



# NWS Houston, Texas

## August 2023

# Regional Climate Summary

**Produced by Jimmy Fowler**

### ***...Record Break Heat...Emergence of Exceptional Drought***

*August broke almost every type of high temperature record possible. Not only did most locations experience their hottest month on record, but the City of College Station (112°F), City of Houston (109°F), and Houston-Hobby (109°F) either tied or set new all-time daily high temperatures. City of College Station and Houston-Hobby shattered the previous number of consecutive triple digit heat days. The extreme heat was only made worse by the extreme lack of precipitation. Houston-Hobby and Palacios both had their driest August's on record, and most of the area saw rainfall totals between three and six inches below normal. The combination of extreme heat and no rainfall led to an explosion of drought conditions across the area with the entire region now in at least Extreme Drought (D3) and areas along the coast in Exceptional Drought (D4) – the worst drought category.*

# 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 – 9	Temperature Charts
10 – 14	Daily Record Reports
15	Drought Monitor
16	Next Month Outlook
17	ENSO Review
18	Climate Primary Site History



# By the Numbers: August 2023

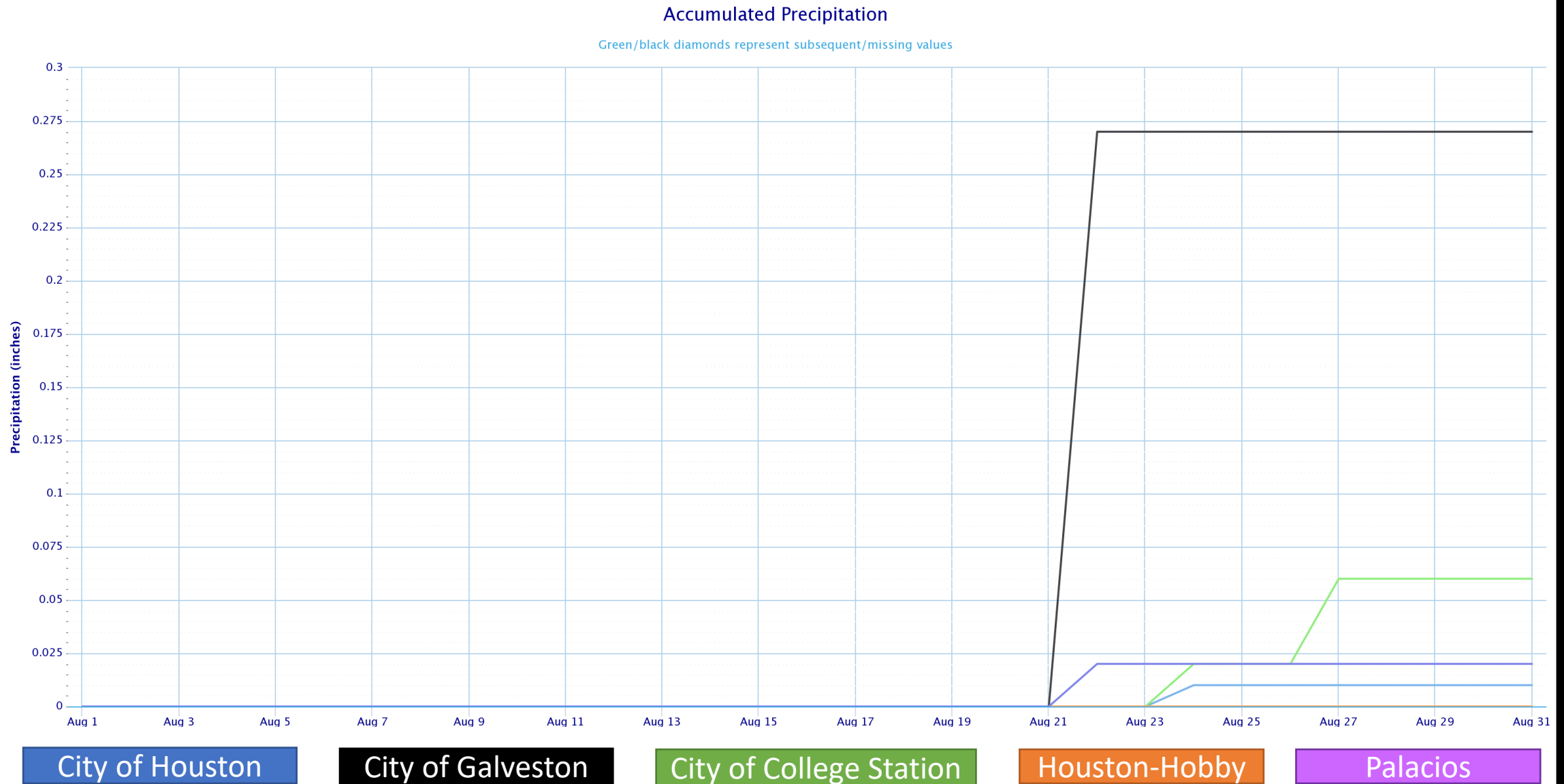


Location (records started)	Average Temp	Ranking	Total Rainfall	Ranking
City of Houston, TX (1888)	91.0°F	Warmest on Record	0.01"	2 <sup>nd</sup> Driest
Houston Hobby, TX (1930)	91.2°F	Warmest on Record	Trace	Driest on Record
City of Galveston, TX (1871)	88.6°F	Warmest on Record	0.27"	6 <sup>th</sup> Driest
City of College Station, TX (1882)	93.3°F	Warmest on Record	0.06"	4 <sup>th</sup> Driest
Palacios, TX (1943)	89.5°F	Warmest on Record	0.02"	Driest on Record
Huntsville, TX (1997)	93.0°F	Warmest on Record	Trace	Driest on Record Tied with 1999
Sugar Land, TX (2000)	90.3°F	Warmest on Record	0.09"	Driest on Record Tied with 2011
Conroe, TX (1997)	89.4°F	Warmest on Record	0.01"	Driest on Record
Clover Field (Pearland), TX (1997)	91.3°F	Warmest on Record	0.14"	2 <sup>nd</sup> Driest
David Wayne Hooks (Tomball), TX (1998)	91.5°F	Warmest on Record	Trace	Driest on Record
Angleton, TX (1998)	87.5°F	2 <sup>nd</sup> Warmest	0.33"	Driest on Record
League City, TX (1990)	88.6°F	Warmest on Record	0.75"	2 <sup>nd</sup> Driest

