



NWS Houston, Texas June 2018 Regional Climate Summary

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... June 2018 Was Warmer Than Normal ...

The average monthly temperature in June was between 2 and 3 degrees warmer than normal across Southeast Texas. Upper level ridging brought very warm temperatures during the first two weeks of the month. A break in the heat occurred toward the middle of the month and some much needed rainfall and associated cloud cover kept high temperatures in the 80's. Upper level ridging reasserted itself toward the end of the month and temperatures again warmed back into the middle 90's.

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Precipitation

Monthly precipitation values varied significantly across Southeast Texas with generally the heavier rainfall totals closer to the coast with slightly drier conditions further inland. June rainfall totals were between 4 and 6 inches near the coast and between 2 and 3 inches further inland. A few rivers approached or exceeded flood stage due to some isolated pockets of heavy rain. The Lavaca River near Edna, Strane Park on the Navidad and Little Cypress Creek all exceeded flood stage during the brief rainy spell in mid June. Here are some preliminary and unofficial June precipitation totals for some other communities around Southeast Texas:

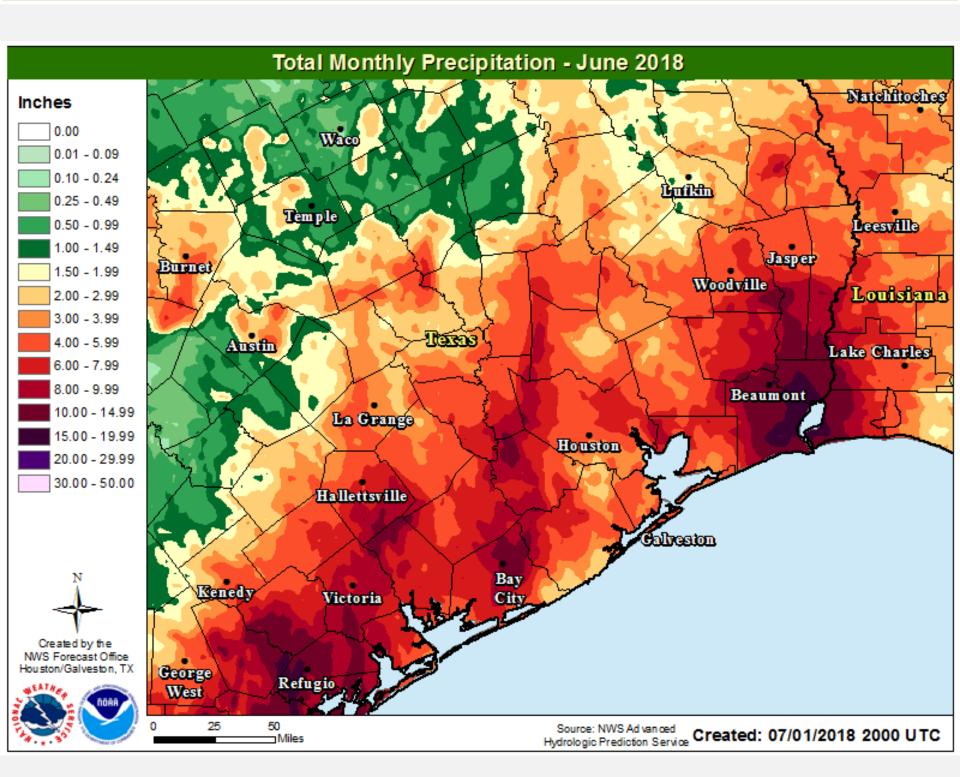
June 2018 Data

| Location | Rainfall | Normal | Departure | |
|---------------------|----------|--------|-----------|--|
| Anahuac | 3.41 | 6.08 | -2.67 | |
| Brenham | 2.84 | 4.76 | -1.92 | |
| Caldwell | 1.25 | 3.05 | -1.80 | |
| Columbus | 4.07 | 4.84 | -0.77 | |
| Crockett | 3.87 | 4.51 | -0.64 | |
| Danevang | 7.03 | 4.53 | +2.50 | |
| El Campo | 4.88 | 4.49 | +0.39 | |
| Freeport | 1.50 | 4.72 | -3.22 | |
| Hou-Westbury | 4.35 | 5.65 | -1.30 | |
| Katy | 6.95 | 4.02 | +2.93 | |
| Liberty | 5.19 | 5.89 | -0.70 | |
| Madisonville | 3.30 | 3.99 | -0.69 | |
| Richmond | 5.88 | 4.72 | +1.16 | |
| Wharton | 4.67 | 3.68 | +0.99 | |
| | | | | |





