

PUBLIC



# **2026 Preliminary Summer Weather Outlook Summer Weatherization Workshop**

*Chris Coleman  
ERCOT Supervisor of Operational Forecasting*

April 16, 2026

Review of 2025 and recent summers

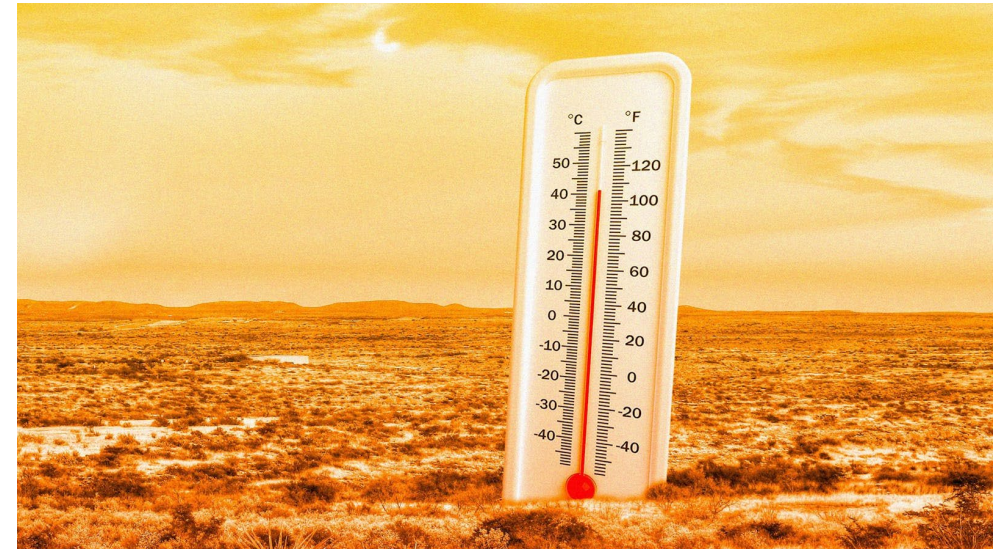
El Niño/La Niña

Examining last summer

Preliminary summer 2026 temperature and precipitation outlooks

Drought update

Early hurricane forecast



# 2025 Weather Year Review

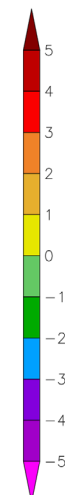
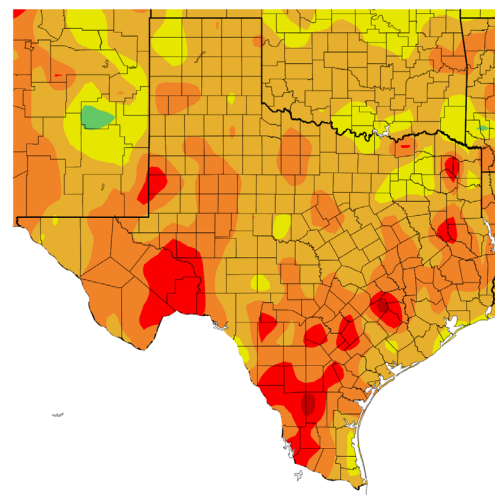
2025 was the **4<sup>th</sup> warmest** year on record for Texas, dating back to 1895.

The past 3 years have all ranked in the top 4 warmest

2025 was the 54<sup>th</sup> driest year. This was drier than 2024, but not as dry as 2022 and 2023

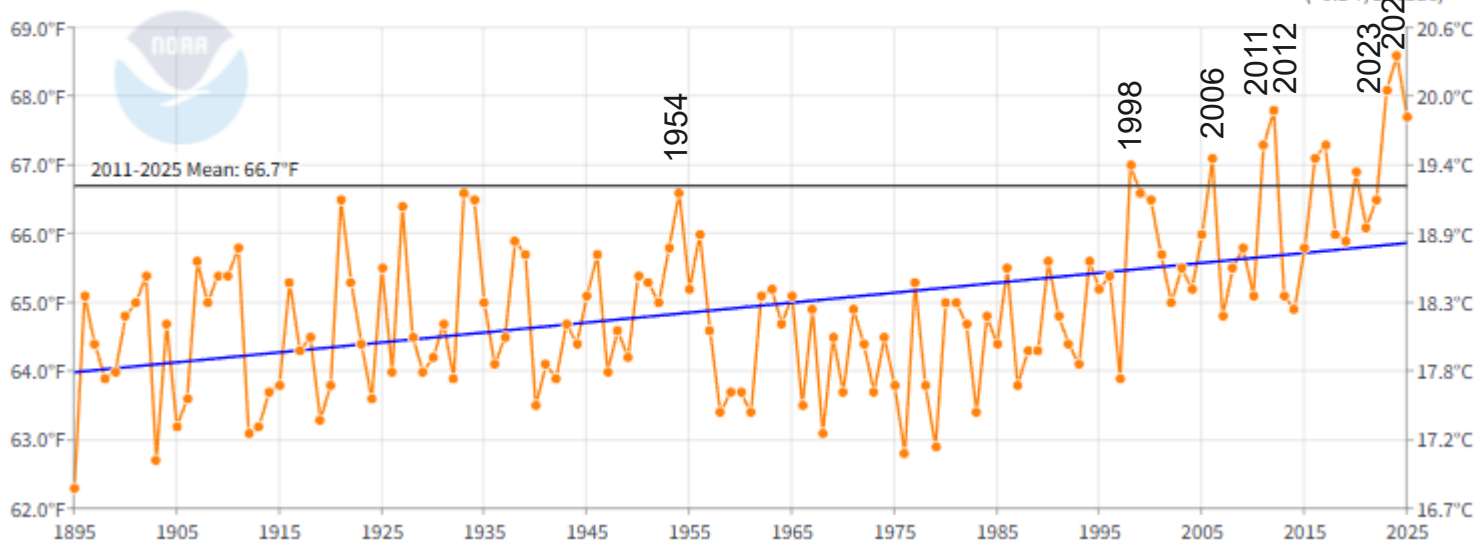
**5 of the past 7 years** have recorded **below normal precipitation** across Texas

Departure from Normal Temperature (F)  
1/1/2025 – 12/31/2025



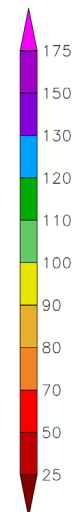
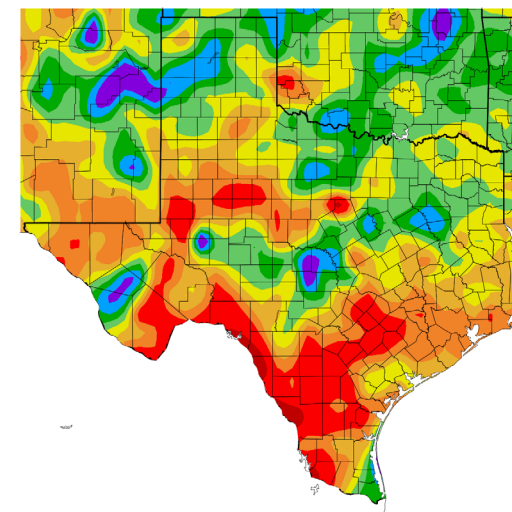
Winter: **28<sup>th</sup> warmest**  
 Spring: **3<sup>rd</sup> warmest**  
 Summer: **26<sup>th</sup> warmest**  
 Fall: **1<sup>st</sup> warmest**  
 December 2024: **3<sup>rd</sup> warmest**  
 (131 historical years)

Texas Average Temperature  
January-December



Labelled years show when a new record was set, starting with 1954  
 Note that 1954 is now considered slightly below normal

Percent of Normal Precipitation (%)  
1/1/2025 – 12/31/2025



# Mean Temperature Ranking of Recent Texas Summers (1895-current, 131 historical years, Jun-Sep)

<b>2025</b>		#26 hottest
<b>2024</b>		#6 hottest
<b>2023</b>		#2 hottest
<b>2022</b>		#3 hottest
2021		#57
<b>2020</b>	Since 2011, 13 of 16 summers have ranked in the top 30 hottest	#30
<b>2019</b>		#6 hottest
<b>2018</b>		#11
2017		#57
<b>2016</b>	2007 was the last Texas summer to rank in the coolest half of all historical summers (103 <sup>rd</sup> hottest)	#26
<b>2015</b>		#22
2014		#56
<b>2013</b>		#26
<b>2012</b>		#17
<b>2011</b>		#1 hottest

rank, this century		rank, since 1895
1	2011	1
2	2023	2
3	2022	3
4	2024	6
4	2019	6
6	2018	11
7	2010	15
8	2012	17
9	2015	22
9	2000	22
11	<b>2025</b>	26
11	2016	26
11	2013	26
14	2020	30
15	2005	32
16	2001	34
17	2009	35
18	2006	49
19	2021	57
19	2017	57
19	2014	57
22	2002	68
23	2008	84
24	2003	93
25	2007	103
26	2004	114

