# NWS Houston, Texas August 2020 Regional Climate Summary

NOAA

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# NEATHER SERVICES

## **Produced by Jimmy Fowler**

...Above Normal Temperatures and Below Normal Precipitation continue across Southeast Texas...

## ...Hurricane Laura makes Landfall in Southeast Louisiana...

August was another month of unseasonably warm and dry conditions for SE Texas. Most of the region saw average temperatures around two to three degrees above normal with the City of Houston, Houston-Hobby, and the City of Galveston all experiencing all-time record high minimum temperatures on August 31<sup>st</sup>. The City of Galveston and Houston-Hobby were both the second warmest Augusts on record. Precipitation deficits across the region were anywhere between two and four inches, which lead to the expansion of the drought across the north.

Hurricane Laura brought devastation to the Louisiana coastline at the end of the month with high winds, heavy rainfall, and historic storm surge. Some of the outer rain bands reached our extreme eastern areas, but Southeast Texas remained relatively unscathed.

Photo Credit: Jimmy Fowler

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# By the Numbers: August 2020

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Location (records started)	Average Temp	Ranking	Total Rainfall	Ranking
City of Houston, TX (1888)	86.6°F	8 <sup>th</sup> Warmest	2.26″	53 <sup>rd</sup> Driest
Houston Hobby, TX (1930)	87.0°F	2 <sup>nd</sup> Warmest	3.20"	42 <sup>nd</sup> Driest
City of Galveston, TX (1871)	87.9°F	2 <sup>nd</sup> Warmest	0.75"	13 <sup>th</sup> Driest
City of College Station, TX (1882)	86.5°F	17 <sup>th</sup> Warmest	0.58"	23 <sup>rd</sup> Driest
Conroe, TX (1997)	85.2°F	5 <sup>th</sup> Warmest	1.74"	9 <sup>th</sup> Driest
Huntsville, TX (1997)	86.3°F	5 <sup>th</sup> Warmest	3.11"	9 <sup>th</sup> Wettest
Sugar Land, TX (2000)	85.6°F	4 <sup>th</sup> Warmest	2.78"	6 <sup>th</sup> Driest
Palacios, TX (1943)	85.7°F	10 <sup>th</sup> Warmest	0.16"	2 <sup>nd</sup> Driest
Clover Field (Pearland), TX (1997)	86.5°F	3 <sup>rd</sup> Warmest	2.77"	8 <sup>th</sup> Driest
David Wayne Hooks (Tomball), TX (1998)	85.1°F	6 <sup>th</sup> Warmest	1.66"	5 <sup>th</sup> Driest
Angleton, TX (1998)	84.5°F	5 <sup>th</sup> Warmest	2.15"	9 <sup>th</sup> Driest
League City, TX (1990)	85.7°F	2 <sup>nd</sup> Warmest	1.44"	2 <sup>nd</sup> Driest



# Precipitation

Location	Total Precipitation (in.)	Departure from Normal (in.)	Number of Thunder Days		ly Precipitation date)
Galveston (GLS)	0.75	-3.65	8	0.34	24 <sup>th</sup>
Houston Hobby (HOU)	3.20	-1.86	9	1.42	1 <sup>st</sup>
City of Houston (IAH)	2.26	-1.50	8	1.63	17 <sup>th</sup>
College Station (CLL)	0.58	-2.10	7	1.43	28 <sup>th</sup>

August was an abnormally dry month across the region. Galveston and College Station both saw rainfall totals for the month below one inch.

