

NWS Houston, Texas May 2018 Regional Climate Summary

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. . . Record Breaking Hot May. . .

The month of May was sizzling with average temperatures ranging between 3-5 degrees above normal. Average monthly temperatures for May ranked in the top five for three of the primary climate sites: City of Galveston (1st). City of Houston (3th), and City of College Station (5th). Rainfall totals were lacking throughout the month with high pressure parked over the region, and as a result monthly rainfall totals were well below normal. Drought conditions expanded drastically south of I-45, ending May with moderate to severe drought conditions along the western coastal counties such as Matagorda, Jackson and Wharton.

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Precipitation

Monthly precipitation values were well below normal for the month of May. Two weak frontal boundaries brought little rain to the region, but not enough to keep the drought away. Monthly rainfall deficits ranged between 1 to 5 inches at local climate sites across SE TX. Moderate to severe drought conditions expanded due to the lack of rainfall along the coast mainly south of I-45, and even portions of Burleson, Brazos, and Madison counties ended the month abnormally dry. The outlier would be the precipitation received in northern Harris and southern Montgomery counties on May 21st, attributed to a nearly stationary storm located along the stalled frontal boundary. This bullseye of rainfall is evident on the Total Monthly Precipitation Image on page 4.

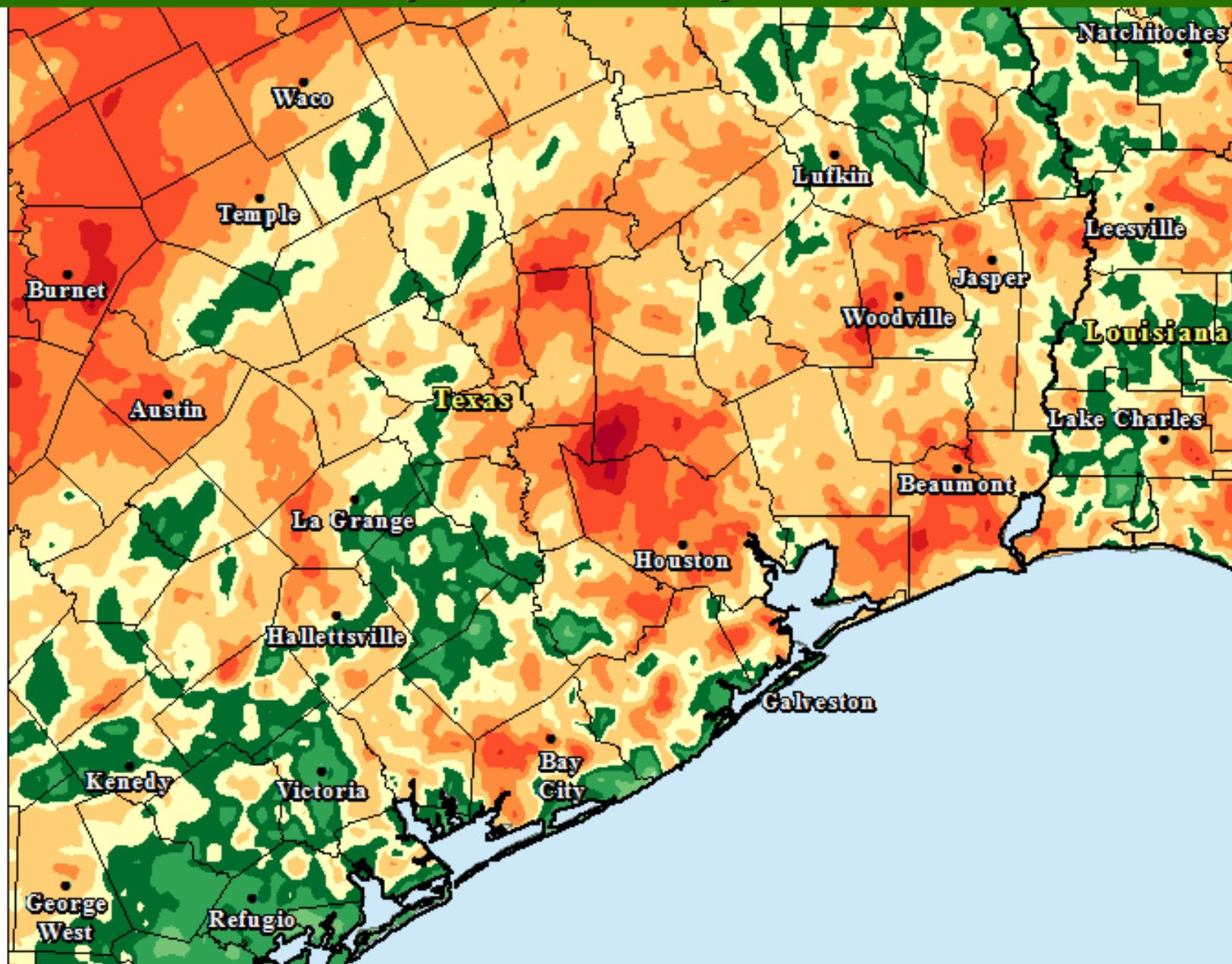
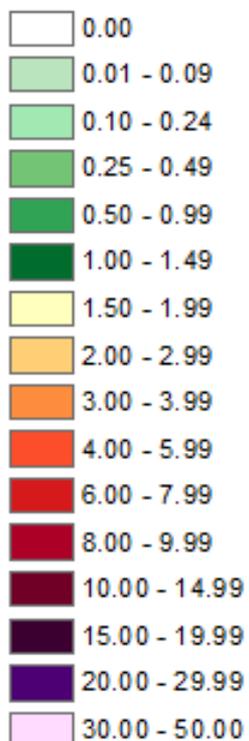
Site	Total Precipitation (in.)	Departure from Normal (in.)	Number of Thunderstorm Days	Maximum Daily Precipitation (in./date)
Galveston (GLS)	0.73	-3.59	3	0.24 May 5th
Houston Hobby (HOU)	3.60	-1.15	5	1.96 May 21st
City of Houston (IAH)	3.83	-1.26	5	1.06 May 20th
College Station (CLL)	2.08	-2.25	3	0.85 May 4th



