

NWS Houston, Texas October 2019 Regional Climate Summary

Produced by Jimmy Fowler & Nikki Hathaway

... Near Normal Transition Month between Summer and Winter ...

Multiple cold fronts through the month brought an end to the unseasonably warm weather resulting in a near normal month across the region. There were still 17 temperature records set this month, 16 of which were either record high maximum or high minimum temperatures. During the month on October there was some pockets of D3-Extreme Drought conditions that emerged in portions of the northern and western portions of the region. However, precipitation brought through with frontal passages improved drought conditions at the end of the month. The first surge of winter-like temperatures occurred on Halloween as a moderate cold front pushed through Southeast Texas with temperatures dropping into the low 40s or upper 30s Halloween evening.

Photo taken by NWS
Meteorologist Nikki Hathaway

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October 2019 by the Numbers

Location (records started)	Average Temp	Ranking	Total Rainfall	Ranking
City of Houston, TX (1888)	71.8°F	56 th Warmest	5.80''	40 th Wettest
Houston Hobby, TX (1930)	73.3°F	22 nd Warmest	4.21''	34 th Wettest
City of Galveston, TX (1871)	75.5°F	23 rd Warmest	10.66''	10 th Wettest
City of College Station, TX (1882)	71.3°F	40 th Warmest	3.06''	60 th Wettest
Conroe, TX (1997)	69.8°F	11 th Warmest	3.28''	13 th Wettest
Huntsville, TX (1997)	69.7°F	13 th Warmest	5.77''	7 th Wettest
Sugar Land, TX (2000)	72.8°F	7 th Warmest	1.68''	4 th Driest
Palacios, TX (1943)	73.9°F	17 th Warmest	6.09''	19 th Wettest
Clover Field (Pearland), TX (1997)	73.1°F	9 th Warmest	7.13''	7 th Wettest
David Wayne Hooks (Tomball), TX (1998)	70.3°F	13 th Warmest	6.02''	9 th Wettest
Angleton, TX (1998)	72.4°F	11 th Warmest	6.07''	7 th Wettest
League City, TX (1990)	72.2°F	9 th Warmest	10.09''	7 th Wettest



Precipitation

The primary source of precipitation this month was from cold fronts that pushed through the region. This resulted in an overall near normal month for the region with some outliers. College Station ended the month about 2 inches below normal, while Galveston ended about 5 inches above normal. Galveston's yearly precipitation total by the end of October was 55.64 inches, which is about 5 inches above Galveston's usually yearly total of 50.76 inches.

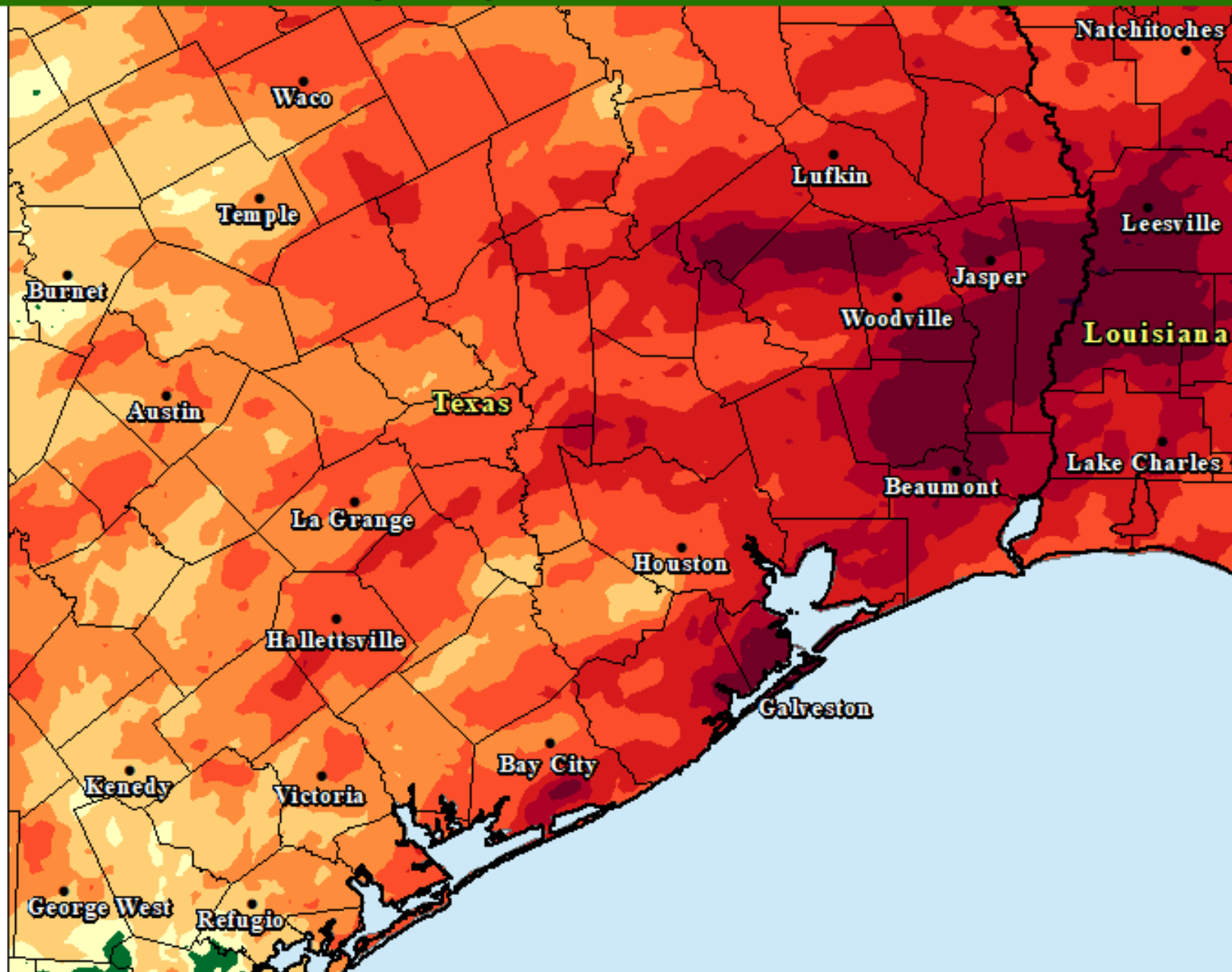
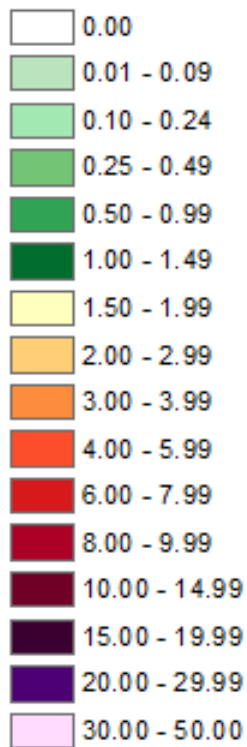
Site	Total Precipitation (in.)	Departure from Normal (in.)	Number of Thunder Days	Maximum Daily Precipitation (in./date)	
Galveston (GLS)	10.66	+5.14	7	3.12	14 th
Houston Hobby (HOU)	4.21	-1.78	3	1.88	25 th
City of Houston (IAH)	5.80	+0.10	11	2.04	29 th
College Station (CLL)	3.06	-1.85	4	0.95	24 th



