

NWS Houston, Texas February 2019 Regional Climate Summary

Produced by Nikki Hathaway and Josh Lichter

. . . A Foggy February. . .

In summary, the month of February was grey and soupy as overcast skies and fog dominated the weather pattern with a few clear and sunny sky days scattered in between. A combination of cold fronts followed up with coastal troughs and warm fronts kept most of SE TX in a rather warm and moist regime. Sea fog was the main weather hazard that reduced visibilities especially along the coast. Additionally, a few strong cold fronts swept through the region which brought showers and thunderstorms, as well as isolated hail and ice pellets. Overall, a total of 7 daily records were set across the four primary climate sites.

Photo taken by NWS
Meteorologist Josh Lichter

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Precipitation

The first week of the month was not overly wet, with rainfall totals mostly under a half inch. Towards the end of the first week, a cold front pushed through the region and high pressure built in keeping conditions dry. Besides showers and thunderstorms, this cold front also brought with it some hail and ice pellets. The front later transitioned into a coastal low with a warm front which pushed northward through SE TX by the beginning of the second week of the month. Two additional cold fronts blew threw the region by the middle of the week, and once again high pressure filled in. Multiple cold fronts pushed through the region throughout the second half of the month, bringing showers and the occasional thunderstorm, but still did not bring substantial rainfall to the region. Some of these cold fronts later stalled out in the Gulf of Mexico and later regressed northward in the form of a warm front or coastal trough helping to bring some rainfall to the coast and slightly inland. Overall, February was well below normal in terms of monthly precipitation with deficits from a half inch to nearly two inches area wide.

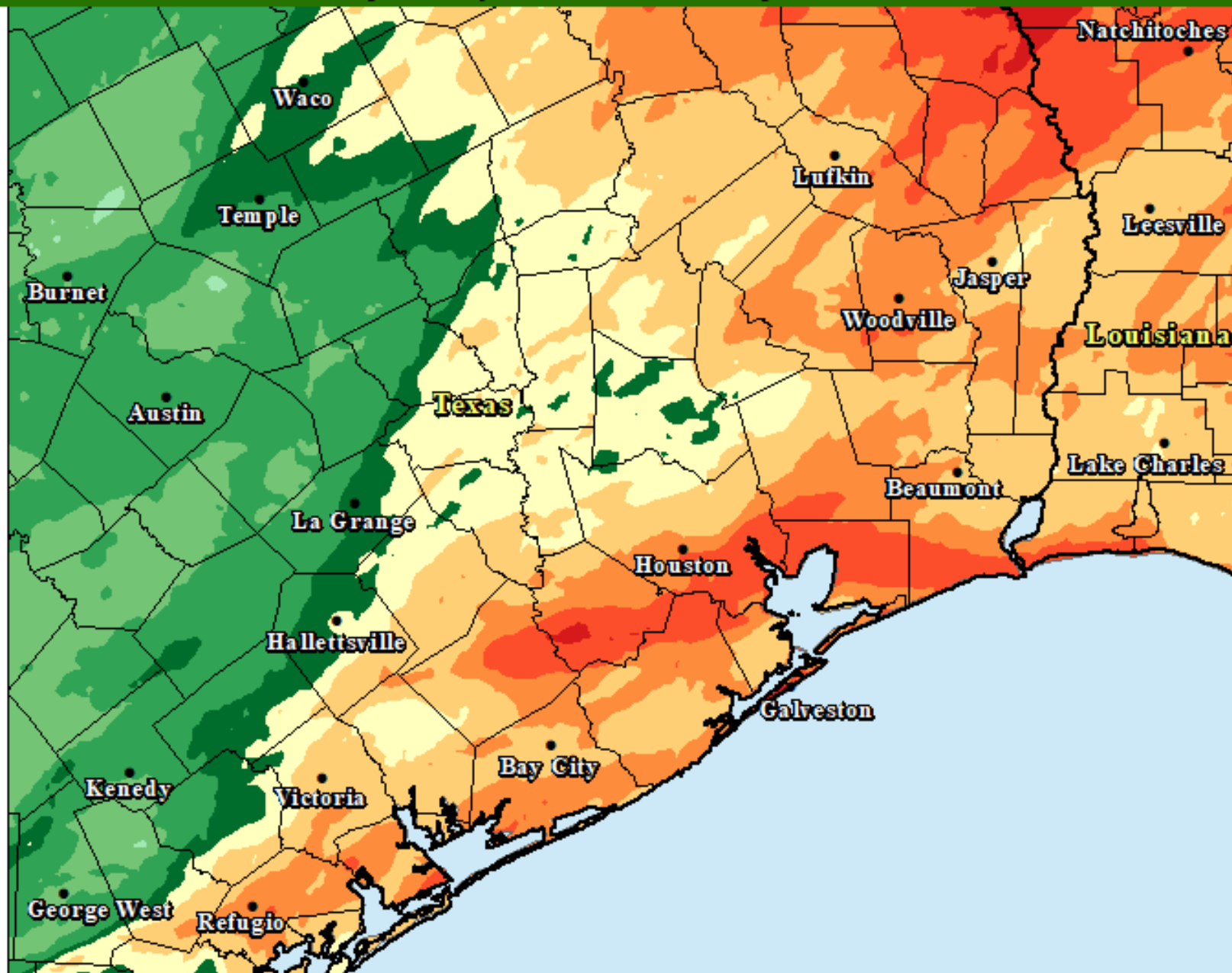
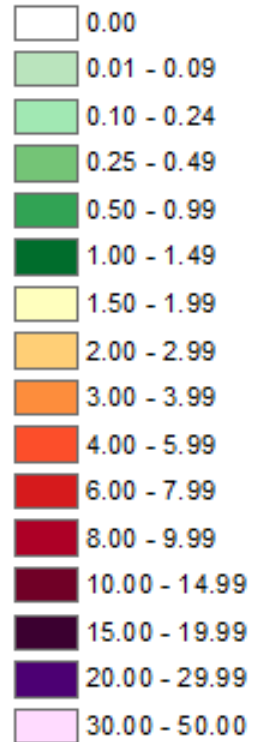
Site	Total Precipitation (in.)	Departure from Normal (in.)	Number of Thunder Days	Maximum Daily Precipitation (in./date)	
Galveston (GLS)	1.76	-0.81	5	0.52	Jan. 31-Feb. 1st
Houston Hobby (HOU)	3.29	0.08	4	1.46	Feb. 26th
City of Houston (IAH)	1.73	-1.47	3	0.56	Feb. 26th
College Station (CLL)	2.10	-0.75	3	0.76	Feb. 7th