# Precipitation

Location	Total Precipitation (in.)	Departure from Normal (in.)	Number of Thunder Days	Maximum Daily Precipitation (in./date)	
Galveston (GLS)	0.27	<b>-4.44</b>	0	0.27	22 <sup>nd</sup>
Houston Hobby (HOU)	Trace	<b>-5.44</b>	1	Trace	22 <sup>nd</sup> , 24 <sup>th</sup> & 27 <sup>th</sup>
City of Houston (IAH)	0.01	<b>-4.83</b>	1	0.01	24 <sup>th</sup>
College Station (CLL)	0.06	<b>-3.04</b>	1	0.04	27 <sup>th</sup>
Palacios (PSX)	0.02	<b>-3.89</b>	0	0.02	22 <sup>nd</sup>

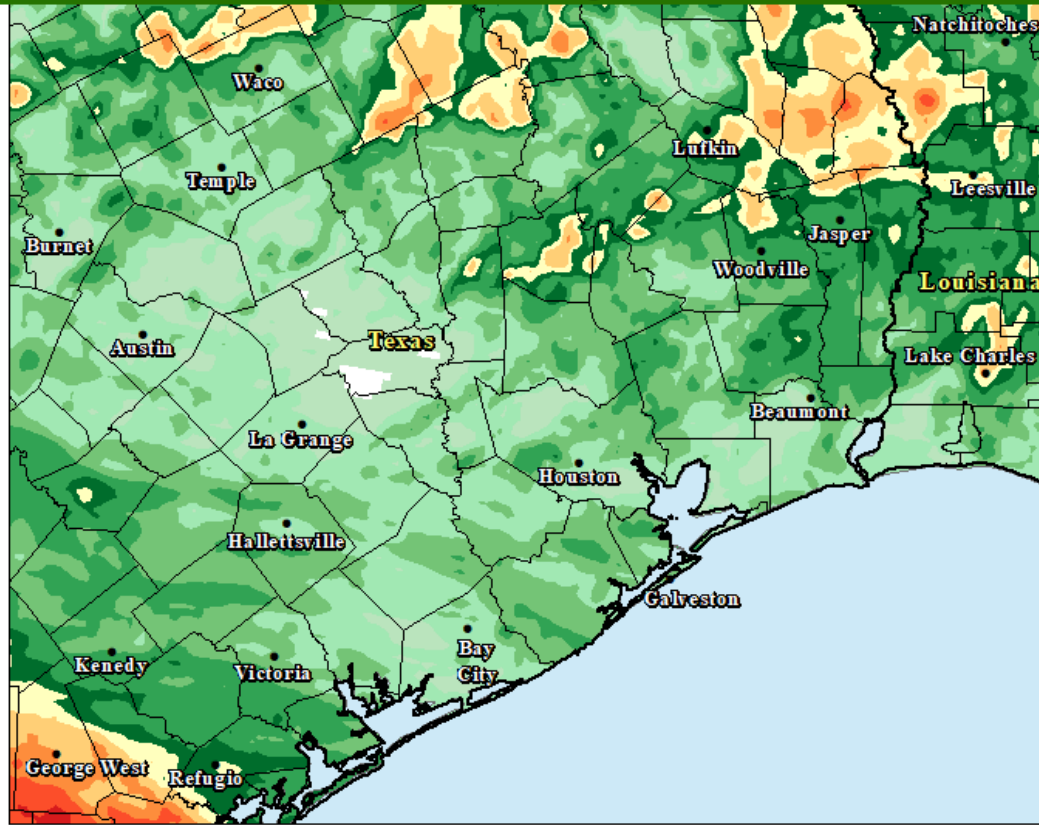
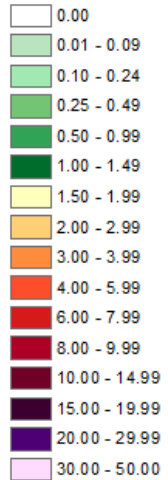
# Precipitation Accumulation Graph



# Precipitation Maps

Total Monthly Precipitation - August 2023

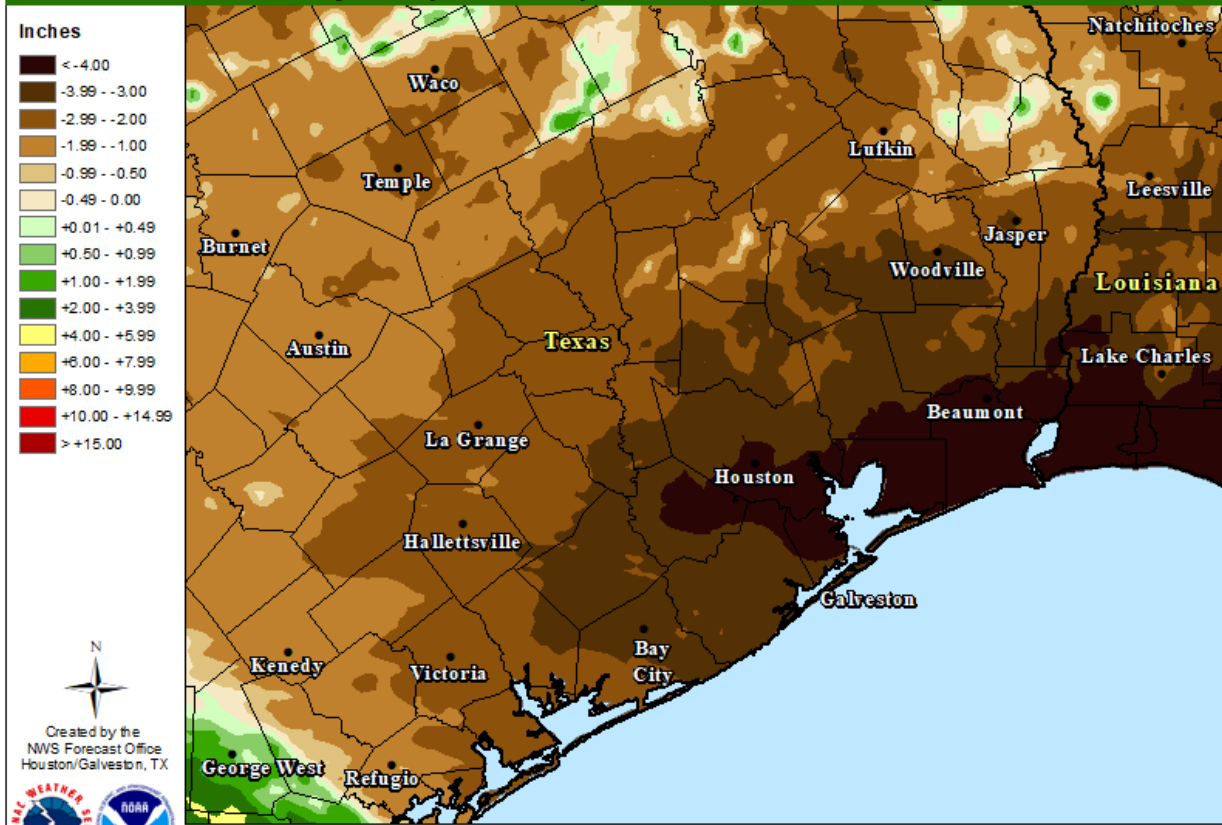
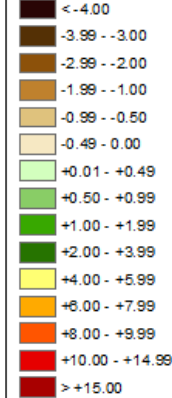
Inches



