

# NWS Houston, Texas July 2023 Regional Climate Summary

**Produced by Jimmy Fowler**

## ***...Extreme Heat and Below Normal Rainfall...***

*This past July either ended up in the top five warmest July's on record at our climate sites, or was the warmest July on record. In fact, Palacios ended up experiencing its warmest month on record out of any month in the year. There were a total of 50 daily records this month with 49 of them either being record high maximum temperatures or record high minimum temperatures. The other record was a daily rainfall record for the City of Houston on the 6<sup>th</sup>. Although, rainfall was rather lacking across the area this month with the totals for the month around one to three inches below normal. The combined extreme heat and below normal precipitation led to the expansion of the drought across the area with Severe Drought now being reported.*

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# By the Numbers: July 2023

Location (records started)	Average Temp	Ranking	Total Rainfall	Ranking
City of Houston, TX (1888)	87.8°F	2 <sup>nd</sup> Warmest	2.98"	60 <sup>th</sup> Driest
Houston Hobby, TX (1930)	88.3°F	<b>Warmest on Record</b>	2.75"	34 <sup>th</sup> Driest
City of Galveston, TX (1871)	86.5°F	5 <sup>th</sup> Warmest	1.99"	56 <sup>th</sup> Driest
City of College Station, TX (1882)	<b>90.2°F</b>	2 <sup>nd</sup> Warmest	0.65"	28 <sup>th</sup> Driest
Palacios, TX (1943)	88.4°F	<b>Warmest on Record</b>	1.26"	27 <sup>th</sup> Driest
Huntsville, TX (1997)	90.0°F	2 <sup>nd</sup> Warmest	<b>0.31"</b>	2 <sup>nd</sup> Driest
Sugar Land, TX (2000)	87.9°F	2 <sup>nd</sup> Warmest	<b>3.76"</b>	12 <sup>th</sup> Driest
Conroe, TX (1997)	87.0°F	Warmest on Record Tied with 2022	0.58"	Driest on Record
Clover Field (Pearland), TX (1997)	88.4°F	Warmest on Record	2.08"	8 <sup>th</sup> Driest
David Wayne Hooks (Tomball), TX (1998)	88.2°F	2 <sup>nd</sup> Warmest	0.71"	4 <sup>th</sup> Driest
Angleton, TX (1998)	<b>85.4°F</b>	4 <sup>th</sup> Warmest	0.86"	3 <sup>rd</sup> Driest
League City, TX (1990)	86.0°F	Warmest on Record	2.58"	13 <sup>th</sup> Driest



# Precipitation

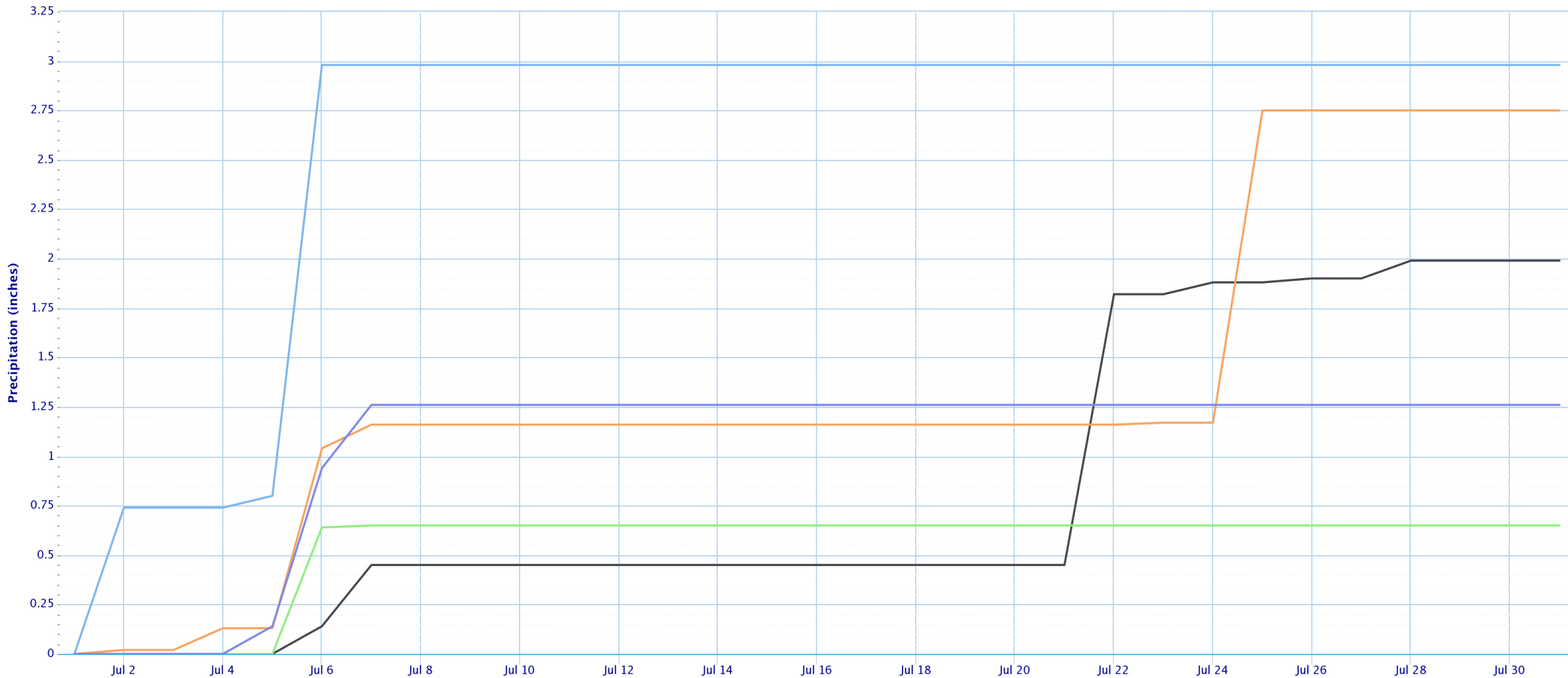
Location	Total Precipitation (in.)	Departure from Normal (in.)	Number of Thunder Days	Maximum Daily Precipitation (in./date)	
Galveston (GLS)	1.99	<b>-1.42</b>	6	1.37	22 <sup>nd</sup>
Houston Hobby (HOU)	2.75	<b>-1.84</b>	10	1.58	25 <sup>th</sup>
City of Houston (IAH)	2.98	<b>-0.79</b>	4	2.18	6 <sup>th</sup>
College Station (CLL)	0.65	<b>-1.33</b>	3	0.64	6 <sup>th</sup>
Palacios (PSX)	1.26	<b>-2.41</b>	7	0.80	6 <sup>th</sup>



