# 2025-26 Preliminary Winter Weather Outlook

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Winter Weatherization Workshop
October 16, 2025

# Agenda

- Updating the summer
- Quick look at fall
- Review of last winter (and other recent winters)
- Expectations for the upcoming winter

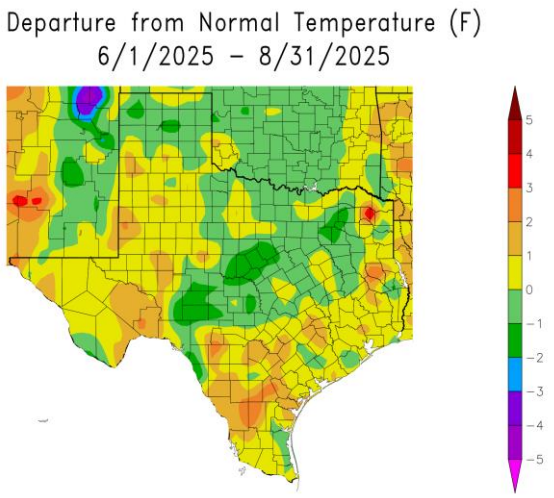
# Updating Summer 2025

- **June-August 2025** was the **33rd hottest** on record for Texas (since 1895, based on **mean** temperatures). This (barely) ranks in the **hottest quarter** of all historical summers – but was significantly cooler than the previous three summers
- Jun-Aug 2025 ranked 9th hottest out of the past 15 years (since 2011)
- 2021 remains the mildest since 2007

**Texas Average Temperature**
June-August

| Period | Average Temperature | Rank (out of 131) |
|---|---|---|
| June-August 2025 | 82.3°F | 99* |
| June-August 2024 | 84.0°F | 126* |
| June-August 2023 | 85.4°F | 130 |
| June-August 2022 | 84.8°F | 129 |
| June-August 2021 | 81.0°F | 50* |
| June-August 2020 | 83.4°F | 122 |
| June-August 2019 | 82.6°F | 107* |
| June-August 2018 | 83.8°F | 124 |
| June-August 2017 | 81.6°F | 70* |
| June-August 2016 | 82.3°F | 99* |
| June-August 2015 | 81.9°F | 84* |
| June-August 2014 | 81.6°F | 70* |
| June-August 2013 | 82.1°F | 90* |
| June-August 2012 | 83.2°F | 120* |
| June-August 2011 | 86.8°F | 131 |

| | Jun-Aug |
|---|---|
| 1 | 2011 |
| 2 | 2023 |
| 3 | 2022 |
| 4 | 2024 |
| 5 | 2018 |
| 6 | 2020 |
| 7 | 2012 |
| 8 | 2019 |
| 9 | 2025 |
| 9 | 2016 |
| 11 | 2013 |
| 12 | 2015 |
| 13 | 2017 |
| 13 | 2014 |
| 15 | 2021 |

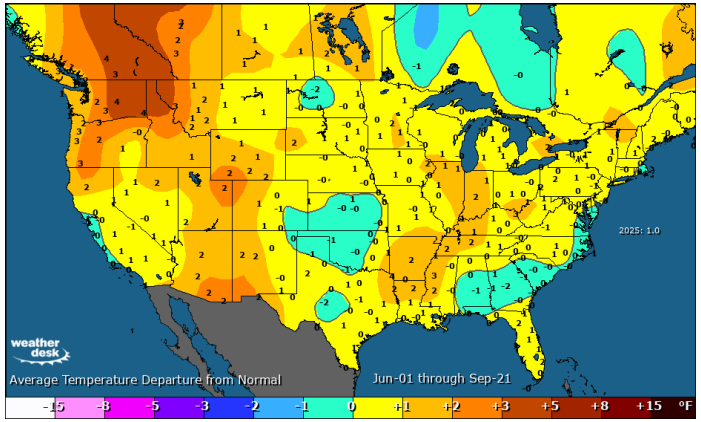



Generated 9/20/2025 using provisional data.

ACIS Web Services

**100-degree days (through 9/26/25):**

- Dallas: **7** days. (2024: 23)
- Houston: **8** days. (2024: 9)
- Austin: **22** days. (2024: 32)
- San Antonio: **20** days. (2024: 25)
- Midland: **29** days (2024: 31)
- McAllen: **55** days (2024: 54)



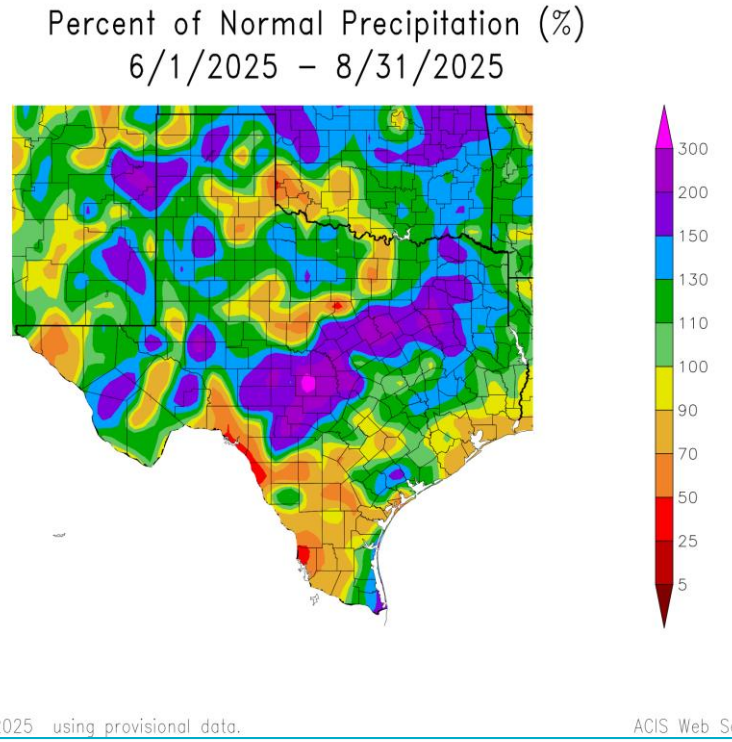
# Updating Summer 2025

- **June-August 2025** was the **22nd wettest** on record for Texas. It was the wettest since 2021 and 4th wettest Jun-Aug period since 2011