# El Niño/La Niña

- A weak La Niña was in place to start 2026
- An El Niño is expected to develop before summer is complete
- Confidence is lower with forecasting intensity of the upcoming El Niño

## Years with a Super El Niño (+2.0°C):

- 2015-16: 22<sup>nd</sup> hottest summer
- (\*1997-98: 71<sup>st</sup> hottest
- (1991-92): 121<sup>st</sup> hottest
- 1982-83: 57<sup>th</sup> hottest
- 1972-73: 106<sup>th</sup> hottest

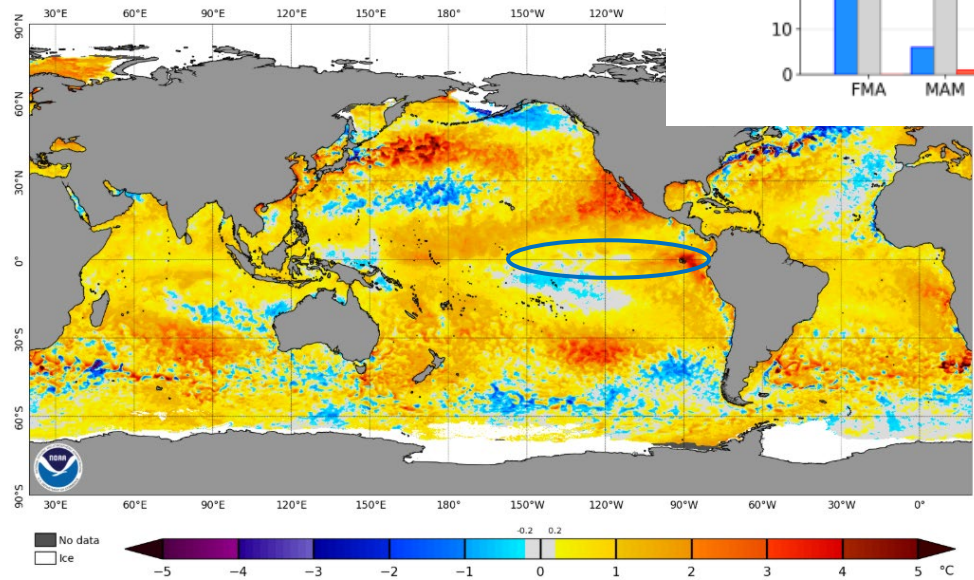
## Years with a Strong El Niño (+1.5°C):

- \*2023-24: 2<sup>nd</sup> hottest summer
- \*2009-10: 35<sup>th</sup> hottest
- 1986-87: 76<sup>th</sup> hottest
- 1965-66: 76<sup>th</sup> hottest
- 1957-58: 71<sup>st</sup> hottest

\* = best matches to current

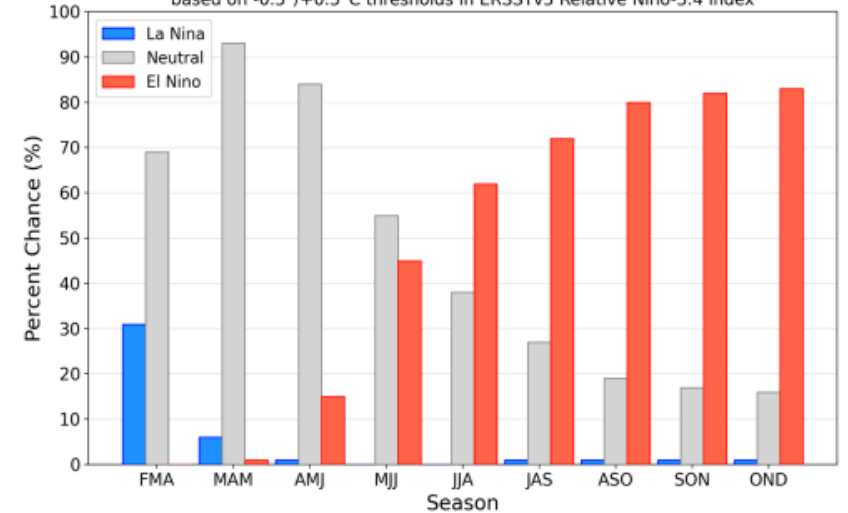
### Current Operational SST Anomal

NOAA Coral Reef Watch Daily 5km SST Anomalies (v3.1)



### Official NOAA CPC ENSO Probabilities (issued March 2026)

based on -0.5°/+0.5°C thresholds in ERSSTv5 Relative Niño-3.4 index



Average Temperature Rank of Years with Super El Niño: **#75**  
 Average Temperature Rank of Years with Strong El Niño: **#52**

2023	-0.8	-0.6	-0.4	-0.2	0.1	0.4	0.6	0.9	1.1	1.4	1.5	1.5
2026	-0.9	-0.7	-0.4 to -0.5									

Keeping a close eye on parallels with 2023

# Seasonal Rankings – What is Normal?

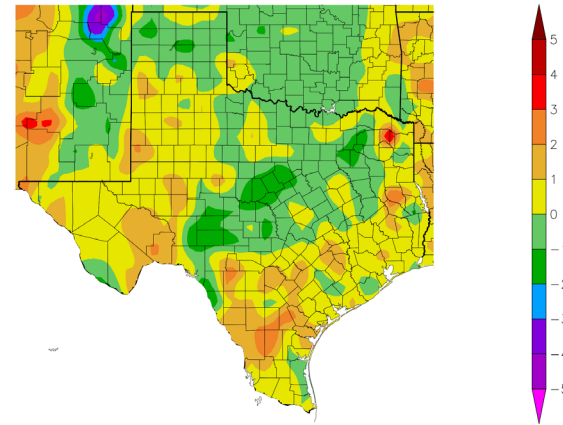
- ❑ “Normal” may no longer be the best way to express seasonal (or monthly, or possibly even daily) temperatures
- ❑ As Texas keeps having many more above normal temperature seasons, it keeps raising the bar for what is “normal”
- ❑ **We commonly use a 15-year normal (2011-2025). Applying that normal to all historical summers (1895-2025) results in only 11 of 131 Texas summers qualifying as above normal**
- ❑ This is why I’ll oftentimes give all-time rankings and comparisons with recent years (in addition to or instead of “normal”)



# Summer 2025 Review

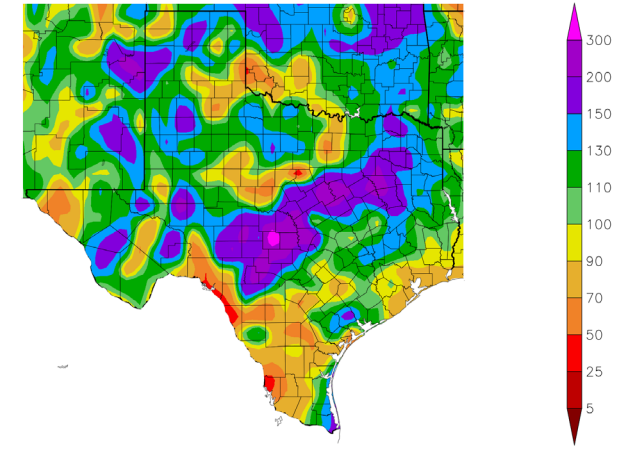
- June-September 2025 was the 26<sup>th</sup> hottest summer on record for Texas
- Last summer was the “mildest” since 2021 (but it still ranked in the top 20% hottest summers)
- 2011: #1, 2023: #2, 2022: #3, 1998: #4, 1980: #5
- The Jun-Sep 2025 period was the 81<sup>st</sup> driest (51<sup>st</sup> wettest) on record and was the wettest summer since 2021
- 100-degree days:
  - **Dallas:** 7 days. Fewest since 2007
  - **Houston:** 8 days. Fewest since 2021. First time since 1907 Houston had more 100-degree days than Dallas
  - **Austin:** 22 days. Fewest since 2021
  - **San Antonio:** 20 days. Fewest since 2021