Source: NWS Advanced Hydrologic Prediction Service Created: 09/01/2023 2000 UTC

Total Monthly Precipitation Departure From Normal - August 2023

Inches



Source: NWS Advanced Hydrologic Prediction Service Created: 09/01/2023 2000 UTC



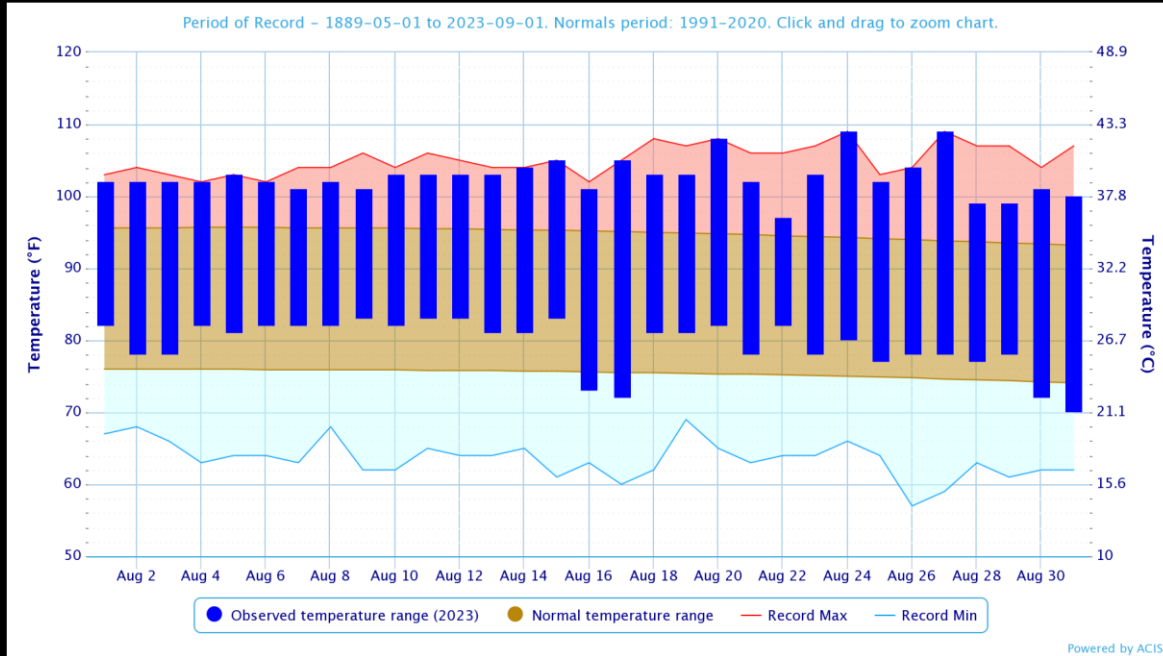
# Temperature

Location	Average High Temp (F)	Average Low Temp (F)	Average Temp (F)	Departure From Normal Average (F)	Maximum Temperature (F)	Minimum Temperature (F)
Galveston (GLS)	94.7	82.6	88.6	<b>+2.7</b>	101 on the 27 <sup>th</sup>	80 on the 27 <sup>th</sup> , 30 <sup>th</sup> & 31 <sup>st</sup>
Houston Hobby (HOU)	101.8	80.6	91.2	<b>+6.1</b>	109 on the 27 <sup>th</sup>	77 on the 31 <sup>st</sup>
City of Houston (IAH)	102.7	79.4	91.0	<b>+5.8</b>	109 on the 24 <sup>th</sup> & 27 <sup>th</sup>	70 on the 31 <sup>st</sup>
College Station (CLL)	106.2	80.2	93.3	<b>+7.6</b>	112 on the 20 <sup>th</sup> & 27 <sup>th</sup>	74 on the 30 <sup>th</sup>
Palacios (PSX)	96.9	82.1	89.5	<b>+3.9</b>	102 on the 30 <sup>th</sup>	69 on the 30 <sup>th</sup>

