



# NWS Houston, Texas June 2020 Regional Climate Summary

**Produced by Jimmy Fowler**

***...Generally near normal temperatures with below normal precipitation...***

*The first half of the month of June was exceptionally dry, but then near stationary and back building storms starting on the 19<sup>th</sup> and continuing the 25<sup>th</sup> were able to make up some of that deficit. Abnormally dry conditions developed across the northern counties during the month of June, while drought improvements continued for Jackson County. While D1-Moderate Drought persists in Jackson County, it has the lowest area coverage of drought since November of 2019.*

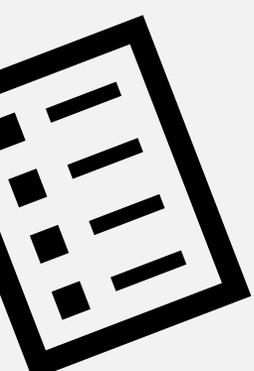
*Tropical Storm Cristobal formed in the Bay of Campeche on June 1<sup>st</sup> – which was the earliest third named storm on record in the Atlantic Basin – that had the potential of impacting southeast Texas, but ended up staying east making landfall in central Louisiana. The end of the month was characterized with an influx of Saharan Dust providing hazy blue skies during the day, but vivid sunsets and sunrises.*

# Table of Contents

Page Number	Page Title
1	Cover
2	Table of Contents
3	By the Numbers
4	Precipitation Summary
5	Precipitation Graph
6	Precipitation Imagery
7	Temperature Summary
8	Temperature Charts
9 – 10	Daily Record Reports
11	Drought Monitor
12	Next Month Outlook
13	ENSO Review
14	Tropical Storm Cristobal
15	Saharan Dust
16	Climate Primary Site History



# By the Numbers: June 2020



Location (records started)	Average Temp	Ranking	Total Rainfall	Ranking
City of Houston, TX (1888)	82.5°F	40 <sup>th</sup> Warmest	3.56"	55 <sup>th</sup> Wettest
Houston Hobby, TX (1930)	83.5°F	12 <sup>th</sup> Warmest	4.57"	39 <sup>th</sup> Wettest
City of Galveston, TX (1871)	84.2°F	10 <sup>th</sup> Warmest	3.83"	62 <sup>nd</sup> Wettest
City of College Station, TX (1882)	82.3°F	39 <sup>th</sup> Warmest	2.45"	59 <sup>th</sup> Driest
Conroe, TX (1997)	80.7°F	11 <sup>th</sup> Warmest	7.23"	4 <sup>th</sup> Wettest
Huntsville, TX (1997)	82.1°F	12 <sup>th</sup> Warmest	4.15"	10 <sup>th</sup> Wettest
Sugar Land, TX (2000)	82.1°F	8 <sup>th</sup> Coolest	5.42"	5 <sup>th</sup> Wettest
Palacios, TX (1943)	82.7°F	27 <sup>th</sup> Warmest	2.26"	27 <sup>th</sup> Driest
Clover Field (Pearland), TX (1997)	82.8°F	12 <sup>th</sup> Warmest	6.28"	8 <sup>th</sup> Wettest
David Wayne Hooks (Tomball), TX (1998)	81.2°F	8 <sup>th</sup> Coolest	6.71"	7 <sup>th</sup> Wettest
Angleton, TX (1998)	80.7°F	6 <sup>th</sup> Coolest	5.76"	3 <sup>rd</sup> Wettest
League City, TX (1990)	82.1°F	11 <sup>th</sup> Warmest	7.84"	9 <sup>th</sup> Wettest



# Precipitation

Location	Total Precipitation (in.)	Departure from Normal (in.)	Number of Thunder Days	Maximum Daily Precipitation (in./date)	
Galveston (GLS)	3.83	-1.86	6	1.55	22 <sup>nd</sup>
Houston Hobby (HOU)	4.57	-2.53	10	1.28	22 <sup>nd</sup>
City of Houston (IAH)	4.51	-1.42	6	1.31	25 <sup>th</sup>
College Station (CLL)	2.45	-2.00	7	0.95	20 <sup>th</sup>