**Texas Precipitation**
June-August

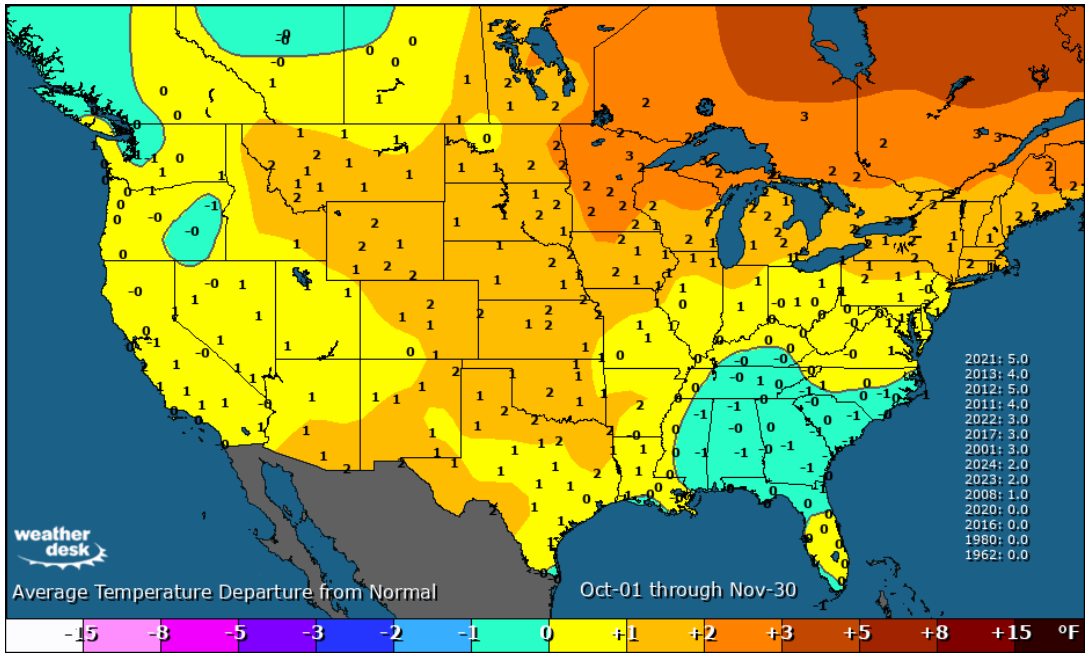
| Period | Precipitation | Rank (out of 131) |
|---|---|---|
| June-August 2025 | 9.79" | 110 |
| June-August 2024 | 7.84" | 76 |
| June-August 2023 | 4.21" | 7 |
| June-August 2022 | 6.77" | 46 |
| June-August 2021 | 10.84" | 122 |
| June-August 2020 | 5.75" | 24 |
| June-August 2019 | 6.98" | 54 |
| June-August 2018 | 6.81" | 48* |
| June-August 2017 | 12.57" | 130 |
| June-August 2016 | 10.01" | 113 |
| June-August 2015 | 7.00" | 55 |
| June-August 2014 | 7.32" | 64 |
| June-August 2013 | 6.84" | 50* |
| June-August 2012 | 6.40" | 36 |
| June-August 2011 | 2.46" | 1 |

| | Date | Value | Anomaly | temp rank |
|---|---|---|---|---|
| 1 | 2007 | 13.62 | 6.22 | 116 |
| 2 | 2017 | 12.57 | 5.17 | 62 |
| 3 | 2004 | 12.21 | 4.81 | 120 |
| 4 | 1919 | 11.89 | 4.49 | 128 |
| 5 | 1941 | 11.35 | 3.95 | 115 |
| 6 | 1960 | 11.03 | 3.63 | 69 |
| 7 | 1920 | 11 | 3.6 | 124 |
| 8 | 1961 | 10.92 | 3.52 | 129 |
| 9 | 1981 | 10.87 | 3.47 | 89 |
| 10 | 2021 | 10.84 | 3.44 | 80 |
| 11 | 1906 | 10.74 | 3.34 | 120 |
| 12 | 1996 | 10.7 | 3.3 | 56 |
| 13 | 1973 | 10.6 | 3.2 | 125 |
| 14 | 1895 | 10.36 | 2.96 | 112 |
| 15 | 1991 | 10.25 | 2.85 | 106 |
| 16 | 1979 | 10.16 | 2.76 | 116 |
| 17 | 1942 | 10.12 | 2.72 | 98 |
| 18 | 1959 | 10.1 | 2.7 | 97 |
| 19 | 2016 | 10.01 | 2.61 | 33 |
| 20 | 1903 | 9.96 | 2.56 | 130 |
| 21 | 1971 | 9.92 | 2.52 | 112 |
| 22 | 2025 | 9.79 | 2.39 | 33 |
| 23 | 1898 | 9.72 | 2.32 | 104 |
| 24 | 1987 | 9.69 | 2.29 | 109 |
| 25 | 1914 | 9.57 | 2.17 | 83 |
| 26 | 1940 | 9.56 | 2.16 | 116 |
| 27 | 1915 | 9.37 | 1.97 | 106 |
| 28 | 1899 | 9.35 | 1.95 | 48 |
| 29 | 1900 | 9.33 | 1.93 | 77 |
| 30 | 1921 | 9.2 | 1.8 | 80 |




- Among the 30 wettest Jun-Aug periods for Texas (1895-current). 2025 and 2016 were by far the hottest, tied as the 33rd hottest out of 131 years. The average temperature rank of the 30 wettest Jun-Aug periods is 96th hottest.
- Last year, June through August was the hottest recorded for Texas in a summer with above normal precipitation (not as wet as 2025 but still above normal)
- Historically, a wet summer has equated to a mild (below normal) summer. The past two summers have bucked this trend

# Quick Look at Fall Weather

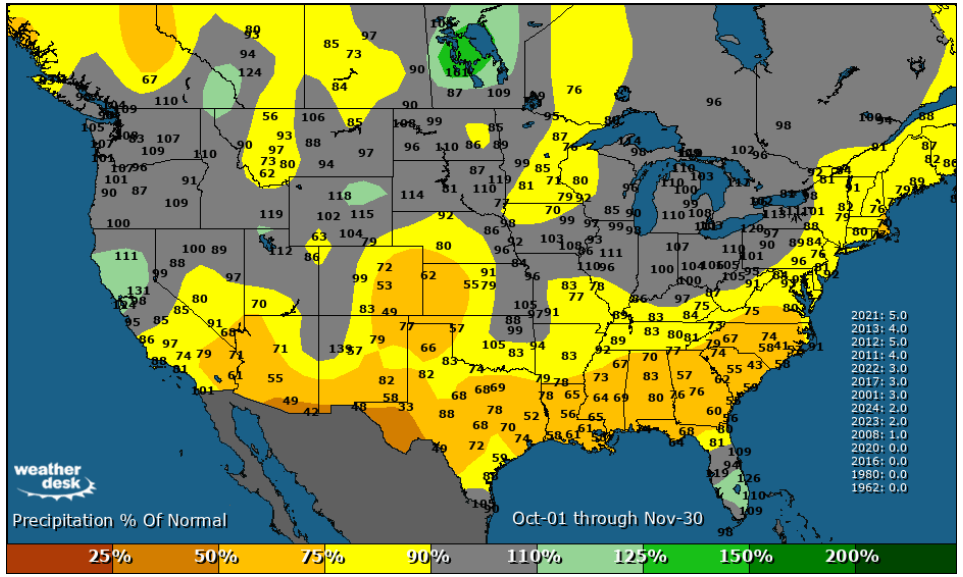



| Rank | Ending Date | Mean Max Temperature Sep 8 to Oct 13 |
|---|---|---|
| 1 | 2019-10-13 | 96.2 |
| 2 | 2024-10-13 | 95.4 |
| 3 | 2025-10-13 | 94.9 |
| 4 | 2011-10-13 | 94.6 |
| 5 | 1926-10-13 | 94.2 |
| 6 | 1956-10-13 | 93.8 |
| 7 | 2022-10-13 | 93.2 |
| 8 | 2015-10-13 | 93.0 |
| - | 1931-10-13 | 93.0 |
| 10 | 1954-10-13 | 92.8 |
| 11 | 2023-10-13 | 92.7 |
| 12 | 2021-10-13 | 92.5 |

| Rank | Ending Date | Total Precipitation Sep 8 to Oct 13 |
|---|---|---|
| 1 | 2025-10-13 | 0.00 |
| - | 2024-10-13 | 0.00 |
| 3 | 2022-10-13 | T |
| 4 | 1931-10-13 | 0.03 |
| 5 | 1947-10-13 | 0.09 |
| 6 | 1905-10-13 | 0.10 |
| 7 | 1999-10-13 | 0.19 |
| - | 1920-10-13 | 0.19 |
| 9 | 1956-10-13 | 0.23 |
| 10 | 1917-10-13 | 0.31 |
| 11 | 1953-10-13 | 0.37 |
| 12 | 1993-10-13 | 0.46 |

