



# NWS Houston, Texas September 2018 Regional Climate Summary

## **Produced by Nikki Hathaway**

#### ... Soggy September in SE TX...

Temperatures remained near normal to slightly above normal across the region of SE TX throughout the month of September. Only two daily records were broken, both of which were high minimum temperatures at Houston Hobby Airport. Above normal monthly rainfall helped to improve drought conditions throughout the month. The City of Galveston recorded its second wettest September on record with a total of 24.32 inches of rain.

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## **Precipitation**

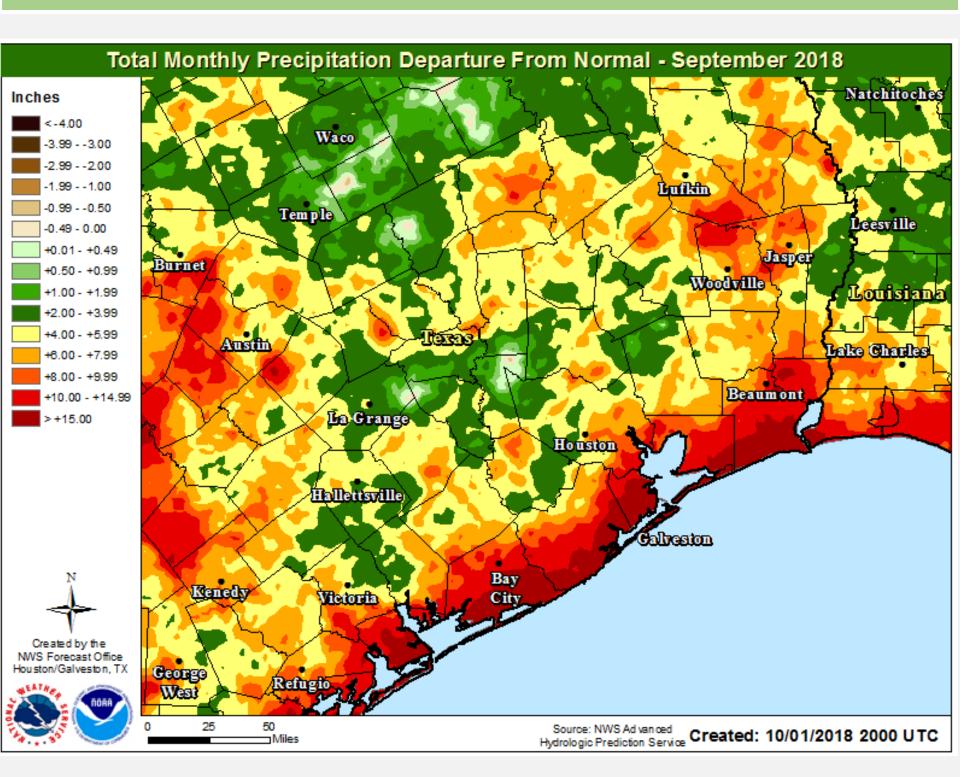
Monthly precipitation values were well above normal for the month of September across all four primary climate sites. Most of the month remained on the soggy side with only the third week of the month being a touch drier due to the influence of high pressure. Most of the precipitation was enhanced due to a lingering mesoscale boundary such as a stalled front, diurnally driven precipitation with ample gulf moisture, or an area of weak surface low pressure coupled with an upper level disturbance. Though rainfall totals ended well above normal monthly totals, no daily precipitation records were set. However, Galveston did record its second wettest September on record, ending the month with a total of 24.32 inches.