Precipitation (Continued)

Total Monthly Precipitation - February 2019

Inches



Created by the
NWS Forecast Office
Houston/Galveston, TX



0 25 50
Miles

Source: NWS Advanced
Hydrologic Prediction Service

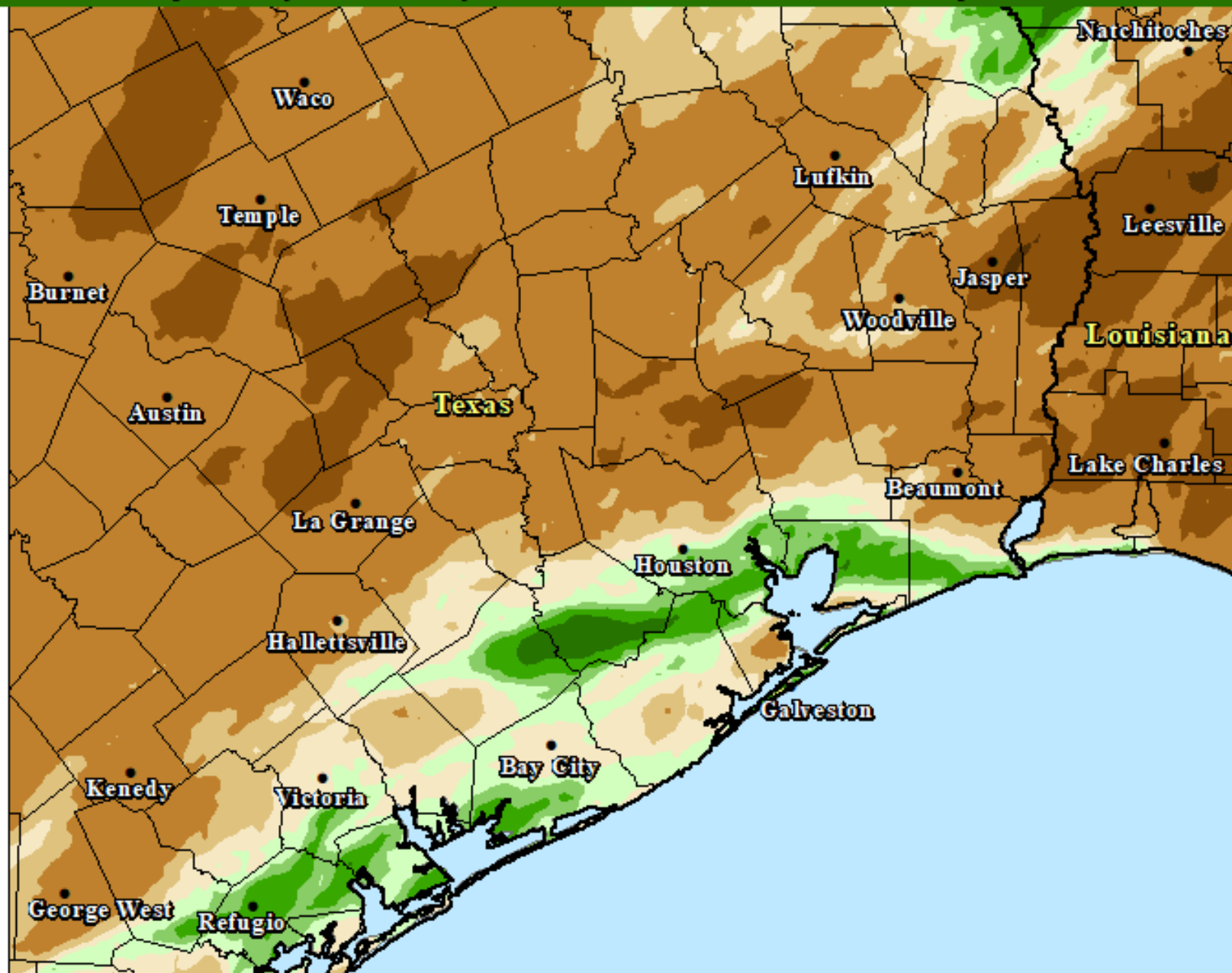
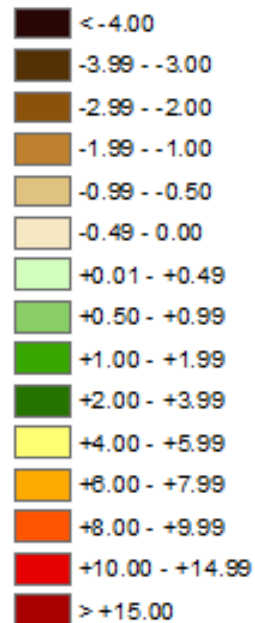
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Precipitation (Continued)