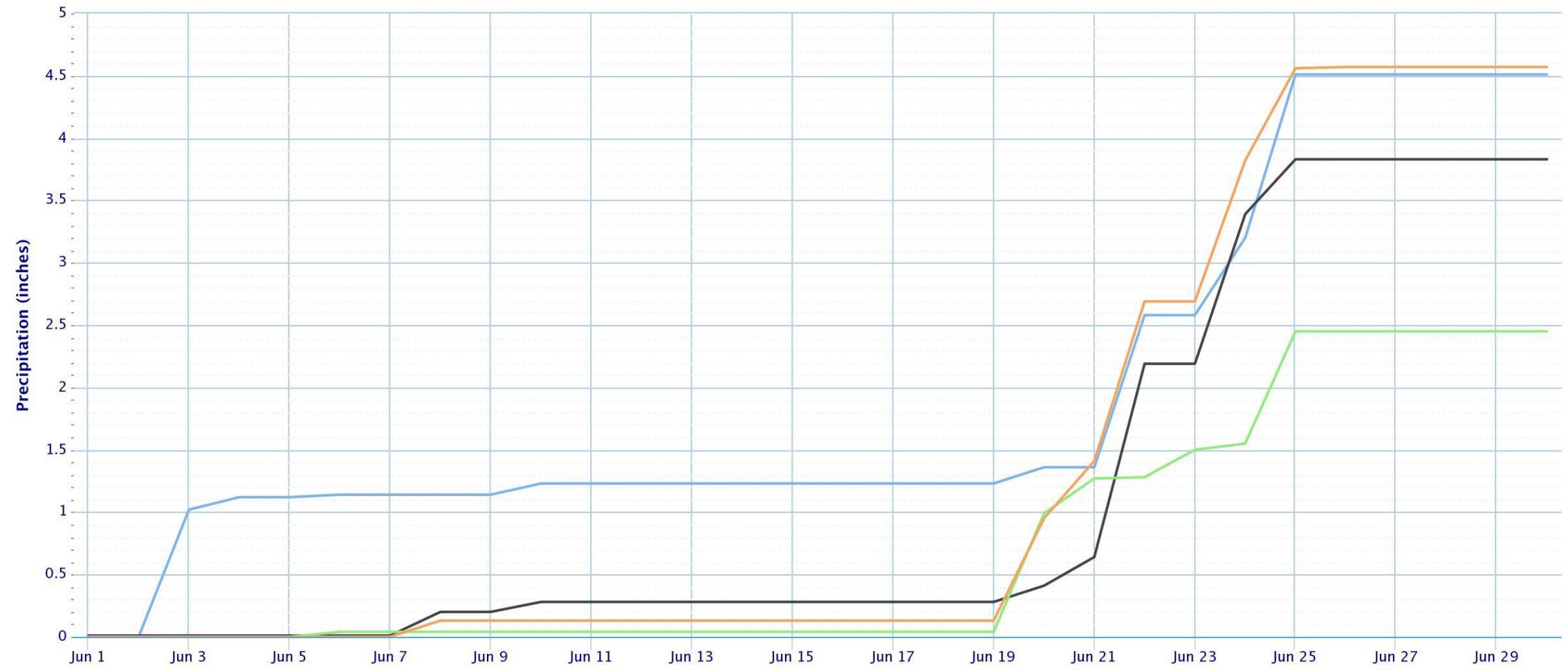
*Most of the region experienced below average rainfall through the month with most of the precipitation for the month falling with the storms that developed between June 19<sup>th</sup> and 25<sup>th</sup>. There were two areas within the region that experienced above average rainfall: Southern Liberty County and areas southwest of the City of Houston (see figures on page 6) where training thunderstorms developed.*