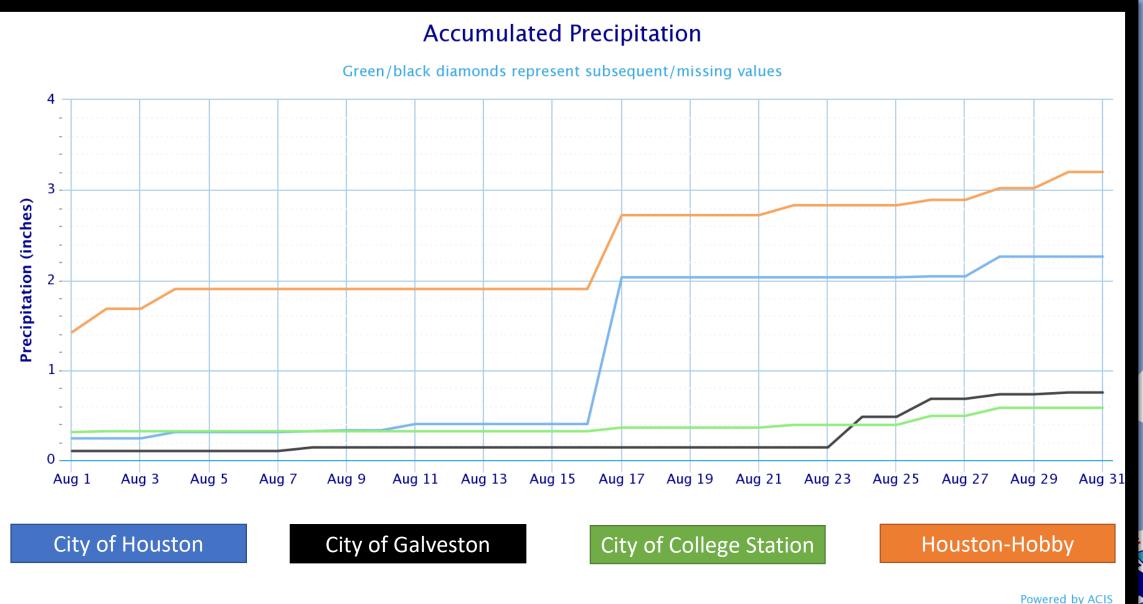


# **Precipitation Accumulation Graph**

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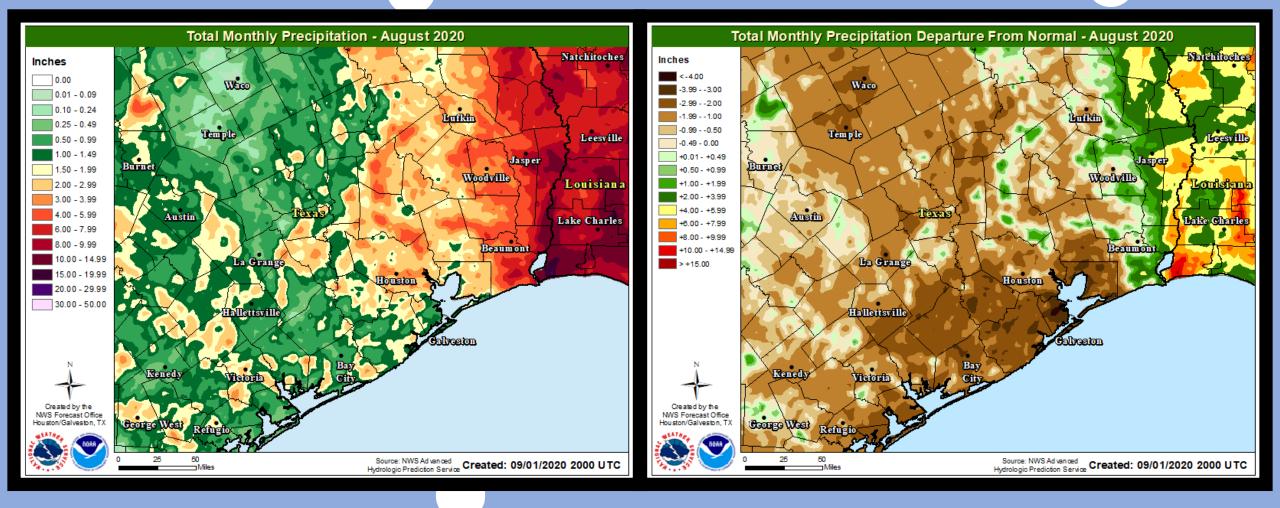
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# **Precipitation Maps**