Total Monthly Precipitation Departure From Normal - February 2019

Inches



Created by the
NWS Forecast Office
Houston/Galveston, TX



0 25 50
Miles

Source: NWS Advanced
Hydrologic Prediction Service

Created: 03/01/2019 2200 UTC



Temperatures

The first week of February was abnormally warm with average temperatures anywhere from 10 to 20 degrees above normal. A cold front during the end of the first week of the month helped to drop temperatures below normal, providing some relief from the unseasonably warmth. Overall, the first half of the month was filled with more abnormally warm days than cold, which added to the overall average monthly temperatures being above normal by one to four degrees. Towards the later half of the month, multiple cold fronts helped to regulate temperatures, but the colder air masses did not remain for long. Some of these fronts transitioned into coastal troughs or warm fronts that would stall out in the Gulf of Mexico before retreating northward. With these coastal lows, warm moist air was advected inland, resulting in a splattering of abnormally warm daily average temperatures throughout the second half of the month.

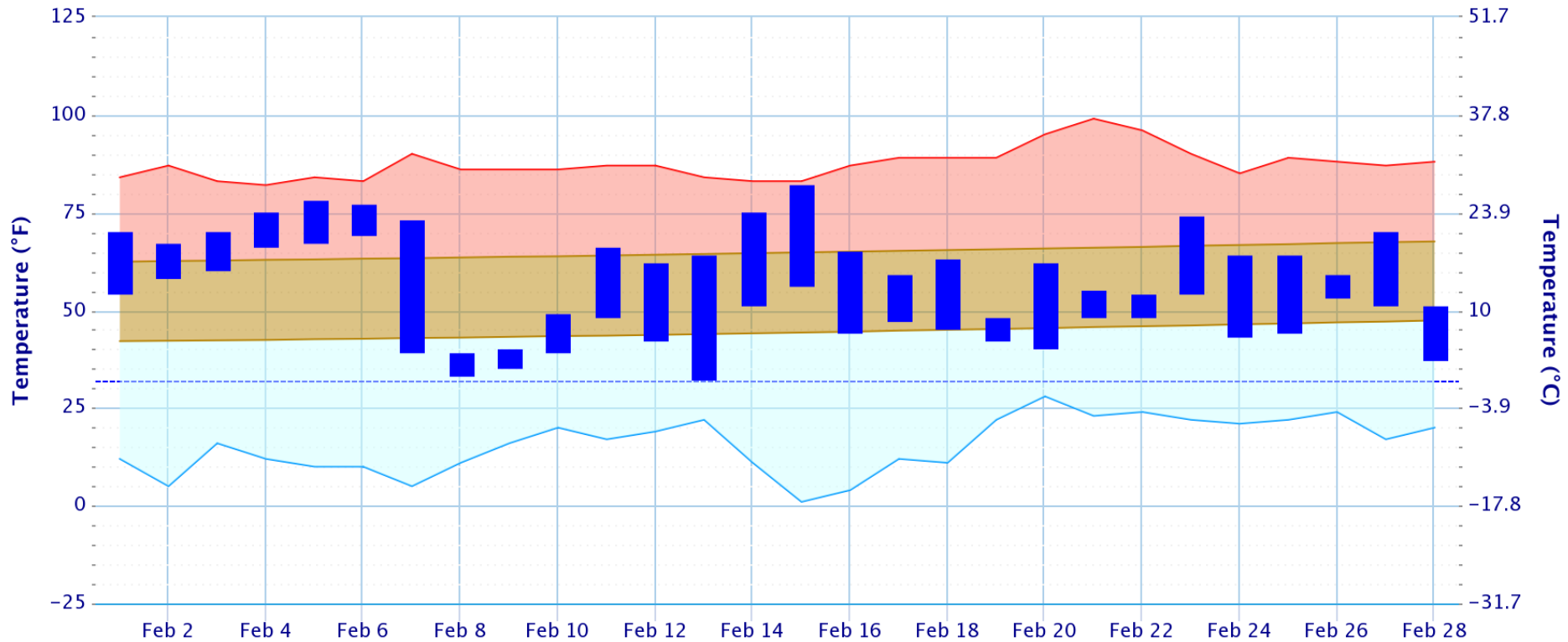
Site	Average Temp (F)	Average High Temp (F)	Average Low Temp (F)	Normal Average Temp (F)	Departure From Normal (F)	Maximum Temperature (F)	Minimum Temperature (F)
Galveston (GLS)	60.3	66.1	54.5	57.6	+2.7	75 on Feb. 23rd	40 on Feb. 9th
Houston Hobby (HOU)	60.2	67.5	52.9	57.3	+2.9	80 on Feb. 6th	38 on Feb. 8th & 9th
City of Houston (IAH)	59.7	67.7	51.7	56.4	+3.3	82 on Feb. 6th	37 on Feb. 9th & 13th
College Station (CLL)	55.7	63.4	48.0	54.6	+1.1	82 on Feb. 15th	32 on Feb. 13th