Site	Total Precipitation (in.)	Departure from Normal (in.)	Number of Thunderstorm Days		ım Daily on (in./date)
Galveston (GLS)	24.32	+18.29	16	5.79	Sept 3rd
Houston Hobby (HOU)	8.25	+3.04	19	1.63	Sept 3rd
City of Houston (IAH)	8.60	+4.48	13	1.33	Sept. 7th
College Station (CLL)	8.24	+5.06	13	1.72	Sept. 29th





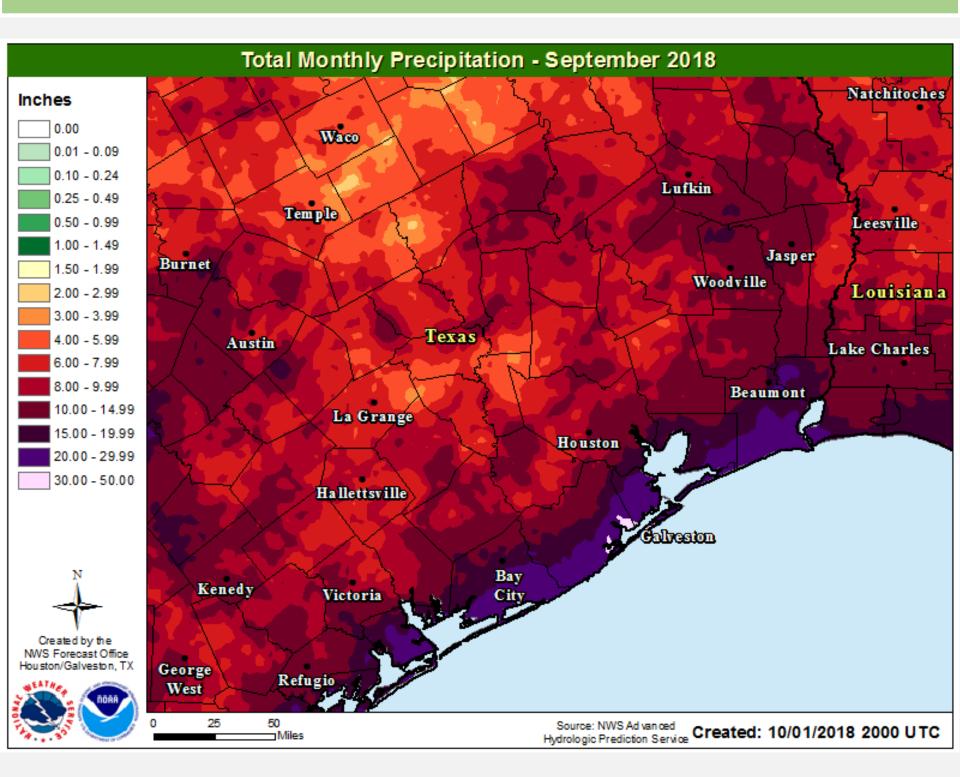
# **Precipitation** (Continued)







# **Precipitation** (Continued)







## **Temperatures**

Temperatures throughout the month of September were near to only slightly above normal. During the first week of September, Gulf moisture and a tight pressure gradient across the region allowed for decent rainfall and cloud cover which helped to keep temperatures 3 to 5 degrees below normal. As we moved into the second week of the month, a stalled frontal boundary also acted as a region of shower and thunderstorm development, keeping the sunshine away. Essentially, temperatures through the first half of the month remained at or below normal. The second half of the month was warmer, which is what helped to keep monthly temperatures over all near normal. The third week in September high pressure built in which kept conditions both drier and warmer. Another frontal boundary and region of low pressure stalled over the region towards the end of the month which allowed for near normal temperatures. Only two daily temperature records occurred in the month of September, both of which were high minimum temperature records at Houston Hobby Airport.