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# Temperature

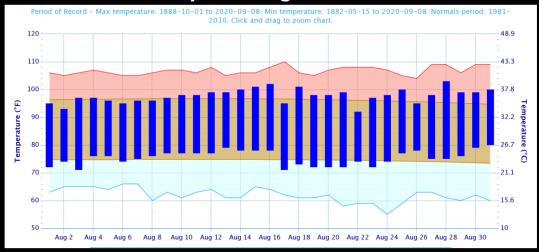
Location	Average High Temp (F)	Average Low Temp (F)	Average Temp (F)	Normal Average Temp (F)	Departure From Normal Average (F)	Maximum Temperature (F)	Minimum Temperature (F)
Galveston (GLS)	93.0	82.7	87.9	85.0	+2.9	97 on the 18 <sup>th</sup>	77 on the 1 <sup>st</sup>
Houston Hobby (HOU)	95.6	78.5	87.0	84.2	+2.8	100 on the 16 <sup>th</sup>	73 on the 1 <sup>st</sup> & 17 <sup>th</sup>
City of Houston (IAH)	97.1	86.6	76.0	84.6	+2.0	102 on the 16 <sup>th</sup>	71 on the 20 <sup>th</sup>
College Station (CLL)	97.8	75.3	86.5	85.3	+1.2	103 on the 28 <sup>th</sup>	71 on the 3 <sup>rd</sup> & 17 <sup>th</sup>

August continued the stretch of above normal temperatures the region has been experiencing with the average temperature about two to three degrees above normal region-wide. There were 30 daily temperature records set during the month of August: 25 of them were high minimum temperature records, and 5 were daily high maximum temperature records. On August 31<sup>st</sup>, Houston, Houston-Hobby, and Galveston all experienced all-time record high minimum temperatures. This August was in the Top Ten warmest Augusts for much of the area (see page 3).



# **Temperature Charts**

#### **City of College Station**

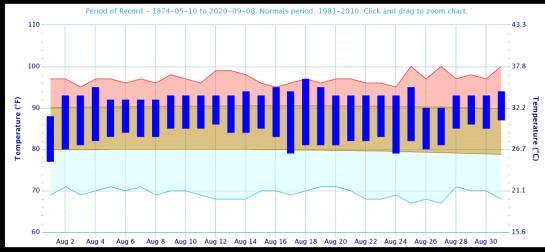


### **City of Houston**

Daily Temperature Data – Houston Area, TX (ThreadEx) Period of Record – 1889–05–01 to 2020–09–08. Normals period: 1981–2010. Click and drag to zoom char.

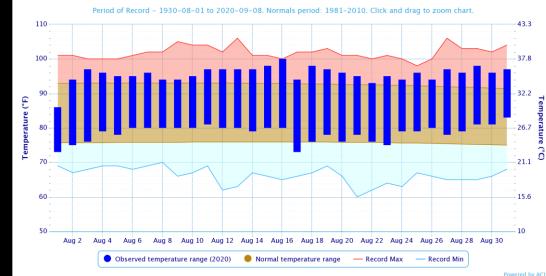
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#### **City of Galveston**



#### Houston-Hobby

#### Daily Temperature Data - HOUSTON WILLIAM P HOBBY AP, TX



# **Daily Record Reports**

Site	Date	Record Type	New Record	Previous Record	
City of Houston	August 15 <sup>th</sup>	High Max Temperature	101° - T	101° in 1994	
City of Houston	August 16 <sup>th</sup>	High Max Temperature	102° - T	102° in 2011	All-time
City of Houston	August 31 <sup>st</sup>	High Min Temperature	83°	81° in 2016 <	record high
Houston-Hobby	August 6 <sup>th</sup>	High Min Temperature	80° - T	80° in 2017	min
Houston-Hobby	August 7 <sup>th</sup>	High Min Temperature	80° - T	80° in 2019	There were
Houston-Hobby	August 8 <sup>th</sup>	High Min Temperature	80° - T	81° in 2019	30 daily records set
Houston-Hobby	August 11 <sup>th</sup>	High Min Temperature	81° - T	81° in 2017	during the month of
Houston-Hobby	August 16 <sup>th</sup>	High Max Temperature	101° - T	101° in 2011	August.
Houston-Hobby	August 25 <sup>th</sup>	High Min Temperature	79° - T	79° in 2005	
Houston-Hobby	August 26 <sup>th</sup>	High Min Temperature	80°	79° in 2018	
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# **Daily Record Reports**