# Precipitation Accumulation Graph

Accumulated Precipitation

Green/black diamonds represent subsequent/missing values



City of Houston

City of Galveston

City of College Station

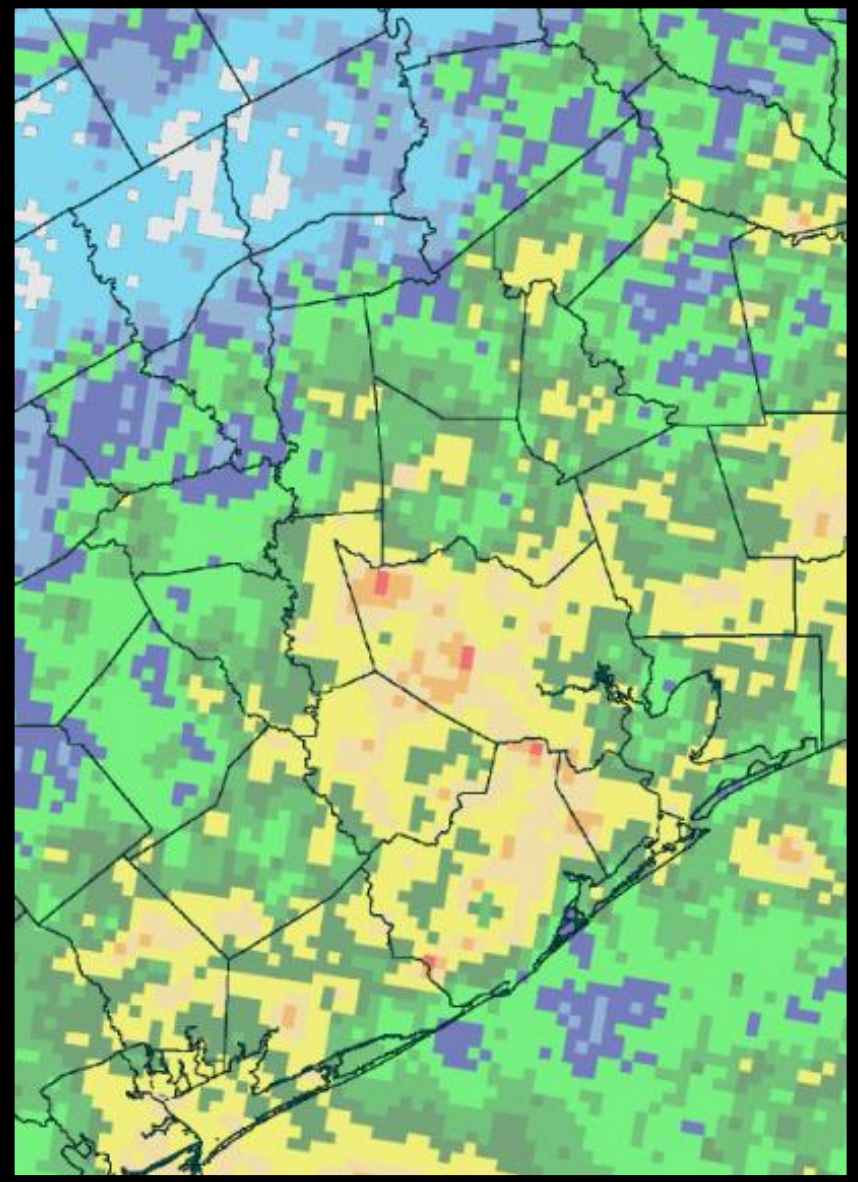
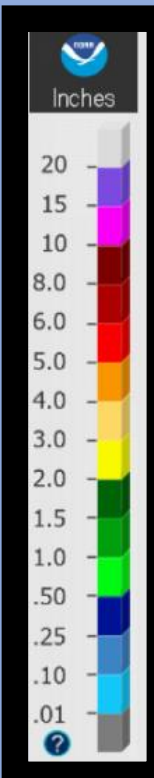
Houston-Hobby