Precipitation (Continued)

Total Monthly Precipitation - May 2018

Inches



Created by the
NWS Forecast Office
Houston/Galveston, TX



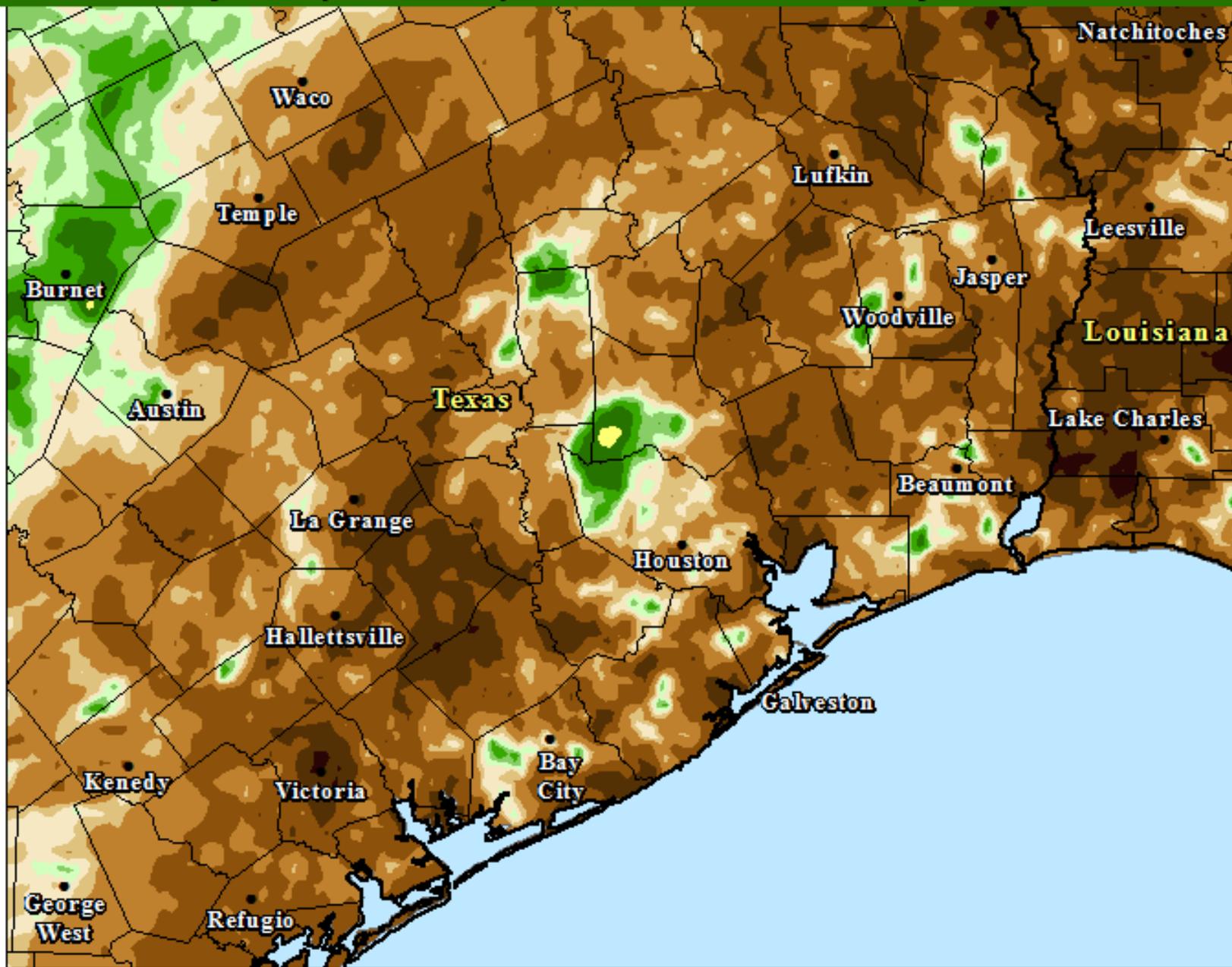
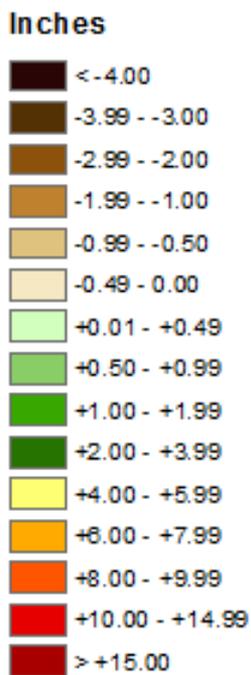
0 25 50
Miles

Source: NWS Advanced Hydrologic Prediction Service
Created: 06/01/2018 2000 UTC



Precipitation (Continued)

Total Monthly Precipitation Departure From Normal - May 2018



Created by the
NWS Forecast Office
Houston/Galveston, TX



0 25 50
Miles

Source: NWS Advanced Hydrologic Prediction Service
Created: 06/01/2018 2000 UTC



Temperatures

Temperatures throughout the month of May were 3-5 degrees above normal depending on the climate site across SE TX. With a ridge of high pressure parked overhead through much of the month, average temperatures were well above normal and a total of 11 daily temperature records were sent. Three of the four primary climate site's average monthly temperatures for May ranked in the top five warmest May's on record.

The first week of May brought a weak cold front off the coast of SE TX, allowing a cooler air mass to fill into the region. Below normal temperatures at College Station and near normal temperatures in Galveston, were reported at the end of the first week. Surface high pressure built back in behind the cold front and remained in place through the second week of May and into the beginning of the third. A final weak cold front became stationary and stalled over the northern sections of the forecast area helping to lower College Station's temperatures by a degree or two with the help of added cloud cover from this stationary boundary. High pressure built back into the region towards the end of the third week of the month and continued through the remainder of May.