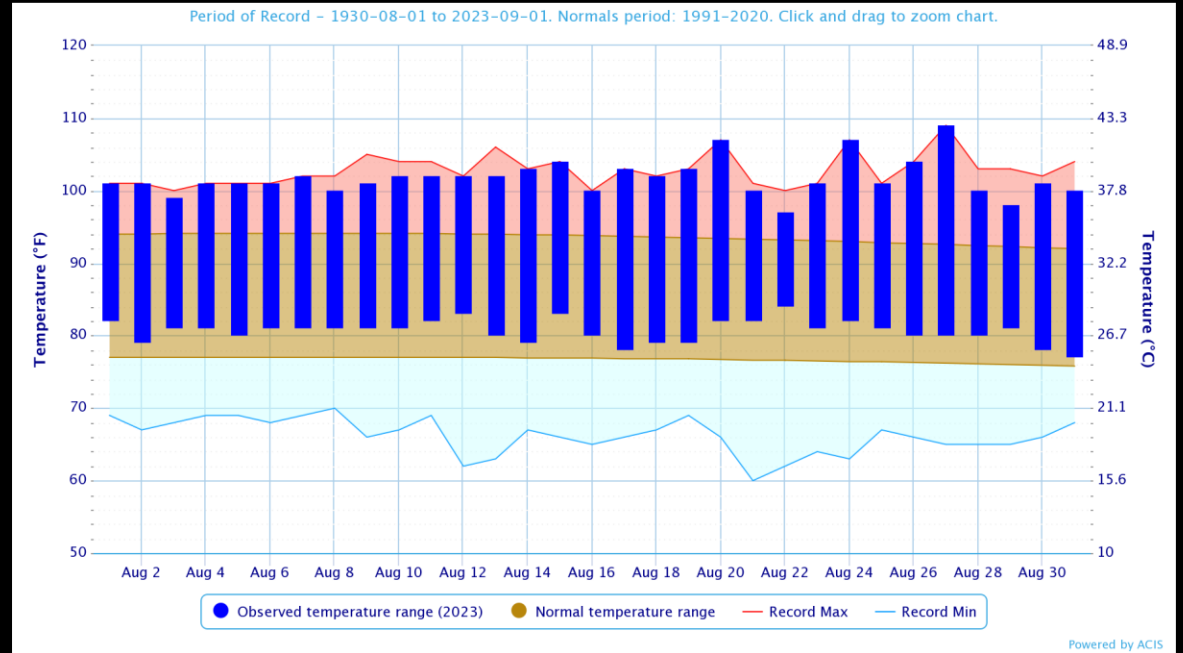
# Temperature Charts

8

## City of Houston



## Houston-Hobby

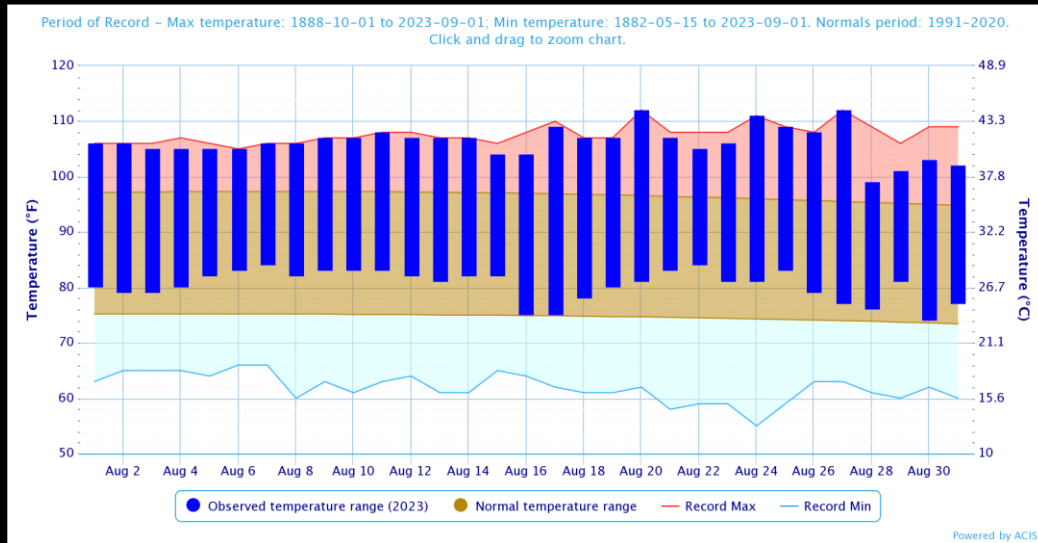




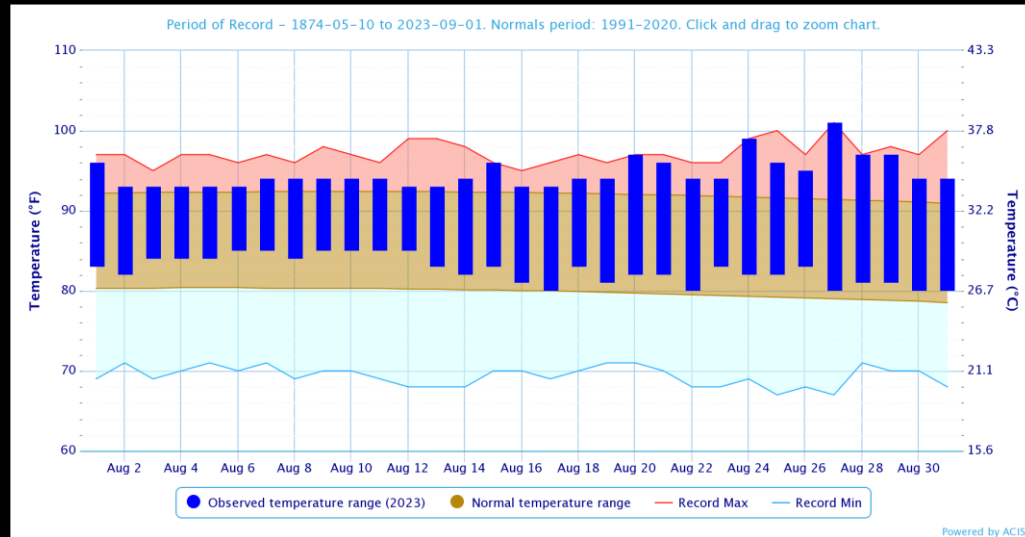
# Temperature Charts

9

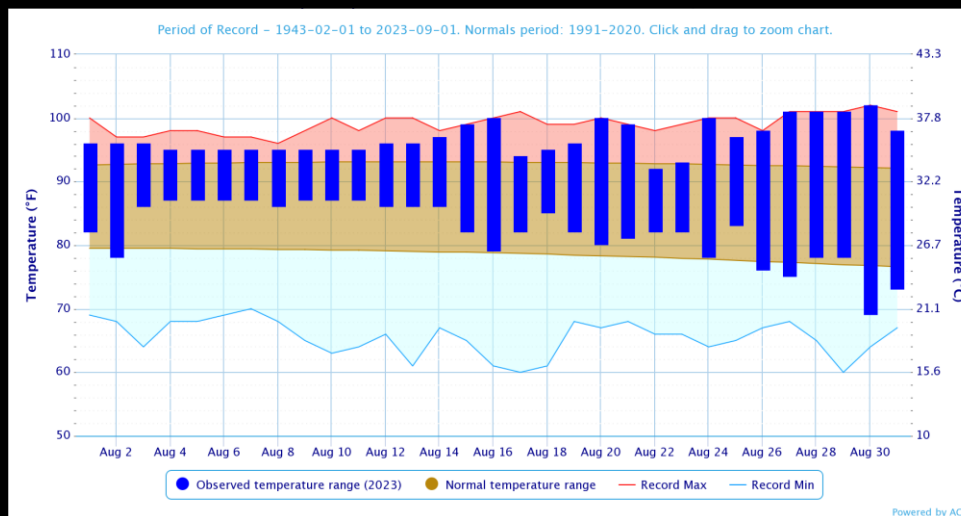
## City of College Station



## City of Galveston



## Palacios



# Daily Record Reports – City of College Station

Date	Record Type	New Record	Previous Record	Date	Record Type	New Record	Previous Record
1 <sup>st</sup>	High Maximum	106°F – T	106°F in 2011	9 <sup>th</sup>	High Maximum	107°F – T	107°F in 1962
2 <sup>nd</sup>	High Maximum	106°F	105°F in 2011	9 <sup>th</sup>	High Minimum	83°F	81°F in 1915
3 <sup>rd</sup>	High Minimum	79°F – T	79°F in 2011	10 <sup>th</sup>	High Maximum	107°F – T	107°F in 1962
4 <sup>th</sup>	High Minimum	80°F – T	80°F in 1980	10 <sup>th</sup>	High Minimum	83°F	79°F in 2011
6 <sup>th</sup>	High Maximum	105°F – T	105°F in 1951	11 <sup>th</sup>	High Maximum	108°F	106°F in 2015
6 <sup>th</sup>	High Minimum	83°F	80°F in 1951	11 <sup>th</sup>	High Minimum	83°F	81°F in 2010
7 <sup>th</sup>	High Maximum	106°F	105°F in 1988	12 <sup>th</sup>	High Minimum	82°F	81°F in 2011
7 <sup>th</sup>	High Minimum	84°F – T	84°F in 1899	13 <sup>th</sup>	High Maximum	107°F	105°F in 1951
8 <sup>th</sup>	High Maximum	106°F – T	106°F in 1988	14 <sup>th</sup>	High Minimum	82°F	82°F in 1899
8 <sup>th</sup>	High Minimum	82°F	80°F in 1899	14 <sup>th</sup>	High Maximum	107°F	106°F in 1951

There were  
36 daily  
records set at  
College  
Station this  
month.



Key

High Max

Low Max

Precip

Snow

High Min

Low Min



# Daily Record Reports – City of College Station

Date	Record Type	New Record	Previous Record	Date	Record Type	New Record	Previous Record
15 <sup>th</sup>	High Minimum	82°F	80°F in 2010	24 <sup>th</sup>	High Maximum	111°F	107°F in 2010
18 <sup>th</sup>	High Maximum	107°F	106°F in 1945	25 <sup>th</sup>	High Minimum	83°F	82°F in 1907
19 <sup>th</sup>	High Minimum	80°F	79°F in 2021	25 <sup>th</sup>	High Maximum	109°F	105°F in 1893
19 <sup>th</sup>	High Maximum	107°F	105°F in 2011	26 <sup>th</sup>	High Maximum	108°F	104°F in 1901
20 <sup>th</sup>	High Minimum	81°F – T	81°F in 1914	27 <sup>th</sup>	High Maximum	112°F	109°F in 2011