Palacios

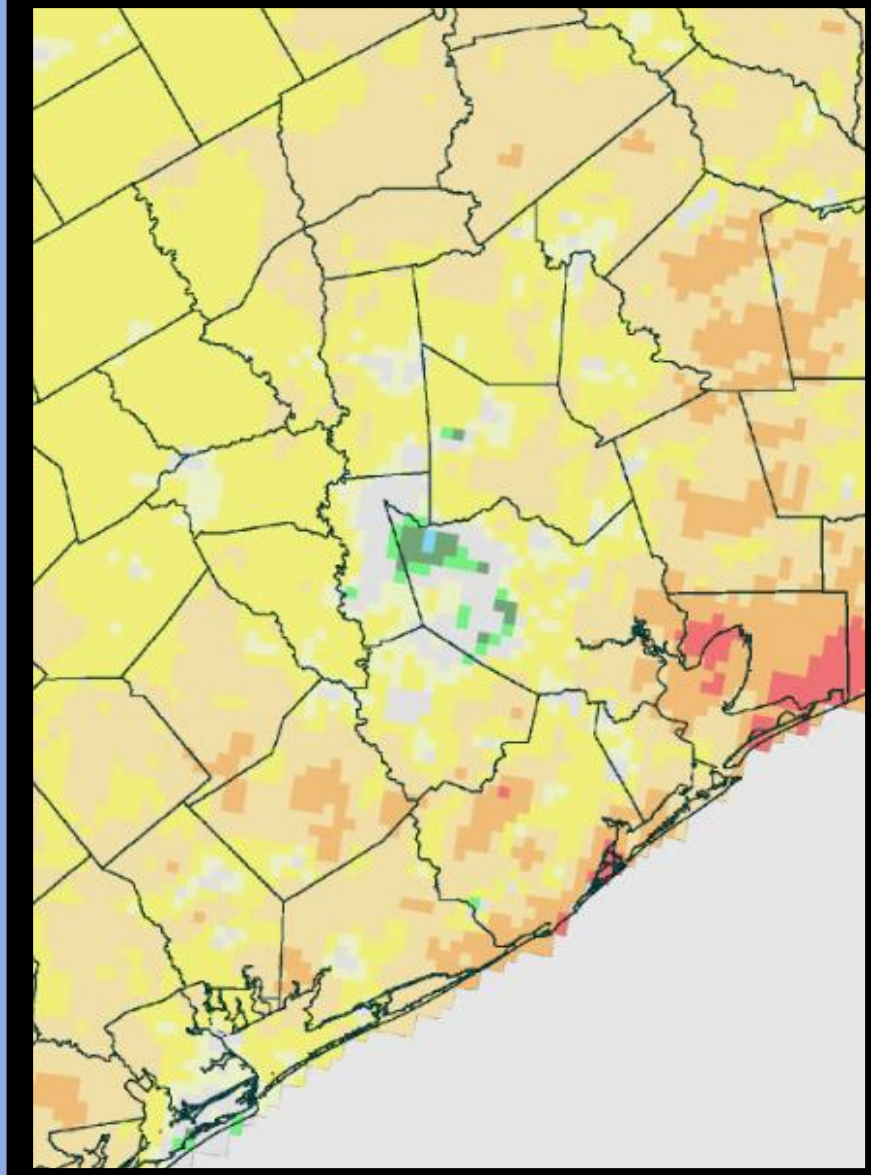
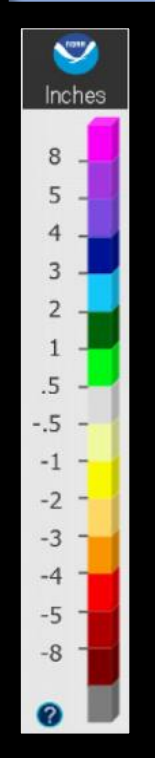