Monthly Temperature Charts

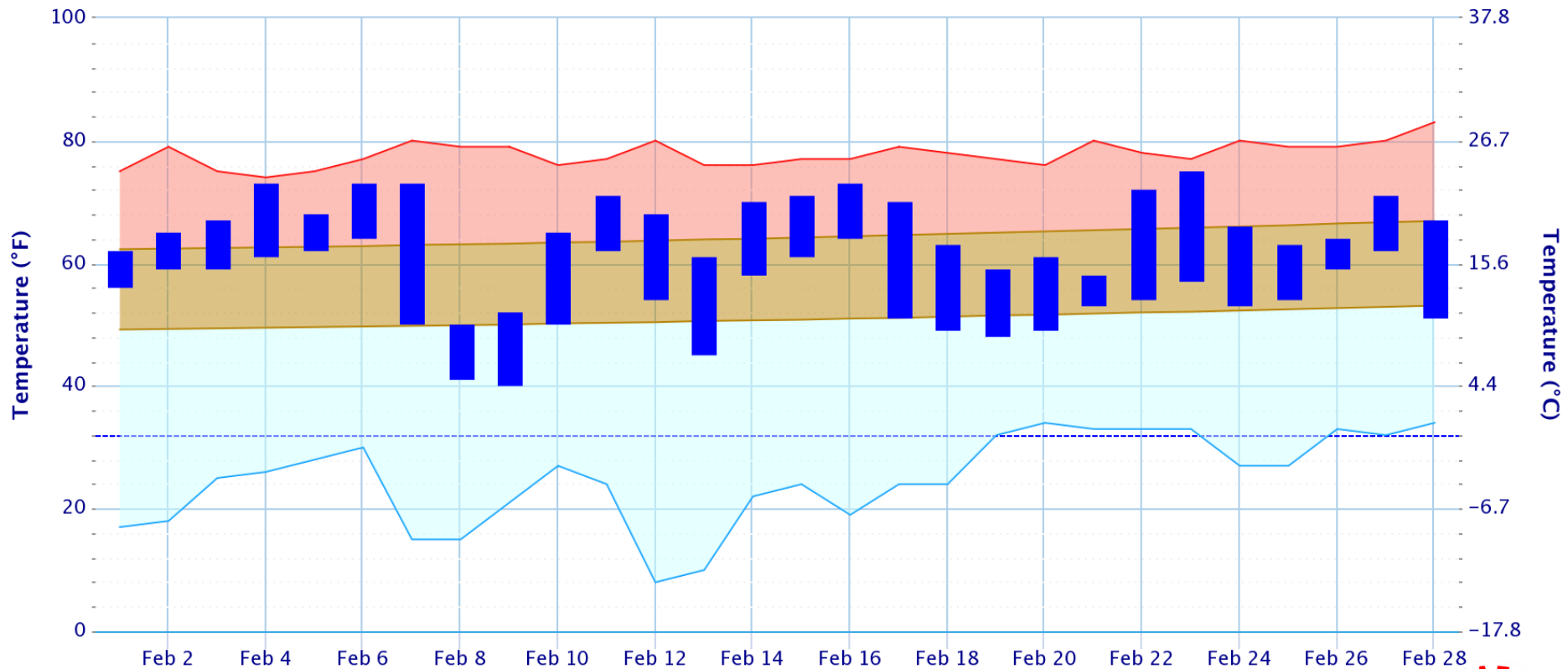
Daily Temperature Data – College Station Area, TX (ThreadEx)

Period of Record – Max temperature: 1888-10-01 to 2019-02-28; Min temperature: 1882-05-15 to 2019-02-28. Normals period: 1981-2010. Click and drag to zoom chart.