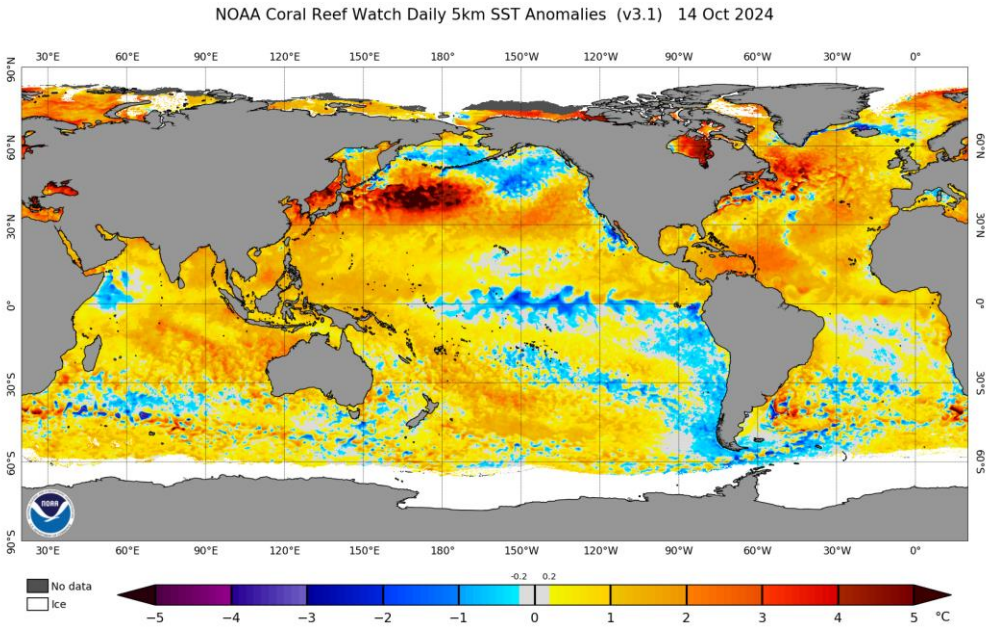
Austin, Sep 8-Oct 13
(POR: 1897-2025)

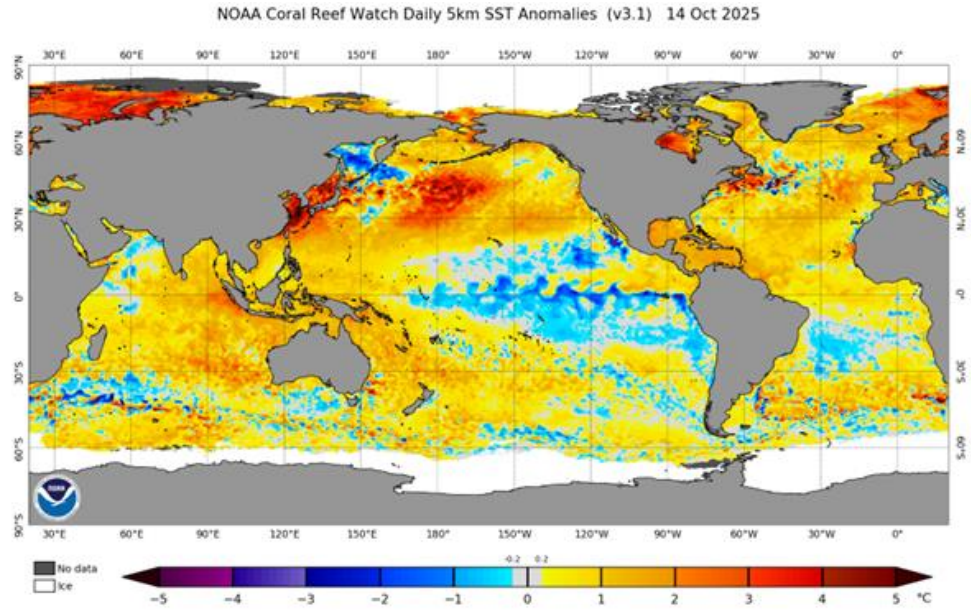
- The forecast for this fall (Oct-Nov) is above normal temperatures and below normal precipitation
- 7 of 10 analogs support above normal temperatures (including the top two, 2021 and 2012)
- Last fall was the warmest on record for Texas. Oct-Nov 2025 will be hard-pressed to top last year but top 10 warmest is certainly possible

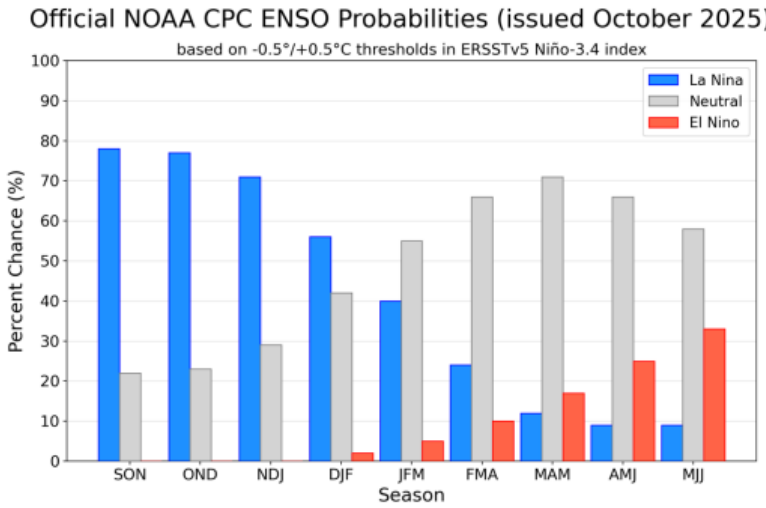



- The late-summer trend drier is likely to continue through the fall season
- Drought expected to increase