Precipitation (Continued)

Total Monthly Precipitation - October 2019

Inches



Created by the
NWS Forecast Office
Houston/Galveston, TX



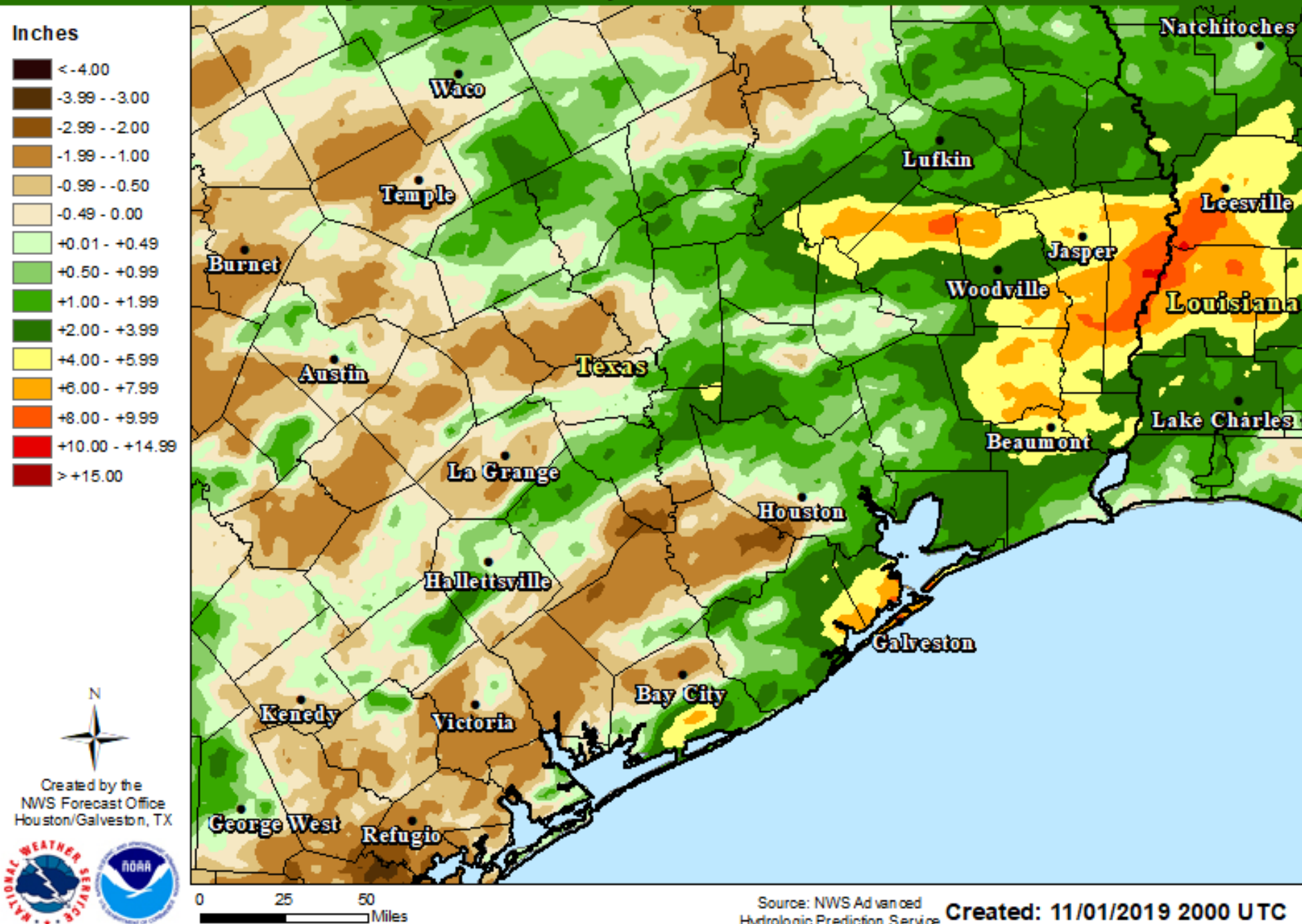
0 25 50
Miles

Source: NWS Advanced Hydrologic Prediction Service
Created: 11/01/2019 2000 UTC



Precipitation (Continued)

Total Monthly Precipitation Departure From Normal - October 2019



Temperatures

October started out unseasonably warm with much of the area experiencing high temperatures in the 90s. However, the shorter daylight hours and a few cold fronts brought an overall average month temperature wise. There was 17 temperature records broken this month at our primary climate sites: One record low maximum, six record high minimums, and 10 record high maximums.