Departure from Normal Temperature (F)  
6/1/2025 – 8/31/2025



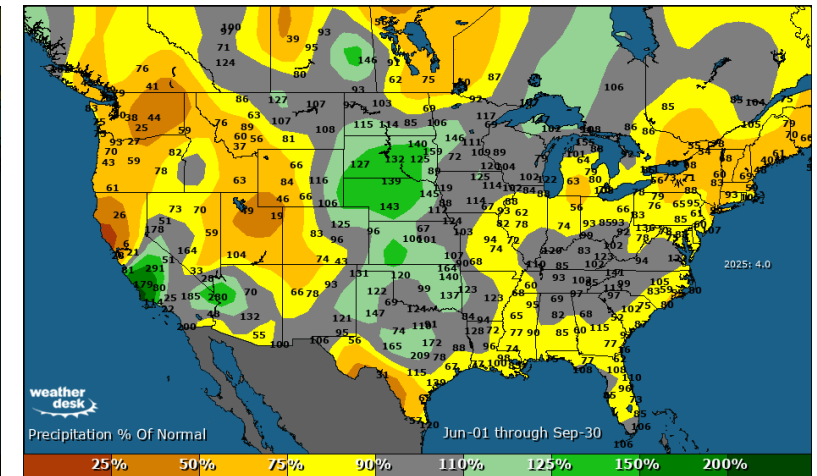
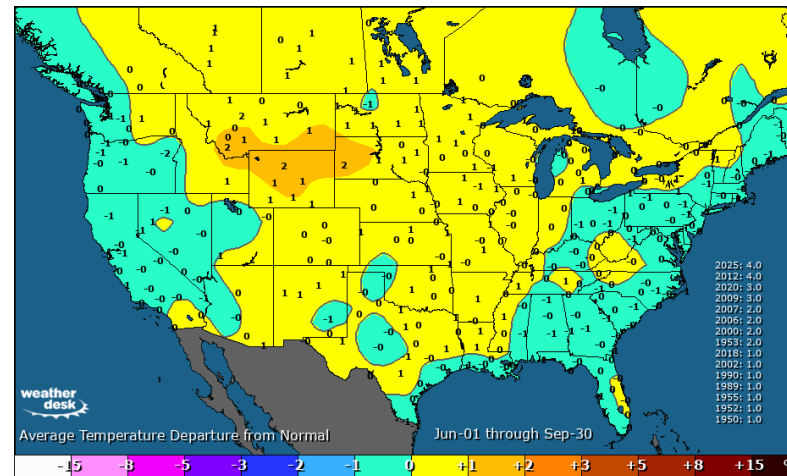
Generated 9/20/2025 using provisional data.

Percent of Normal Precipitation (%)  
6/1/2025 – 8/31/2025



ACIS Web Services dated 9/20/2025 using provisional data.

ACIS Web Services



# Summer 2025 Review

- Wet summers typically do not correlate well with hot summers – however, the last two years have provided **exceptions**
- **June through August 2024** (meteorological summer) was the hottest recorded for Texas in a summer with above normal precipitation
- In fact, it was the **only of the top 20** hottest summers to record above normal precipitation
- **Summer 2025** was the 51<sup>st</sup> wettest among 131 historical. Only 3 wetter summers ranked within the top 30 hottest: 2010, 2016, and 2018 – and now, 2025



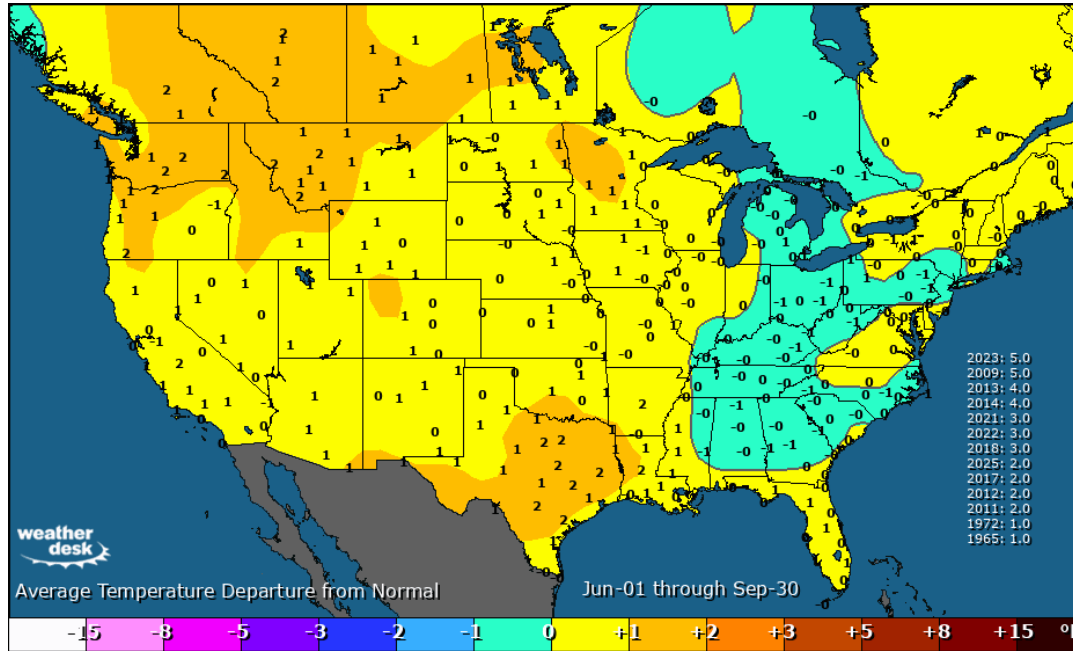
Key Takeaway: Relatively wet summers are increasingly associated with above normal temperatures (but less extreme)

# 2026 Historical Matches (Analog)

OVERALL (as of 4/15/2026)

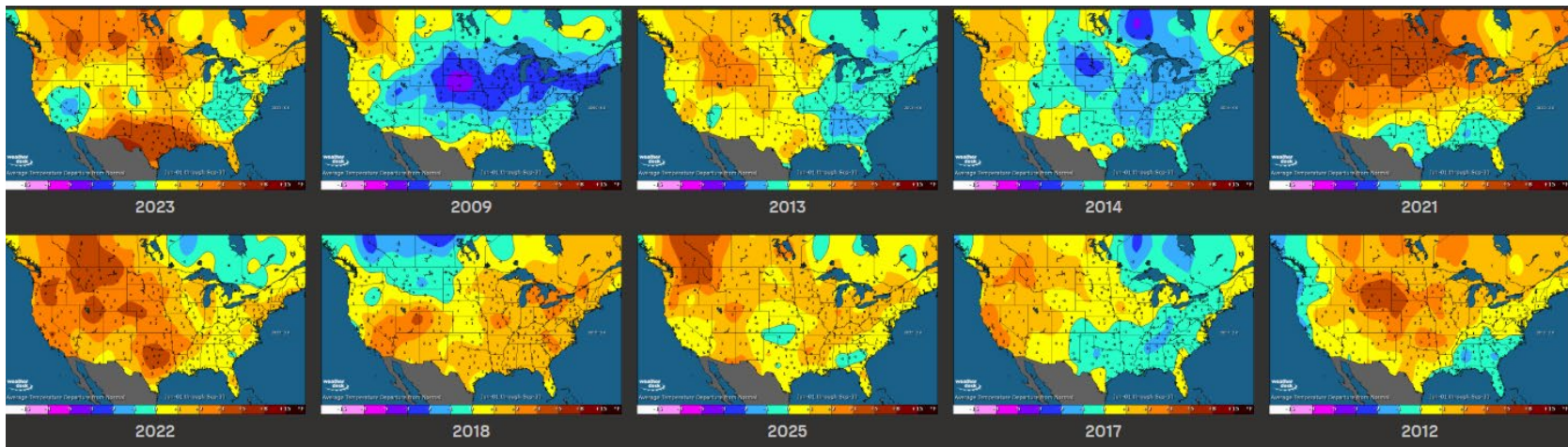
1. 2023
2. 2009
3. 2013
4. 2014
5. 2021
6. 2022
7. 2018
8. 2025
9. 2017
10. 2012
11. 2011
12. 1972
13. 1965