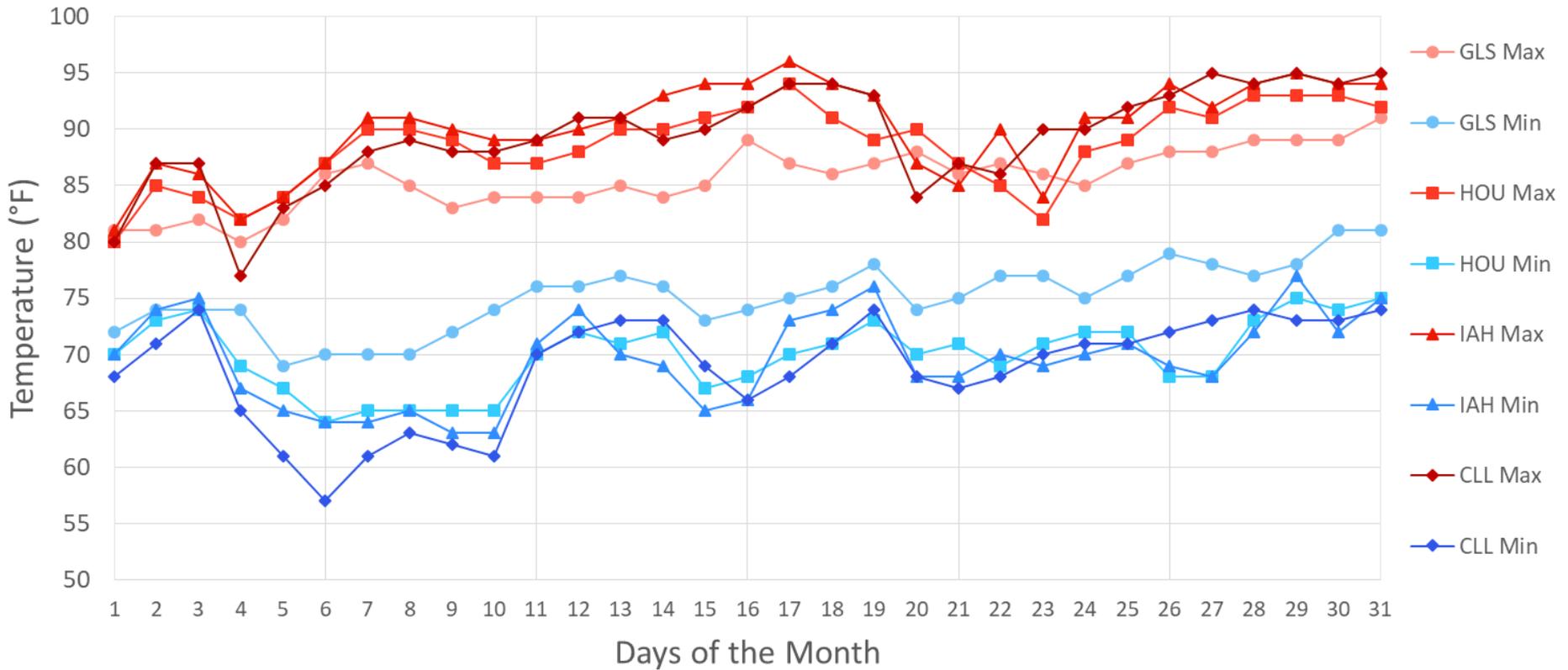
Site	Average Temp (F)	Average High Temp (F)	Average Low Temp (F)	Normal Average Temp (F)	Departure From Normal (F)	Maximum Temperature (F)	Minimum Temperature (F)
Galveston (GLS)	80.4	85.7	75.1	77.6	+2.8	91 on May 31st	69 on May 5th
Houston Hobby (HOU)	79.3	88.6	70.0	77.0	+2.3	94 on May 17th	64 on May 6th
City of Houston (IAH)	79.8	90.1	69.6	76.9	+2.9	96 on May 17th	63 on May 10th and 9th
College Station (CLL)	79.1	89.4	68.8	76.2	+2.9	95 on May 31st and 29th	57 on May 6th