20 <sup>th</sup>	High Maximum	112°F	107°F in 1999	29 <sup>th</sup>	High Minimum	81°F	78°F in 2012
21 <sup>st</sup>	High Minimum	83°F	79°F in 2014				
22 <sup>nd</sup>	High Minimum	84°F	78°F in 2010				
23 <sup>rd</sup>	High Minimum	81°F	79°F in 1977				
24 <sup>th</sup>	High Minimum	81°F	78°F in 2010				

There were  
36 daily  
records set at  
College  
Station this  
month.



**High Max**

**Low Max**

**Precip**

**Snow**

**High Min**

**Low Min**



Key

# Daily Record Reports – City of Houston

Date	Record Type	New Record	Previous Record	Date	Record Type	New Record	Previous Record
1 <sup>st</sup>	High Minimum	82°F	81°F in 2009	11 <sup>th</sup>	High Minimum	83°F	82°F in 2016
4 <sup>th</sup>	High Maximum	102°F – T	102°F in 1951	12 <sup>th</sup>	High Minimum	83°F – T	83°F in 2010
5 <sup>th</sup>	High Minimum	81°F – T	81°F in 2010	14 <sup>th</sup>	High Maximum	104°F	102°F in 2019
5 <sup>th</sup>	High Maximum	103°F – T	103°F in 1964	14 <sup>th</sup>	High Minimum	81°F – T	81°F in 2017
6 <sup>th</sup>	High Minimum	82°F	81°F in 2011	15 <sup>th</sup>	High Maximum	105°F	101°F in 2020
6 <sup>th</sup>	High Maximum	102°F	101°F in 2011	15 <sup>th</sup>	High Minimum	83°F	81°F in 2020
7 <sup>th</sup>	High Minimum	82°F	81°F in 2011	17 <sup>th</sup>	High Maximum	105°F	104°F in 1909
8 <sup>th</sup>	High Minimum	82°F	81°F in 2019	19 <sup>th</sup>	High Minimum	81°F	80°F in 2018
9 <sup>th</sup>	High Minimum	83°F	82°F in 2021	20 <sup>th</sup>	High Maximum	108°F	107°F in 1909
10 <sup>th</sup>	High Minimum	82°F	81°F in 2021	20 <sup>th</sup>	High Minimum	82°F	81°F in 2018

There were  
24 daily  
records set at  
Houston this  
month.



Key

High Max

Low Max

Precip

Snow

High Min

Low Min



# Daily Record Reports – City of Houston

Date	Record Type	New Record	Previous Record
22 <sup>nd</sup>	High Minimum	82°F	80°F in 1895
24 <sup>th</sup>	High Maximum	109°F <small>All-Time Record High</small>	105°F in 1980
26 <sup>th</sup>	High Maximum	104°F – T	104°F in 2011
27 <sup>th</sup>	High Maximum	109°F – T <small>All-Time Record High</small>	109°F in 2011

There were  
24 daily  
records set at  
Houston this  
month.