Analog is listed in initial priority order

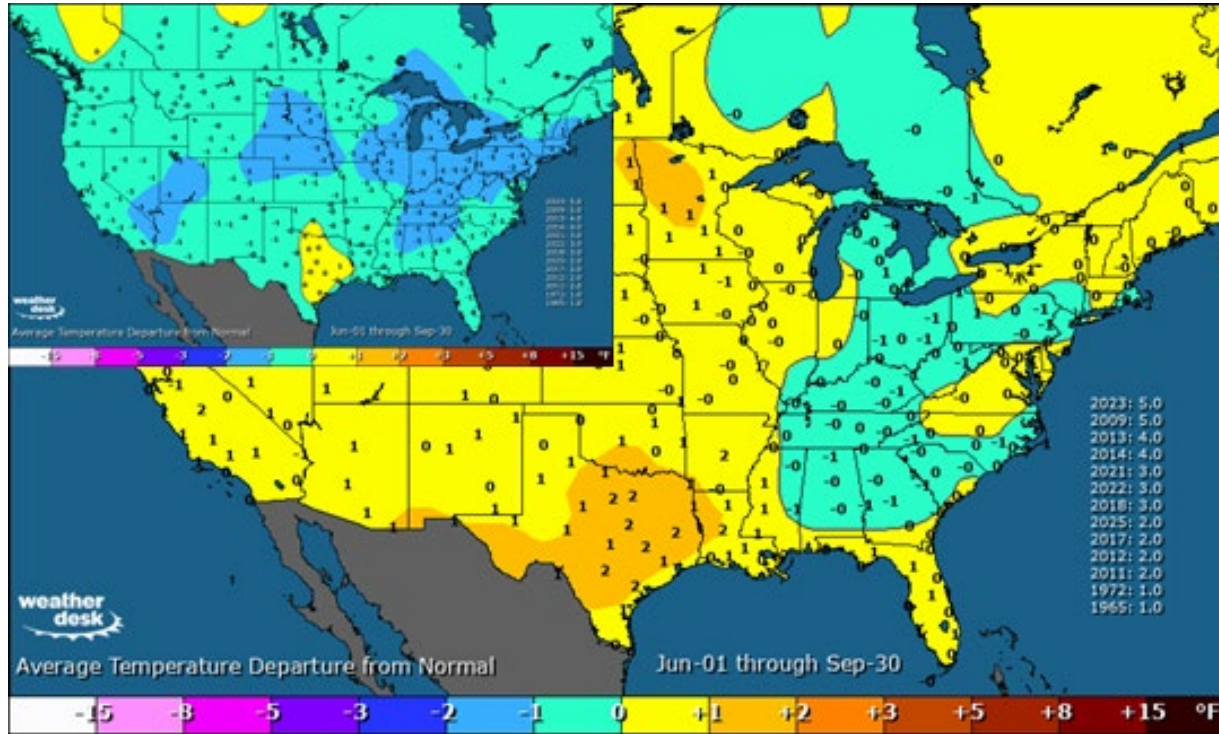


The top 3 hottest summers are listed as analogs

- 2023: 2<sup>nd</sup> hottest summer
- 2009: 35<sup>th</sup> hottest summer
- 2013: 26<sup>th</sup> hottest summer
- 2014: 57<sup>th</sup> hottest summer
- 2021: 57<sup>th</sup> hottest summer
- 2022: 3<sup>rd</sup> hottest summer
- 2018: 11<sup>th</sup> hottest summer
- 2025: 26<sup>th</sup> hottest summer
- 2017: 57<sup>th</sup> hottest summer
- 2012: 17<sup>th</sup> hottest summer
- 2011: 1<sup>st</sup> hottest summer
- 1972: 106<sup>th</sup> hottest summer
- 1965: 76<sup>th</sup> hottest summer



# Preliminary 2026 Summer Temperature Outlook



This summer's temperature outlook is for normal to above normal conditions

Above normal temperatures equates to top 11 hottest since 1895

East Texas shows higher potential for above normal temperatures than West Texas

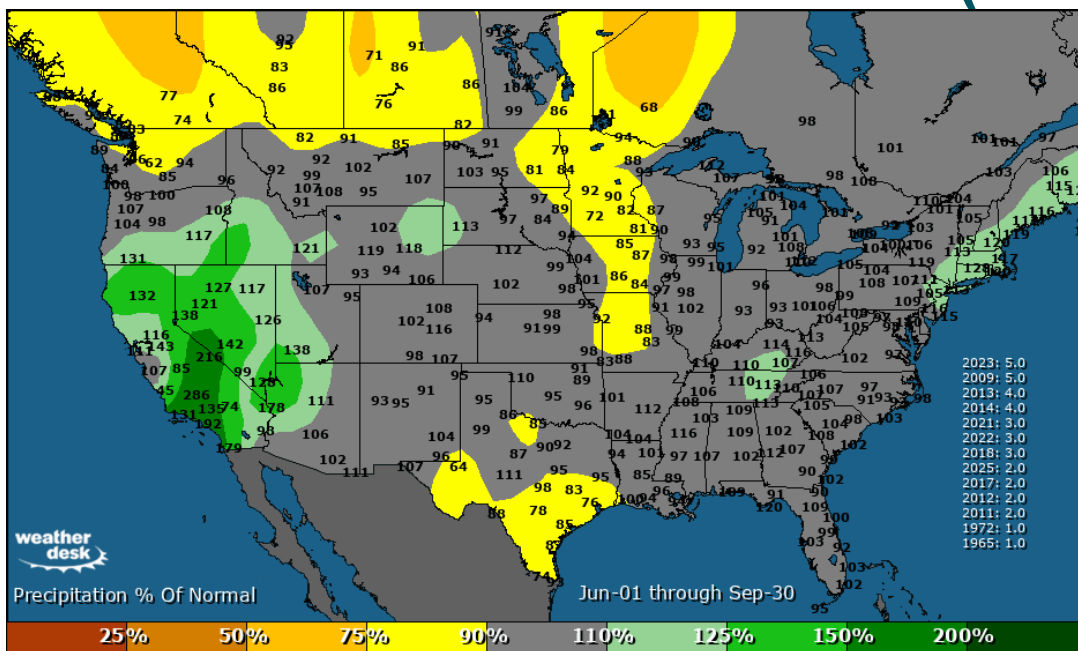
Above average support for another summer than ranks in the hottest third of all historical summers (8 of 13 analogs), but still working to determine if this could be a top 5 hottest summer (some support)

2023 is currently tracking as the best analog, which was the 2<sup>nd</sup> hottest summer on record for Texas

# 2026 Summer Historical Matches (Analog)

OVERALL (as of 4/15/2026)

1. 2023
2. 2009
3. 2013
4. 2014
5. 2021
6. 2022
7. 2018
8. 2025
9. 2017
10. 2012
11. 2011
12. 1972
13. 1965

