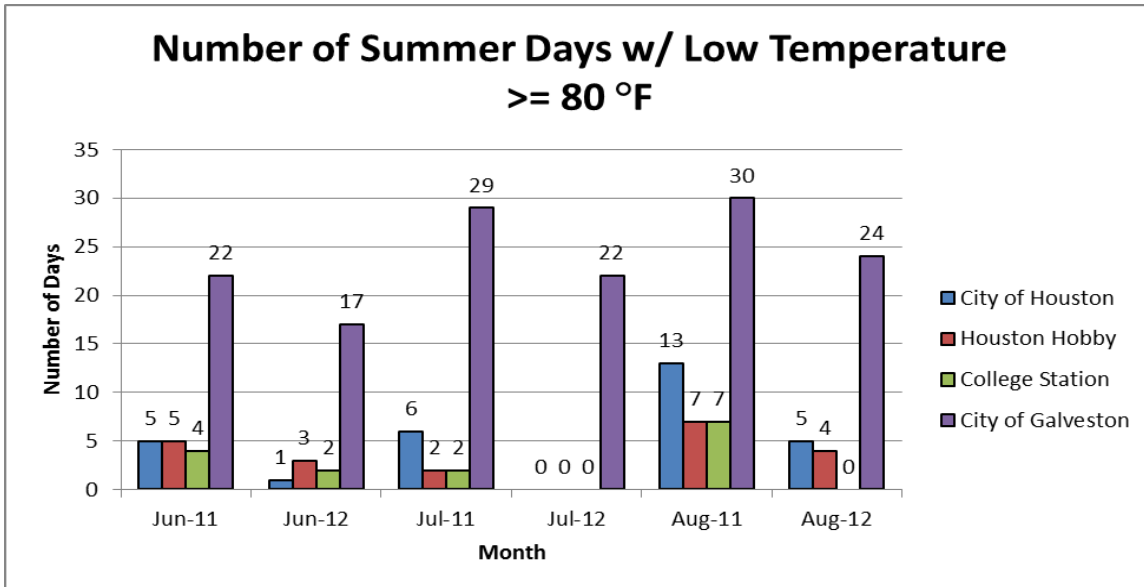


Figure 4: Number of summer days with Low Temperatures >= 80F

Overall, this summer was warmer and wetter than average. A yearly overview for IAH is presented below (Figure 5).

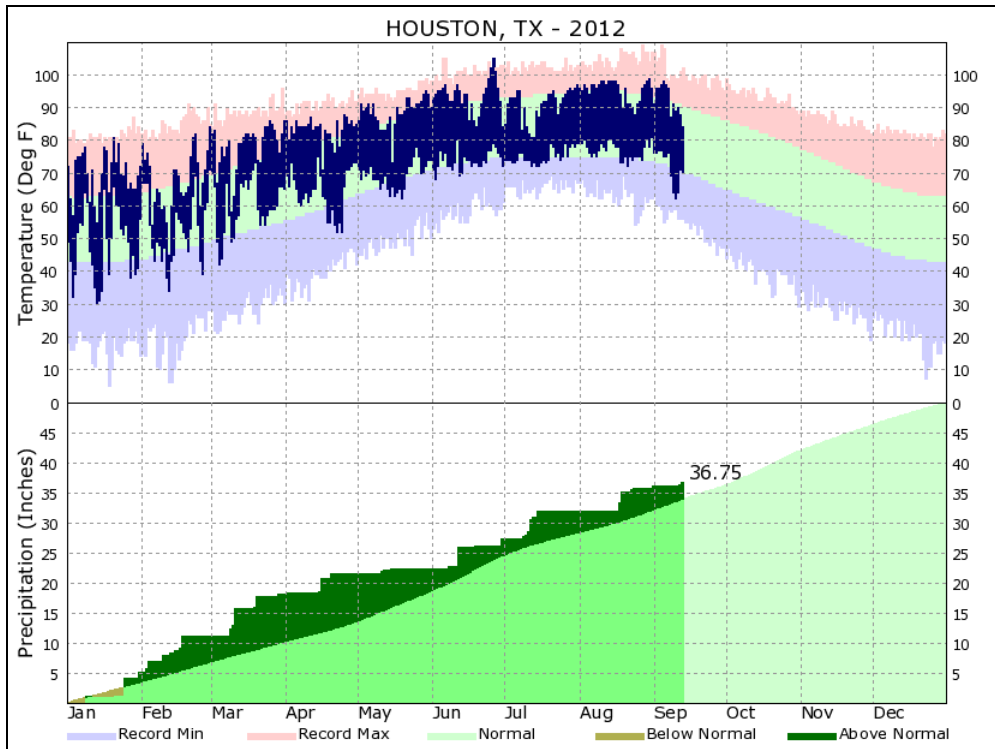


Figure 5: Yearly climate summary for IAH

Even though 2012 rainfall totals have been above average for IAH, there are still areas in southeast Texas that continue to recover from the 2011 drought, especially in and around the Brazos Valley area (Figure 6).