# La Niña



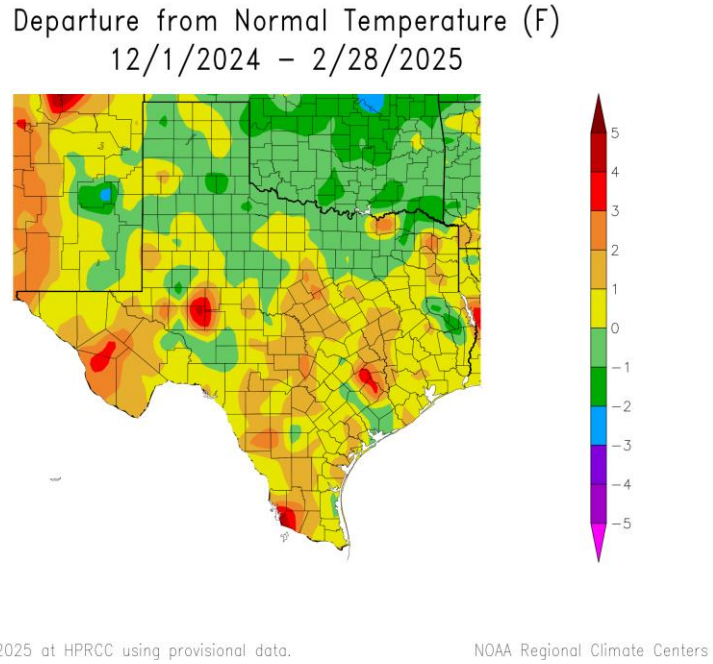




- La Niña is currently in place and is expected to continue into the upcoming winter
- Could be a bit stronger signal than last winter
- This will mark 5 of the past 6 winters under the influence of La Niña

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2020 | 0.5 | 0.6 | 0.5 | 0.3 | 0.0 | -0.2 | -0.4 | -0.6 | -0.9 | -1.2 | -1.3 | -1.2 |
| 2021 | -1.1 | -0.9 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 | -0.5 | -0.7 | -0.8 | -1.0 | -1.0 |
| 2022 | -1.0 | -0.9 | -1.0 | -1.1 | -1.0 | -0.9 | -0.8 | -0.9 | -1.0 | -1.0 | -0.9 | -0.8 |
| 2023 | -0.7 | -0.4 | -0.1 | 0.1 | 0.5 | 0.8 | 1.1 | 1.3 | 1.5 | 1.8 | 1.9 | 2.0 |
| 2024 | 1.8 | 1.5 | 1.1 | 0.7 | 0.4 | 0.2 | 0.1 | -0.1 | -0.2 | -0.2 | -0.4 | -0.5 |
| 2025 | -0.6 | -0.4 | -0.2 | -0.1 | -0.1 | -0.1 | -0.2 | -0.3 | | | | |
| | DJF | JFM | FMA | MAM | AMJ | MJJ | JJA | JAS | ASO | SON | OND | NDJ |

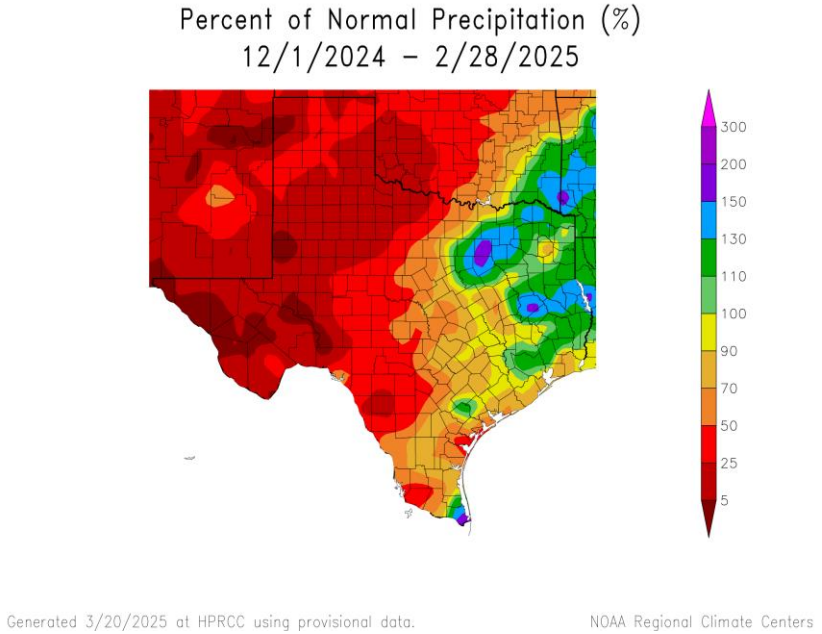
# Reviewing Last Winter




Temperature anomaly

ERCOT winter (Dec 1 – Feb 28)

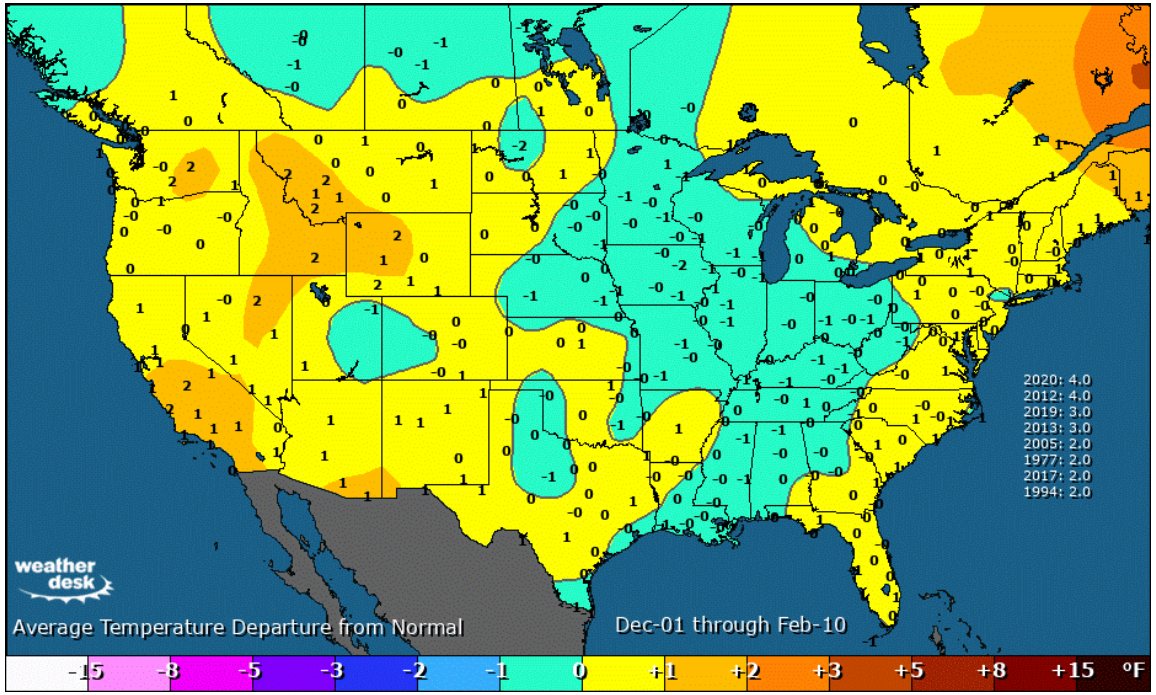
- Last winter was the **28th warmest** on record (130 historical winters)
- ERCOT's new winter peak record was set on 2/20/25. DFW fell to 12°, Houston was 27°, Austin was 18°, while San Antonio recorded a low of 21°. The LRGV saw lows in the mid-30s, while Lubbock dropped to 10°. This was not as cold as the prior winter's peak
- Southeast Texas had an extreme snow event on Jan 20-21, 2025
- Last winter was the **48th driest** on record (130 historical winters). This was much drier than the prior winter, which was the 104th driest (wettest winter in over a decade)



