



NWS Houston, Texas December 2017 Regional Climate Summary

Produced by Nikki Hathaway and Katie Magee

. . . A Little Bit of Everything this December across SE TX . . .

The first week of December brought well above normal temperatures, with maximum daily values reaching up into the upper 70s to lower 80s, just before the first cold front of the month. Cold, crisp weather followed suit, which allowed for a bit of wintery precipitation. Snow fell across SE TX on December 7th and 8th where a max of 5.0 inches accumulated in College Station. The second week of the month brought slightly below to near normal temperatures, and little to no precipitation fell during this time. As a result, abnormally dry and severe drought conditions expanded across the region. Decent rain fell with the passing of a wet cold front, which brought one to three inches across SE TX and helped to improve drought conditions the third week of the month. Finally, another moderately strong cold front ended the year, lowering temperatures 5 to 10 degrees F below normal.

Table of Contents

Page Number	Page Title
1	Cover
2	Table of Contents
3	Snow in SE TX
4	Favorite Snow Shots in SE TX
5	Precipitation
6	Total Monthly Precipitation
7	Total Monthly Precipitation Departure From Normal
8	Temperatures
9	Temperatures (Continued)
10	Monthly Record Temperature and Rainfall Data
11	Monthly Record Temperature and Rainfall Data (Continued)
12	January Outlook
13	Climate Primary Site History



Snow in SE TX

Site	Total Snowfall Dec 7 th - 8 th
IAH	0.7"
GLS	T
CLL	5.0"
HOU	1.5"
CXO	1.5"
UTS	2.0"
DWH	2.0"
SGR	1.5"
LBX	2.0"
PSX	1.0"
LVJ	1.5"
HGX	1.3"

On the late evening of December 7th into the early morning of December 8th, snow fell in SE TX. In League City (HGX), conditions slowly transitioned from rain to a mixture of ice pellets around midnight, before steady snow fell around 1:30 AM. There were reports of snowfall as early as 9:00 PM on December 7th in College Station (CLL). Trace amounts of snowfall even occurred in Galveston (GLS) on December 8th. A trace or "T" is defined as a small amount of precipitation that will wet a rain gauge but is less than the 0.01 inch measuring limit. This was also the second earliest snowfall for the City of Houston and Houston Hobby (HOU), as the earliest occurred on December 4th and 5th of 2009. The table below shows the dates of the last measurable snowfall as well as the record for maximum snowfall.

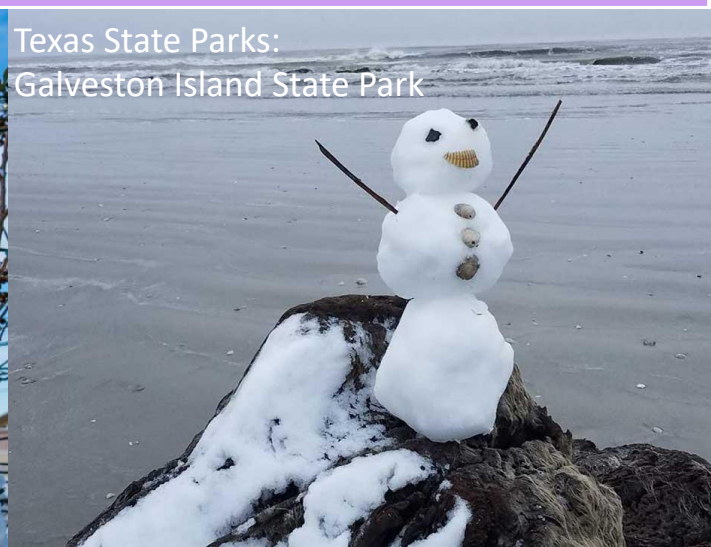
Site	Last Measurable Snowfall (in.)	Maximum Snowfall (in.)
Galveston (GLS)	Dec. 10 th , 2008: 1.0"	Feb. 14 th , 1895: 14.0"
Houston Hobby (HOU)	Dec. 4 th , 2009: 1.0"	Feb. 12 th , 1960: 4.4"
City of Houston (IAH)	Dec. 4 th , 2009: 1.0"	Feb. 14 th , 1895: 19.0"
College Station (CLL)	Feb. 23 rd , 2010: 3.0"	Jan. 30 th , 1949: 6.0"