Daily Temperature Data – Galveston Area, TX (ThreadEx)

Period of Record – 1874-05-10 to 2019-02-28. Normals period: 1981-2010. Click and drag to zoom chart.



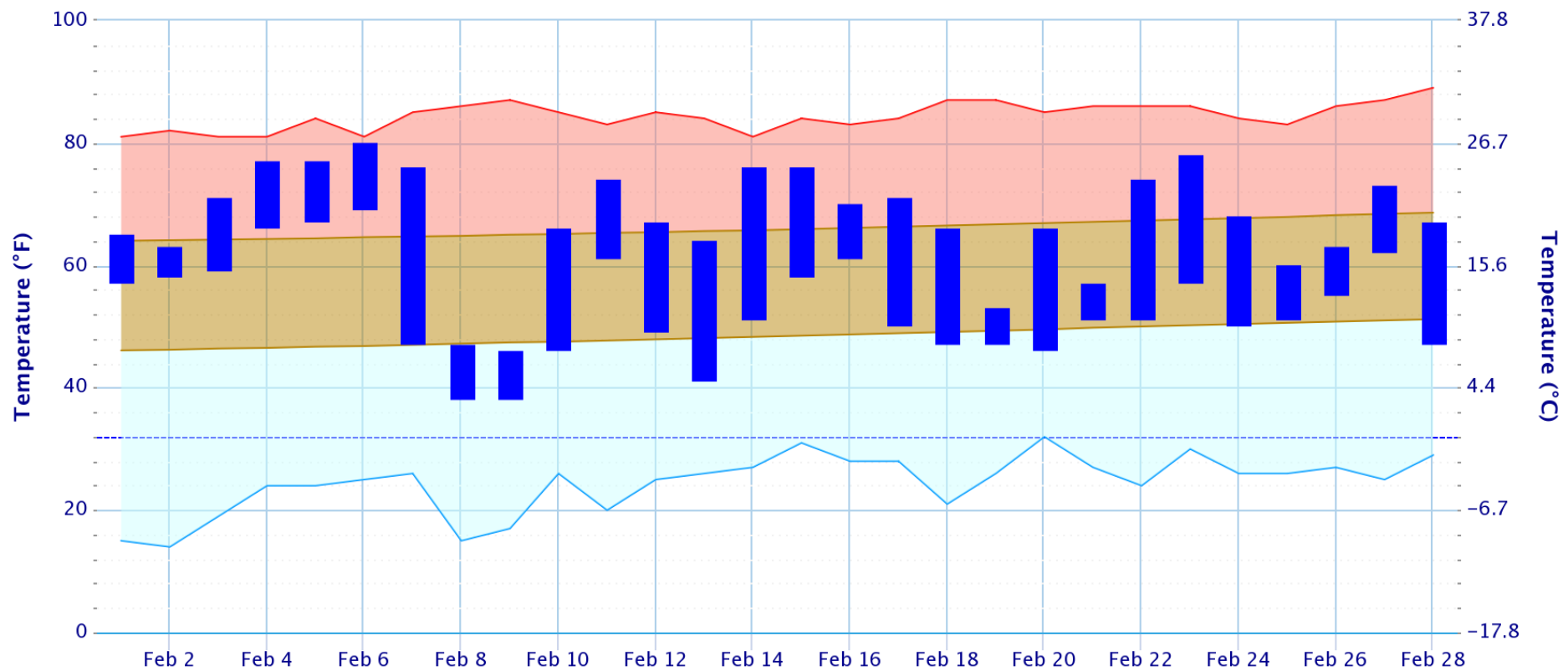
● Observed temperature range (2019) ● Normal temperature range — Record Max — Record Min



Monthly Temperature Charts (continued)