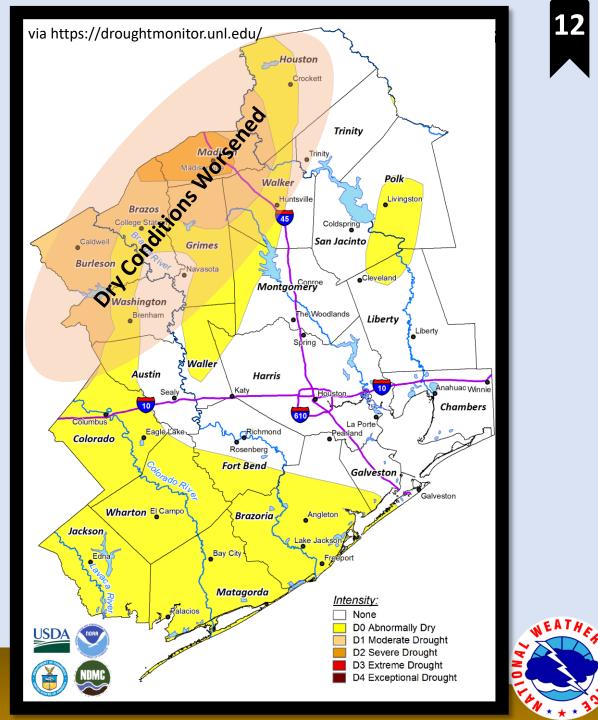
Site	Date	Record Type	New Record	Previous Record	
Houston-Hobby	August 30 <sup>th</sup>	High Min Temperature	81°	80° in 2012	All-time
Houston-Hobby	August 31 <sup>st</sup>	High Min Temperature	83°	82° in 2012	record high
City of College Station	August 31 <sup>st</sup>	High Min Temperature	80°	79° in 2012	min
City of Galveston	July 7 <sup>th</sup>	High Min Temperature	81°	80° in 2016	
City of Galveston	July 8 <sup>th</sup>	High Min Temperature	81°	79° in 2019	There were
City of Galveston	July 9 <sup>th</sup>	High Min Temperature	81°	80° in 1996	30 daily records set
City of Galveston	July 10 <sup>th</sup>	High Min Temperature	80° - T	80° in 2016	during the month of
City of Galveston	July 13 <sup>th</sup>	High Min Temperature	81°	80° in 2017	August.
City of Galveston	July 14 <sup>th</sup>	High Min Temperature	79° - T	79° in 2017	
City of Galveston	August 9 <sup>th</sup>	High Min Temperature	85° - T	85° in 2019	$\checkmark$
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High Max Low Max Precip High Min Low Min					

# **Daily Record Reports**

Site	Date	Record Type	New Record	Previous Record	
City of Galveston	August 10 <sup>th</sup>	High Min Temperature	85° - T	85° in 2019	There were 30 daily
City of Galveston	August 11 <sup>th</sup>	High Min Temperature	85° - T	85° in 2019	records set
City of Galveston	August 12 <sup>th</sup>	High Min Temperature	86° - T	86° in 2019	during the month of
City of Galveston	August 14 <sup>th</sup>	High Min Temperature	84° - T	84° in 2017	August.
City of Galveston	August 16 <sup>th</sup>	High Max Temperature	95° - T	95° in 1988	
City of Galveston	August 18 <sup>th</sup>	High Max Temperature	97°	96° in 2019	$\frown$
City of Galveston	August 28 <sup>th</sup>	High Min Temperature	85°	84° in 1951	$\checkmark$
City of Galveston	August 29 <sup>th</sup>	High Min Temperature	86°	84° in 1983	
City of Galveston	August 30 <sup>th</sup>	High Min Temperature	85° - T	85° in 2010	All-time
City of Galveston	August 31 <sup>st</sup>	High Min Temperature	87°	85° in 2012 <	record high
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## Drought Monitor As of September 1<sup>st</sup>

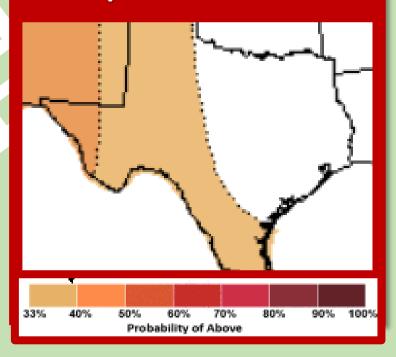
The drought conditions continued to degrade across the northern part of the region during the month of August and Severe Drought (D2) has begun to grow in portions of Madison and Northern Brazos County. Moderate Drought (D1) has spread across from western Washington County and up through southwestern Houston County. Abnormally dry conditions is seen across almost the entire southwestern portion of the region.