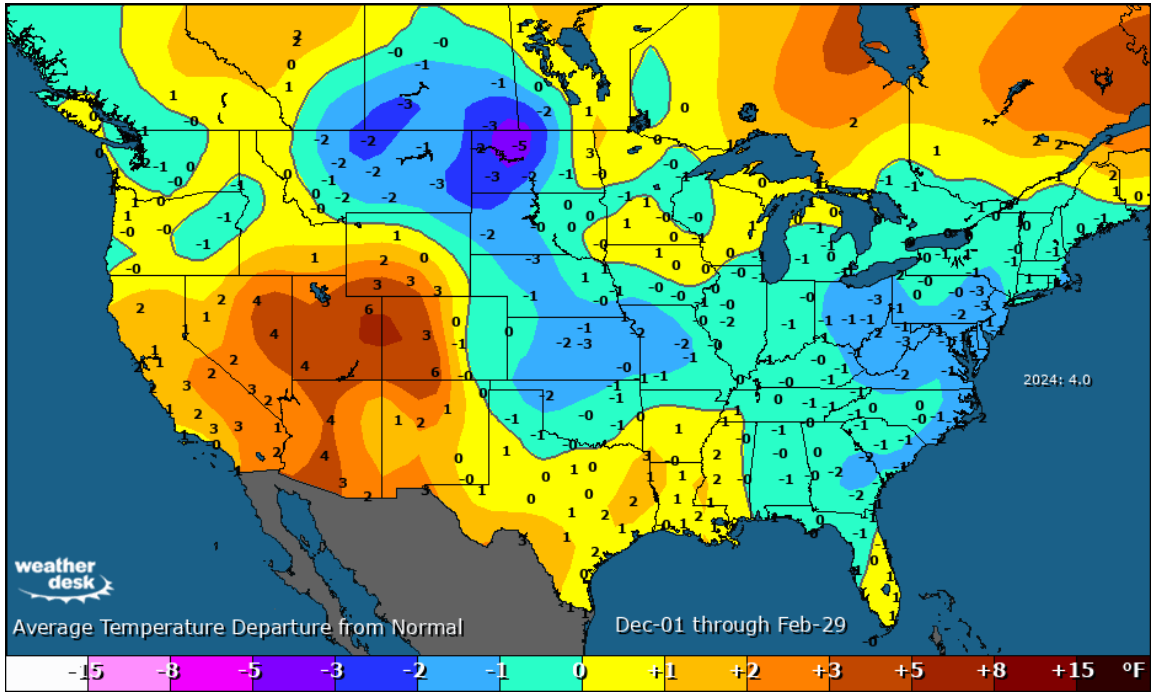

Precipitation anomaly

# Verification of Last Year's Preliminary Winter Temperature Outlook

**Analog weighted consensus: 2020-21, 2012-13, 2019-20, 2013-14, 2005-06, 1977-78, 2017-18, 1994-95**




Preliminary Forecast




Actual Anomalies

# Mean Temperature Ranking of Recent Texas Winters (130 historical winters)

| Austin coldest: | | |
|---|---|---|
| **18° on 2/20** | **2024-25** | **102nd coldest (28th warmest)** |
| **16° on 1/15, 1/17** | **2023-24** | **119th** |
| **15° on 12/23** | **2022-23** | **125th** |
| **21° on 2/4** | **2021-22** | **111th** |
| 7° on 2/16 | 2020-21 | 42nd (Uri) |
| 30° on 12/19 | **2019-20** | **114th** |
| 32° on 12/11 and 1/4 | 2018-19 | 94th |
| **18° on 1/17** | 2017-18 | 76th |
| 19° on 1/7 | **2016-17** | **130th coldest (warmest winter on record)** |
| 31° on 1/23 | **2015-16** | **121st** |
| 23° on 1/8 | 2014-15 | 68th |
| **22° on 1/6, 1/7** | 2013-14 | **30th** |
| **27° on 12/26** | **2012-13** | **111th** |
| **27° on 12/7** | 2011-12 | 99th |

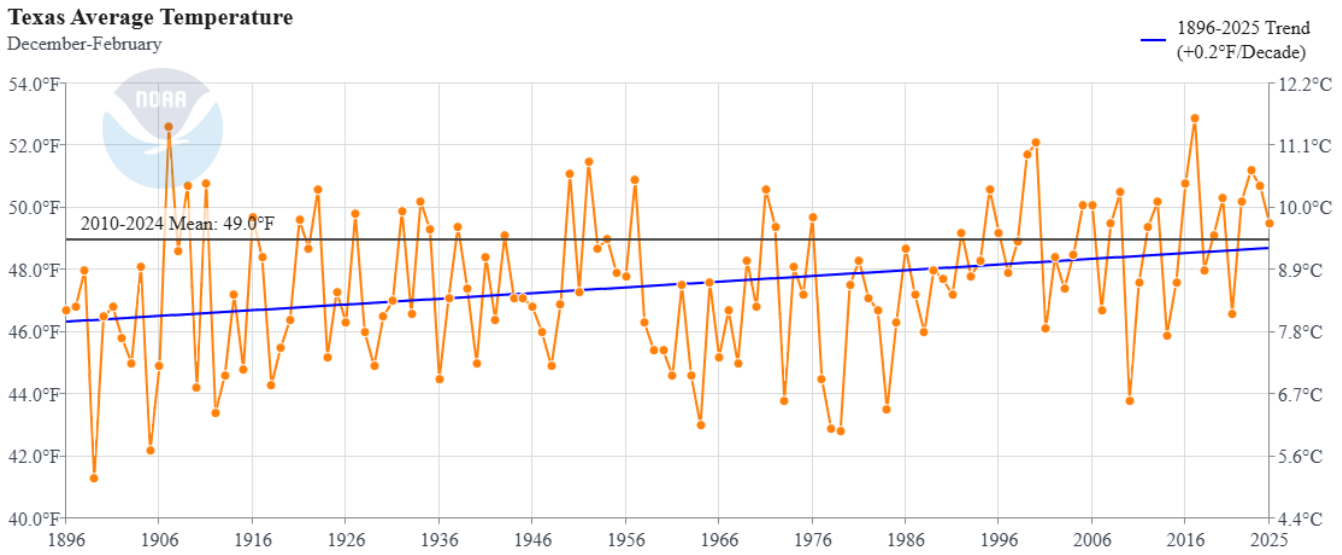
Since 2001, only 3 winters have ranked in the coldest third (1-43) of historical winters (2020-21, 2013-14, and 2009-10)

Since 1998, 4 of 5 second-year La Niña events have been warmer than the first year

**Bold** = winter 2025-26 matches, **Bold** = top 4 analogs

# Seasonal Rankings – what is normal?

- ❑ "Normal" may not be the best way to express seasonal 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 (2010-2024). Applying that normal to all historical winters (1895-2024) results in only 37 of 130 winters coming in above normal**
- ❑ This is why I'll oftentimes give all-time rankings and comparisons with recent years (in addition to or instead of "normal")