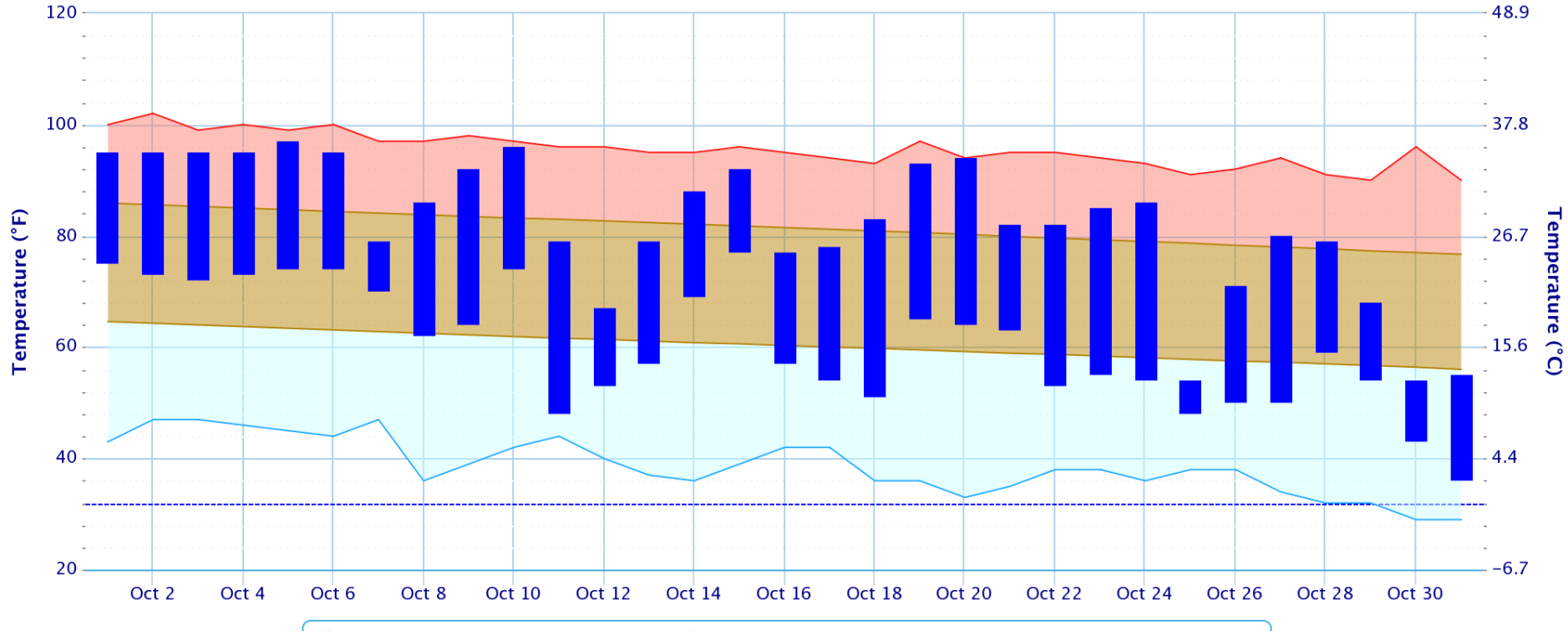
Site	Average Temp (F)	Average High Temp (F)	Average Low Temp (F)	Normal Average Temp (F)	Departure From Normal (F)	Maximum Temperature (F)	Minimum Temperature (F)
Galveston (GLS)	75.5	81.9	80.8	74.3	+1.2	92 on Oct. 4 th	46 on Oct. 31 st
Houston Hobby (HOU)	73.3	82.5	64.1	72.1	+1.3	94 on Oct. 4 th & 5 th	40 on Oct. 31 st
City of Houston (IAH)	71.8	81.9	61.6	71.5	+0.3	93 on Oct. 3 rd , 4 th & 5 th	40 on Oct. 31 st
College Station (CLL)	71.3	82.3	60.4	70.8	+0.5	97 on Oct. 5 th	36 on Oct. 31 st



Monthly Temperature Charts

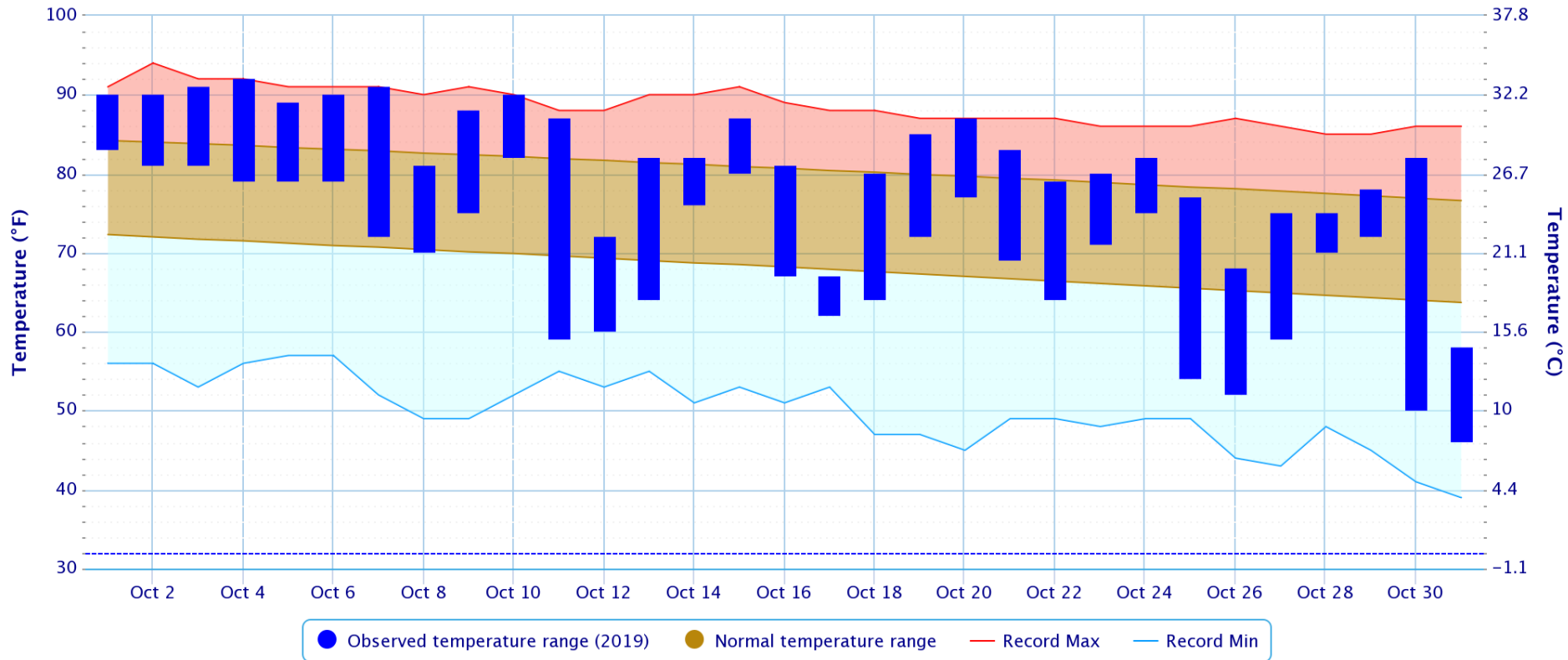
Daily Temperature Data – College Station Area, TX (ThreadEx)

Period of Record – Max temperature: 1888-10-01 to 2019-10-31; Min temperature: 1882-05-15 to 2019-10-31. Normals period: 1981-2010. Click and drag to zoom chart.