Favorite Snow Shots in SE TX



City of Bryan: Bryan, TX



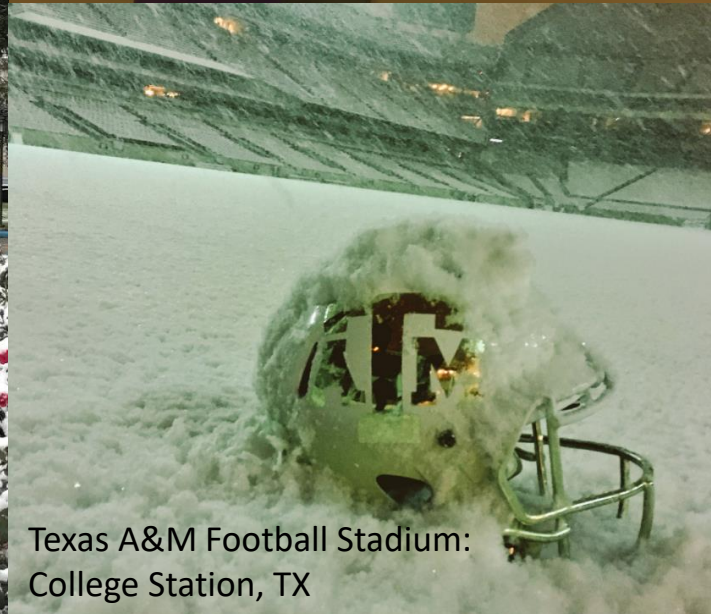
Texas State Parks:
Galveston Island State Park



University of Houston: Houston, TX



NWS Houston/Galveston: League City, TX



Texas A&M Football Stadium:
College Station, TX



Precipitation

Multiple cold fronts helped to provide rainfall across SE TX for the month of December. The first cold front pushed through the region at the end of the first week and beginning of the second, and light showers transitioned to snow along and behind the boundary, while the second into third week were on the dry side. Towards the end of the third week, a surface low and frontal boundary pushed through the area and also produced precipitation. In the last week of December, a coastal trough set up and transitioned into a warm front as it shifted north, which provided additional moisture and helped to produce some showers and little rainfall.