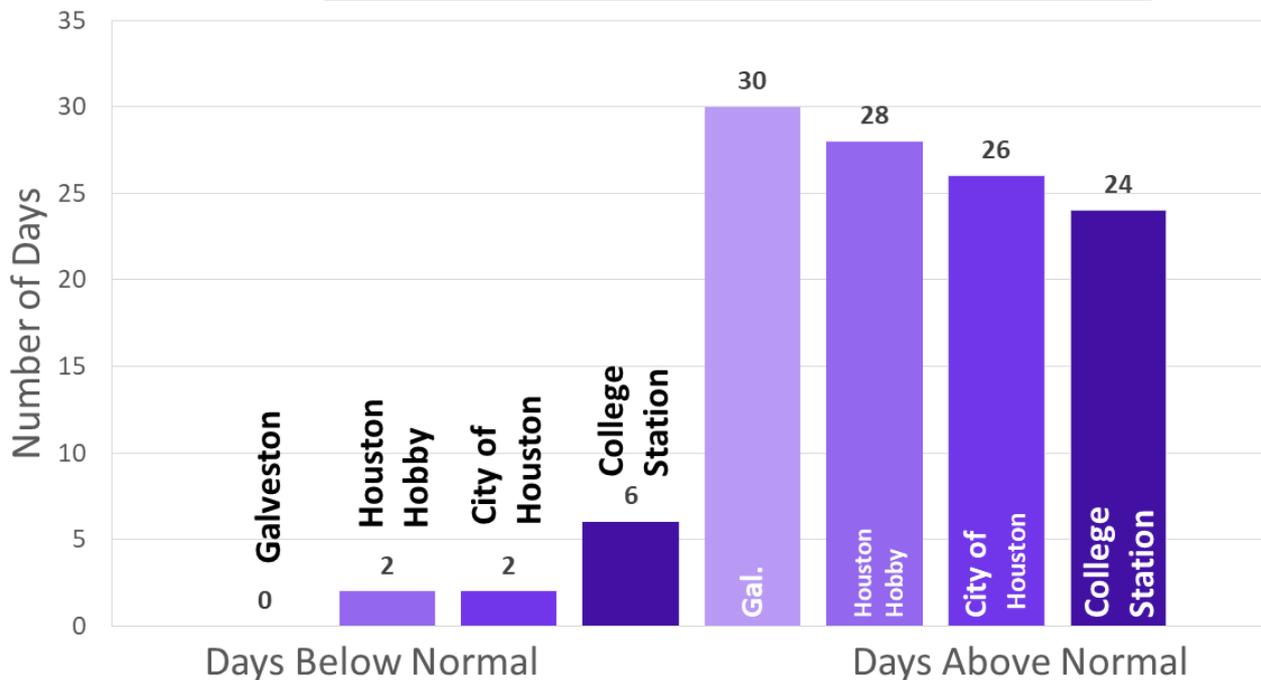
Temperatures (Continued)

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 May.