Daily Temperature Data – Galveston Area, TX (ThreadEx)

Period of Record – 1874-05-10 to 2019-10-31. Normals period: 1981-2010. Click and drag to zoom chart.



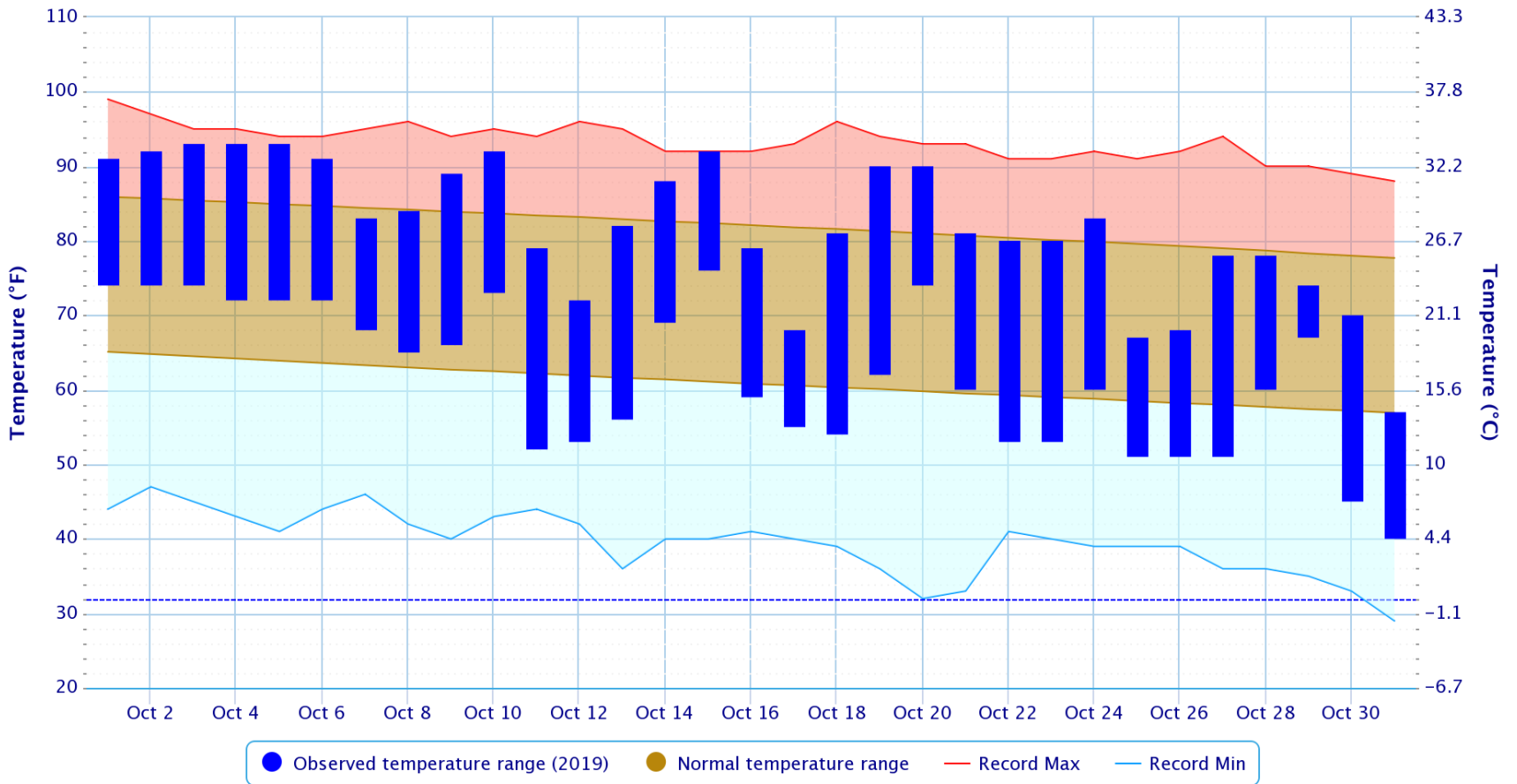
Powered by ACIS



Monthly Temperature Charts (continued)

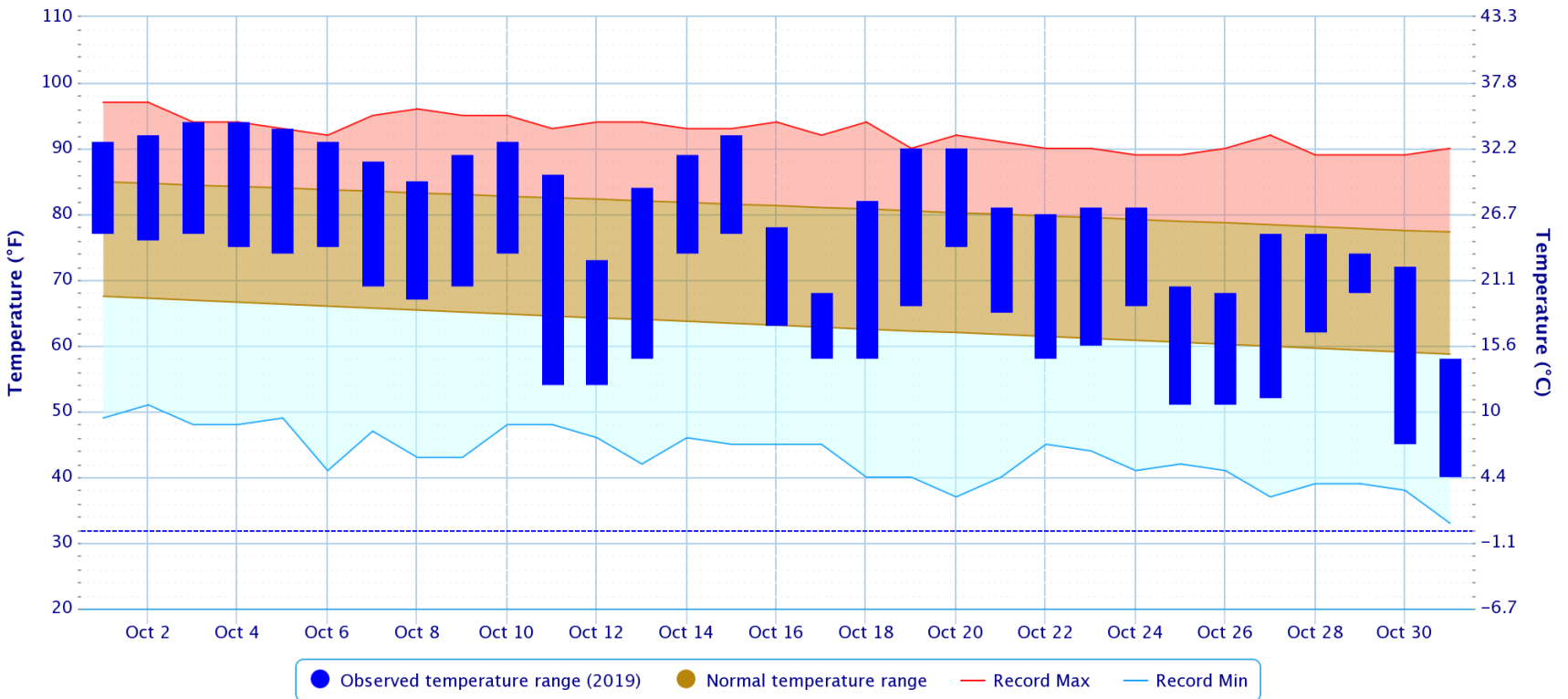
Daily Temperature Data – Houston Area, TX (ThreadEx)