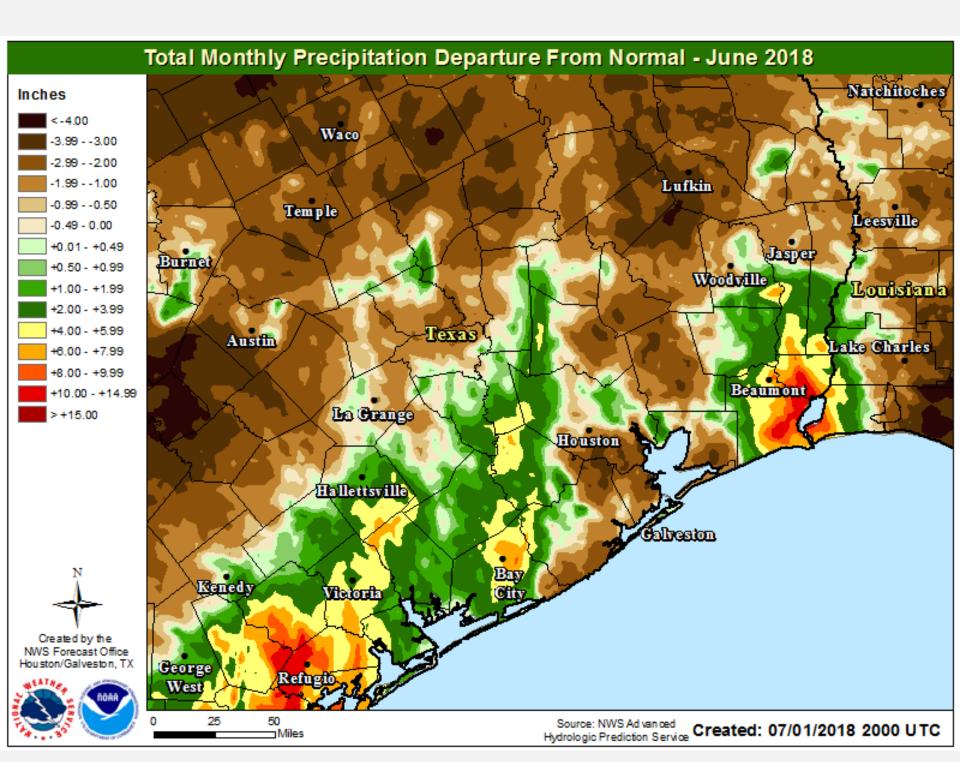
Precipitation (Continued)







Precipitation (Continued)







Temperatures

The June average monthly temperature for the city of Houston was 84.9 degrees and this is the sixth warmest on record. The average June temperature at Galveston was 84.7 degrees and this ties for the 5th warmest on record. Houston Hobby tied for it's sixth warmest June on record with a monthly average temperature of 84.1 degrees. The average temperature at College Station 84.5 degrees and this is the 12th warmest on record. The average high temperatures for the month were slightly warmer than normal but it was the overnight low temperatures that fueled the above average warmth. The average overnight low temperature for the city of Houston was 76.1 degrees and this ties for the warmest average overnight low temperature in city history. The unusually warm overnight low temperatures were uniform across Southeast Texas with Houston Hobby recording it's 4th warmest average low temperature, College Station recording it's 4th warmest and Galveston tying for it's third warmest average low temperature for June.