# Precipitation Accumulation Graph

### Accumulated Precipitation

Green/black diamonds represent subsequent/missing values



City of Houston

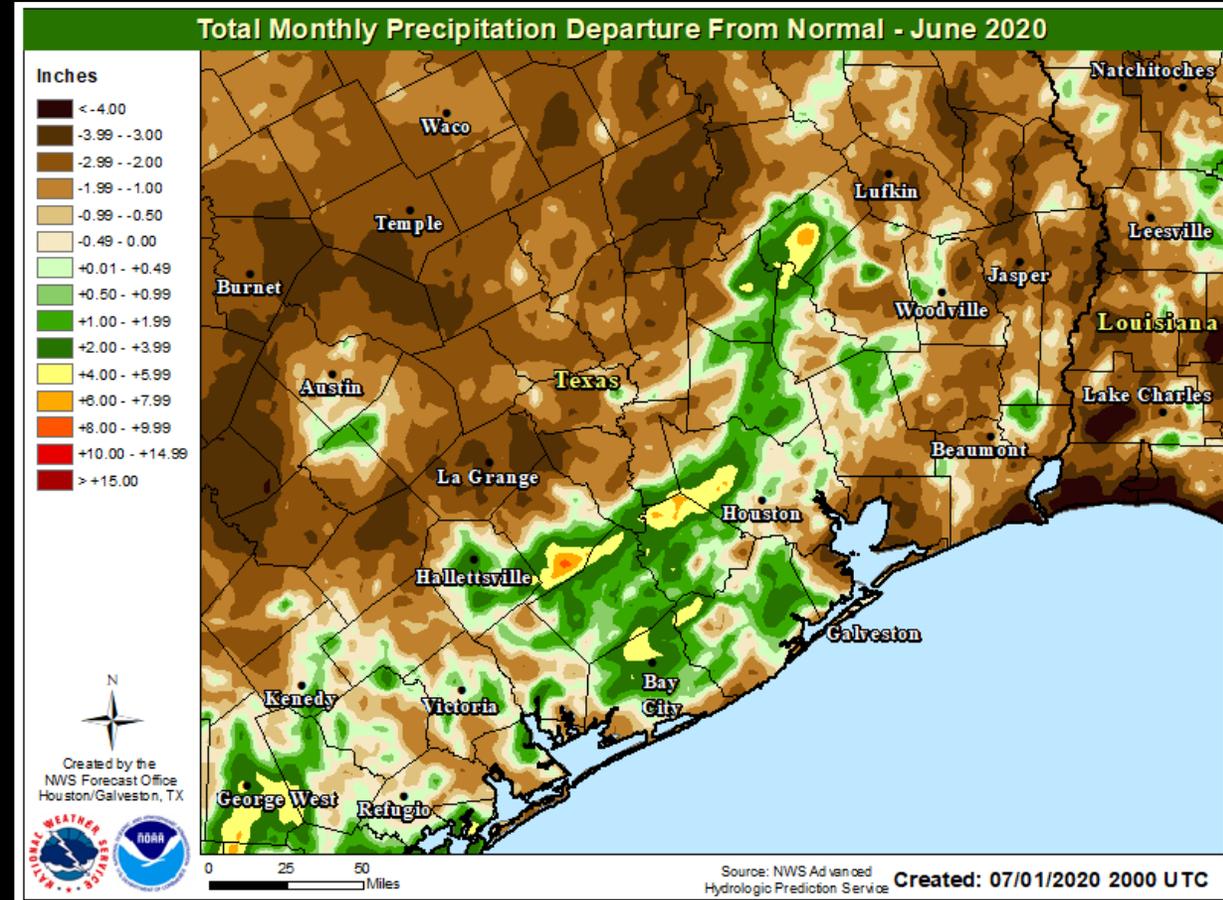
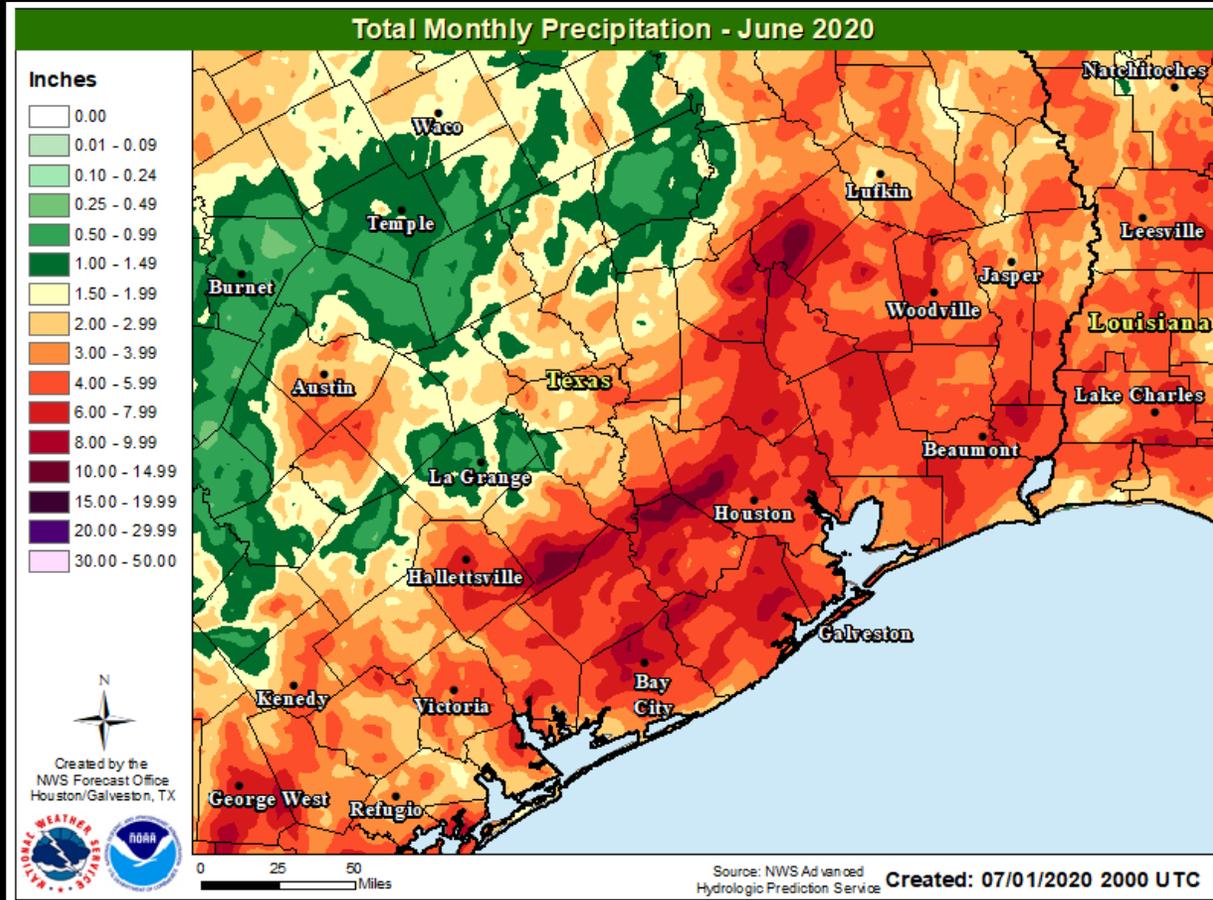
City of Galveston