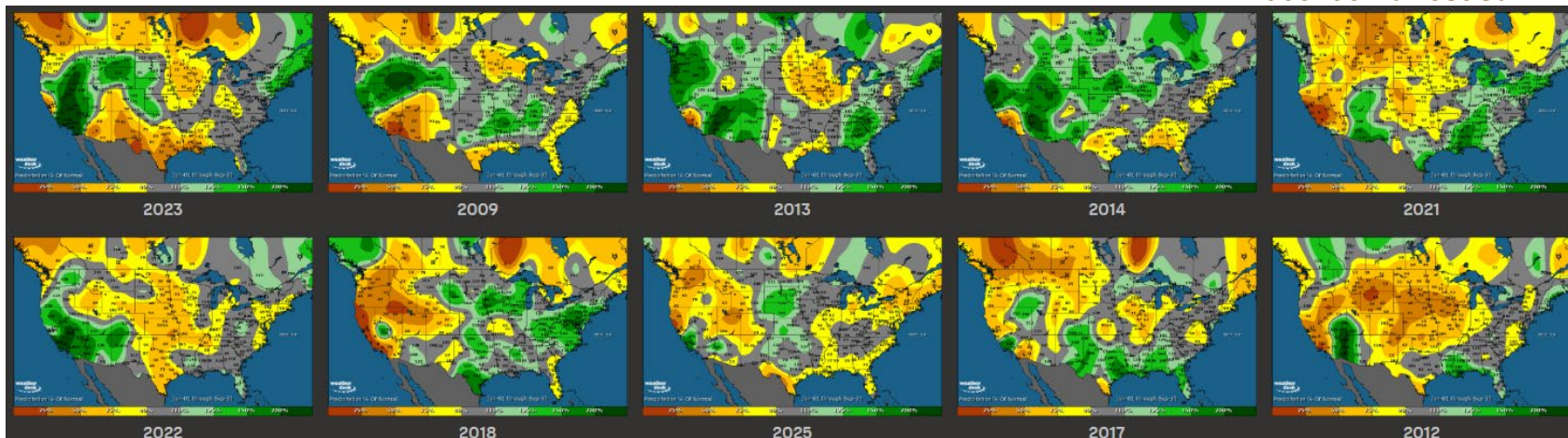


2023: **8<sup>th</sup> driest summer**  
 2009: 53<sup>rd</sup> driest summer

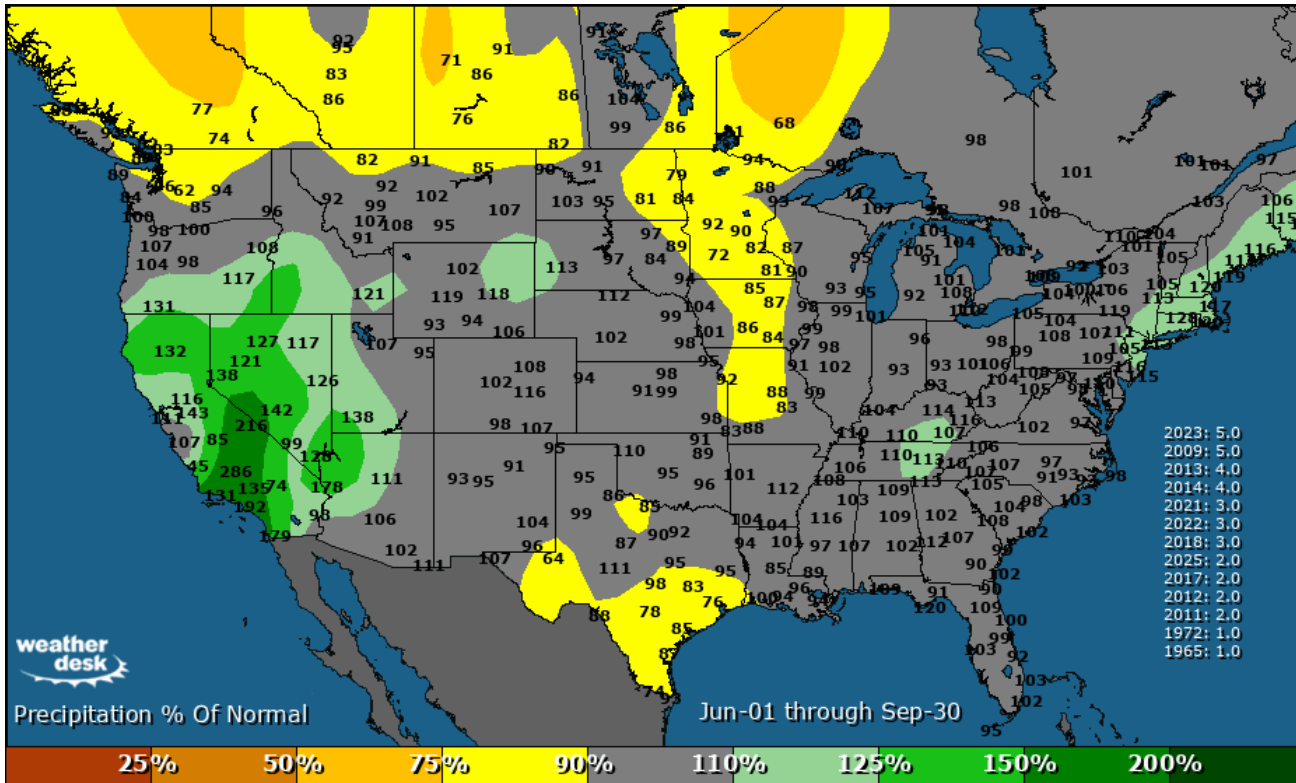
2013: 70<sup>th</sup> driest summer  
 2014: 71<sup>st</sup> driest summer

2021: 96<sup>th</sup> driest summer  
 2022: **26<sup>th</sup> driest summer**  
 2018: 115<sup>th</sup> driest summer

2025: 81<sup>st</sup> driest summer  
 2017: 127<sup>th</sup> driest summer  
 2012: 56<sup>th</sup> driest summer  
 2011: **1<sup>st</sup> driest summer**  
 1972: 99<sup>th</sup> driest summer  
 1965: **35<sup>th</sup> driest summer**



# Preliminary 2026 Summer Precipitation Outlook



This summer's precipitation outlook is for normal to below normal rainfall

North Texas has better support for rain than South Texas

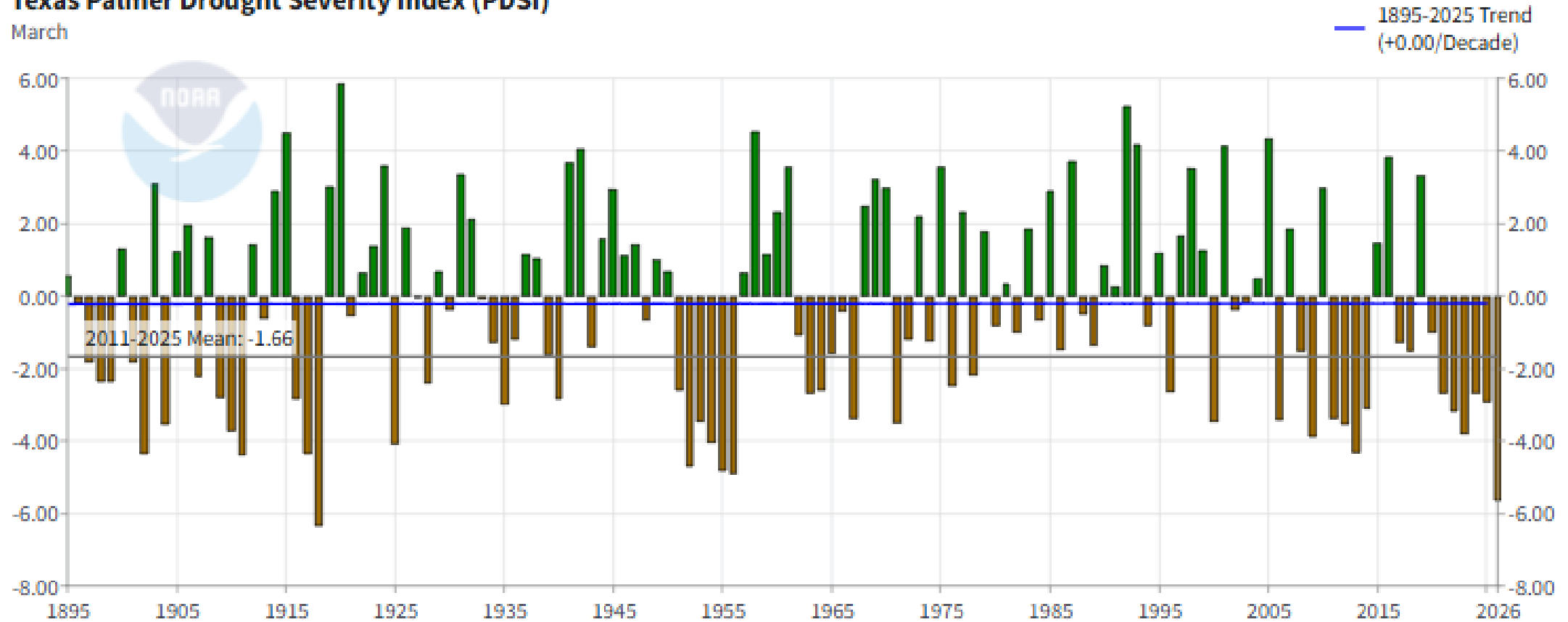
Analogs are less conclusive for precipitation than temperatures