June 2018 Data

| Site | AVE High | AVE Low | AVE Monthly | AVE DEP | Monthly Rain DEP |
|------|-------------|------------|----------------|------------|---------------------|
| IAH | 93.7 | 76.1 | 84.9 | +2.5 | 6.64 +0.71 |
| GLS | 89.3 | 80.2 | 84.7 | +1.8 | 5.00 -0.69 |
| CLL | 93.8 | 75.1 | 84.5 | +2.3 | 2.01 -2.44 |
| HOU | 92.2 | 76.1 | 84.1 | +2.1 | 4.17 -2.93 |
| UTS | 93.0 | 75.0 | 84.0 | +2.2 | 4.08 -0.73 |
| СХО | 93.9 | 72.8 | 83.3 | +3.3 | 2.41 -3.17 |
| DWH | 93.2 | 75.4 | 84.3 | +3.5 | 4.07 -1.15 |
| SGR | 94.6 | 77.3 | 86.0 | +4.3 | 3.74 -1.28 |
| LVJ | 91.7 | 75.9 | 83.8 | +2.2 | 2.88 -2.67 |
| LBX | 91.6 | 76.1 | 83.8 | +2.7 | 4.64 -1.03 |
| PSX | 89.9 | 80.0 | 85.0 | +2.8 | 4.51 +0.02 |
| HGX | 91.3 | 77.4 | 84.3 | +4.1 | 4.18 -2.25 |





Temperatures (Continued)

Here are the top five warmest June average temperatures and the top five warmest average low temperatures:

Average Monthly Temperature

| City of | City of | Houston | College |
|----------------------|-----------|-----------|----------------|
| Houston | Galveston | Hobby | Station |
| 4-1-06-2-2011 | 06.2.2011 | 06.2.1000 | 06.7.1000 |
| | 86.2 2011 | 86.2 1998 | 86.7 1998 |
| 2nd 85.9 1906 | 85.5 1881 | 85.9 2011 | 86.6 1902 |
| 3rd 85.6 2009 | 85.1 1875 | 85.0 1990 | 86.5 2011 |
| 4th 85.5 1998 | 84.9 2008 | 84.8 2009 | 86.2 1925 |
| 5th 85.1 1980 | 84.7 2018 | 84.8 2013 | 86.0 2009 |
| ••• | | ••• | ••• |
| 6th 84.9 2018 | 6th | 84.1 2018 | 12th 84.5 2018 |

Average June Low Temperature

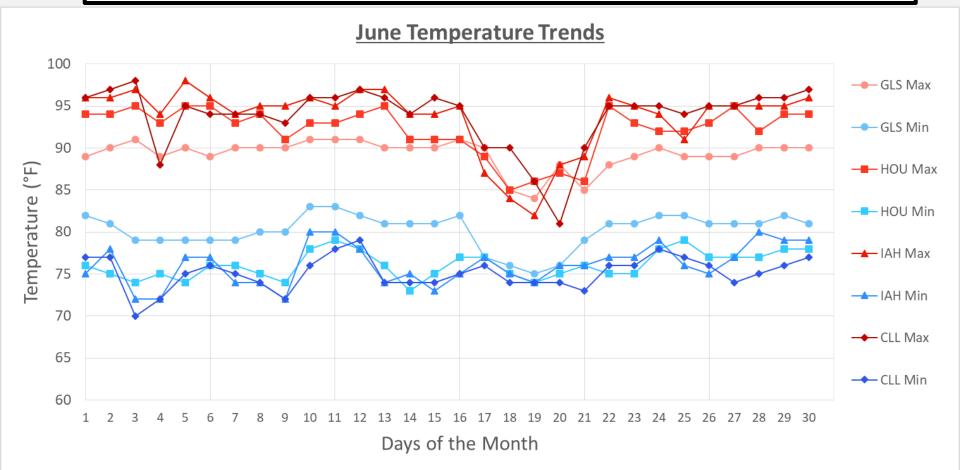
| City of | Сіту ој | Houston | College |
|----------------------|-----------|------------------|------------------|
| Houston | Galveston | Hobby | Station |
| 1st 76.1 2018 | 80.5 2011 | 77.4 1998 | 76.0 1906 |
| 2nd 76.1 2010 | 80.4 1990 | 76.6 2010 | 75.9 2010 |
| 3rd 76.1 1906 | 80.2 2018 | 76.3 1990 | 75.3 1998 |
| 4th 76.0 1953 | 80.2 1881 | <i>76.1 2018</i> | <i>75.1 2018</i> |
| 5th 75.9 1958 | 79.8 2005 | 76.0 2011 | 74.8 2011 |
| | | | |