City of College Station

Houston-Hobby



# Precipitation Maps



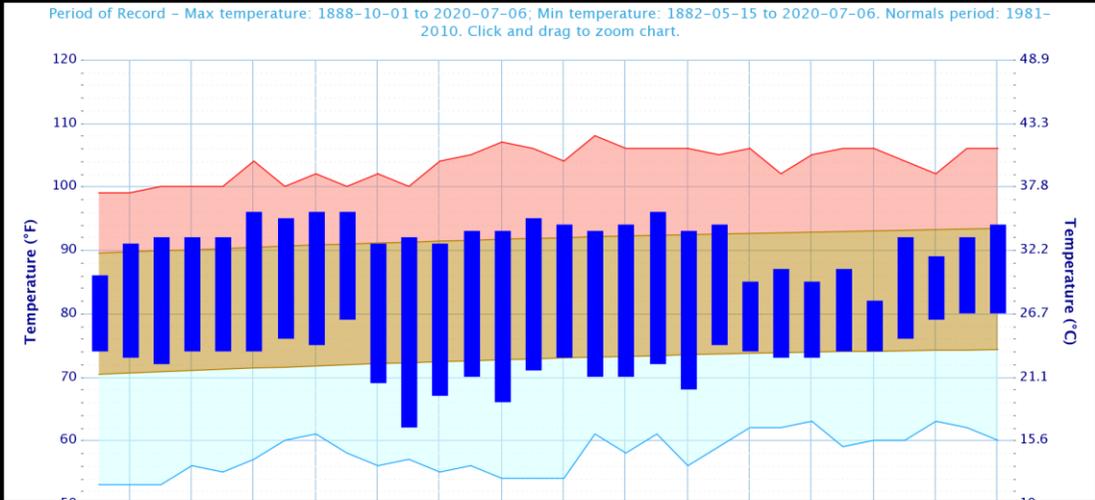
# Temperature

Location	Average High Temp (F)	Average Low Temp (F)	Average Temp (F)	Normal Average Temp (F)	Departure From Normal Average (F)	Maximum Temperature (F)	Minimum Temperature (F)
Galveston (GLS)	89.2	79.3	84.2	82.9	+1.3	94 on the 7 <sup>th</sup>	71 on the 22 <sup>nd</sup>
Houston Hobby (HOU)	91.5	75.5	83.5	82.0	+1.5	97 on the 6 <sup>th</sup>	70 on the 14 <sup>th</sup>
City of Houston (IAH)	91.8	73.1	82.4	82.4	0	97 on the 9 <sup>th</sup>	66 on the 11 <sup>th</sup> & 12 <sup>th</sup>
College Station (CLL)	91.6	72.9	82.2	82.2	0	96 on the 8 <sup>th</sup> , 9 <sup>th</sup> & 19 <sup>th</sup>	62 on the 11 <sup>th</sup>

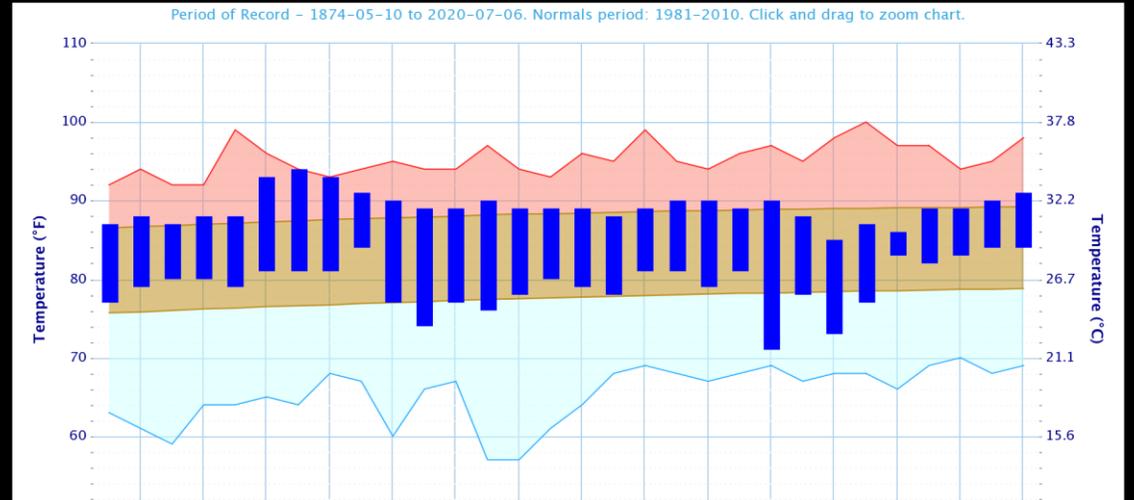
*The average temperature during the month of June was near to slightly above normal thanks to multiple days of cloud coverage preventing daytime heating from really taking effect. There were 13 daily record temperatures set in the month of June: 3 for the City of Houston, 4 for Houston-Hobby, 6 for the City of Galveston.*