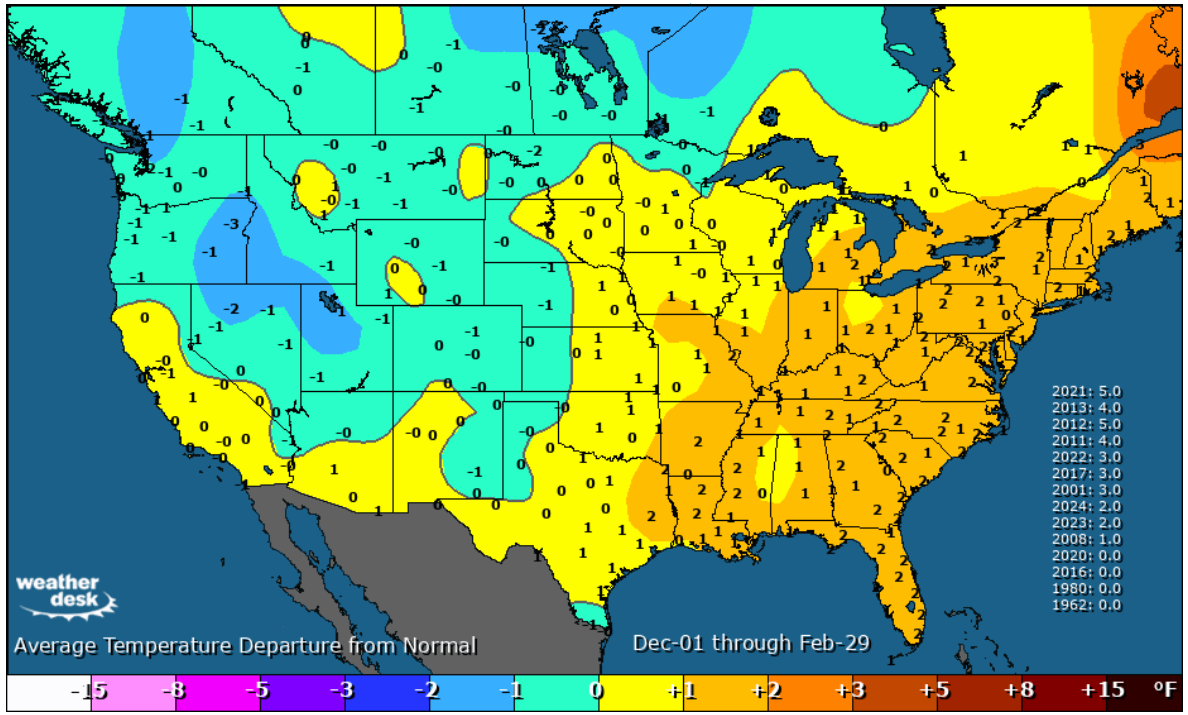




Count of above normal winters:
1895-1971 (77 years): 16
1998-2025 (28 years): 16

# Preliminary Winter 2025-26 Temperature Outlook

**Analog weighted consensus: 2021-22, 2012-13, 2013-14, 2011-12, 2022-23, 2017-18, 2001-02, 2024-25, 2023-24, 2008-09**

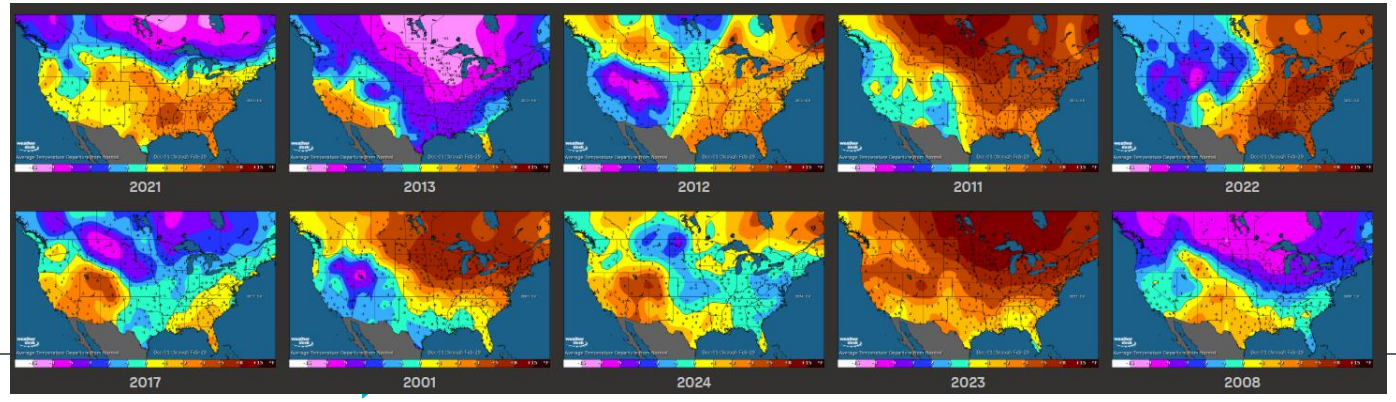



## Coldest temps for DFW

**2020-21**: 19°
**2012-13**: 22°
**2013-14**: 15°
**2011-12**: 22°
2022-23: 11°
2017-18: 13°
2001-02: 14°
2024-25: 12°
2023-24: 11°
2008-09: 20°

The all-time historical average coldest day is 14°
**Bold** years are the top 4 analogs

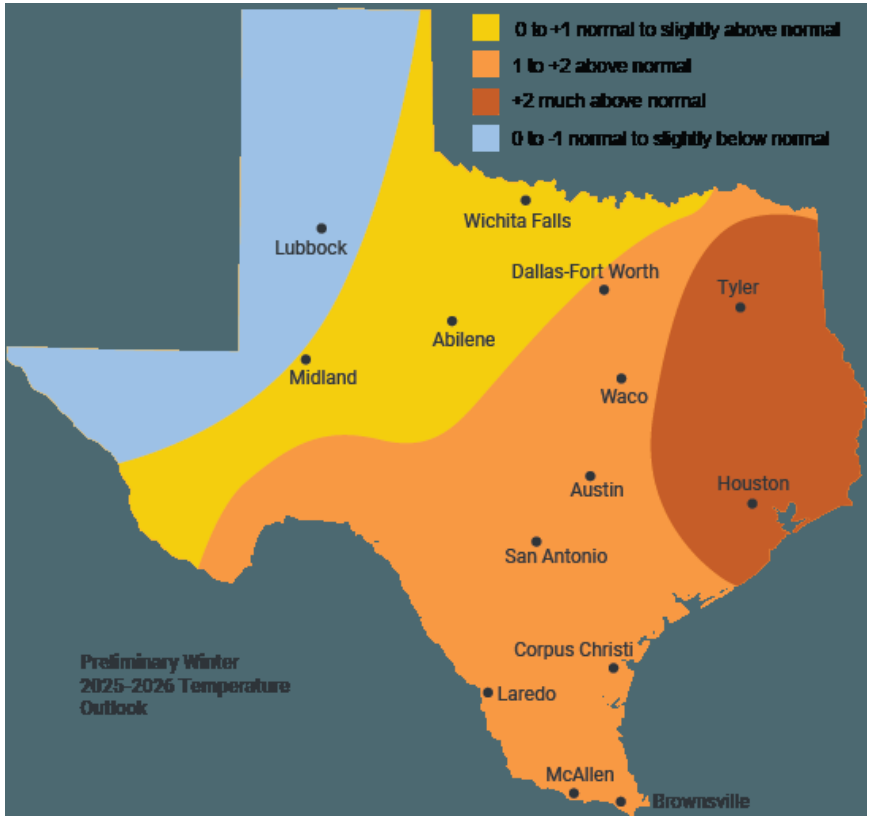
Historically similar years (analogs) suggest this winter may not have an extreme to the level of the past 3 winters – but it's high risk to rely upon a long-range forecast to pick up on a single event