High Max

Low Max

Precip

Snow

High Min

Low Min



Key

# Daily Record Reports – Houston-Hobby

Date	Record Type	New Record	Previous Record	Date	Record Type	New Record	Previous Record
1 <sup>st</sup>	High Minimum	82°F	81°F in 2021	7 <sup>th</sup>	High Minimum	81°F	80°F in 2020
1 <sup>st</sup>	High Maximum	101°F – T	101°F in 1998	8 <sup>th</sup>	High Minimum	81°F – T	80°F in 2021
2 <sup>nd</sup>	High Maximum	101°F – T	101°F in 1998	10 <sup>th</sup>	High Minimum	81°F – T	81°F in 2021
3 <sup>rd</sup>	High Minimum	81°F – T	81°F in 1998	11 <sup>th</sup>	High Minimum	82°F	81°F in 2021
4 <sup>th</sup>	High Maximum	101°F	100°F in 2022	12 <sup>th</sup>	High Minimum	83°F	82°F in 2007
5 <sup>th</sup>	High Maximum	101°F	100°F in 2013	12 <sup>th</sup>	High Maximum	102°F – T	102°F in 2007
5 <sup>th</sup>	High Minimum	80°F – T	80°F in 1998	14 <sup>th</sup>	High Maximum	103°F	101°F in 2007
6 <sup>th</sup>	High Maximum	101°F – T	101°F in 1947	15 <sup>th</sup>	High Maximum	104°F	101°F in 1948
6 <sup>th</sup>	High Minimum	81°F	80°F in 2020	15 <sup>th</sup>	High Minimum	83°F	81°F in 2017
7 <sup>th</sup>	High Maximum	102°F – T	102°F in 2003	16 <sup>th</sup>	High Maximum	100°F – T	100°F in 2020

There were  
38 daily  
records set at  
Houston-  
Hobby this  
month.



Key

High Max

Low Max

Precip

Snow

High Min

Low Min





# Daily Record Reports – Houston-Hobby

Date	Record Type	New Record	Previous Record	Date	Record Type	New Record	Previous Record
17 <sup>th</sup>	High Maximum	103°F	102°F in 2011	24 <sup>th</sup>	High Minimum	82°F	80°F in 2021
18 <sup>th</sup>	High Maximum	102°F – T	102°F in 2011	25 <sup>th</sup>	High Minimum	81°F – T	81°F in 2021
19 <sup>th</sup>	High Maximum	103°F – T	103°F in 2011	25 <sup>th</sup>	High Maximum	101°F	98°F in 2014
20 <sup>th</sup>	High Maximum	107°F	101°F in 1999	26 <sup>th</sup>	High Maximum	104°F	100°F in 1990
20 <sup>th</sup>	High Minimum	82°F	81°F in 2021	26 <sup>th</sup>	High Minimum	80°F – T	80°F in 2020
21 <sup>st</sup>	High Minimum	82°F	81°F in 2017	27 <sup>th</sup>	High Maximum	109°F <small>All-Time Record High</small>	106°F in 2011
22 <sup>nd</sup>	High Minimum	84°F	82°F in 2018	27 <sup>th</sup>	High Minimum	80°F – T	80°F in 2019
23 <sup>rd</sup>	High Minimum	81°F – T	81°F in 2017	28 <sup>th</sup>	High Minimum	80°F – T	80°F in 2021
23 <sup>rd</sup>	High Maximum	101°F – T	101°F in 2011				
24 <sup>th</sup>	High Maximum	107°F	100°F in 1980				

There were  
38 daily  
records set at  
Houston-  
Hobby this  
month.



High Max

Low Max

Precip

Snow

High Min

Low Min



Key

# Daily Record Reports – City of Galveston

Date	Record Type	New Record	Previous Record	Date	Record Type	New Record	Previous Record
5 <sup>th</sup>	High Minimum	84°F – T	84°F in 2016	28 <sup>th</sup>	High Maximum	97°F – T	97°F in 2011
6 <sup>th</sup>	High Minimum	85°F – T	85°F in 2015				
7 <sup>th</sup>	High Minimum	85°F – T	85°F in 2011				
9 <sup>th</sup>	High Minimum	85°F – T	85°F in 2022				
10 <sup>th</sup>	High Minimum	85°F – T	85°F in 2020				
11 <sup>th</sup>	High Minimum	85°F – T	85°F in 2020				
15 <sup>th</sup>	High Maximum	96°F – T	96°F in 1874				
20 <sup>th</sup>	High Maximum	97°F – T	97°F in 1995				
24 <sup>th</sup>	High Maximum	99°F	95°F in 2015				
27 <sup>th</sup>	High Maximum	101°F	100°F in 2011				

There were  
11 daily  
records set at  
Houston-  
Hobby this  
month.



High Max

Low Max

Precip

Snow

High Min

Low Min



Key

# Daily Record Reports – Palacios

Date	Record Type	New Record	Previous Record	Date	Record Type	New Record	Previous Record
3 <sup>rd</sup>	High Minimum	86°F – T	86°F in 2022	16 <sup>th</sup>	High Maximum	100°F	99°F in 2013
4 <sup>th</sup>	High Minimum	87°F	85°F in 2022	18 <sup>th</sup>	High Minimum	85°F	84°F in 2021
5 <sup>th</sup>	High Minimum	87°F	84°F in 2015	20 <sup>th</sup>	High Maximum	100°F	97°F in 1999
6 <sup>th</sup>	High Minimum	87°F	84°F in 2019	21 <sup>st</sup>	High Maximum	99°F	98°F in 1951
7 <sup>th</sup>	High Minimum	87°F	85°F in 2019	24 <sup>th</sup>	High Maximum	100°F	97°F in 1988
9 <sup>th</sup>	High Minimum	87°F	86°F in 2019	26 <sup>th</sup>	High Maximum	98°F	96°F in 2020
10 <sup>th</sup>	High Minimum	87°F	84°F in 2019	27 <sup>th</sup>	High Maximum	101°F	99°F in 2011
11 <sup>th</sup>	High Minimum	87°F	86°F in 2019	28 <sup>th</sup>	High Maximum	101°F	98°F in 2012
14 <sup>th</sup>	High Minimum	86°F – T	86°F in 2010	29 <sup>th</sup>	High Maximum	101°F	98°F in 2012
15 <sup>th</sup>	High Maximum	99°F – T	99°F in 2015	30 <sup>th</sup>	High Maximum	102°F	101°F in 2012

There were  
20 daily  
records set at  
Palacios this  
month.