# Temperature Charts

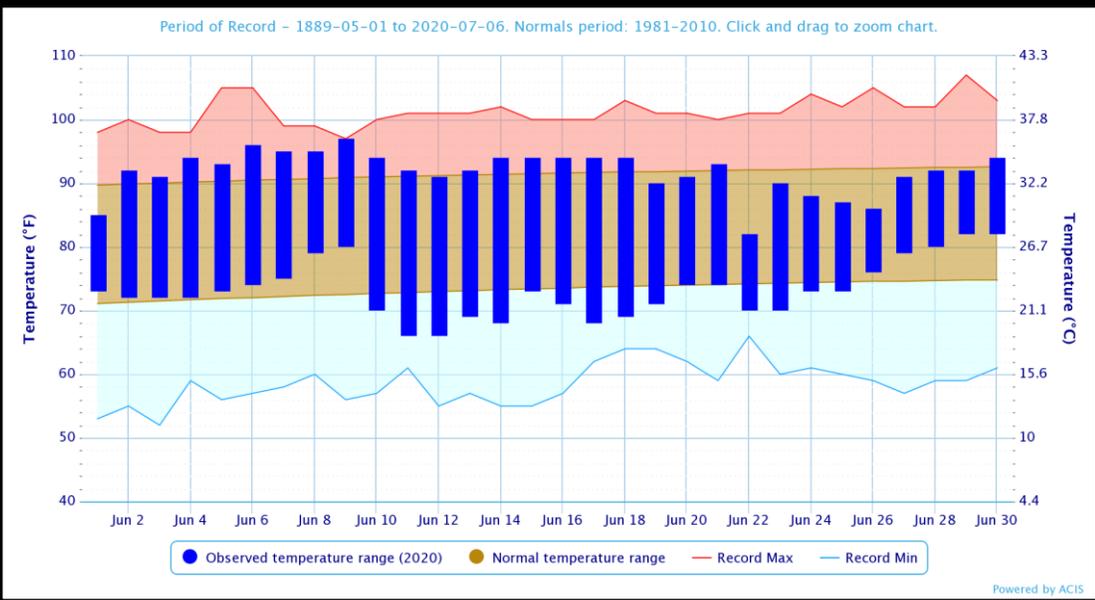
## City of College Station



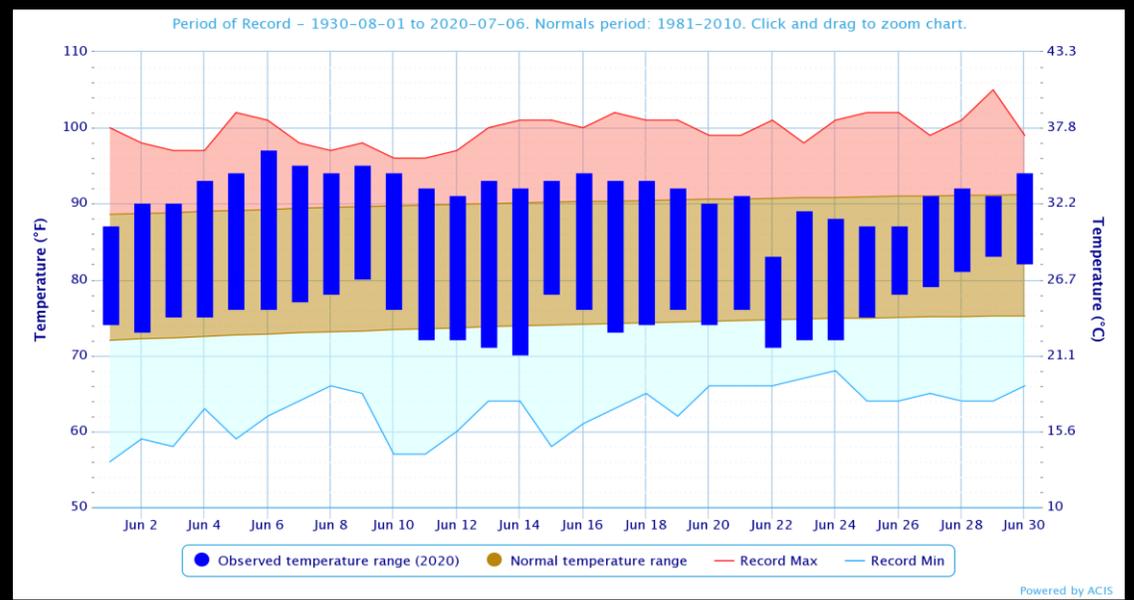
## City of Galveston



## City of Houston



## Houston-Hobby



# Daily Record Reports

Site	Date	Record Type	New Record	Previous Record
City of Houston	June 9 <sup>th</sup>	High Max Temperature	97° - T	97° in 2019
City of Houston	June 29 <sup>th</sup>	High Min Temperature	82°	80° in 2013
City of Houston	June 30 <sup>th</sup>	High Min Temperature	82°	80° in 2017
Houston-Hobby	June 9 <sup>th</sup>	High Min Temperature	80° - T	80° in 1995
Houston-Hobby	June 28 <sup>th</sup>	High Min Temperature	81°	79° in 2012
Houston-Hobby	June 29 <sup>th</sup>	High Min Temperature	83°	79° in 2013
Houston-Hobby	June 30 <sup>th</sup>	High Min Temperature	82°	81° in 2017
City of Galveston	June 6 <sup>th</sup>	High Min Temperature	81° - T	81° in 2008
City of Galveston	June 7 <sup>th</sup>	High Max Temperature	94°	93° in 2019
City of Galveston	June 8 <sup>th</sup>	High Max Temperature	93° - T	93° in 2019

There were  
13 daily  
records set  
during the  
month of  
June.



## Key

High Max

Low Max

Precip

High Min

Low Min



# Daily Record Reports

Site	Date	Record Type	New Record	Previous Record
City of Galveston	June 9 <sup>th</sup>	High Min Temperature	84°	83° in 1994
City of Galveston	June 29 <sup>th</sup>	High Min Temperature	84° - T	84° in 2012
City of Galveston	June 30 <sup>th</sup>	High Min Temperature	84° - T	84° in 1983

There were  
13 daily  
records set  
during the  
month of  
June.