# **September Climatology & Outlook**

Location	Average Temp(°F)	Normal High (°F)	Normal Low (°F)
Galveston	81.6	87.4	75.9
Houston Hobby	80.1	88.4	71.7
City of Houston	79.8	89.7	69.8
College Station	80.0	90.5	69.4

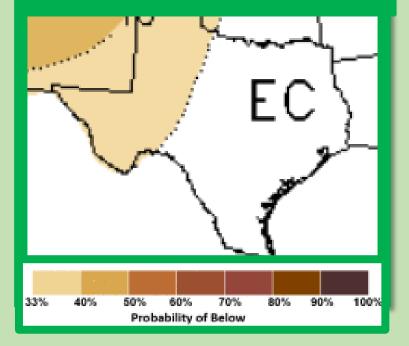
## **Temperature Outlook**



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Location	Normal Monthly Precipitation (in.)
Galveston	6.03
Houston Hobby	5.21
City of Houston	4.12
College Station	3.18

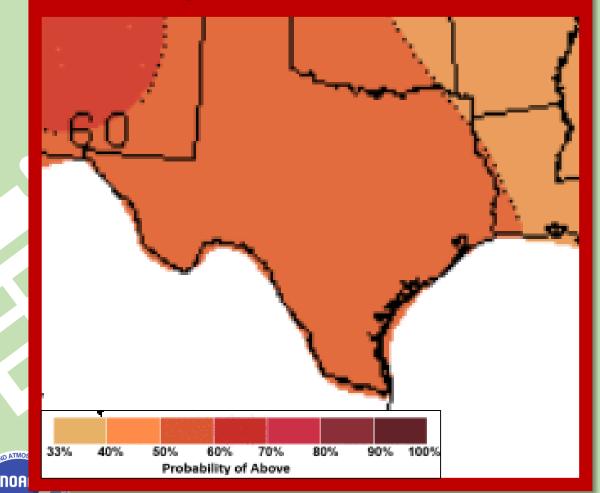
## **Precipitation Outlook**



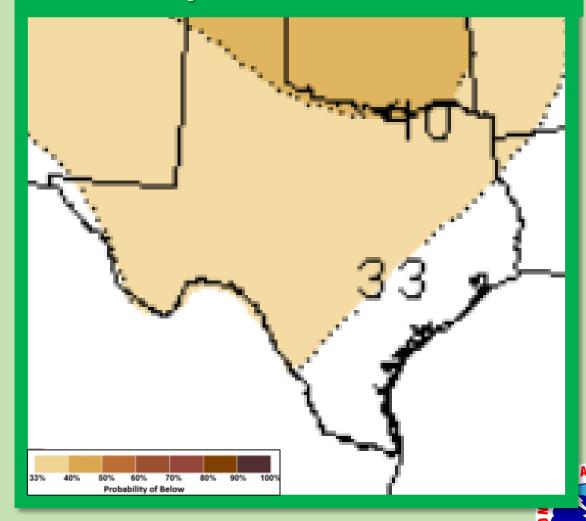


# Fall Outlook (September – November)

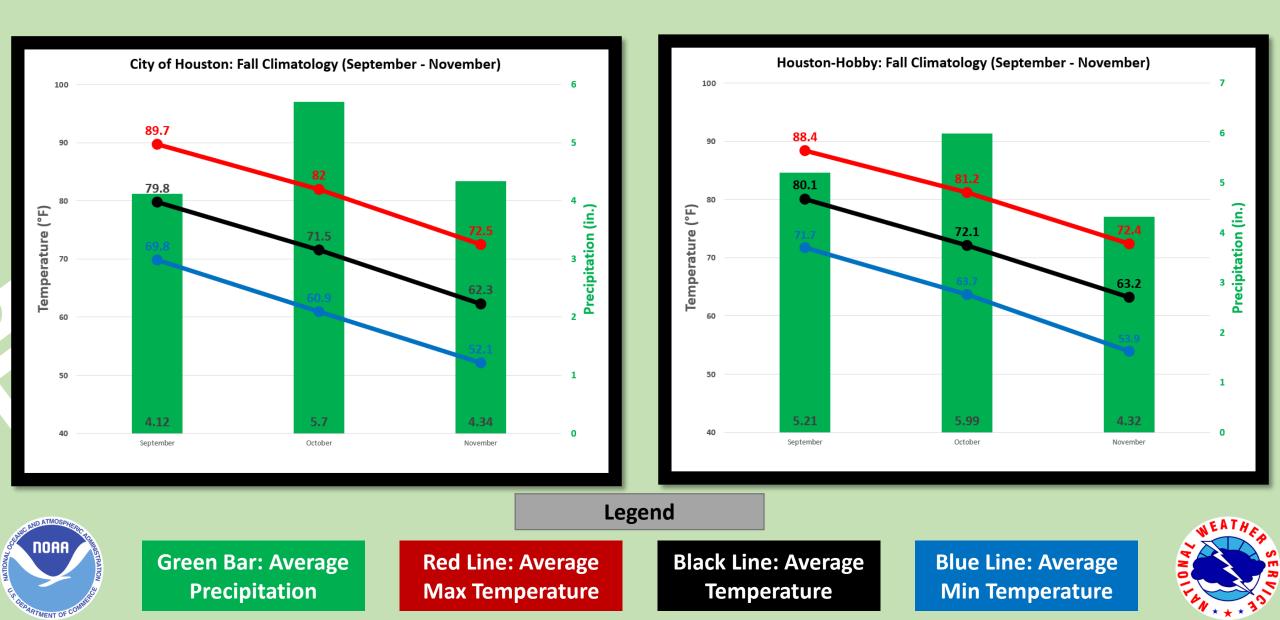
## **Temperature Outlook**



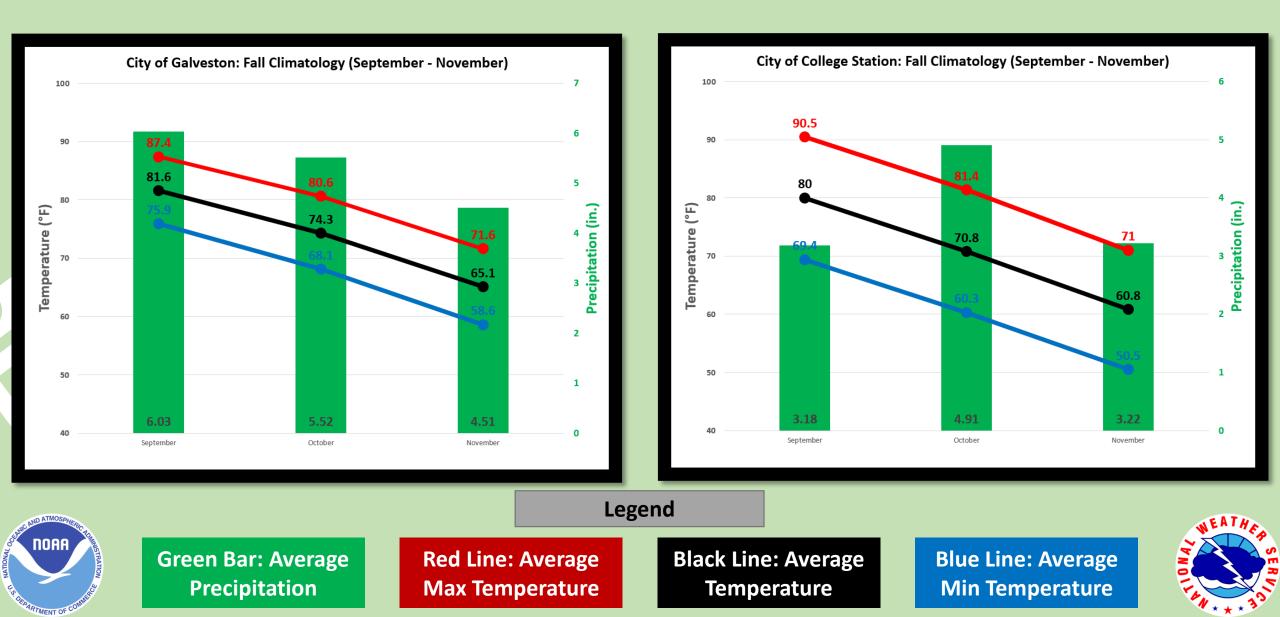
## **Precipitation Outlook**



# Fall Climatology (September – November)



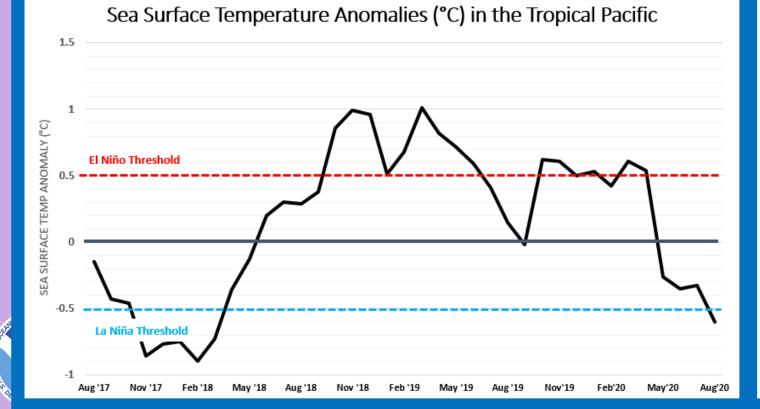
# Fall Climatology (September – November)

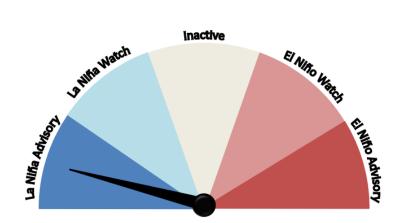