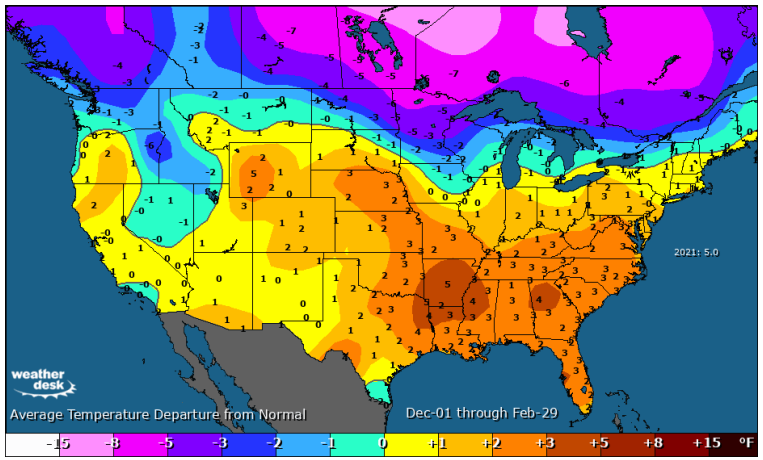

| Weather Zone | 95th Percentile Minimum Temperature | 99th Percentile Minimum Temperature | February 2021 Minimum Temperature Percentile Rank |
|---|---|---|---|
| North | -4° | -12° | 95th |
| North Central | 1° | -7° | 98th |
| West | -4° | -9° | 95th |
| Far West | -1° | -11° | 96th |
| East | 1° | -6° | 99th |
| Coast | 11° | 5° | 93rd |
| South Central | 7° | -2° | 95th |
| Southern | 17° | 11° | 95th |
| Valley | 21° | 13° | 94th |
| Panhandle | -11° | -16° | 95th |

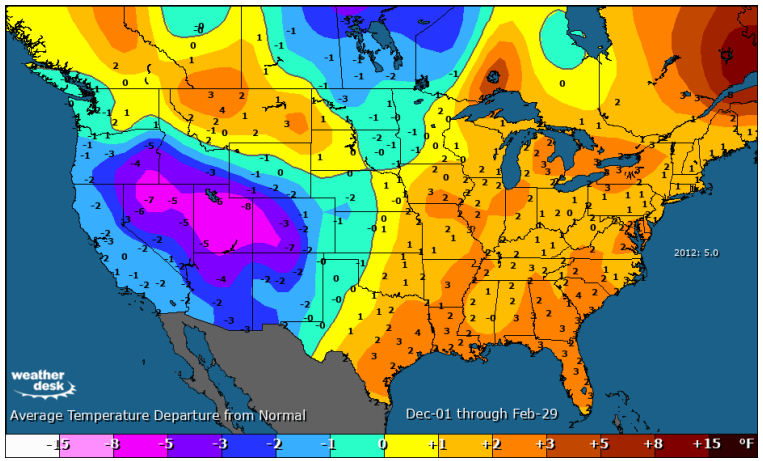
*Table 1: Historical Minimum Temperature Data*

# Preliminary Winter 2025-26 Temperature Outlook




Official Preliminary Forecast




Top two analogs

The winter is forecasted to see above normal temperatures across most of Texas

This is an average across three months and doesn't dismiss the potential for a period of extreme cold

Good chance the polar vortex results in Arctic air impacting the U.S. at some point(s) this winter. Early indicators point toward the western half of the U.S. being more prone to cold air this winter. TBD if or how much this impacts Texas

Overall, less support for extreme cold impacting ERCOT than last winter – but not no support

If the winter is minus a significant cold event, good chance this winter is warmer than last

# Precipitation Ranking of Recent Texas Winters (130 historical winters)

| | |
|---|---|
| **2024-25** | 48th driest (L) |
| **2023-24** | **105th** (E) |
| 2022-23 | 45th (L) |
| **2021-22** | **10th (L)** |
| 2020-21 | 59th (L) |
| 2019-20 | 67th (E) |
| 2018-19 | 92nd (E) |
| 2017-18 | 76th (L) |
| **2016-17** | **99th (L)** |
| 2015-16 | 60th (E) |
| 2014-15 | 75th (E) |
| 2013-14 | **12th (N)** |
| 2012-13 | 64th (N) |
| **2011-12** | **121st (L)** |

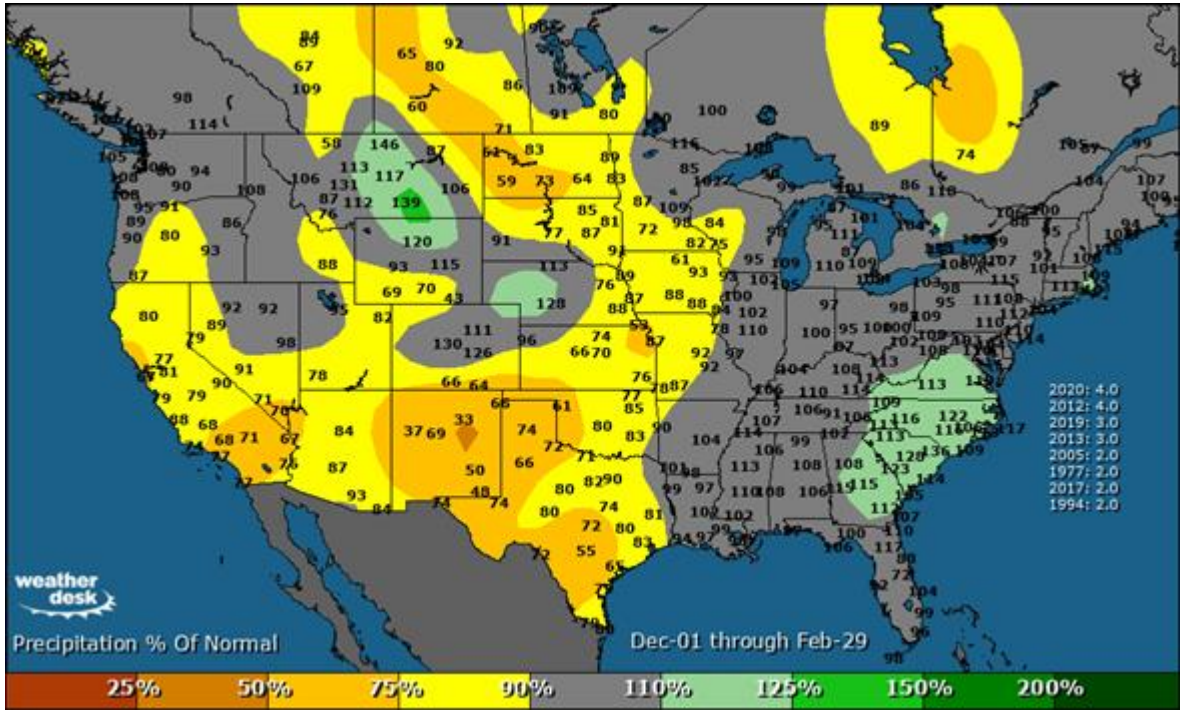
Since 2018, 4 La Niña winters and 3 El Niño. The 4 La Niña winters were the 4 driest