A wetter trend is possible

# Drought Update

## Texas Palmer Drought Severity Index (PDSI)

March



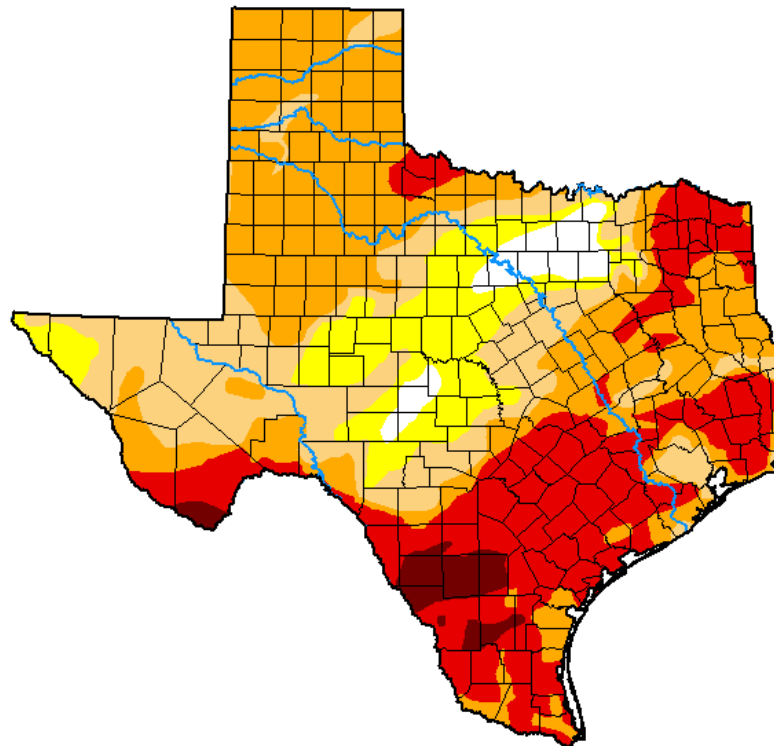
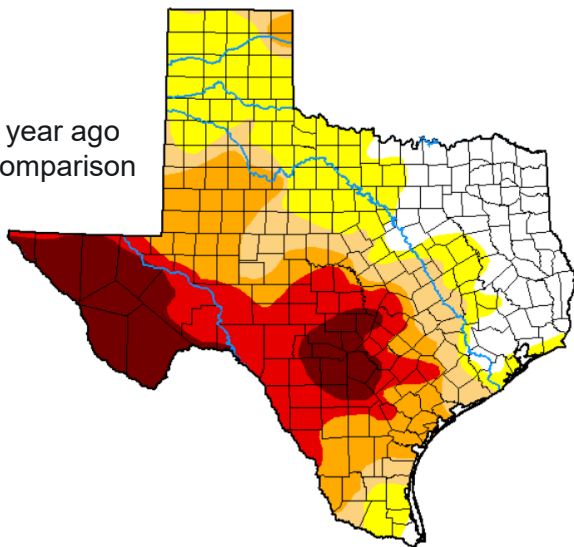
7 consecutive years and 9 of the past 10 years with drought

# Drought Update

3/26/24  
U.S. Drought Monitor  
Texas

April 7, 2026  
(Released Thursday, Apr. 9, 2026)  
Valid 8 a.m. EDT

One year ago  
for comparison



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	3.21	96.79	84.78	63.41	27.66	2.74
<b>Last Week</b> 03-31-2026	1.18	98.82	88.98	62.81	29.34	4.96
<b>3 Months Ago</b> 01-06-2026	11.66	88.34	57.31	27.77	9.33	0.36
<b>Start of Calendar Year</b> 01-06-2026	11.66	88.34	57.31	27.77	9.33	0.36
<b>Start of Water Year</b> 09-30-2025	37.15	62.85	23.67	13.00	3.33	0.29
<b>One Year Ago</b> 04-08-2025	17.87	82.13	58.37	45.93	28.90	13.76

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>

Author:

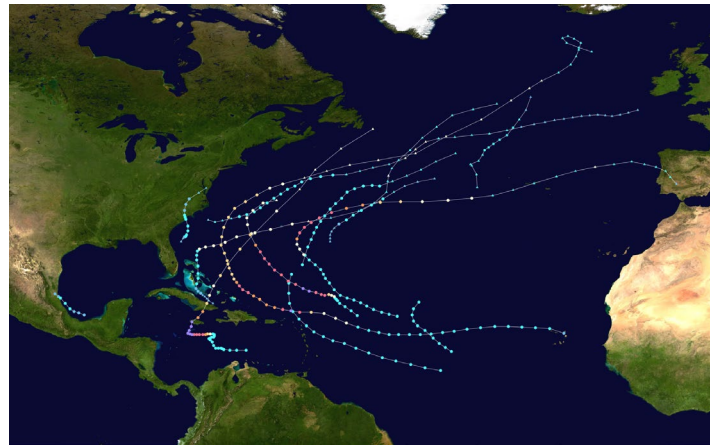
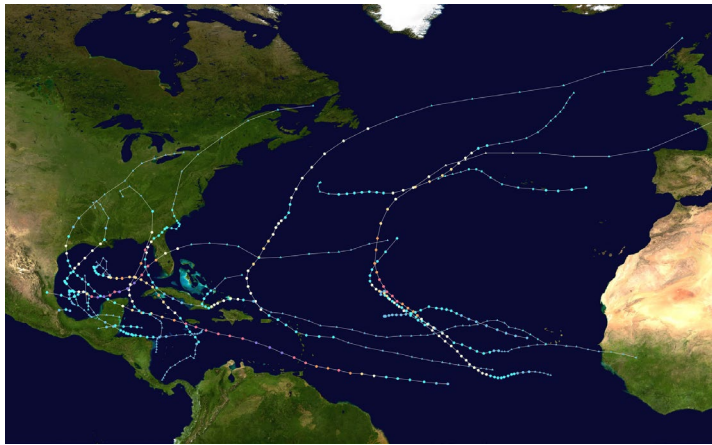
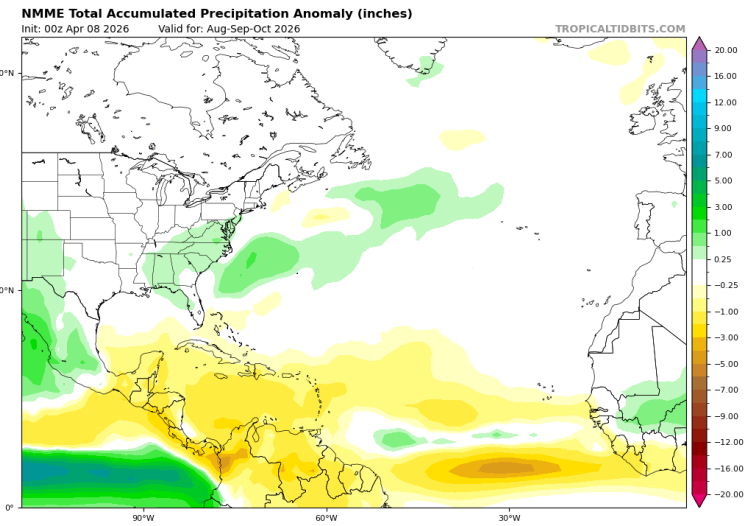
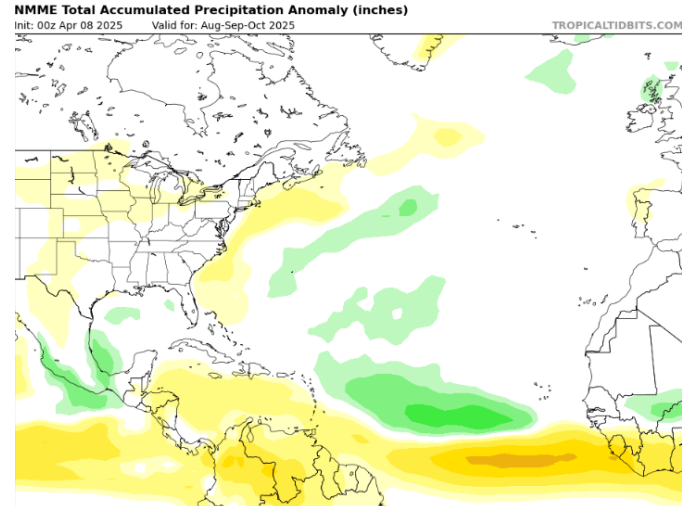
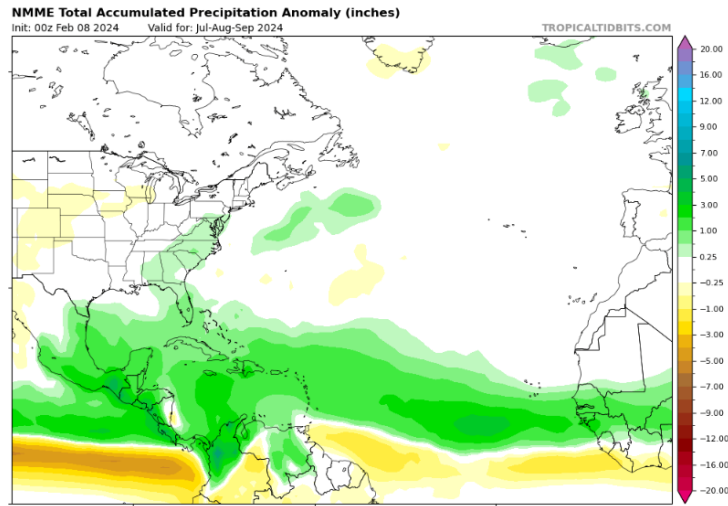
David Simeral  
Western Regional Climate Center