May Temperature Trends



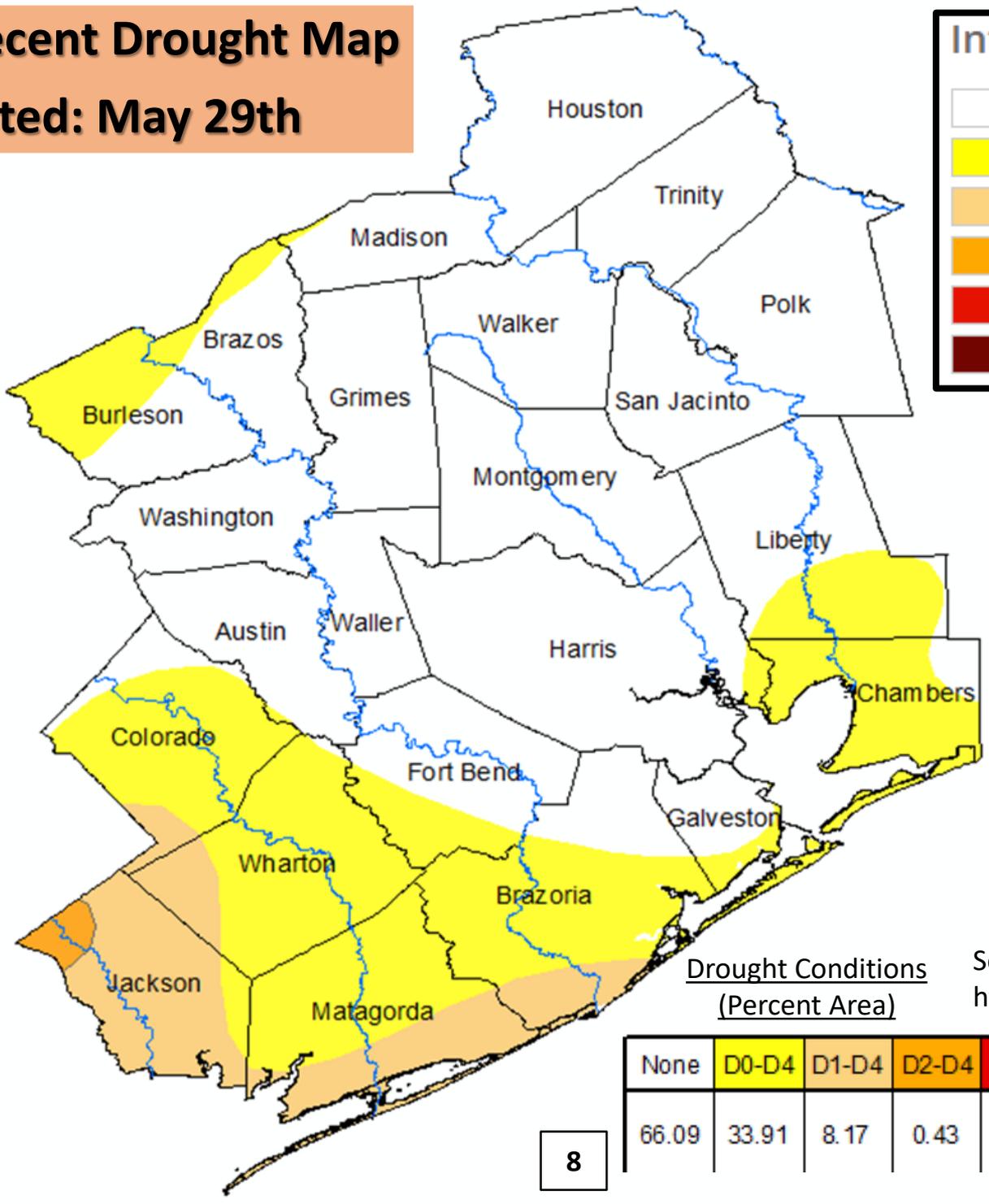
Mean Departure from Normal Distribution



Drought Conditions

Drought conditions have continued to expand and worsen across southeast Texas as indicated in the most recent Drought Monitor Report. Abnormally dry drought conditions (D0) expanded through Colorado, Burleson, and Brazos counties, while moderate drought conditions improved in portions of Wharton, Matagorda, and Brazoria counties. Additionally, severe drought conditions (D2) are now present in the northwest section of Jackson County. A Drought Information Statement for D2 conditions can be found on the following link under the News Headlines on the NWS Houston webpage. As of June 6th, Wharton, Jackson and Matagorda counties have outdoor burn bans in effect. Overall, roughly 34% of the forecast area is experiencing drought, with 8% area under moderate drought conditions, and nearly 1% (Jackson County) experiencing severe drought conditions.