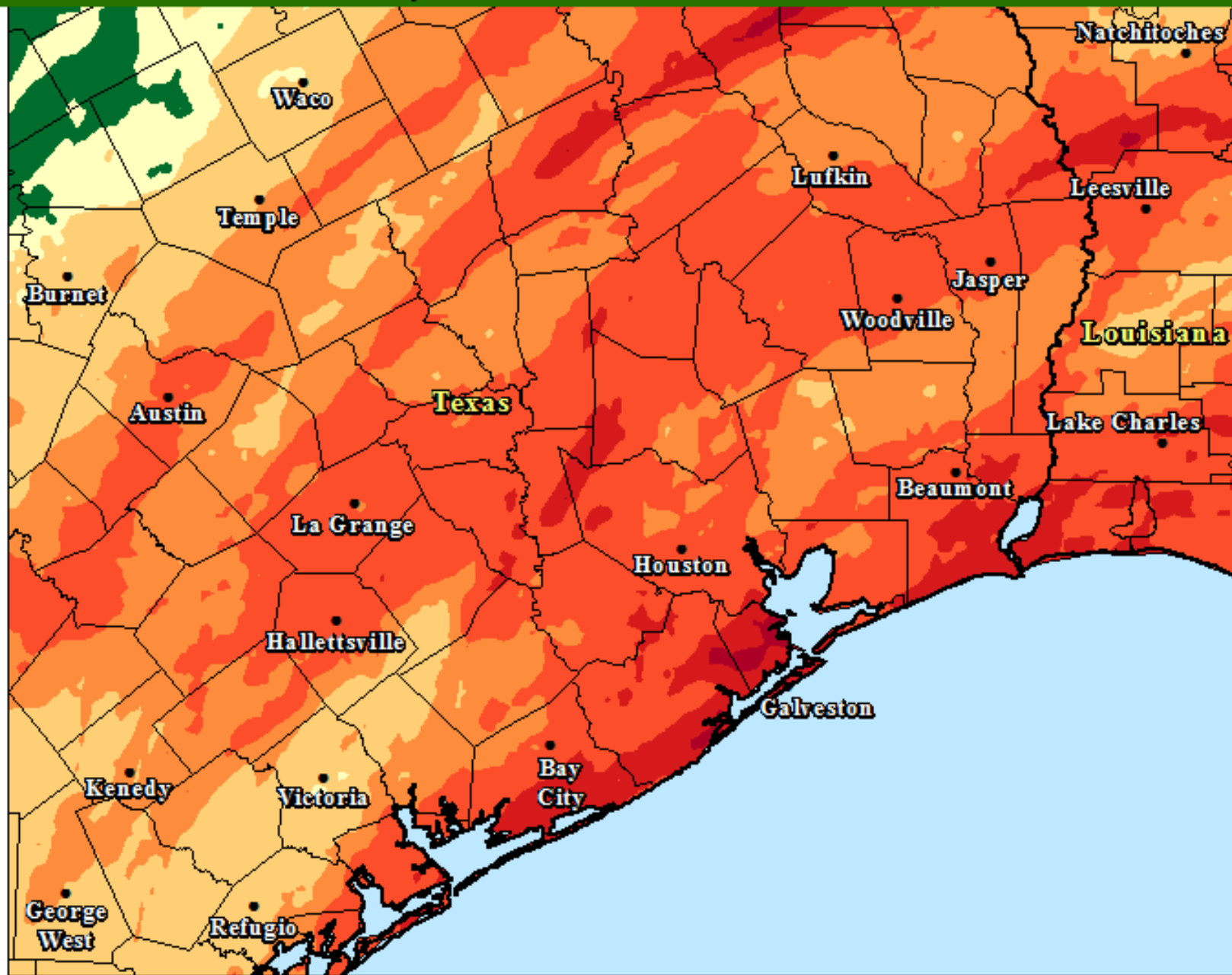
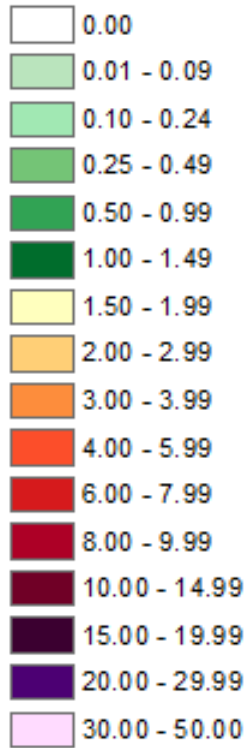
Site	Total Precipitation (in.)	Departure from Normal (in.)	Number of Thunderstorm Days	Maximum Daily Precipitation (in./date)	
Galveston (GLS)	7.14	3.62	3	3.41	Dec. 3
Houston Hobby (HOU)	4.66	0.63	2	2.25	Dec. 3
City of Houston (IAH)	3.72	-0.02	2	0.82	Dec. 16
College Station (CLL)	3.50	0.27	1	1.06	Dec. 16