High Max

Low Max

Precip

High Min

Low Min

Key



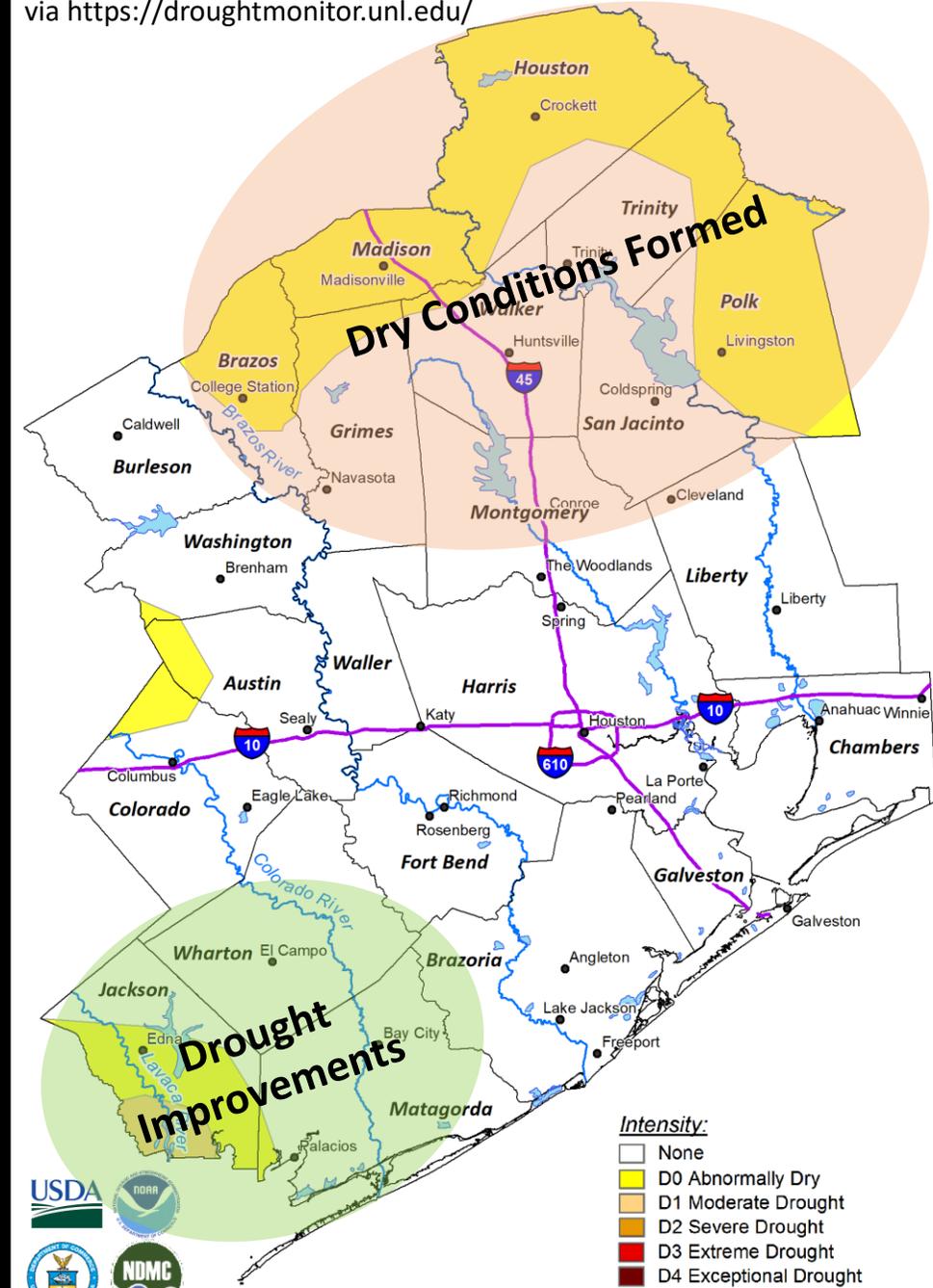
# Drought Monitor

## As of June 30<sup>th</sup>

*There were two changes in drought coverage during the month of June:*

- Below normal rainfall across the northern portion of the region led to the development of D0-Abnormally Dry Conditions in northern Brazos County, Madison County, Houston County, northern Trinity, and in most of Polk County.*
- The southwestern portion of the region saw above normal rainfall allowing for continued drought improvements for the area – however a portion of southern Jackson County is still categorized as D1-Moderate Drought.*