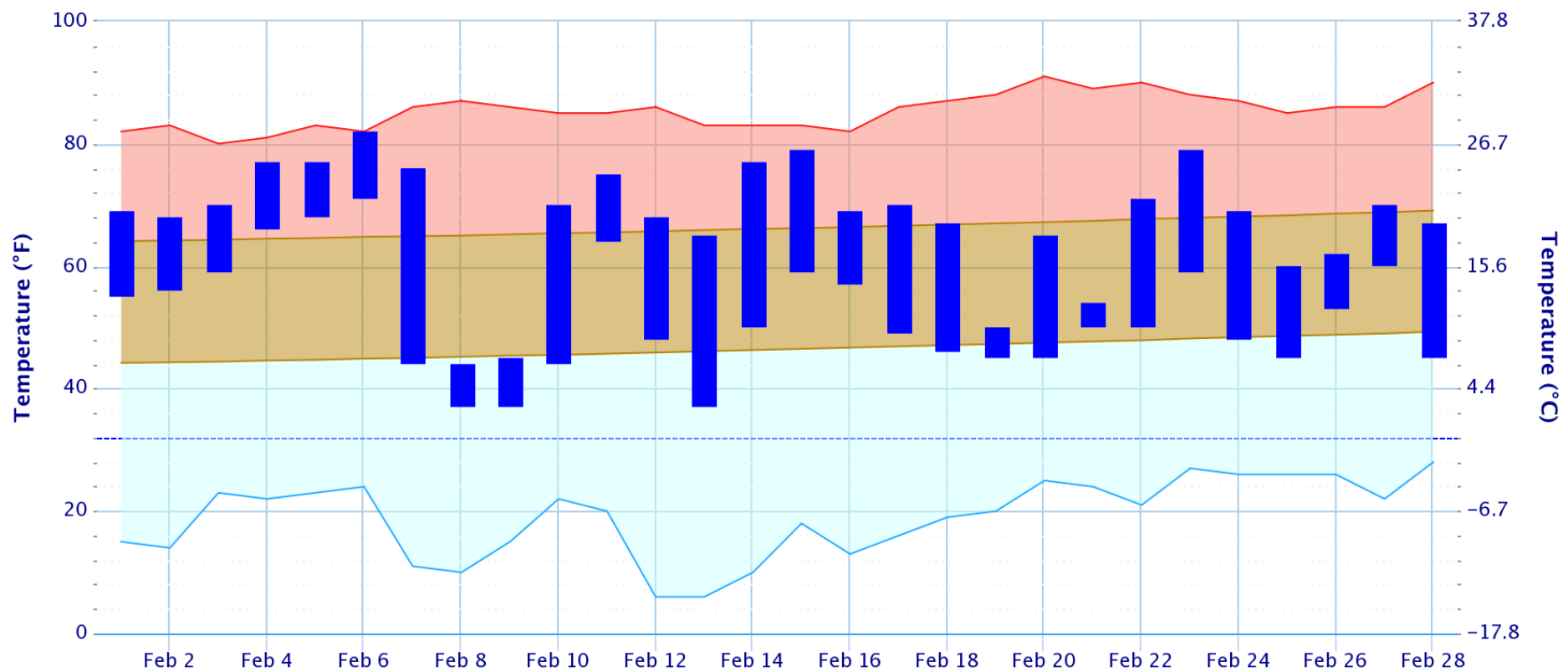
Daily Temperature Data – HOUSTON WILLIAM P HOBBY AP, TX

Period of Record – 1930-08-01 to 2019-02-28. Normals period: 1981-2010. Click and drag to zoom chart.



Daily Temperature Data – Houston Area, TX (ThreadEx)

Period of Record – 1889-05-01 to 2019-02-28. Normals period: 1981-2010. Click and drag to zoom chart.



● Observed temperature range (2019) ● Normal temperature range — Record Max — Record Min