Period of Record – 1889-05-01 to 2019-10-31. Normals period: 1981-2010. Click and drag to zoom chart.



Daily Temperature Data – HOUSTON WILLIAM P HOBBY AP, TX

Period of Record – 1930-08-01 to 2019-10-31. Normals period: 1981-2010. Click and drag to zoom chart.



October Daily Record Reports

A total of 17 daily records were set across the primary climate sites. T stands for tied.

Site	Date	Record Type	New Record	Previous Record
City of College Station	October 15 th	High Min Temperature	77°	74° in 1933
City of College Station	October 20 th	High Max Temperature	94°	92° in 1892
City of College Station	October 25 th	Low Max Temperature	54°	57° in 1972
City of Houston	October 15 th	High Max Temperature	92° - T	92° in 2017
City of Houston	October 15 th	High Min Temperature	76° - T	76° in 1962
Houston Hobby	October 3 rd	High Max Temperature	94°	93° in 2002
Houston Hobby	October 4 th	High Max Temperature	94°	93° in 1966
Houston Hobby	October 5 th	High Max Temperature	93° - T	93° in 2013
Houston Hobby	October 15 th	High Min Temperature	77°	75° in 2008
Houston Hobby	October 19 th	High Max Temperature	90° - T	90° in 2016
City of Galveston	October 1 st	High Min Temperature	83° - T	83° in 1986
City of Galveston	October 4 th	High Max Temperature	92°	89° in 2004



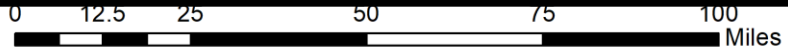
October Daily Record Reports Continued

Site	Date	Record Type	New Record	Previous Record
City of Galveston	October 7 th	High Max Temperature	91° - T	91° in 2017
City of Galveston	October 10 th	High Max Temperature	90°	88° in 1941
City of Galveston	October 10 th	High Min Temperature	82°	80° in 2014
City of Galveston	October 15 th	High Min Temperature	80° - T	80° in 1981
City of Galveston	October 20 th	High Max Temperature	87°	86° in 2004



Drought Conditions

Drought conditions degraded through the middle of the month with D3-Extreme Drought impacting portions of Burleson, Washington, Austin, and Jackson Counties, but precipitation towards the end of the month ended up quickly improving the drought conditions. The western and northern portions of the region remain the driest with D2-Severe Drought still impacting portions of Burleson, Washington, Austin, Colorado, and Jackson Counties. There is no longer any areas under the D3-Extreme Drought conditions.

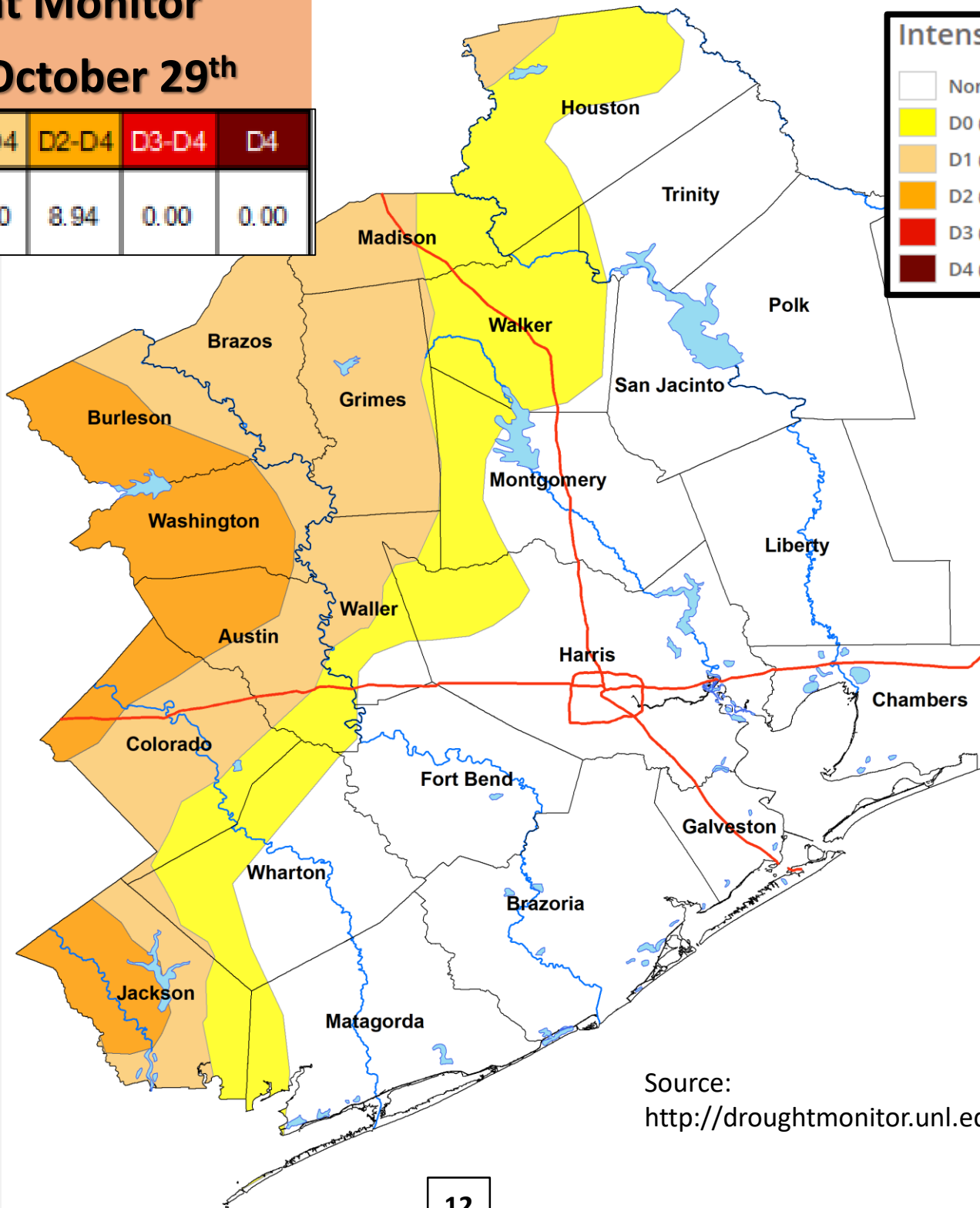
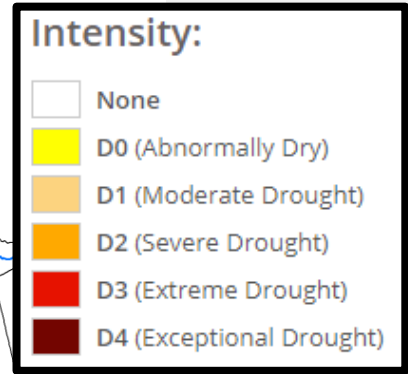