via <https://droughtmonitor.unl.edu/>

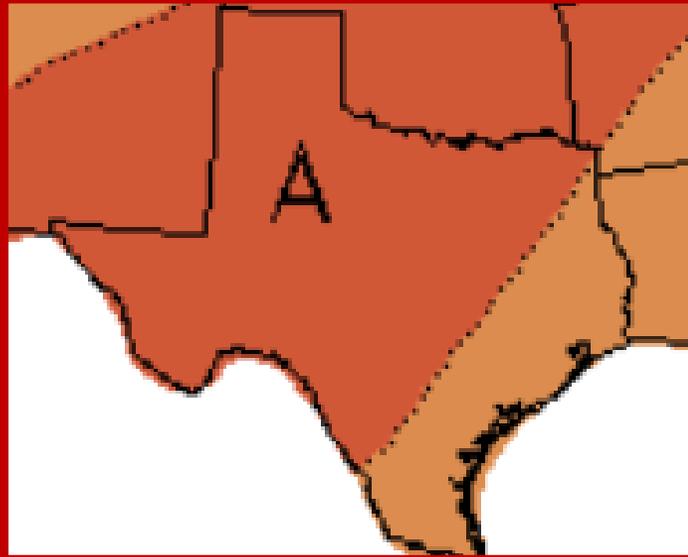


# July Climatology & Outlook

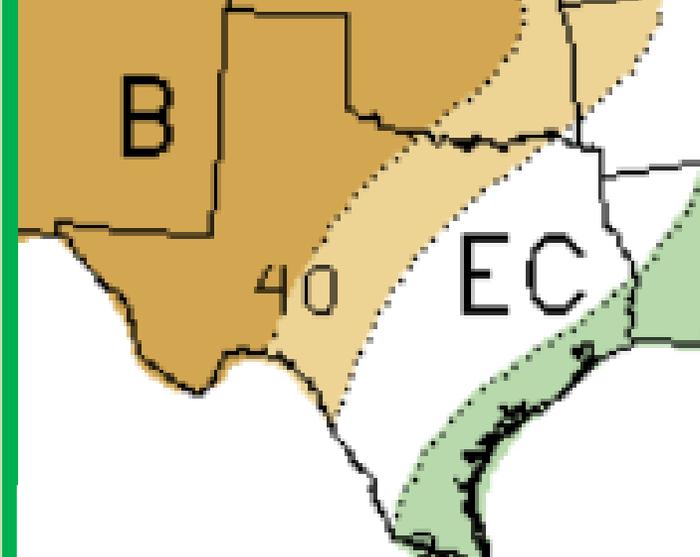
Location	Average Temp(°F)	Normal High (°F)	Normal Low (°F)
Galveston	84.4	93.7	75.1
Houston Hobby	83.8	92.1	75.5
City of Houston	82.4	91.4	73.3
College Station	84.7	94.8	74.6

Location	Normal Monthly Precipitation (in.)
Galveston	3.79
Houston Hobby	4.66
City of Houston	5.93
College Station	2.14

## Temperature Outlook

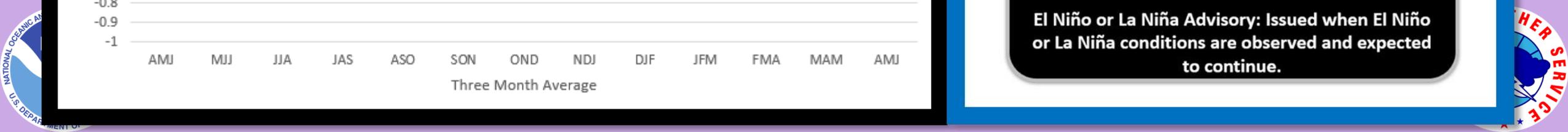
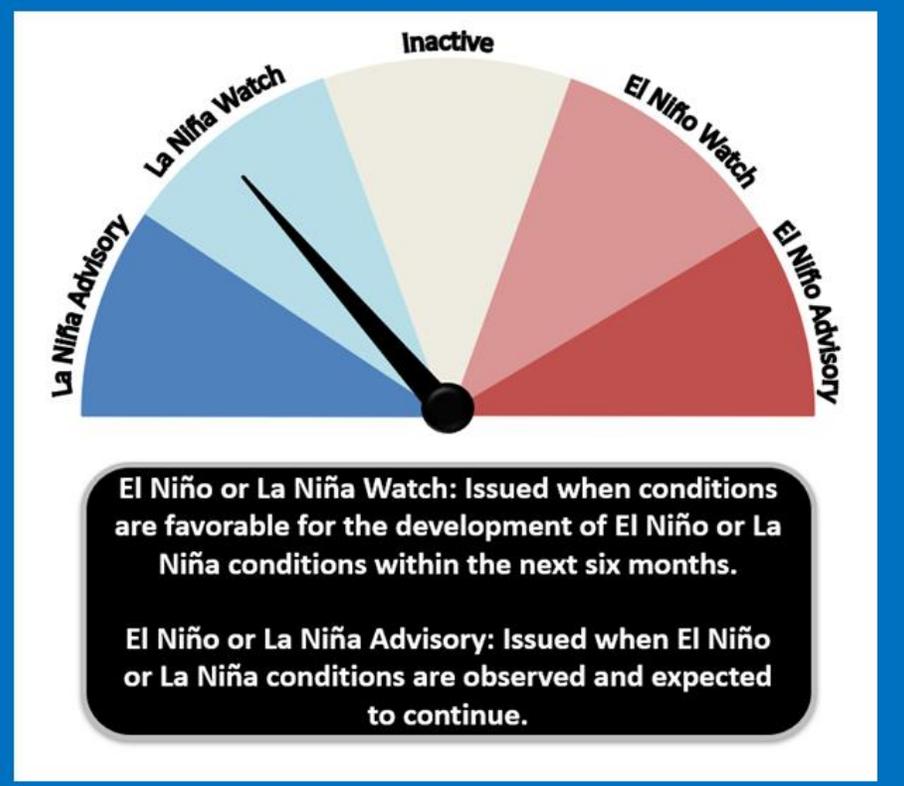
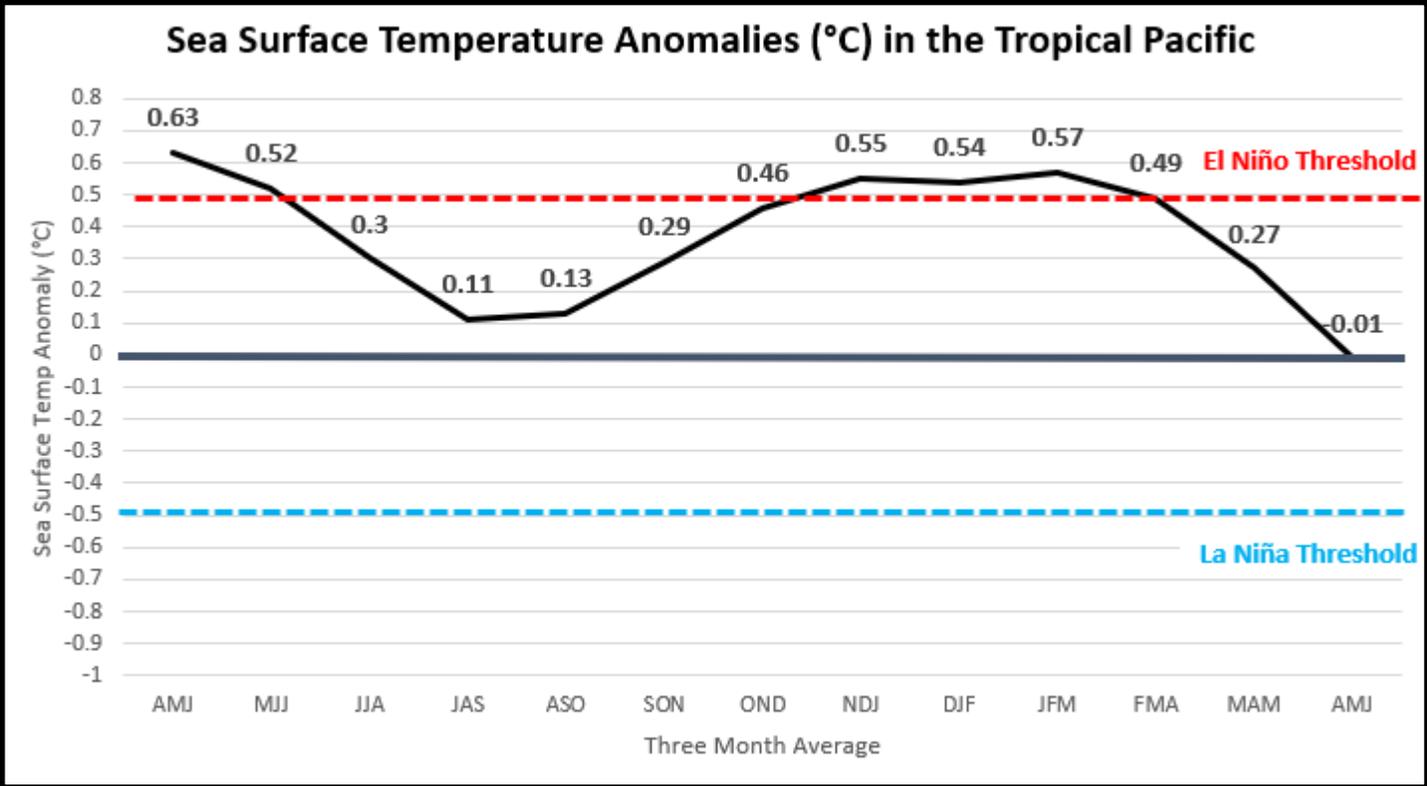