Most Recent Drought Map
Posted: May 29th



Intensity:

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)

Drought Conditions
 (Percent Area)

Source:
<http://droughtmonitor.unl.edu>

None	D0-D4	D1-D4	D2-D4	D3-D4	D4
66.09	33.91	8.17	0.43	0.00	0.00



Monthly Record Temperature Data

The end to the month of May has been very warm, with average temperatures 3-5 degrees above normal for this time of year. The following table shows the number of days when temperatures reached 90 degree or warmer, specifically for the month of May. The table includes the record number of days and its year, as well as May 2018 with data through today's date of May 29th. Forecast temperatures for tomorrow and May 31st, 2018 should also reach above the 90 degree mark at most of the primary climate locations. There were a total of eleven new records were set throughout the month of March across SE TX primary climate sites.

Site	Date	Record Type	New Record	Previous Record
City of Galveston	May 6 th	High Max Temp	86	85 in 2012
City of Galveston	May 7 th	High Max Temp	87	Tied in 1934
City of Houston	May 14 th	High Max Temp	93	Tied in 1995
City of Houston	May 15 th	High Max Temp	94	92 in 2003
City of Houston	May 16 th	High Max Temp	94	93 in 2003
City of Houston	May 17 th	High Max Temp	96	95 in 1894
City of Galveston	May 17 th	High Max Temp	87	Tied in 2017
Houston Hobby	May 17 th	High Max Temp	94	Tied in 1998
City of Galveston	May 19 th	High Max Temp	87	Tied in 2017
City of Galveston	May 30 th	High Min Temp	81	80 in 2012
City of Galveston	May 31 st	High Min Temp	81	Tied in 1989

Location	Number of 90 Degree Days in May 2018	RECORD Number of 90 Degree Days in the Month of May
City of Houston	20 Days	18 Days, May 2003
Houston Hobby	13 Days	22 Days, May 1998
City of College Station	14 Days	Tied 21 Days, May 2010, May 1996, and May 1937



Top Five Warmest May's On Record

Average monthly temperatures for May ranked in the top five for three of the primary climate sites: City of Galveston (1st). City of Houston (3th), and City of College Station (5th).

City of Galveston

Rank	May Average Temperature Value	Ending Date
1	80.4	2018-05-31
2	80.0	2012-05-31
3	79.6	2003-05-31
4	79.1	1996-05-31
5	79.0	1933-05-31

City of Houston

Rank	May Average Temperature Value	Ending Date
1	81.4	1996-05-31
2	80.7	2003-05-31
3	79.8	2018-05-31
4	79.4	2010-05-31
5	79.3	1962-25-31

City of College Station

Rank	May Average Temperature Value	Ending Date
1	81.6	1996-05-31
2	79.4	2010-05-31
3	79.3	1998-05-31
4	79.2	1927-05-31
5	79.1	2018-05-31