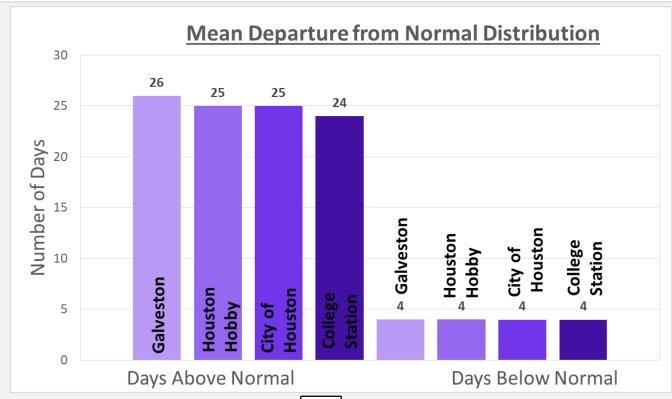




Temperatures (Continued)

Below is a line graph of temperature trends for the four primary climate sites, as well as a bar graph comparing above and below normal temperature days throughout the month of June.



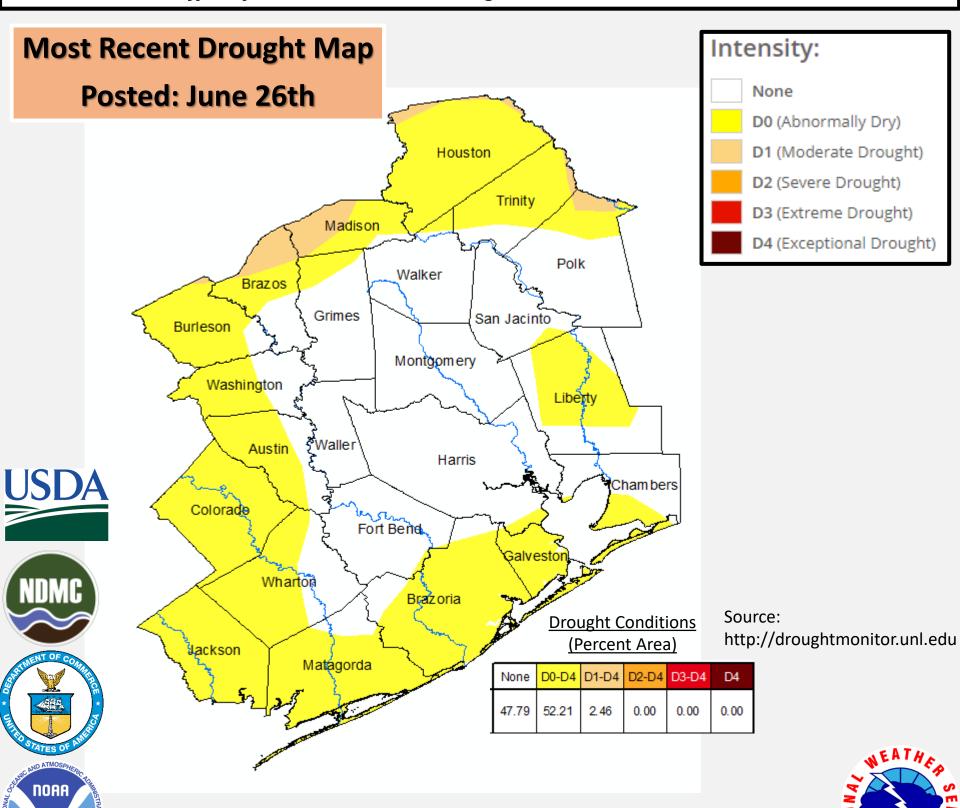






Drought Conditions

The mid month rainy spell helped to improve drought conditions across the region. D-2 or Severe Drought conditions are no longer present across Southeast Texas. Abnormally dry conditions still persist over the coastal and western half of the region and burn bans are still in effect for Brazoria and Matagorda counties.