## The Climate Prediction Center's ENSO Forecast: La Niña Advisory

- La Niña conditions are present
- 75% chance of La Niña conditions continuing into 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.

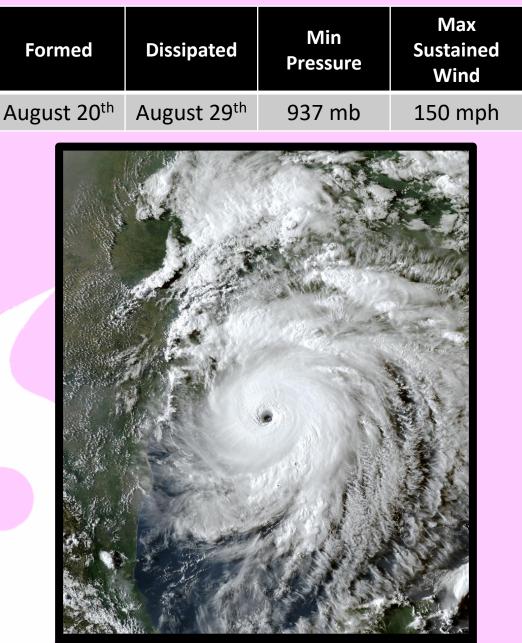
El Niño or La Niña Advisory: Issued when El Niño or La Niña conditions are observed and expected to continue.



## Hurricane Laura

Hurricane Laura was the 12<sup>th</sup> named tropical system and the 4<sup>th</sup> hurricane of the season in the Atlantic Basin. It was also the first Major Hurricane of the season. Laura originated from a cluster of strong thunderstorms that moved off the African coast on August 16<sup>th</sup>. It would eventually become Laura in the Eastern Caribbean on August 21<sup>st</sup> and move across various Caribbean Islands through the next several days. On the 25<sup>th</sup> it entered the southern Gulf of Mexico. It moved northwestward through the Gulf towards the TX/LA coastline in the subsequent days while going under rapid intensification. It eventually made landfall near Cameron, LA around 1am on August 27<sup>th</sup> as a Category 4 Hurricane with maximum sustained winds of 150 mph.

Hurricane Laura brought devastating storm surge, heavy rainfall, and dangerous winds across extreme eastern Texas and across Louisiana. The highest storm surge reported from Laura so far was 17.2 ft in Rutherford Beach. There were 77 fatalities attributed to Laura across the Caribbean and the US.



Hurricane Hanna on August 26<sup>th</sup>, 2020 approaching the Louisiana coastline

# **Climate Primary Site History**



## Galveston (GLS)

## **College Station (CLL)**

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).

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.