# Precipitation Maps

### July Total Precipitation



### July Precipitation Departure from Normal

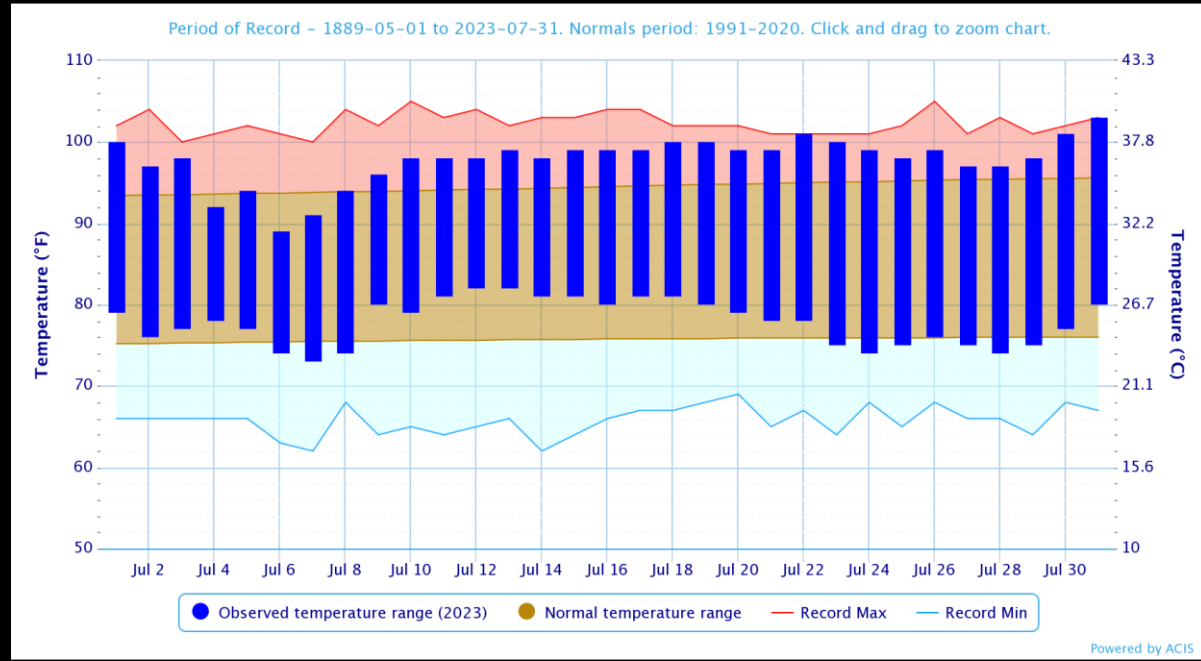


# Temperature

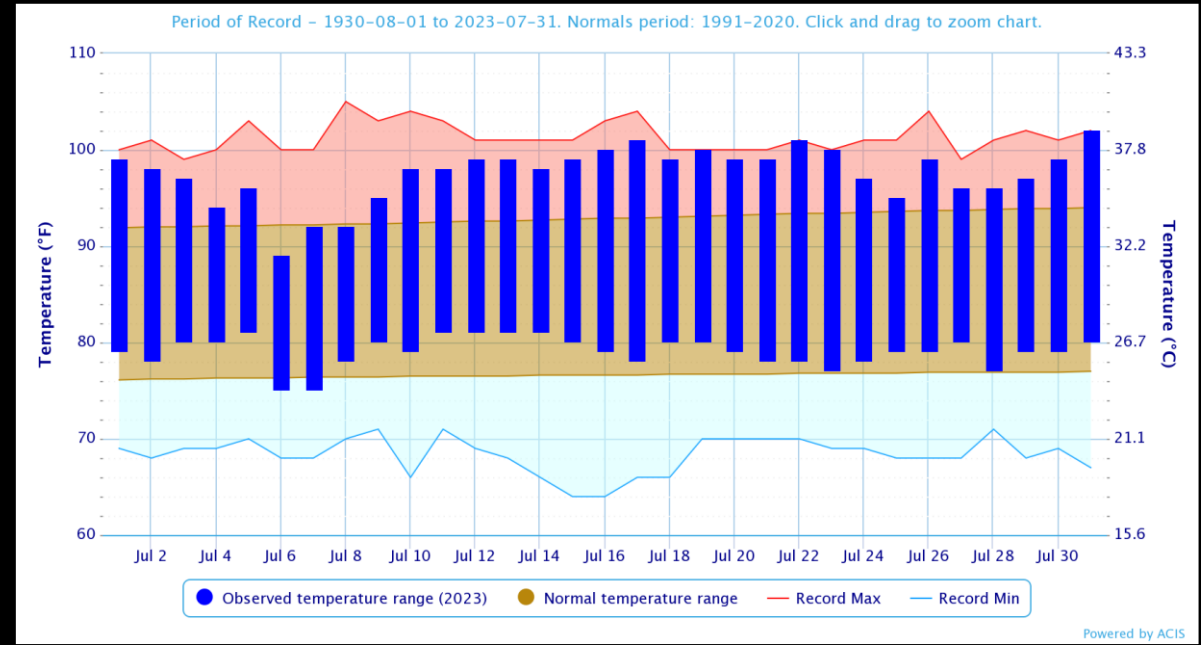
Location	Average High Temp (F)	Average Low Temp (F)	Average Temp (F)	Departure From Normal Average (F)	Maximum Temperature (F)	Minimum Temperature (F)
Galveston (GLS)	91.7	81.2	86.5	<b>+1.0</b>	94 on the 2 <sup>nd</sup> & 31 <sup>st</sup>	74 on the 22 <sup>nd</sup>
Houston Hobby (HOU)	97.5	79.0	88.3	<b>+3.5</b>	102 on the 31 <sup>st</sup>	75 on the 6 <sup>th</sup> & 7 <sup>th</sup>
City of Houston (IAH)	97.7	77.8	87.8	<b>+2.7</b>	103 on the 31 <sup>st</sup>	73 on the 7 <sup>th</sup>
College Station (CLL)	101.0	79.4	90.2	<b>+5.1</b>	106 on the 31 <sup>st</sup>	75 on the 7 <sup>th</sup>
Palacios (PSX)	93.8	82.9	88.4	<b>+3.0</b>	97 on the 31 <sup>st</sup>	76 on the 7 <sup>th</sup>