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

While an El Niño is expected to develop by late-summer, this does not necessarily mean a quick change to a wetter pattern  
 Note: Summer 2023 saw an El Niño develop by early-summer, yet it was the 8<sup>th</sup> driest summer on record  
 (2023 also featured a wet April)

# Preliminary 2026 Hurricane Season Forecast North American Multi-Model Ensemble



# Preliminary 2026 Hurricane Season Forecast

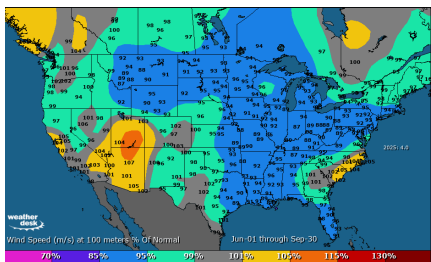
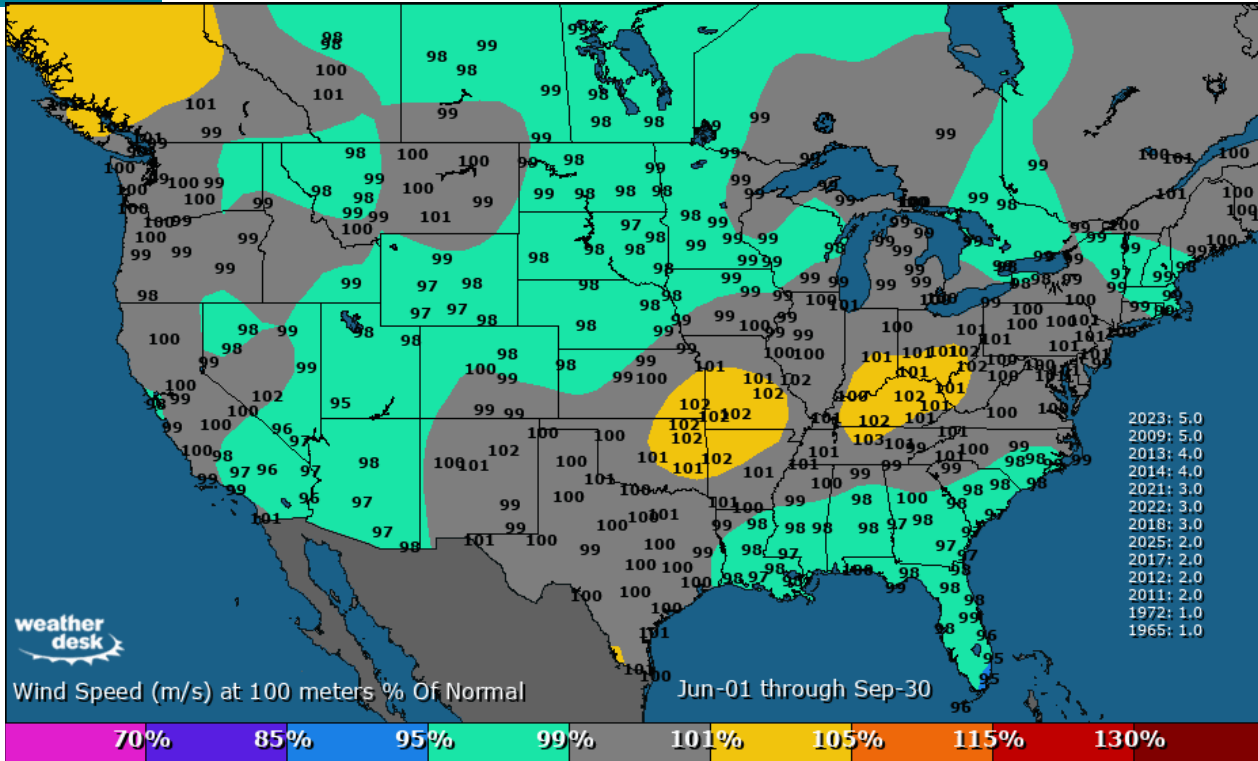
	# named storms	# hurricanes	# of major hurricanes
2023	20	7	3
2009	9	3	2
2013	14	2	0
2014	8	6	2
2021	21	7	4
2022	14	8	2
2018	15	8	2
2025	13	5	4
2017	17	10	6
2012	19	10	2
2011	19	7	4
1972	7	3	0
1965	10	4	1
	below normal	above normal	
Analog avg	14.31	6.15	2.46
30-year normal	14	7	3
1991-2020			

	gulf named storms	texas named storms
	3	1
	2	0
	6	0
	2	0
	7	1
	5	0
	3	0
	1	0
	5	0
	3	0
	5	0
	2	0
	4	0
Analog avg	3.69	0.15

**Forecast:**

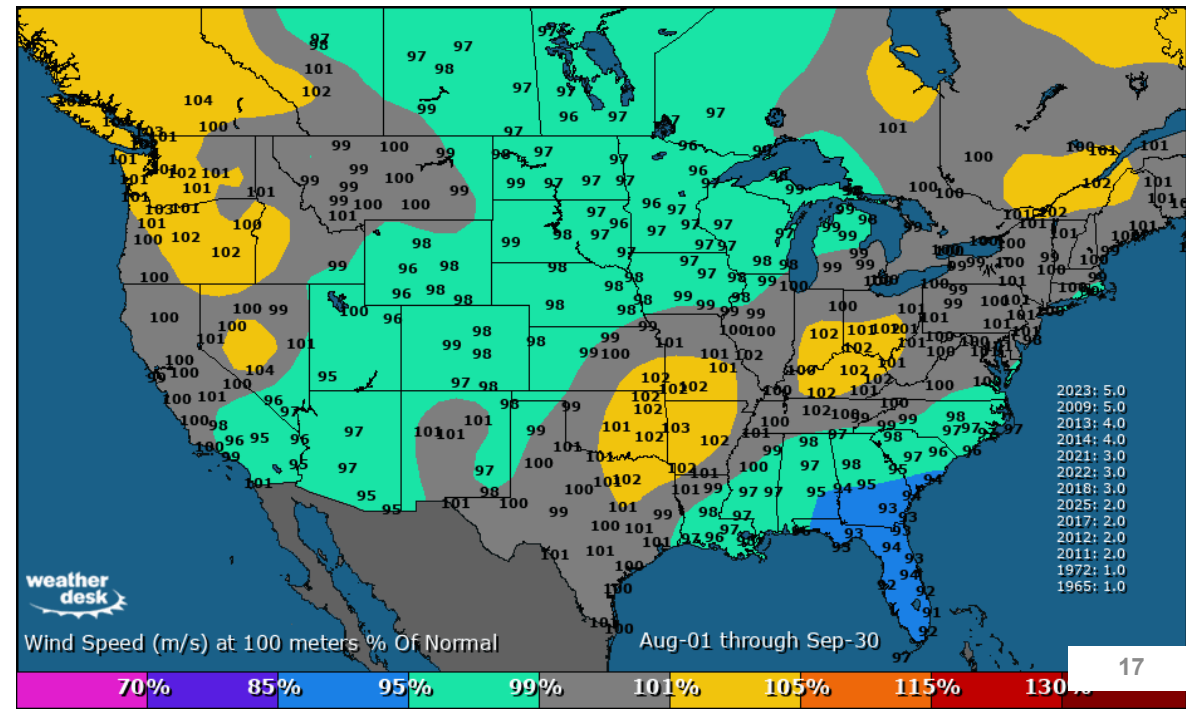
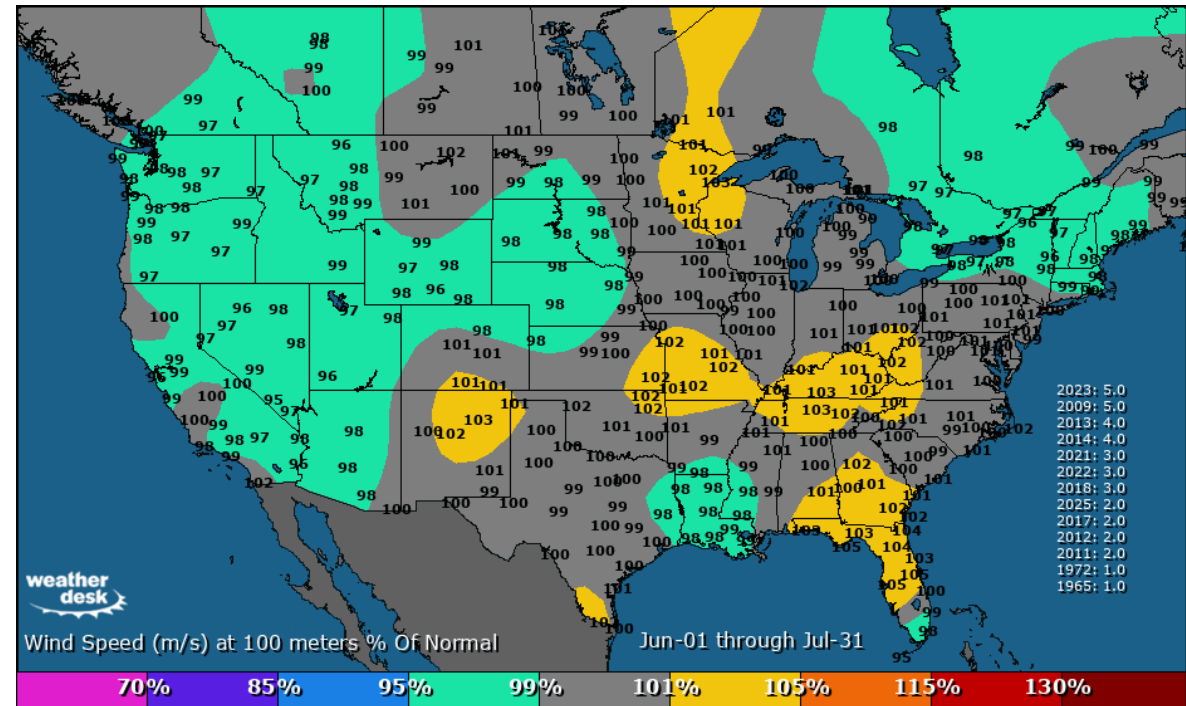
- 13 (8-15) named storms
- 4 (3-7) hurricanes
- 2 (0-3) major hurricanes
- 3 (2-5) named storms in the Gulf
- 0 (0-1) named storms with Texas landfall