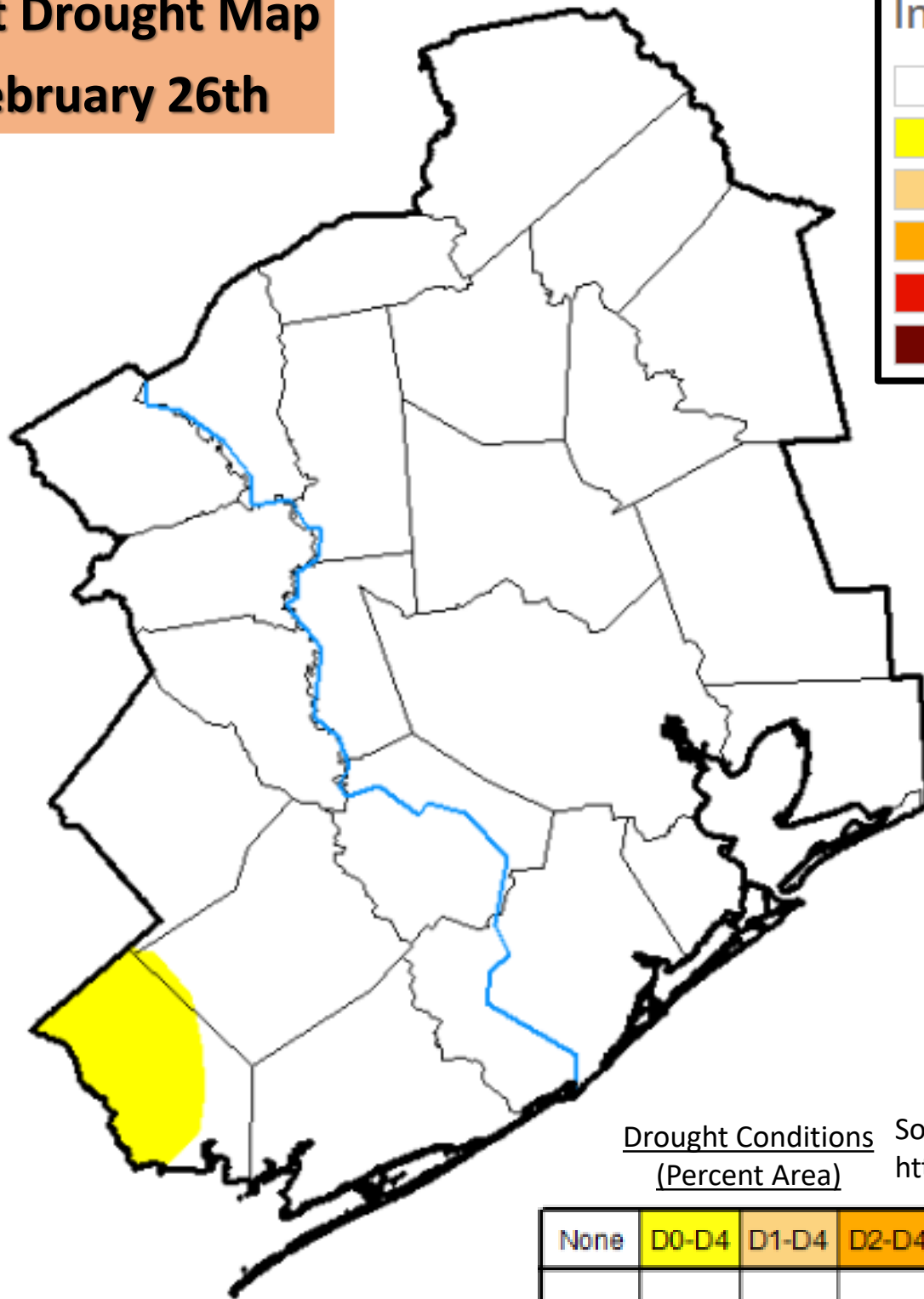


Drought Conditions

The month of February ended with a bullseye of D0 drought conditions in SE TX, specifically in Jackson County and far extreme portions of Wharton County.

Most Recent Drought Map

Posted: February 26th



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
96.70	3.30	0.00	0.00	0.00	0.00



December Daily Record Reports

A total of seven daily records were set across the four primary climate sites.

Site	Date	Record Type	New Record	Previous Record
City of College Station	Feb. 4th	Low Max Temperature	35°	40° in 2014
Houston Hobby	Feb. 5th	High Min Temperature	67°	65° in 2017
City of Houston	Feb. 5th	High Min Temperature	68°	67° in 1927
Houston Hobby	Feb. 6th	High Min Temperature	69°	68° in 2017
City of Houston	Feb. 6th	High Max Temperature	82°	81° in 2017
City of Houston	Feb. 6th	High Min Temperature	71°	69° in 1999
Houston Hobby	Feb. 8th	Snowfall	T	0 in 2018