Drought Monitor

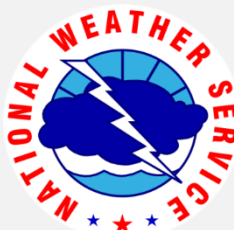
Posted: October 29th

None	D0-D4	D1-D4	D2-D4	D3-D4	D4
56.65	43.35	26.90	8.94	0.00	0.00

Drought Conditions
(Percent Area)



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



November Outlook

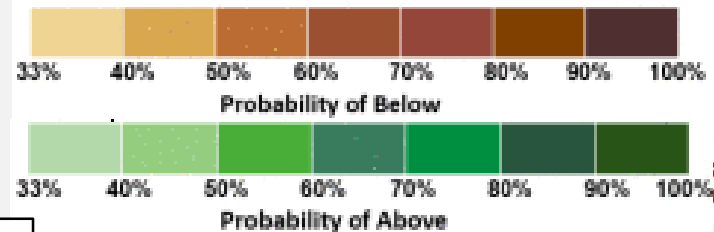
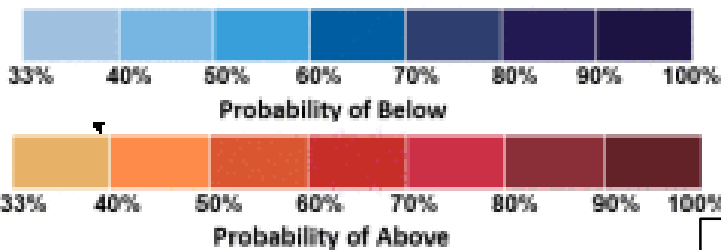
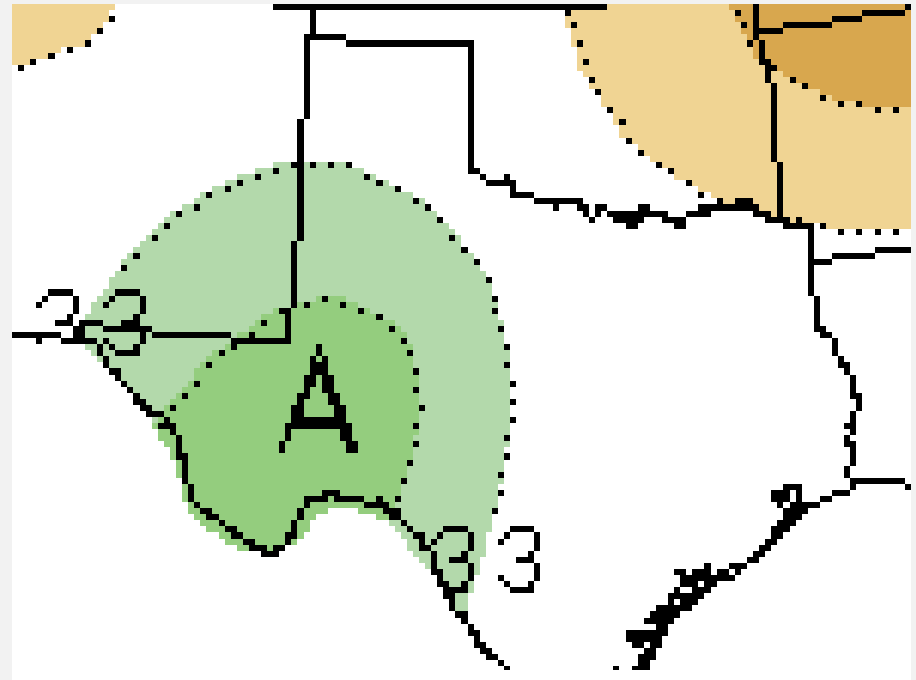
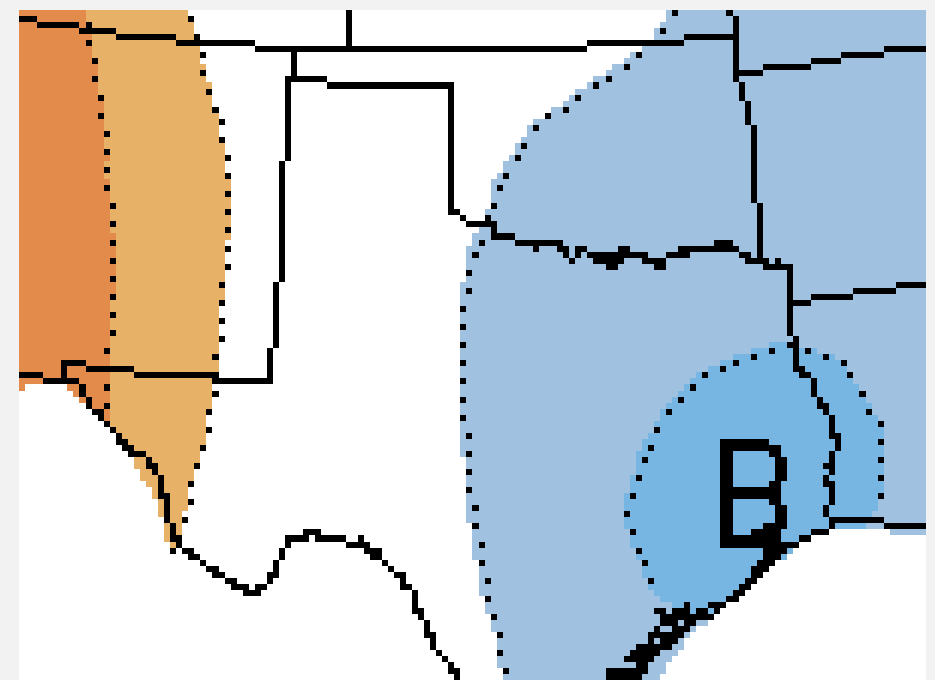
For November, the latest outlook from the Climate Prediction Center (CPC) calls for a 42% chance of below normal temperatures, 33% near normal temperatures, and a 25% chance for above normal temperatures across the area. The precipitation outlook calls for equal chances for above, below, or normal precipitation, across much of Southeast Texas.