Key

High Max

Low Max

Precip

Snow

High Min

Low Min



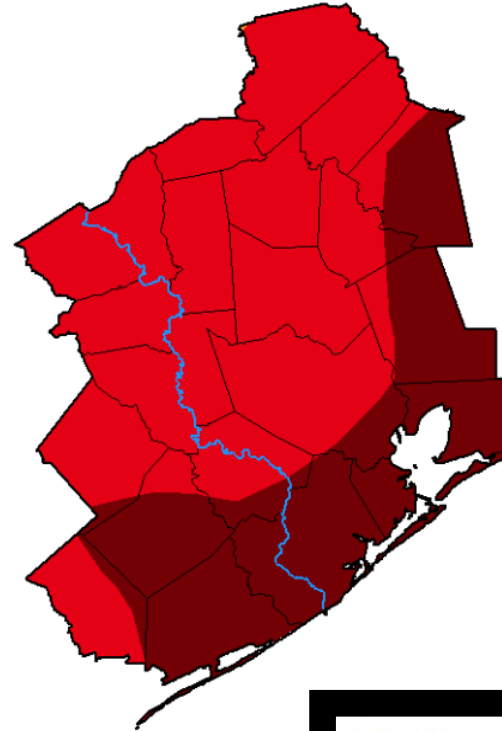
# Drought Monitor

## As of August 29<sup>th</sup>

*The extreme heat and below normal precipitation led drought conditions to rapidly deteriorate across the area. The entire region is in at least Extreme Drought (D3) with areas along the coast and across the east in Exceptional Drought (D4) – the worst drought category.*

### U.S. Drought Monitor Houston/Galveston, TX WFO

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



#### Intensity:

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

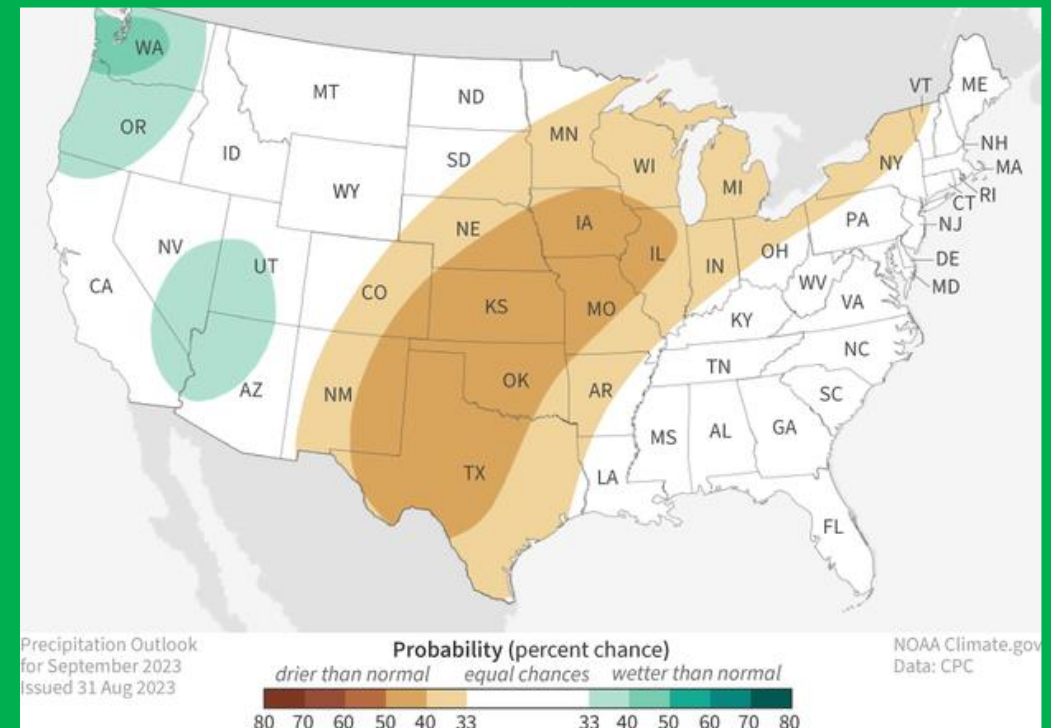
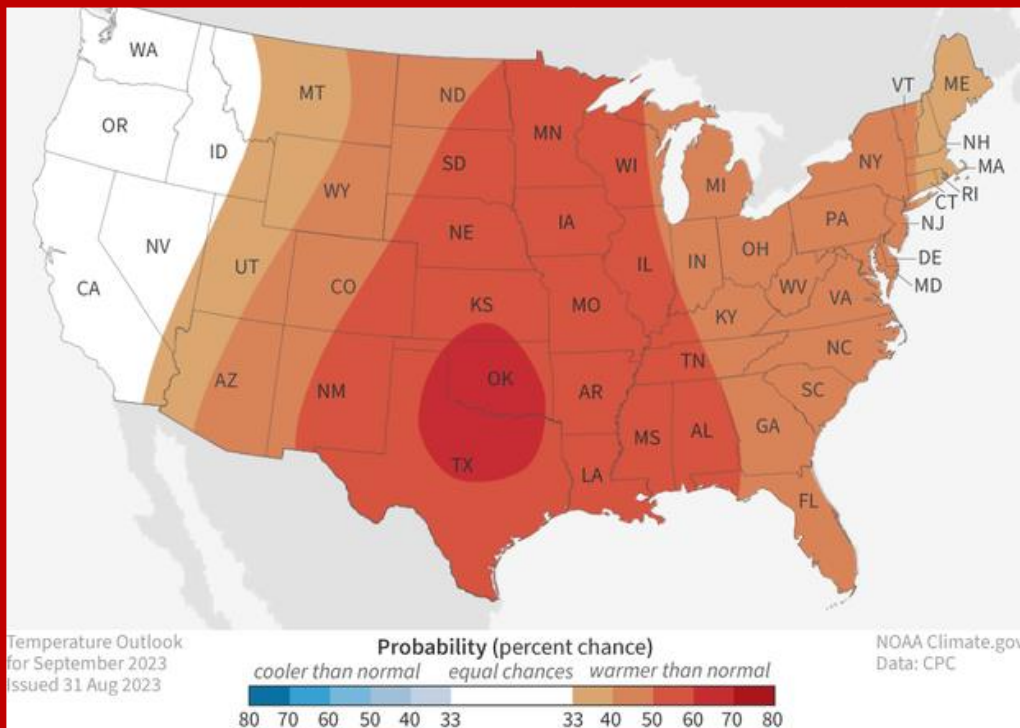
*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>*