# Temperature Charts

## City of Houston



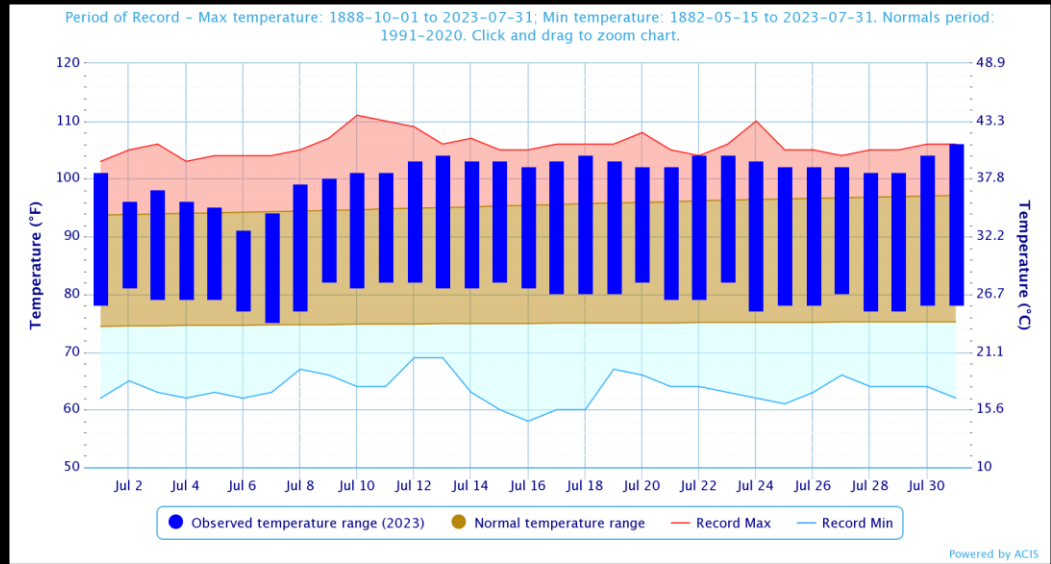
## Houston-Hobby



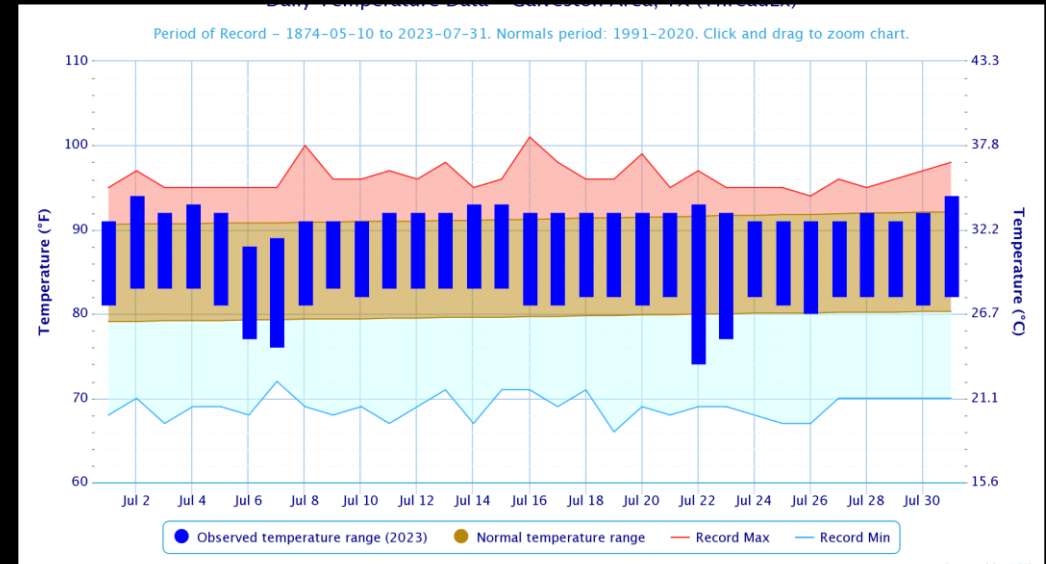


# Temperature Charts

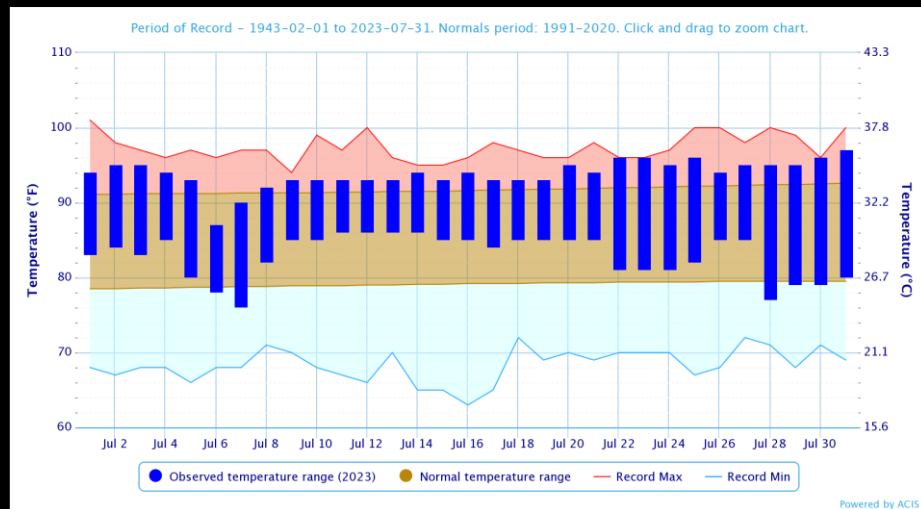
## City of College Station



## City of Galveston



## Palacios



# Daily Record Reports – City of College Station

Date	Record Type	New Record	Previous Record
3 <sup>rd</sup>	High Minimum	79°F – T	79°F in 2022
9 <sup>th</sup>	High Minimum	82°F	81°F in 1915
10 <sup>th</sup>	High Minimum	81°F	80°F in 2022
11 <sup>th</sup>	High Minimum	82°F - T	82°F in 1904
12 <sup>th</sup>	High Minimum	81°F	80°F in 1890
15 <sup>th</sup>	High Minimum	82°F	80°F in 1904
16 <sup>th</sup>	High Minimum	81°F	79°F in 2019
18 <sup>th</sup>	High Minimum	80°F - T	80°F in 2022
20 <sup>th</sup>	High Minimum	82°F	80°F in 2022
21 <sup>st</sup>	High Minimum	79°F - T	79°F in 2022

Date	Record Type	New Record	Previous Record
22 <sup>nd</sup>	High Maximum	104°F – T	104°F in 1889
23 <sup>rd</sup>	High Minimum	82°F	80°F in 2022
31 <sup>st</sup>	High Maximum	106°F – T	106°F in 1893