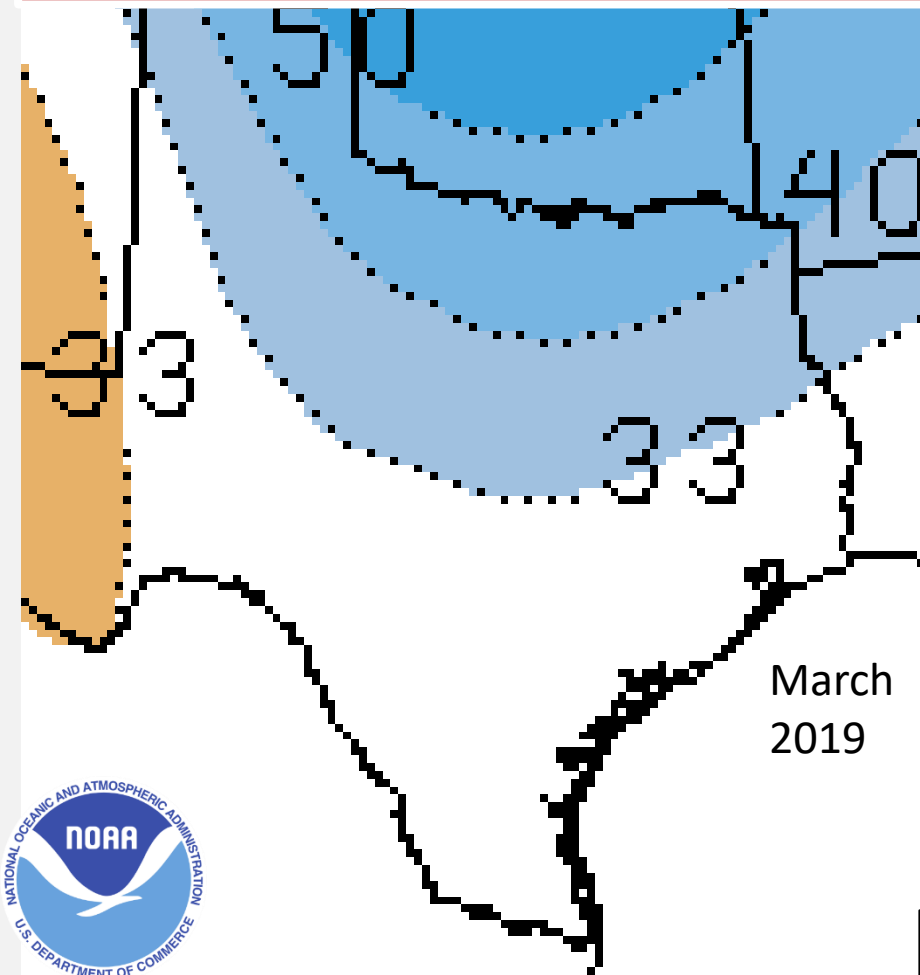
March Outlook

For March, the latest outlook from the Climate Prediction Center (CPC) calls for a 33.3% chance of below normal temperatures, a 33.3% chance of above normal temperatures and a 33.3% chance of normal temperatures across Southeast Texas. This is otherwise known as an “equal chance” (EC) of above normal, normal, and below normal temperatures. The precipitation outlook also calls for a 37% chance of above normal precipitation, a 33% chance of near normal precipitation and a 30% chance of below normal precipitation.

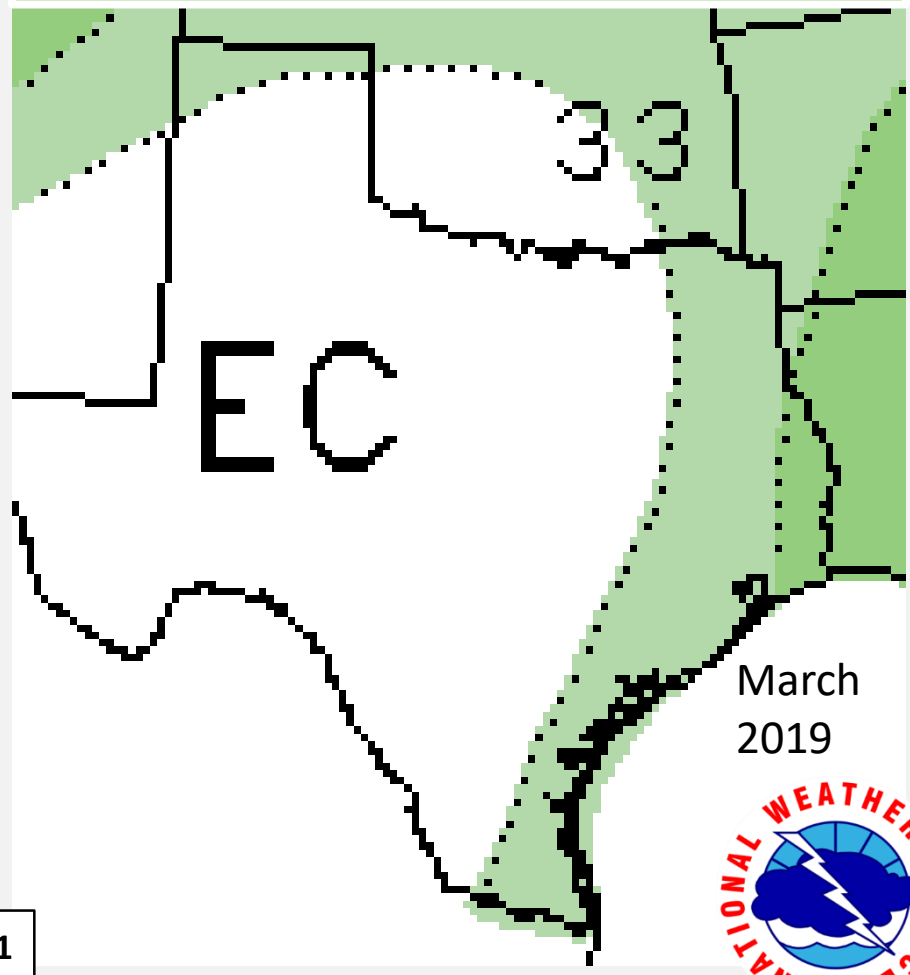
Site	Average Temp(°F)	Normal High (°F)	Normal Low (°F)
Galveston	63.4	70.2	56.6
Houston Hobby	63.3	72.4	54.3
City of Houston	62.7	73.0	52.5
College Station	61.4	71.7	51.0

Site	Normal Monthly Precipitation (in.)
Galveston (GLS)	3.16
Houston Hobby (HOU)	3.20
City of Houston (IAH)	3.41
College Station (CLL)	3.17

Temperature Outlook



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 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.