Precipitation

Observed Precipitation To Date - December

Inches



Created by the
NWS Forecast Office
Houston/Galveston, TX



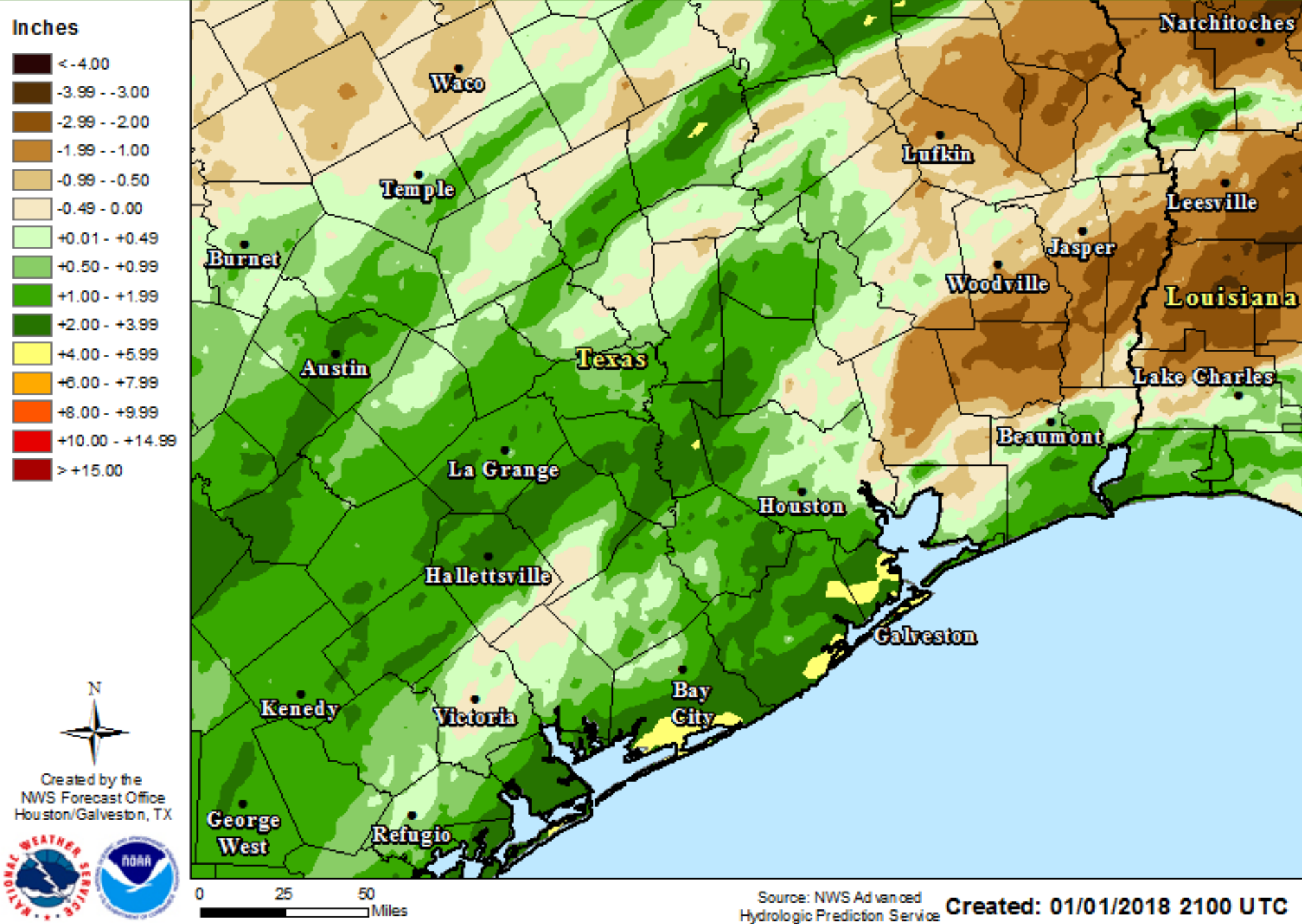
0 25 50
Miles

Source: NWS Advanced Hydrologic Prediction Service
Created: 12/31/2017 1900 UTC



Precipitation

Total Monthly Precipitation Departure From Normal - December 2017



Temperatures

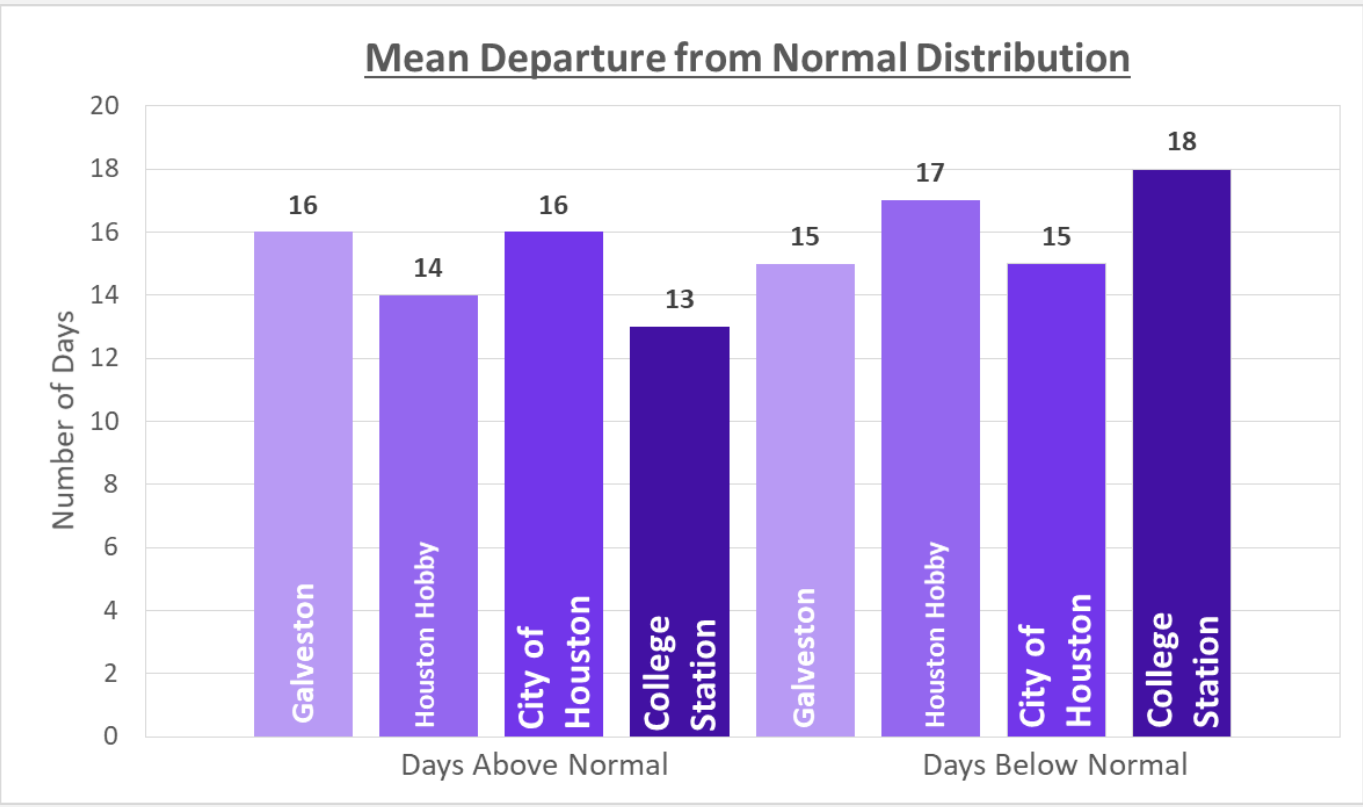
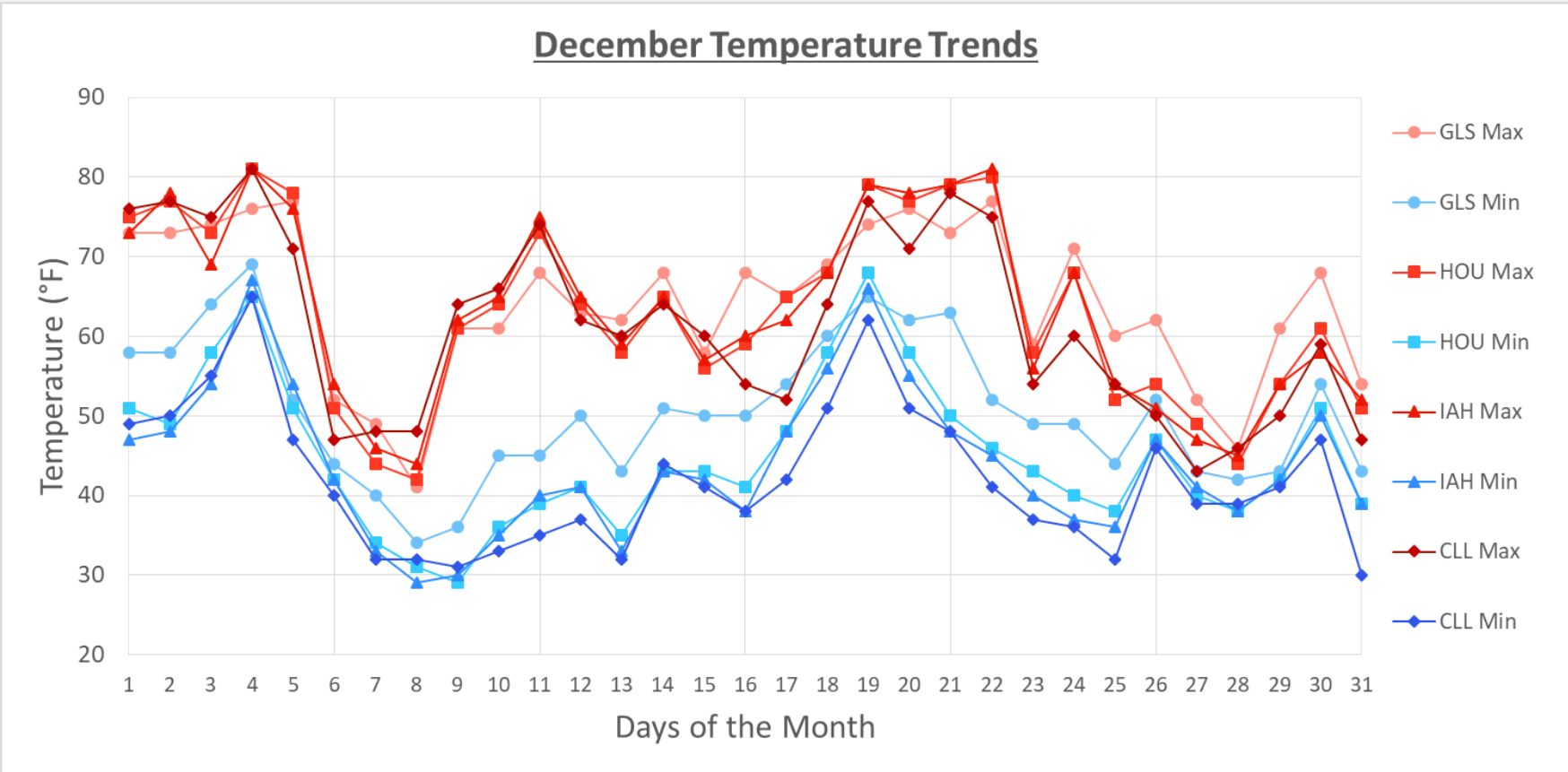
The warm start to the month with high temperatures across SE TX reaching up into the upper 70s and lower 80s (15-20 degrees above seasonal normals) on December 4th, was quickly cooled down by the end of the week with the passage of a cold front. Temperatures fell into the upper 20s to lower 30s behind the front (15-20 degrees below seasonal normals). Temperatures remained on the cooler side, as weak reinforcing cold fronts occasionally pushed across SE TX through the third week of December. A few warm days fell into the mix late in the third week with high temperatures again rising into the upper 70s to lower 80s. Yet, by the last week multiple cold fronts again pushed through the region which allowed temperatures to again fall below normal for this time of year.