There were 13 daily records set at College Station 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
6 <sup>th</sup>	Rainfall	2.18"	1.73" in 1942
12 <sup>th</sup>	High Minimum	82°F – T	82°F in 2022
13 <sup>th</sup>	High Minimum	82°F	81°F in 2020
14 <sup>th</sup>	High Minimum	81°F – T	81°F in 2020
17 <sup>th</sup>	High Minimum	81°F	80°F in 2006
18 <sup>th</sup>	High Minimum	81°F	80°F in 2022
22 <sup>nd</sup>	High Maximum	101°F – T	101°F in 2000
31 <sup>st</sup>	High Maximum	103°F – T	103°F in 1998
31 <sup>st</sup>	High Minimum	80°F	79°F in 2020

There were 9 daily records set at Houston 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
3 <sup>rd</sup>	High Minimum	80°F	79°F in 2016	31 <sup>st</sup>	High Maximum	102°F	101°F in 1948
13 <sup>th</sup>	High Minimum	81°F – T	81°F in 2020				
14 <sup>th</sup>	High Minimum	81°F	79°F in 2022				
18 <sup>th</sup>	High Minimum	80°F – T	80°F in 2021				
19 <sup>th</sup>	High Minimum	80°F – T	80°F in 2016				
19 <sup>th</sup>	High Maximum	100°F – T	100°F in 2022				
22 <sup>nd</sup>	High Maximum	101°F	99°F in 2016				
23 <sup>rd</sup>	High Maximum	100°F – T	100°F in 2018				
26 <sup>th</sup>	High Minimum	79°F – T	79°F in 2022				
27 <sup>th</sup>	High Minimum	80°F – T	80°F in 2022				

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



### Key

High Max

Low Max

Precip

Snow

High Min

Low Min

# Daily Record Reports – City of Galveston

Date	Record Type	New Record	Previous Record
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No Daily Records this month.



High Max

Low Max

Precip

Key

Snow

High Min

Low Min



# Daily Record Reports – Palacios

Date	Record Type	New Record	Previous Record	Date	Record Type	New Record	Previous Record
1 <sup>st</sup>	High Minimum	85°F	84°F in 2016	19 <sup>th</sup>	High Minimum	85°F – T	85°F in 2022
10 <sup>th</sup>	High Minimum	85°F	84°F in 2022	20 <sup>th</sup>	High Minimum	85°F – T	85°F in 2022
11 <sup>th</sup>	High Minimum	86°F – T	84°F in 2022	22 <sup>nd</sup>	High Maximum	96°F	95°F in 2022
12 <sup>th</sup>	High Minimum	86°F	84°F in 2022	23 <sup>rd</sup>	High Maximum	96°F – T	96°F in 2019
13 <sup>th</sup>	High Minimum	86°F	84°F in 2016	26 <sup>th</sup>	High Minimum	85°F	84°F in 2012
14 <sup>th</sup>	High Minimum	86°F	84°F in 2020	27 <sup>th</sup>	High Minimum	85°F	84°F in 2015
15 <sup>th</sup>	High Minimum	85°F	84°F in 2020	30 <sup>th</sup>	High Maximum	96°F – T	96°F in 1991
16 <sup>th</sup>	High Minimum	85°F	84°F in 2020				
17 <sup>th</sup>	High Minimum	84°F – T	84°F in 2019				
18 <sup>th</sup>	High Minimum	85°F – T	85°F in 2022				

There were 17 daily records set at Palacios this month.



## Key

High Max

Low Max

Precip

Snow

High Min

Low Min

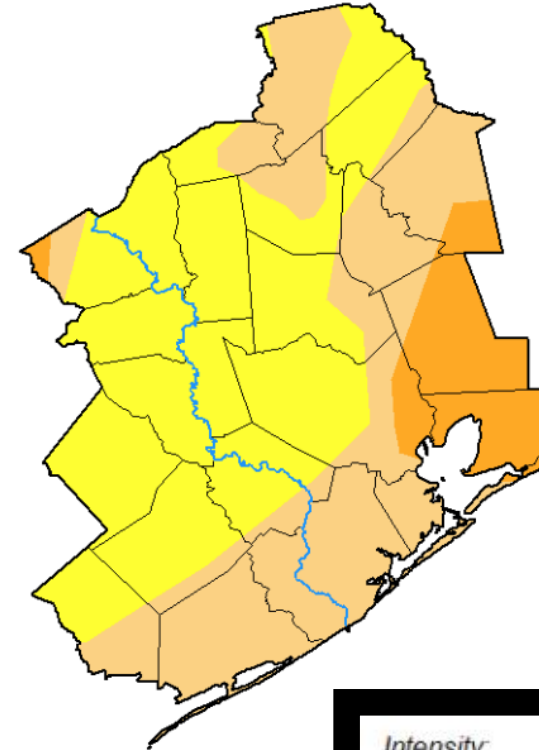
# Drought Monitor

## As of August 1<sup>st</sup>

### U.S. Drought Monitor

## Houston/Galveston, TX WFO

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



*The extreme heat and below normal precipitation led to the expansion of drought conditions across the area. Severe Drought (D2) is being experiencing in Chambers County and portions of Polk, Liberty, Harris, and Burleson counties. Moderate Drought (D1) or Abnormally Dry (D0) conditions are felt elsewhere across the region.*

Intensity:

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

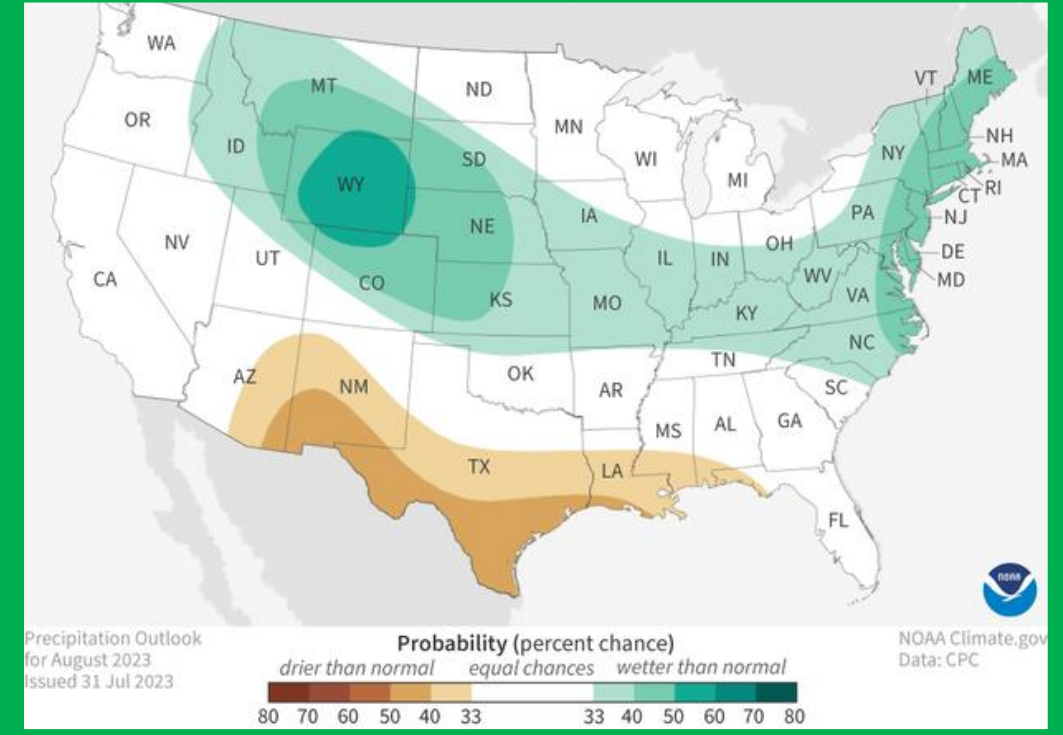
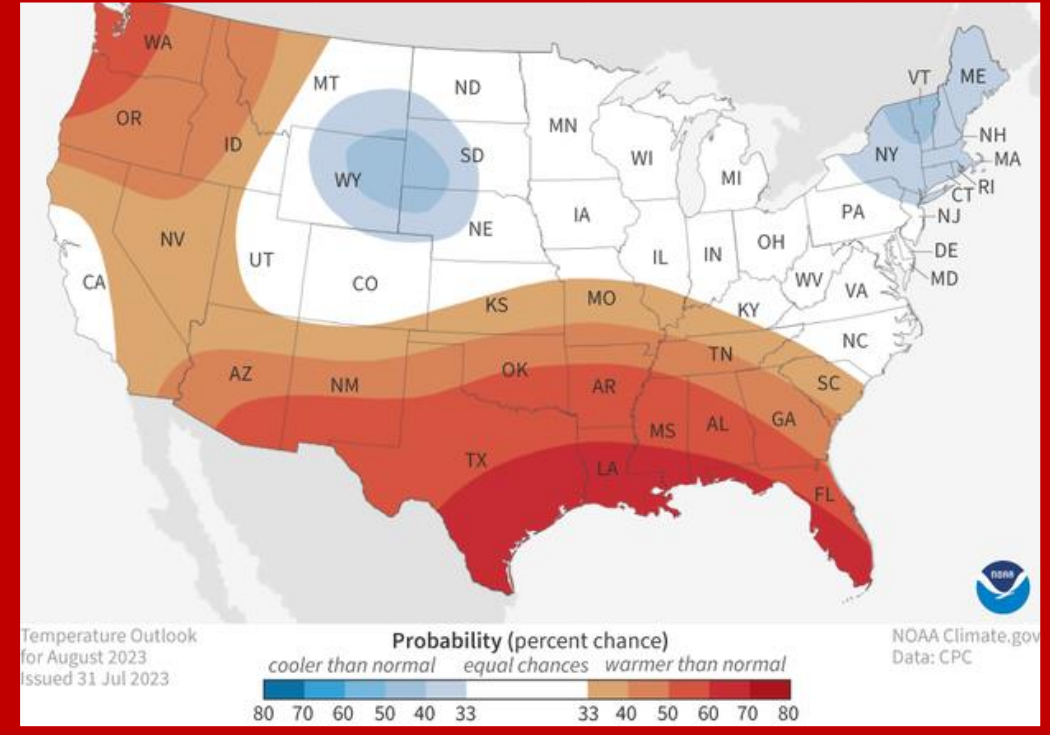
*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>*



# August Outlook

Location	Average Temp(°F)	Normal High (°F)	Normal Low (°F)
Galveston	85.9	92.0	79.8
Houston Hobby	85.1	93.5	76.7
City of Houston	85.2	94.9	75.4
College Station	85.7	96.6	74.7
Palacios	85.6	92.8	78.5

Location	Normal Monthly Precipitation (in.)
Galveston	4.71
Houston Hobby	5.44
City of Houston	4.84
College Station	3.10
Palacios	3.91