Monthly Record Temperature Data

There just a handful of daily temperature records established during June and all of these were record warm minimum temperatures. There were no daily rainfall records established during June.

| Site | Date | Record Type | New Record | Previous Record |
|-------------------|-----------------------|---------------|------------|-----------------|
| City of Galveston | June 1st | High Min Temp | 82 | 80 in 1996 |
| City of Galveston | June 10 th | High Min Temp | 83 | 82 in 2003 |
| City of Houston | June 10 th | High Min Temp | 80 | 82 in 2010 |
| City of Galveston | June 11 th | High Min Temp | 83 | 82 in 2012 |
| City of Houston | June 11 th | High Min Temp | 80 | Tied in 2012 |
| City of Galveston | June 12 th | High Min Temp | 82 | Tied in 2015 |
| City of Houston | June 24th | High Min Temp | 79 | Tied in 2009 |





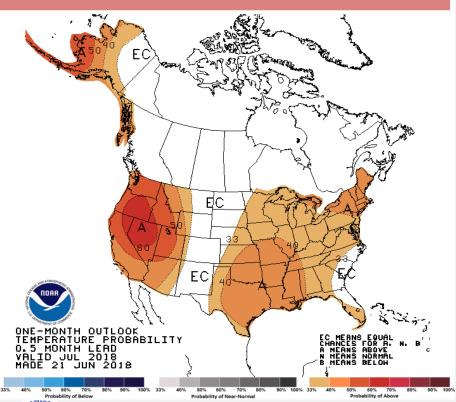
July Outlook

The latest outlook from the Climate Prediction Center (CPC) calls for an increased likelihood of above normal temperatures and normal to below normal precipitation for the month of July.

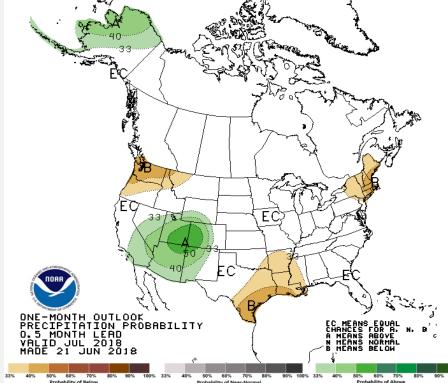
| Site | Average Temp(°F) | Normal High (°F) | Normal Low (°F) |
|--------------------|---------------------|---------------------|--------------------|
| Galveston | 84.5 | 89.6 | 79.4 |
| Houston Hobby | 83.8 | 92.1 | 75.5 |
| City of Houston | 84.4 | 93.7 | 75.1 |
| College Station | 84.7 | 94.8 | 74.6 |

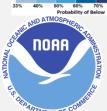
| Site | Normal Monthly Precipitation (in.) |
|-----------------------|------------------------------------|
| Galveston (GLS) | 3.80 |
| Houston Hobby (HOU) | 4.66 |
| City of Houston (IAH) | 3.79 |
| College Station (CLL) | 2.14 |

Upcoming Temperature Outlook



Upcoming Precipitation Outlook







Climate Primary Site History

Galveston (GLS)

Records for Galveston are from observations at the following locations: 67-69 Strand (April 1, 1871 - Aug 31, 1874); 23rd and the Strand (Sep 1, 1874 - July 29, 1878), 1.75 miles WSW of the previous location; the Custom House at Bath Street and the Strand (July 30, 1878 - May 8, 1882); Colorado and Sante Fe Railroad Building at 25th and the Strand (May 9, 1882 - March 14, 1883); back to the Custom House which later became the Cotton Exchange Building (March 15, 1883 - June 24, 1898), about a 1/3 of a mile E of the previous Custom House location; The Levy Building at 2223 Market Street (June 25, 1898 - Nov 26, 1900); the Trust Building at Tremont and Post Office Streets (Nov 27, 1900 - June 24, 1946), one-quarter mile south of the Levy Building; the U.S. Post Office Building at 601 Rosenberg (June 25, 1946 - 1994); Scholes Field (January 1995 to present).

Houston Hobby (HOU)

Records are based upon observations beginning in August 1931.

City of Houston (IAH)

Records for the City of Houston are from observations at the following locations: Cotton Station from July 1881 through September 1909, Stewart Building at Preston and Fannin from September 1909 through February 1926, Shell Building at Texas and Fannin from March 1926 through August 1938, Federal Building at Franklin and Fannin from August 1938 through May 1969, Intercontinental Airport from June 1969 to the present.

College Station (CLL)

Records from 1893 through July 1951 are based on observations taken at the Texas Agriculture Experiment COOP Station main farm located 6 miles southwest of College Station. Records from August 1951 through the present are based on observations taken at Easterwood field. Normal temperatures are calculated from \$\\ 981\$ to 2000 period.