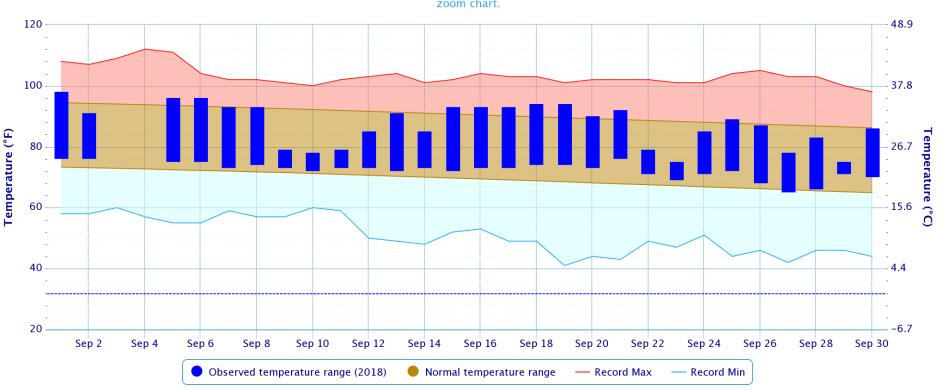
Site	Average Temp (F)	Average High Temp (F)	Average Low Temp (F)	Normal Average Temp (F)	Departure From Normal (F)	Maximum Temperature (F)	Minimum Temperature (F)
Galveston (GLS)	81.7	86.1	77.3	81.6	+0.1	92 on Sept 18th	74 on Sept 29th
Houston Hobby (HOU)	81.0	87.4	74.6	80.1	+0.9	95 on Sept 17th and 18th	70 on Sept 24th and 28th
City of Houston (IAH)	80.7	87.4	74.0	79.8	+0.9	96 on Sept 17th & 18th	69 on Sept 28th
College Station (CLL)	79.9	87.5	72.3	80.0	-0.1	98 on Sept 1st	65 on Sept 27th



# **Temperatures**

#### Daily Temperature Data - College Station Area, TX (ThreadEx)

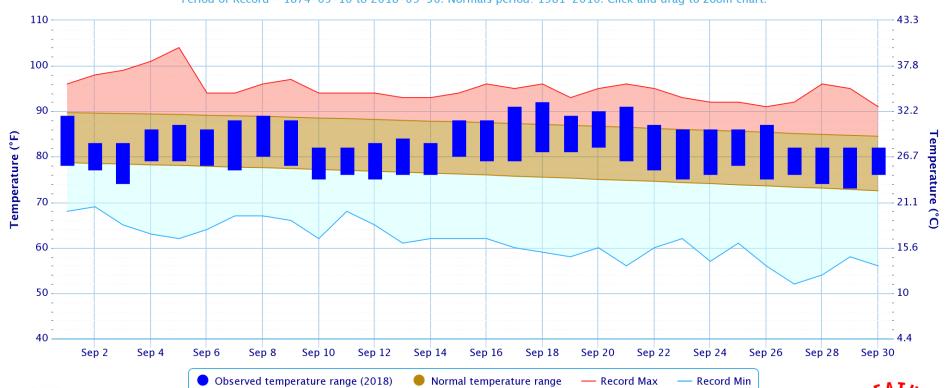
Period of Record – Max temperature: 1888–10–01 to 2018–09–30; Min temperature: 1882–05–15 to 2018–09–30. Normals period: 1981–2010. Click and drag to zoom chart.

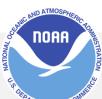


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#### Daily Temperature Data - Galveston Area, TX (ThreadEx)

Period of Record - 1874-05-10 to 2018-09-30. Normals period: 1981-2010. Click and drag to zoom chart.