Site	Average Temp(°F)	Normal High (°F)	Normal Low (°F)
Galveston	74.3	80.6	68.1
Houston Hobby	72.1	81.2	63.1
City of Houston	71.5	82.0	60.9
College Station	70.8	81.4	60.3

Site	Normal Monthly Precipitation (in.)
Galveston (GLS)	5.52
Houston Hobby (HOU)	5.99
City of Houston (IAH)	5.70
College Station (CLL)	4.91

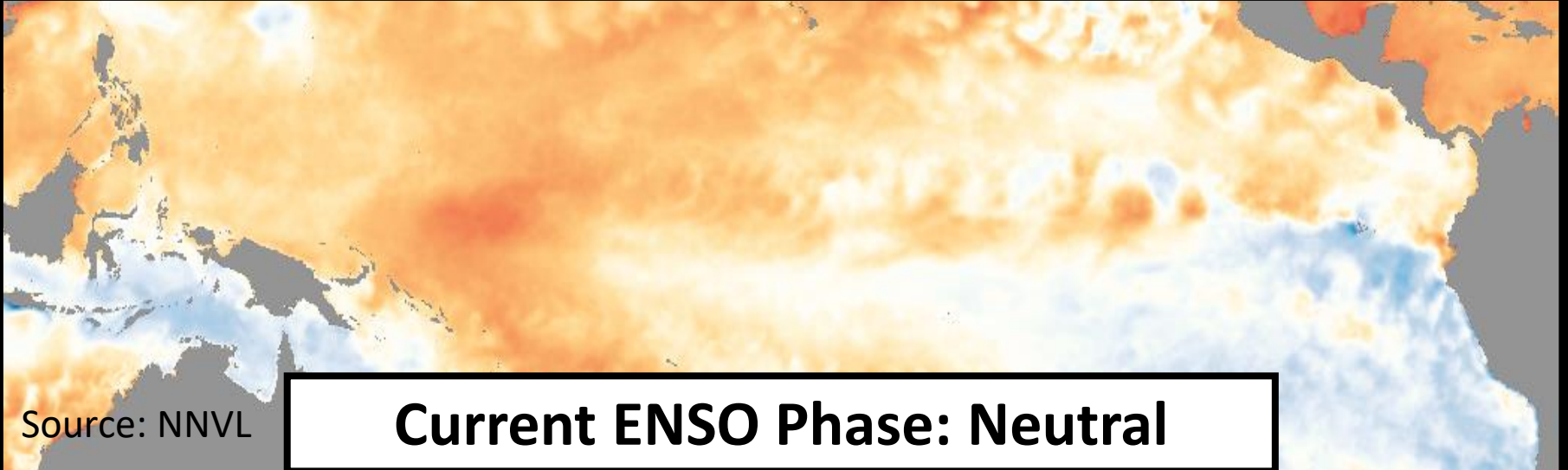
Temperature Outlook

Precipitation Outlook

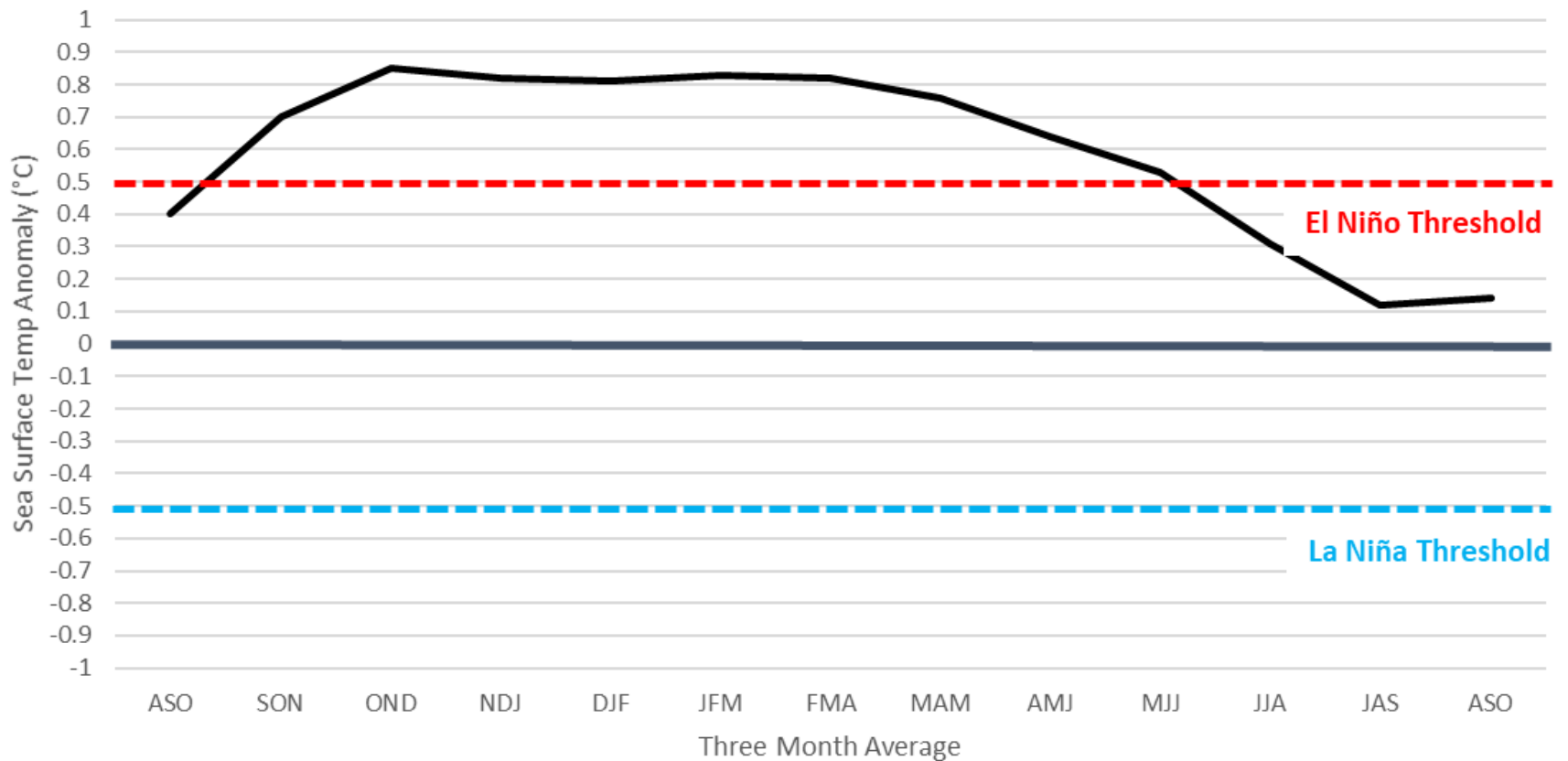


ENSO Observations

Sea Surface Temperature Anomalies across the Tropical Pacific Ocean during the month of September