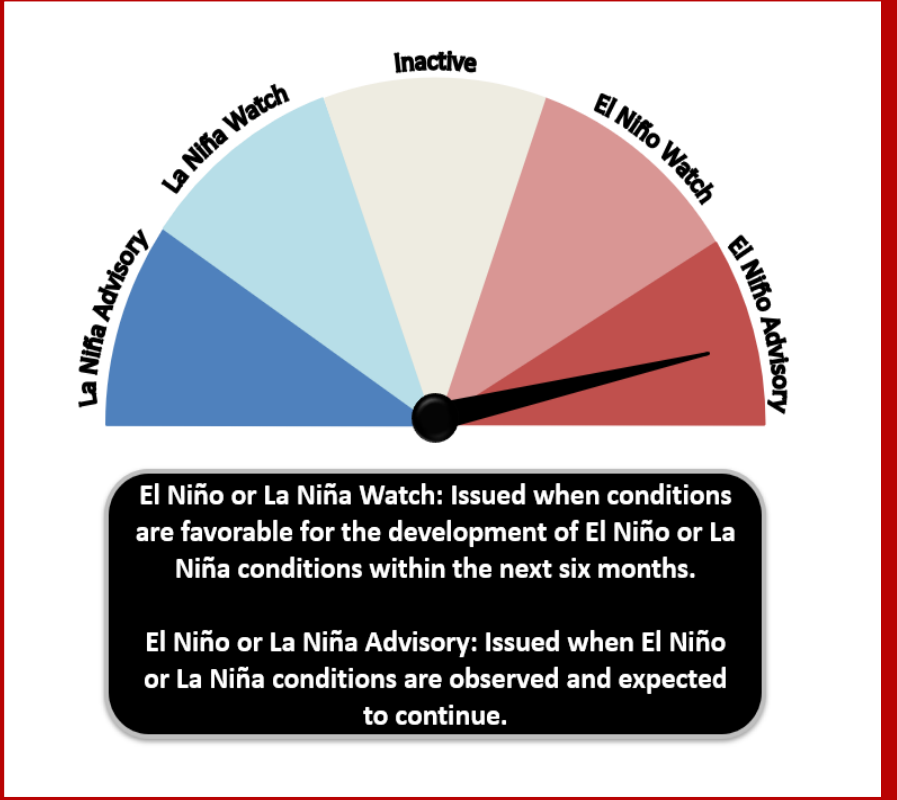
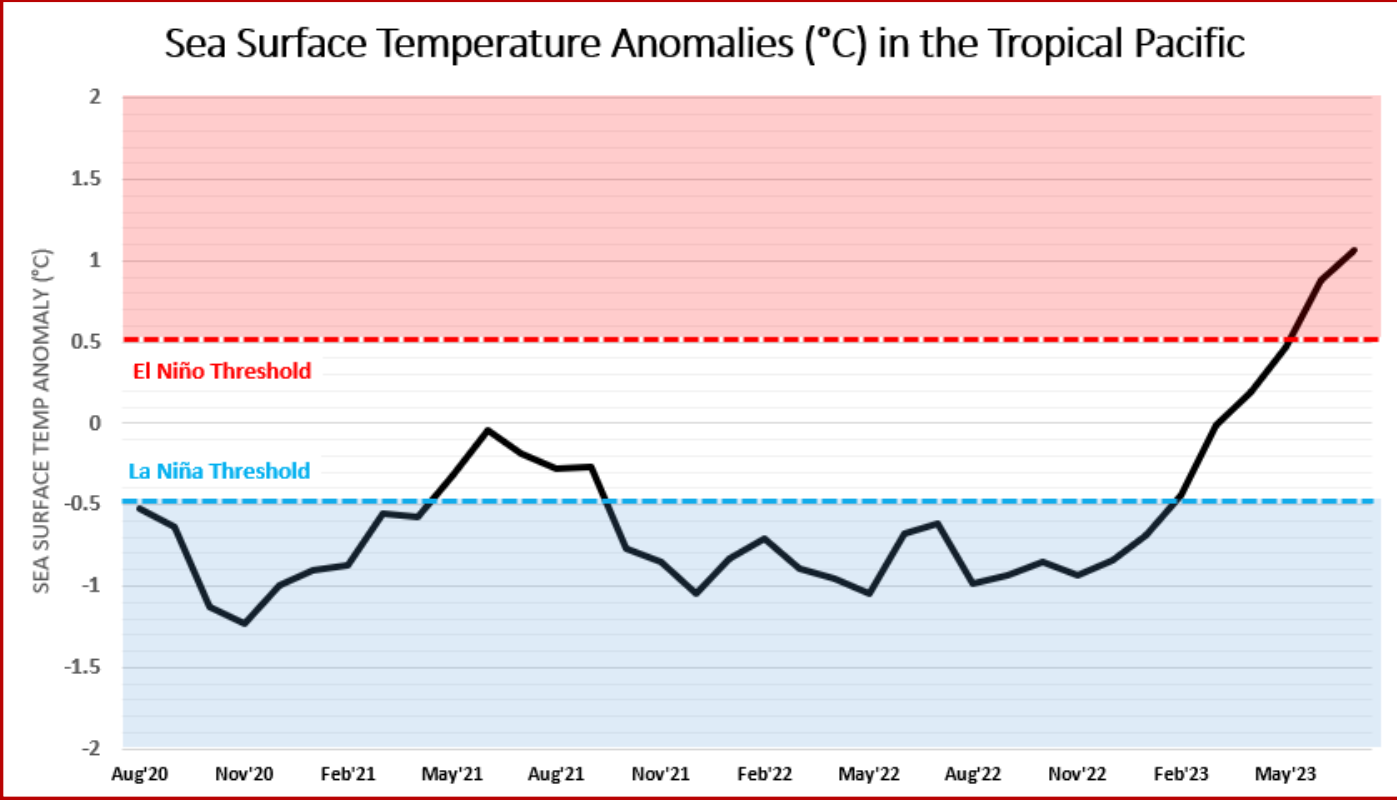




## Current ENSO Phase: El Niño

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

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



# 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.*