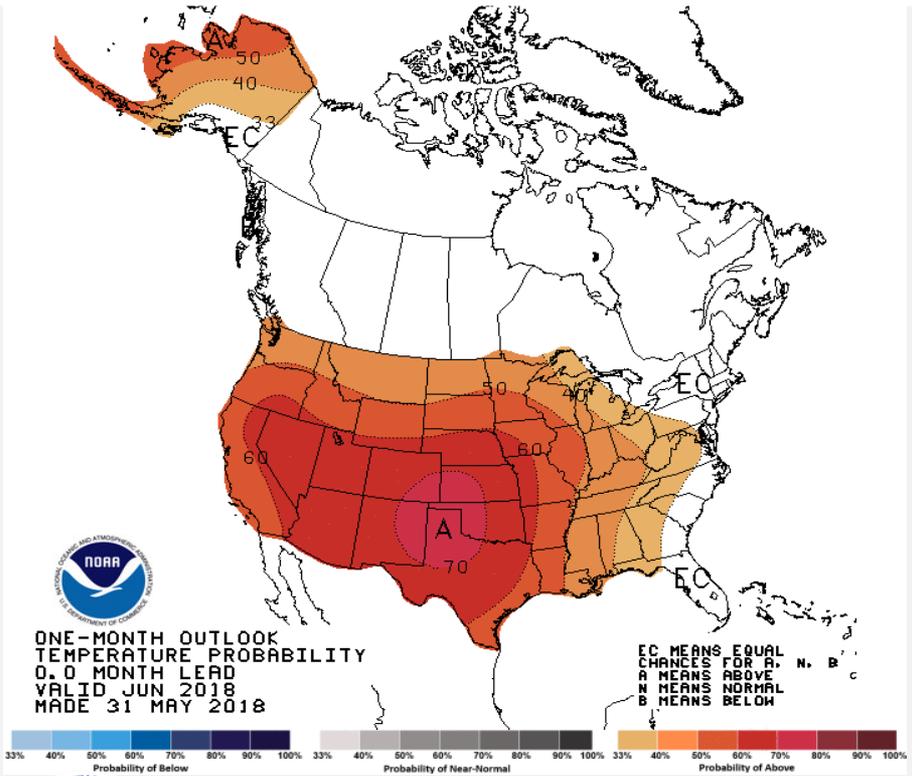
June Outlook

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

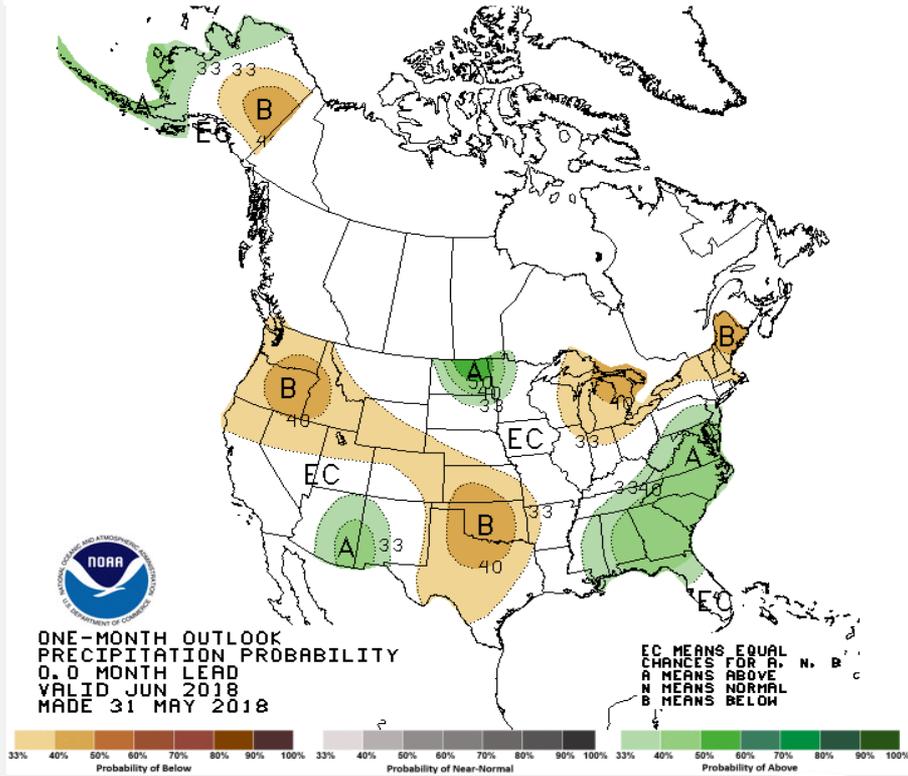
Site	Average Temp(°F)	Normal High (°F)	Normal Low (°F)
Galveston	82.9	88.2	77.5
Houston Hobby	82.0	90.1	73.9
City of Houston	82.4	91.4	73.3
College Station	82.2	91.7	72.7

Site	Normal Monthly Precipitation (in.)
Galveston (GLS)	5.69
Houston Hobby (HOU)	7.10
City of Houston (IAH)	5.93
College Station (CLL)	4.45

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 1981 to 2000 period.