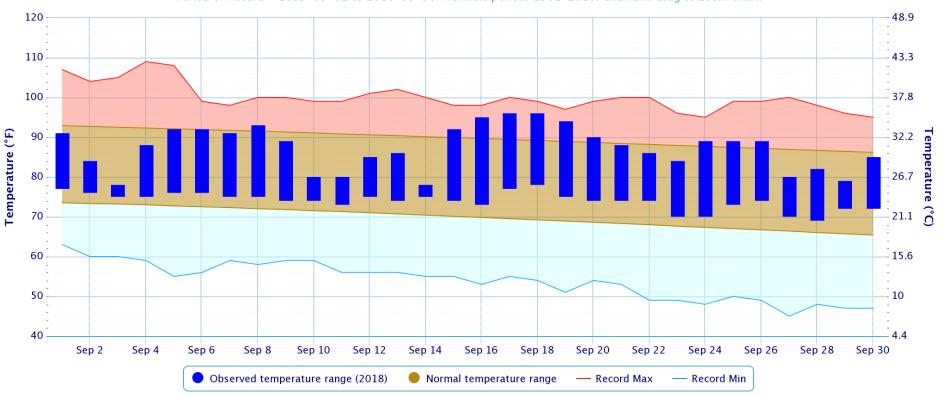




# **Temperatures**

#### Daily Temperature Data - Houston Area, TX (ThreadEx)

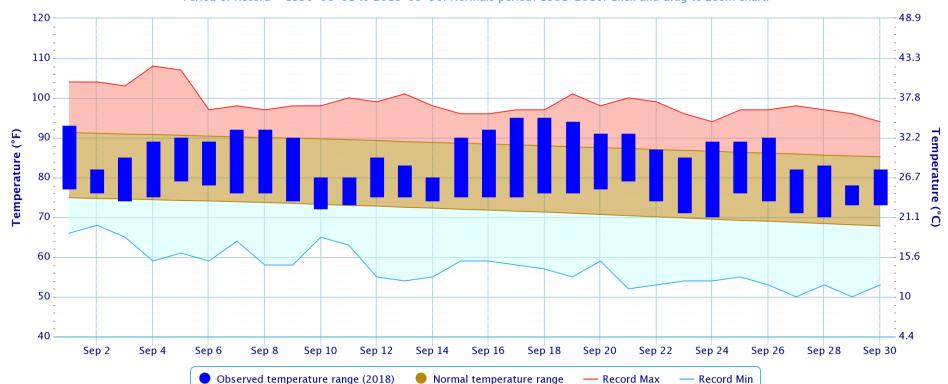
Period of Record - 1889-05-01 to 2018-09-30. Normals period: 1981-2010. Click and drag to zoom chart.



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

Period of Record - 1930-08-01 to 2018-09-30. Normals period: 1981-2010. Click and drag to zoom chart.