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)	57.3	64.2	50.5	57.3	0.0	77 on Dec. 5 and Dec. 22	34 on Dec. 8
Houston Hobby (HOU)	54.1	63.2	45.0	55.6	-1.5	81 on Dec. 4	29 on Dec. 9
City of Houston (IAH)	53.7	63.4	44.0	54.4	-0.7	81 on Dec. 4 and Dec. 22	29 on Dec. 8
College Station (CLL)	51.7	61.5	41.9	52.2	-0.5	81 on Dec. 4	30 on Dec. 31



Temperatures (Continued)

Below is a line graph of temperature trends for the four primary climate sites, as well as a bar graph comparing above and below normal temperature days throughout the month of December.

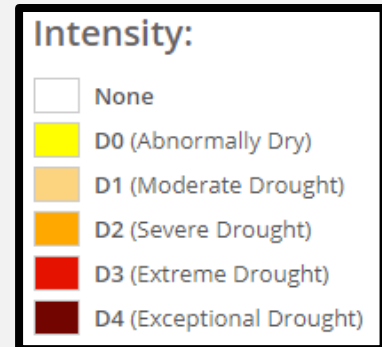
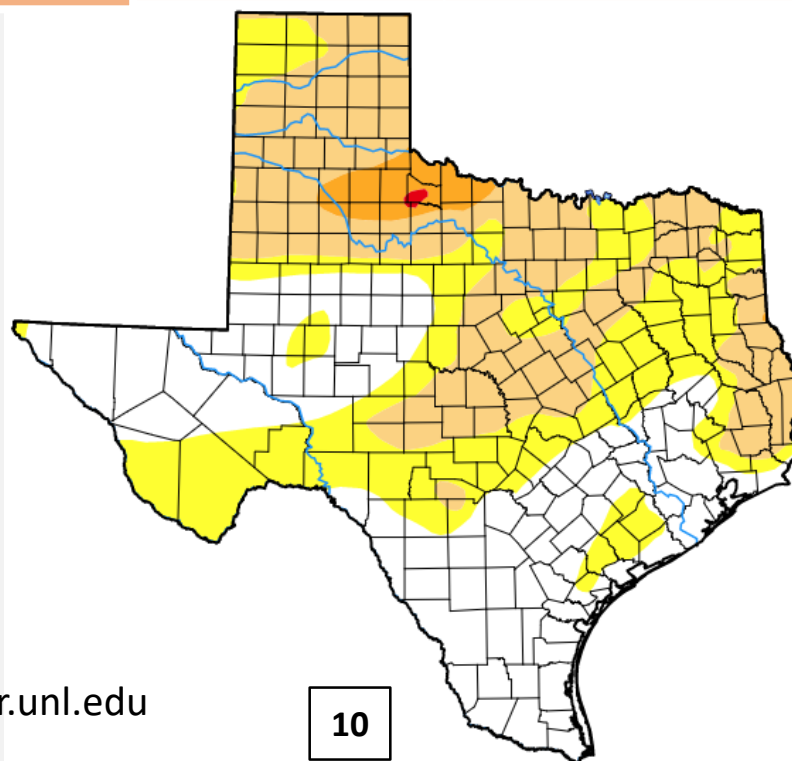