# August Outlook

19

Location	Average Temp(°F)	Normal High (°F)	Normal Low (°F)
Galveston	82.4	88.7	76.1
Houston Hobby	81.1	89.3	72.9
City of Houston	80.5	90.4	70.6
College Station	80.6	91.2	70.0
Palacios	81.5	90.0	73.0

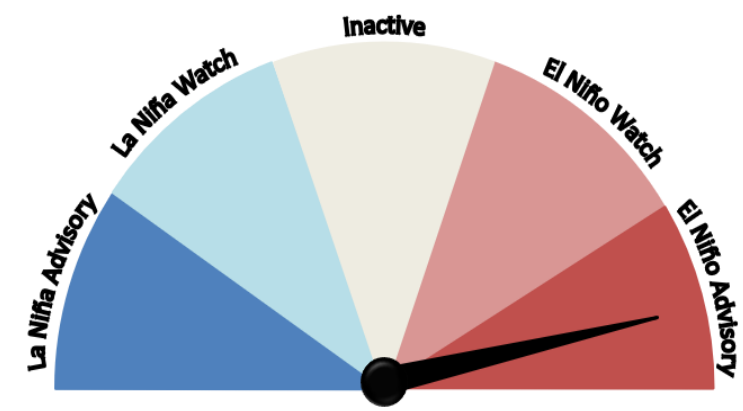
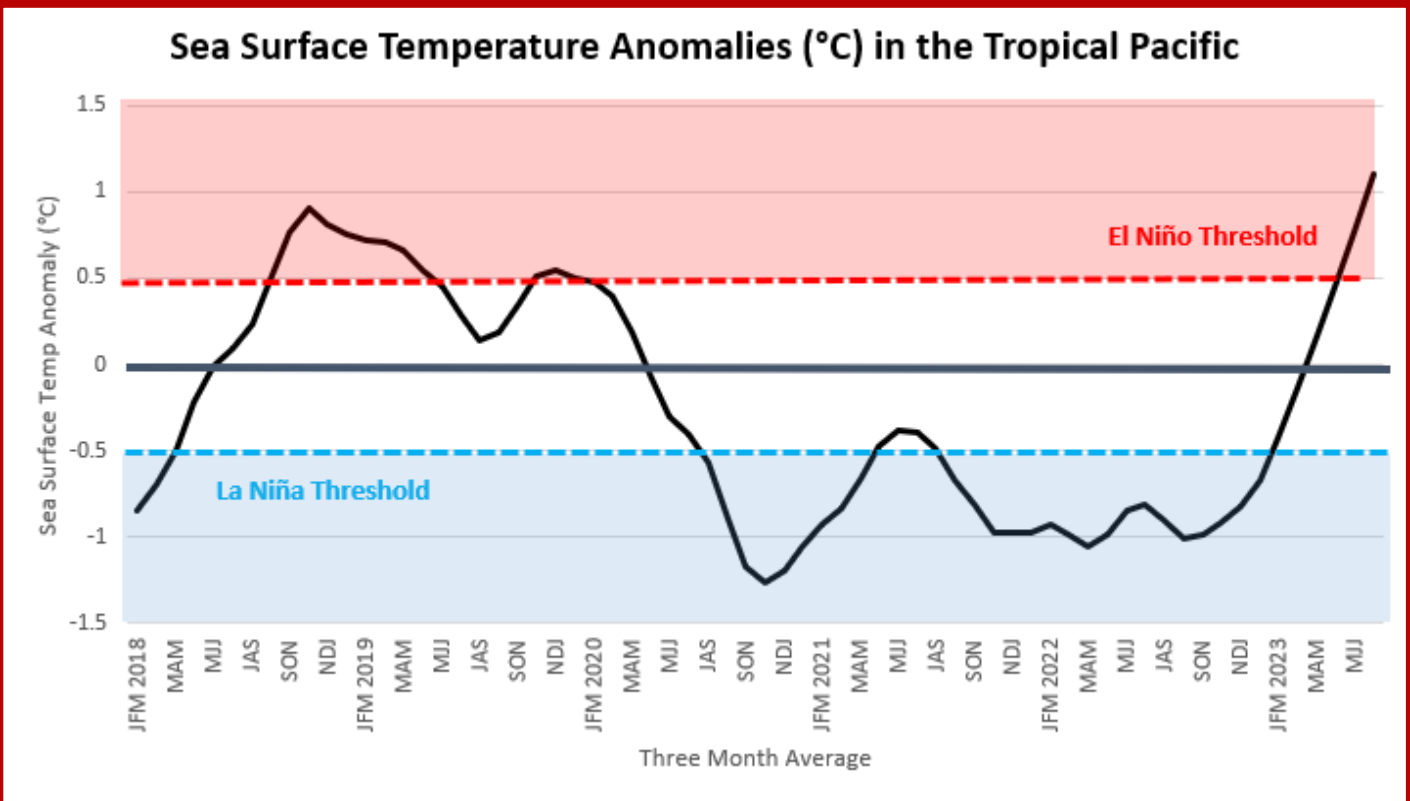
Location	Normal Monthly Precipitation (in.)
Galveston	6.65
Houston Hobby	5.76
City of Houston	4.71
College Station	3.50
Palacios	5.88



## Current ENSO Phase: El Niño

### The Climate Prediction Center's ENSO Forecast: El Niño Advisory

- El Niño conditions are present and are expected to gradually strengthen through the Winter.



**El Niño or La Niña Watch:** Issued when conditions are favorable for the development of El Niño or La Niña conditions within the next six months.

**El Niño or La Niña Advisory:** Issued when El Niño or La Niña conditions are observed and expected to continue.



# 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).*

## 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.*

## Houston Hobby (HOU)

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

## Palacios (PSX)

*Records are based upon observations beginning in February 1943.*