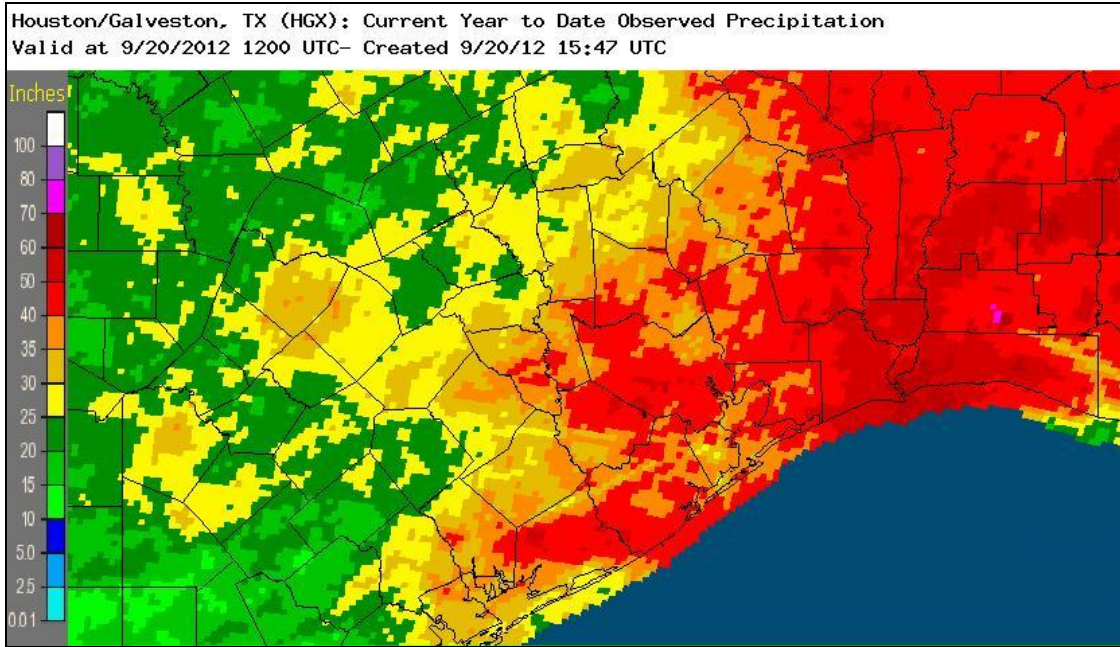


Figure 6: YTD Rainfall Totals (valid through 9/19/12 at 7am)

Much of the state, as well as much of southeast Texas, is no longer considered to be in a drought (Figure 7). Compared to last year, the state of Texas is in much better shape (only 4.88% in Exceptional (D4) drought vs. 87.83% in Exceptional (D4) drought for 2011).

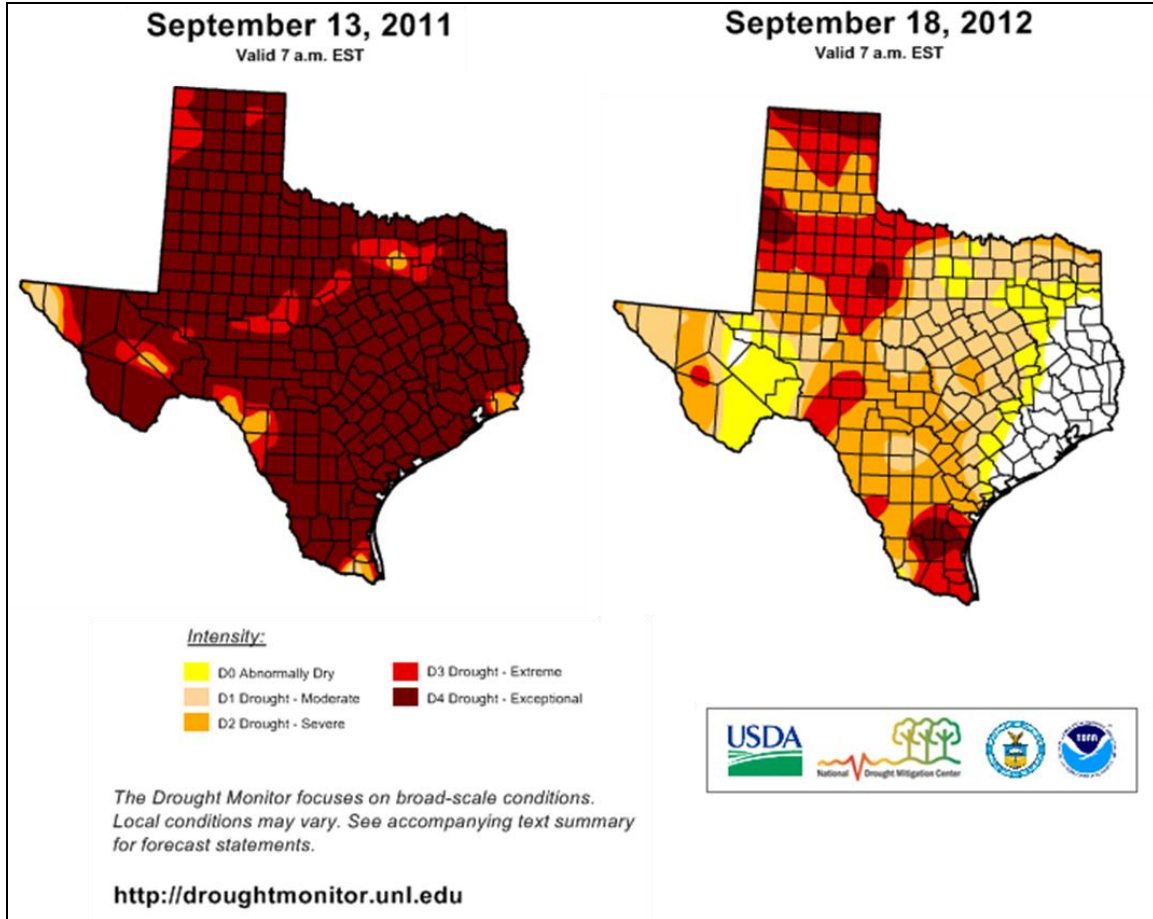


Figure 7: Texas Drought Monitor