Drought Conditions

Abnormally dry conditions with periods lacking rainfall allowed drought conditions to expand early December. Wetting rain from cold fronts helped to relieve conditions towards the middle of the month, and drought conditions began to improve.

Weekly Updates (Date Posted)	Intensity and Impacts	Impacting the following Counties
December 5 th	D0	<ul style="list-style-type: none"> Majority of Burleson, Brazos, Madison, Houston, Trinity, Liberty, Chambers, Harris, Montgomery, San Jacinto, Walker, Grimes, Washington, Austin, and Wharton
	D1	<ul style="list-style-type: none"> Majority of Jackson and Colorado and portions of Brazoria, Liberty and Houston
	D2	<ul style="list-style-type: none"> Portions of Colorado
December 12 th	D0	<ul style="list-style-type: none"> Majority of Burleson, Brazos, Madison, Trinity, Liberty, Chambers, Harris, Montgomery, San Jacinto, Walker, Grimes, Washington, Austin, Brazoria, Matagorda and Wharton
	D1	<ul style="list-style-type: none"> Majority of Houston, Jackson, and Colorado
December 19 th	D0	<ul style="list-style-type: none"> Majority of Matagorda, Jackson, Wharton, Colorado, San Jacinto, Polk, and Chambers
	D1	<ul style="list-style-type: none"> Portions of Liberty and Houston
December 28 th	D0	<ul style="list-style-type: none"> Portions of Colorado, Jackson, Matagorda Wharton, Brazos, Madison, Houston, San Jacinto, Liberty and Polk
	D1	<ul style="list-style-type: none"> Portions of Liberty and Polk

**Most Recent Drought Map
Posted: December 28th**



Source:
<http://droughtmonitor.unl.edu>



Monthly Record Temperature and Rainfall Data

There were a total of twelve new records made throughout the month of December across SE TX primary climate sites.

Site	Date	Record Type	New Record	Previous Record
CLL	Dec. 7 th	Daily Snowfall	5.0"	0.0 in 2016
CLL	Dec. 31 st	Daily Snowfall	T	Tied in 1990
GLS	Dec. 8 th	Low Max Temp	41	42 in 1927
GLS	Dec. 8 th	Daily Snowfall	T	0.0 in 2016
GLS	Dec. 22 nd	High Max Temp	77	74 in 2007
HOU	Dec. 7 th	Daily Snowfall	1.0"	0.0 in 2016
HOU	Dec. 8 th	Low Max Temp	42	Tied in 2005
HOU	Dec. 8 th	Daily Snowfall	0.5"	0.0 in 2016
HOU	Dec. 19 th	High Min Temp	68	Tied in 1970
IAH	Dec. 7 th	Daily Snowfall	0.1"	0.0 in 2016
IAH	Dec. 8 th	Daily Snowfall	0.6"	0.0 in 2016
IAH	Dec. 22 nd	High Max Temp	81	Tied in 1981