# 2026 Summer Wind Outlook



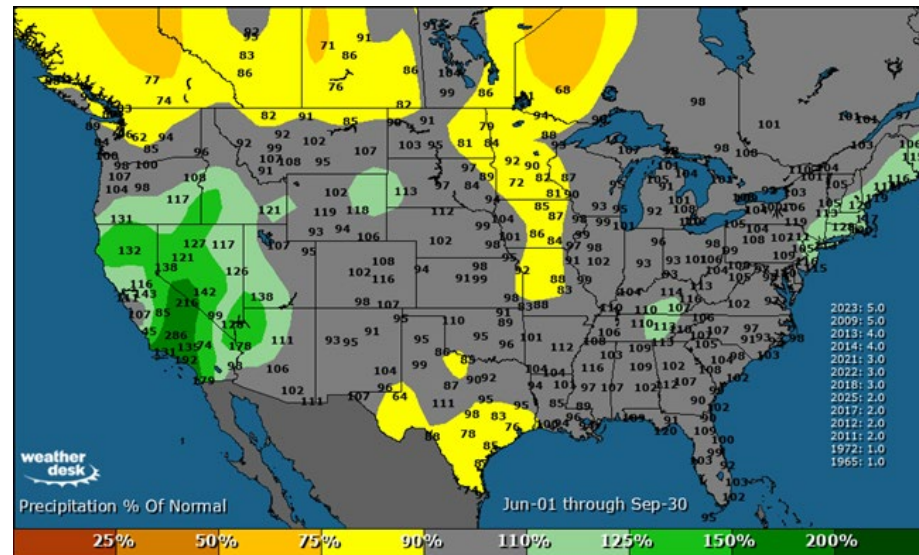
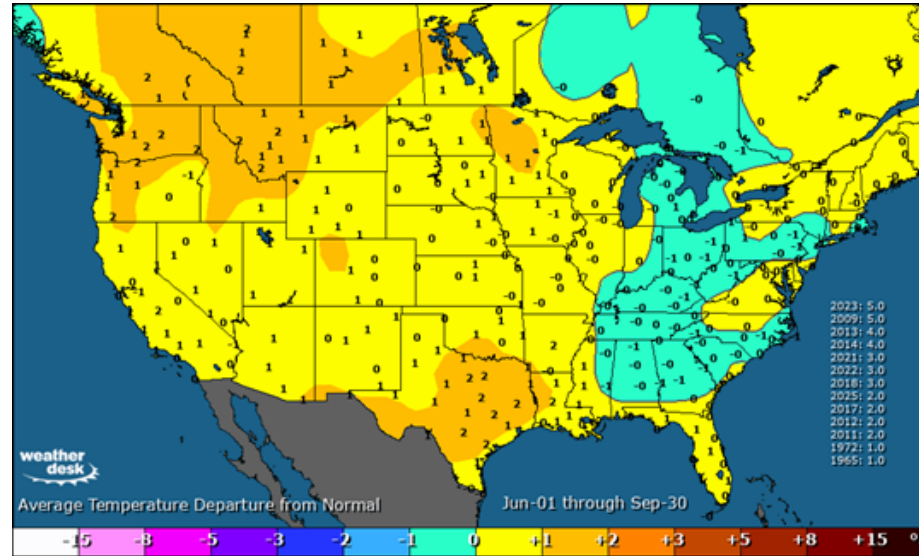
No clear signature for wind; however, good chance this summer will have more wind than last summer

Understand this is a broad brush; what matters is how much wind is available on the hottest days



# 2026 Summer Weather Outlook Summary

- The preliminary summer weather outlook calls for normal to above normal temperatures and normal to below normal rainfall
- The El Nino trend suggests a top 30-40 hottest summer that could be top 5; however, the PDO may conflict enough to trend cooler
- 2023 is an analog to keep an eye on (similar summer to 2011, top 2). April 2023 was relatively cool and wet
- Drought may continue through the summer – at least regionally, potentially worsening (fall tends to offer good rain opportunities with an El Nino)
- The 2025 Atlantic Basic hurricane season is forecasted to see below normal activity, with a below average chance of a Texas landfall



<https://www.ercot.com/gridmktinfo/dashboards/weatherforecast>

### Weather Forecast Details

**General Discussion:**  
Most of the ERCOT region will continue to see highs in the mid-80s to low-90s over the next seven days; however, cooler temperatures on Saturday. This will be felt mostly in North and West Texas. And a cooler scenario for most this period will be brief as temperatures will return warmer Sunday and into early next week. Beginning next Wednesday there's still quite a bit of disagreement among the computer models, however, so more time is needed to determine.

**Today:**  
Scattered to isolated showers and thunderstorms will again impact the Panhandle and portions of the Far West; thunderstorms will spread into the Rio Grande Valley late tonight, mostly after midnight. The rest of the state will see large metropolitan areas should top out around 90 this afternoon. High will near 90 in Abilene as well. Low-90s will range from the mid-70s north to the mid-80s south.

**Tomorrow:**  
A cold front will move into North and West Texas during the day on Friday. This will result in those regions being cooler today. 91 in Houston tomorrow afternoon. The Rio Grande Valley will see more clouds and scattered rain opportunities.

**7-Day Temperature Forecast by City**  
Low and high temperatures forecast for the next seven days for major cities within the ERCOT system.

**Forecast Variability Report**  
ERCOT's assessment of the potential for load, wind, and solar conditions to vary between forecasts and actuals.

**Weather Seasonal Updates**  
A seasonal forecast for the ERCOT region

The European Model is substantially cooler this summer for Texas. More than typical conflicting messages, resulting in a lower-than-typical forecast confidence level as of today. We will continue to monitor, with the final forecast to be published prior to Memorial Day weekend

# Questions?