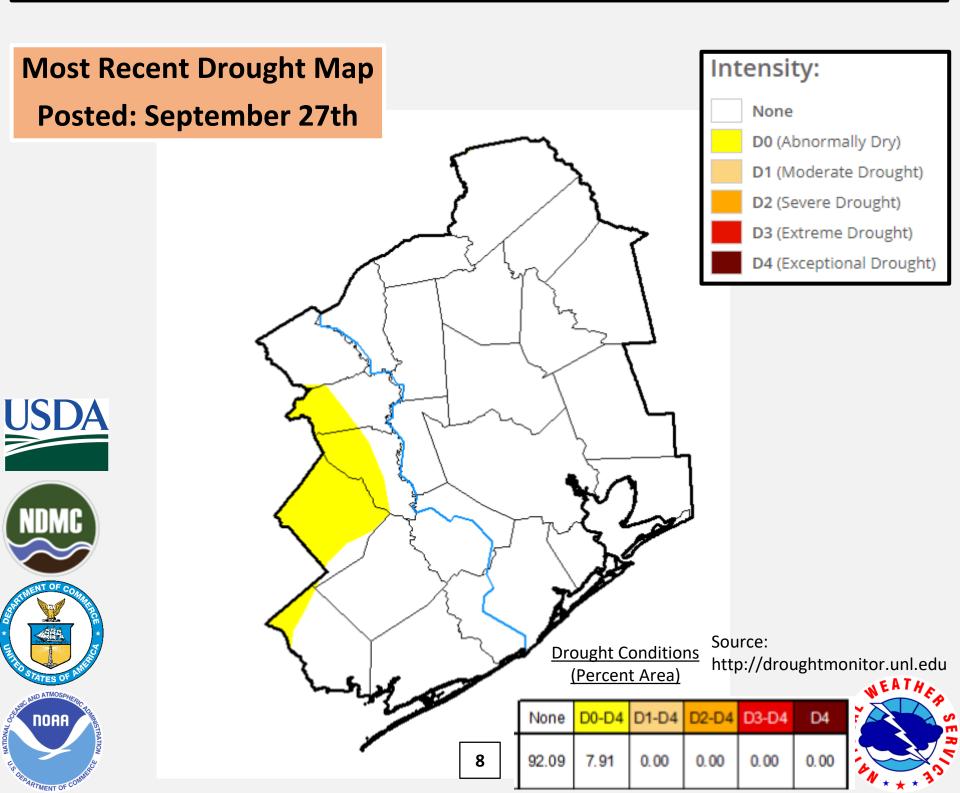






## **Drought Conditions**

Drought conditions improved drastically throughout the month of September due to above normal monthly rainfall totals. Abnormally dry drought conditions (D0) remain in portion of the northwest section of SE TX including Colorado, Jackson, Austin and Washington counties. As of September 29th, no burn bans were in effect for SE TX. Overall, roughly 8% of the forecast area was experiencing abnormally dry drought conditions.



## **Monthly Record Temperature Data**

September was near normal in terms of temperatures, and although the region received well above normal rainfall totals, no daily precipitation records were broken. Only a total of 2 records were set at Houston Hobby Airport.

Site	Date	Record Type	New Record	Previous Record
Houston Hobby	Sept 6 <sup>th</sup>	High Min Temp	78	Tied in 2013
Houston Hobby	Sept 21st	High Min Temp	79	77 in 2005

## Galveston's 2<sup>nd</sup> Wettest September on Record

September 2018 quickly rose in the rankings, making it Galveston's  $2^{nd}$  wettest September on record. Throughout the month, there were only 7 days out of the entire month when Galveston did not experience some sort of rainfall (September  $8^{th}$ ,  $15^{th}$  –  $19^{th}$  and the  $24^{th}$ ). Lingering mesoscale boundaries and

Galveston's Top 5 Wettest Septembers			
Rank	Total Precipitation	Year	
1	26.01	1885	
2	24.32	2018	
3	18.68	1913	
4	18.41	1875	
5	15.41	1961	





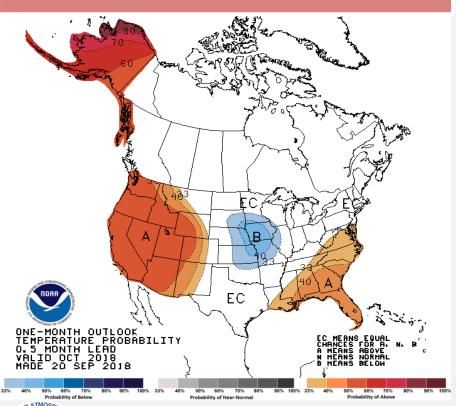
# **October Outlook**

The latest outlook from the Climate Prediction Center (CPC) calls for an equal chance for above, near, and below normal temperatures for the month of October in Southeast Texas. In terms of, there is a 40% probability of above normal rainfall, 33.3% chance for near normal rainfall, and 26.7% chance for below normal rainfall.

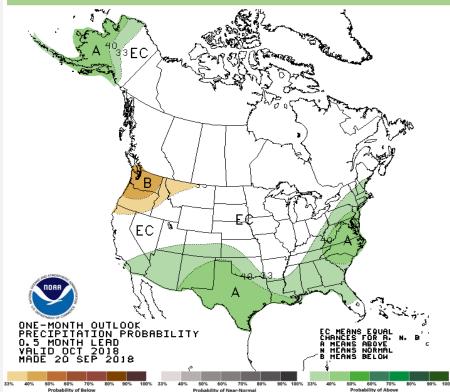
Site	Average Temp(°F)	Normal High (°F)	Normal Low (°F)
Galveston	74.3	80.6	68.1
Houston Hobby	72.1	81.2	63.1
City of Houston	71.5	82.0	60.9
College Station	70.8	81.4	60.3

Site	Normal Monthly Precipitation (in.)
Galveston (GLS)	5.52
Houston Hobby (HOU)	5.99
City of Houston (IAH)	5.70
College Station (CLL)	4.91

## **Upcoming Temperature Outlook**



## **Upcoming 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 Sante 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 \$\\ 981\$ to 2000 period.