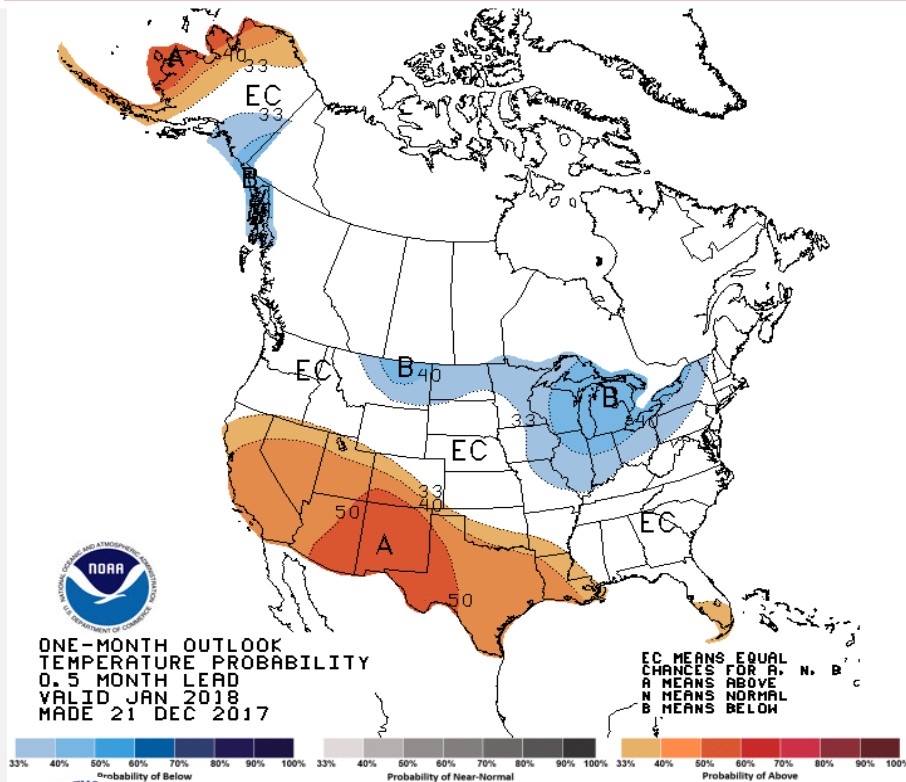
January Outlook

The latest outlook from the Climate Prediction Center (CPC) calls for an increased likelihood of above normal temperatures and below normal precipitation for the month of January.

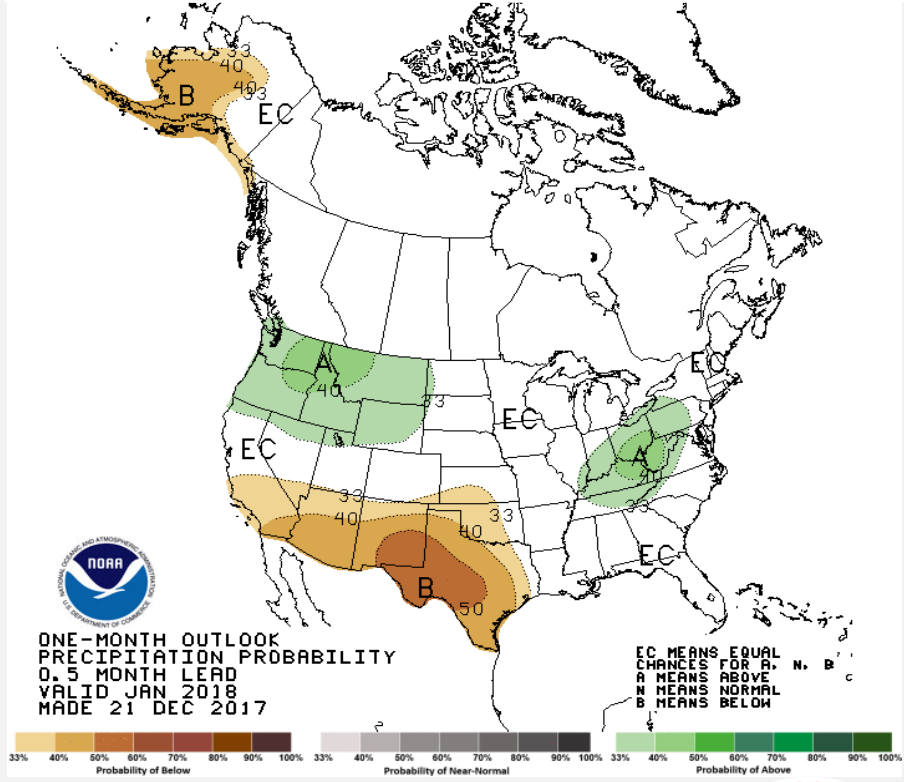
Site	Average Temp(°F)	Normal High (°F)	Normal Low (°F)
Galveston	55.2	61.8	48.6
Houston Hobby	54.1	63.0	45.1
City of Houston	53.1	62.9	43.2
College Station	51.1	61.0	41.2

Site	Normal Monthly Precipitation (in.)
Galveston (GLS)	4.20
Houston Hobby (HOU)	3.87
City of Houston (IAH)	3.38
College Station (CLL)	3.24

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 1981 to 2000 period.