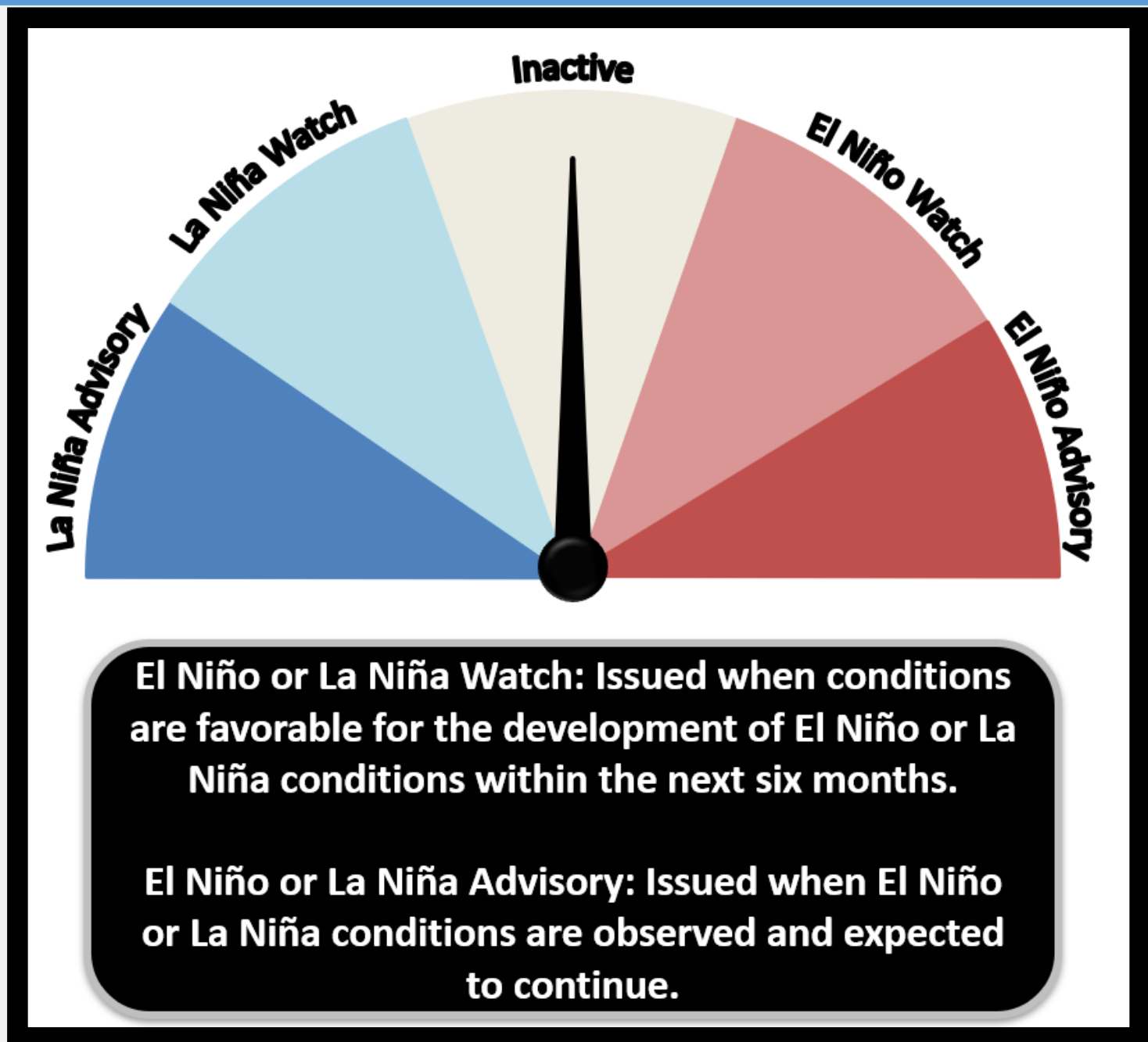
Sea Surface Temperature Anomalies (°C) in the Tropical Pacific



ENSO Forecast

The Climate Prediction Center's ENSO Forecast: ENSO-Neutral Continues

- There is a 70% chance of ENSO-Neutral conditions continuing through the winter
- There is a 60-65% chance of ENSO-Neutral conditions continuing through the spring



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 Santa 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.