## Precipitation Outlook



### The Climate Prediction Center's ENSO Forecast: La Niña Watch

- ENSO-Neutral conditions continuing through the Summer
- 50 – 55% chance of **La Niña** conditions forming this fall and continuing into the winter → **La Niña Watch!**



# Tropical Storm Cristobal

Tropical Storm Cristobal was the 3rd named tropical storm for the 2020 Hurricane Season - the earliest 3rd named storm on record. It formed on June 1<sup>st</sup> off the coast of the Yucatan Peninsula from the remains of Tropical Storm Allison that developed in the Eastern Pacific in the days prior. It meandered around the Bay of Campeche for a few days before moving back over the Yucatan Peninsula which weakened it into a Tropical Depression by June 4th. Cristobal then moved northward into the Central Gulf of Mexico heading toward the central Gulf Coast and re-strengthening into a Tropical Storm.

Tropical Storm Cristobal made landfall to the east of Grand Isle, Louisiana on June 7, 2020 at 5:10 PM CDT.

Formed	Dissipated	Min Pressure	Max Sustained Wind
June 1 <sup>st</sup>	June 11 <sup>th</sup>	992 mb	60 mph



Tropical Storm Cristobal on June 5, 2020  
over north of the Yucatan Peninsula

# Saharan Dust

15

During the end of June (and continuing into the beginning of July) there was a large plume of dust that made its way all the way from the Saharan Desert into Southeast Texas – also known as the Saharan Dust Layer (SAL).

## Effects that the SAL can have:

- Degrades air quality
- Creates vivid sunsets and sunrises
  - Dust particles will scatter the sunlight allowing for the reds and oranges to really show
- Makes the sky hazy/grey during the daytime hours
- Suppresses tropical activity
  - The Saharan air is typically drier preventing storms from developing
  - Strong easterly winds, which tropical storms develop easier when these winds are slow

True Color GOES-16 Satellite Imagery on June 21<sup>st</sup>



# 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).*

## 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.*

## 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 .*

## Houston Hobby (HOU)

*Records are based upon observations beginning in August 1931.*