Since 1998, 4 of 5 second-year La Niña events have been drier than the first year

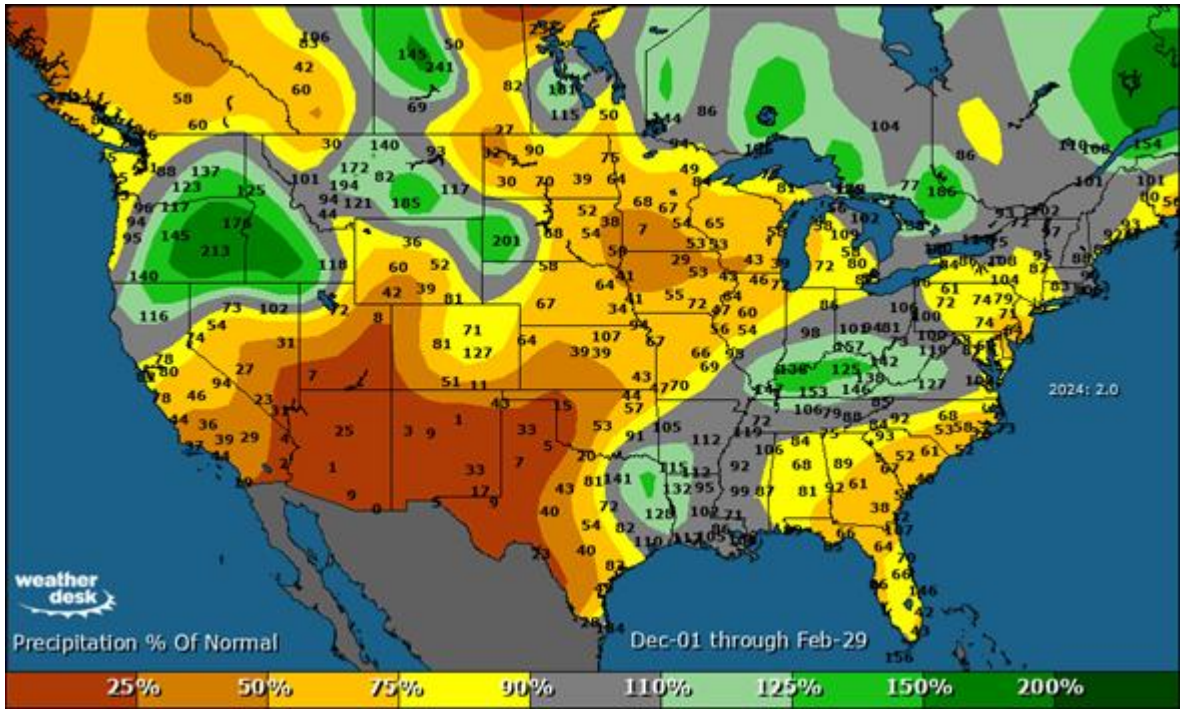
(E) = El Niño, (L) = La Niña, (N) = neutral

# Verification of Last Year's Preliminary Winter Precipitation Outlook

**Analog weighted consensus: 2020-21, 2012-13, 2019-20, 2013-14, 2005-06, 1977-78, 2017-18, 1994-95**



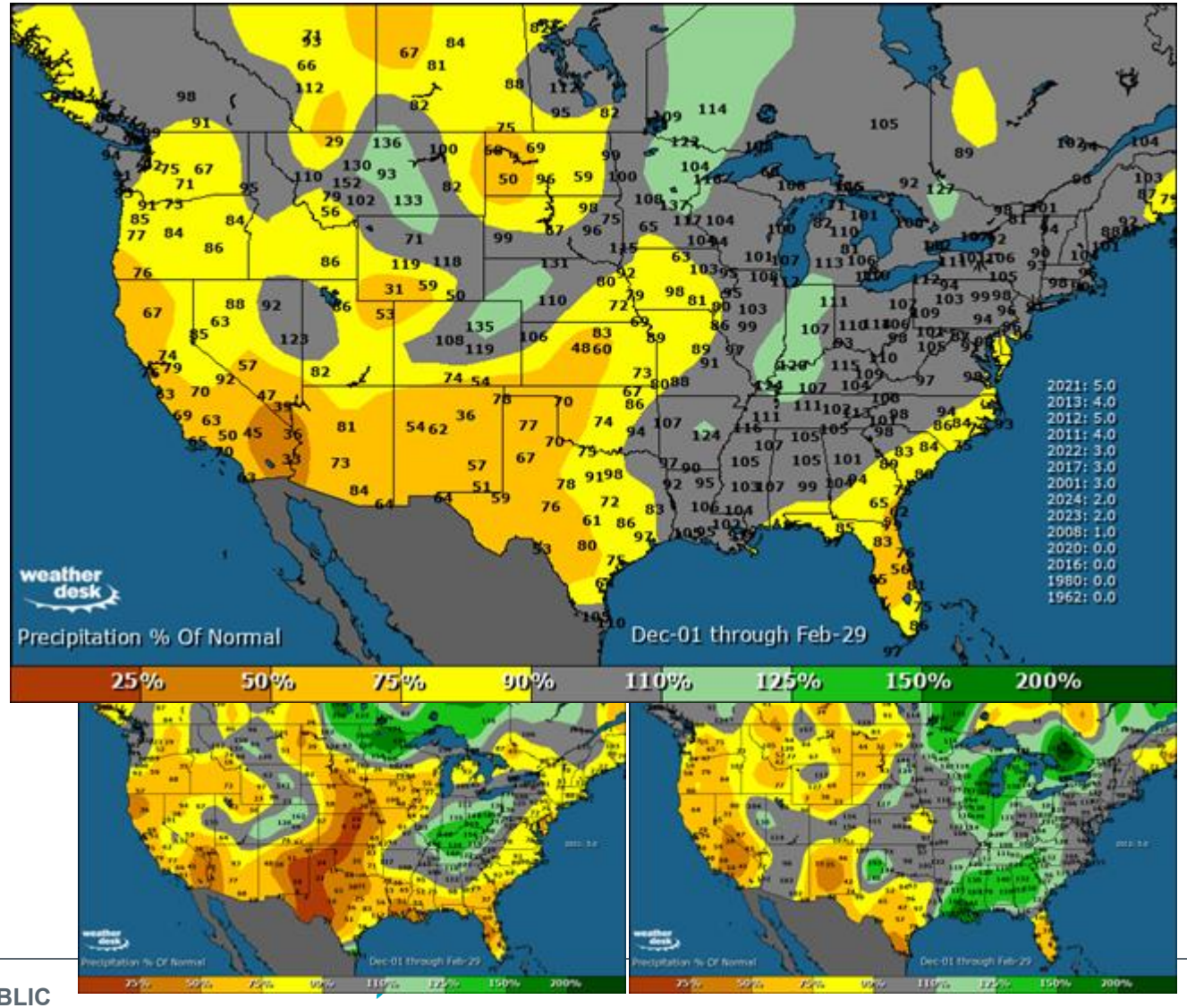

Preliminary Forecast




Actual Anomalies

# Preliminary Winter 2025-26 Precipitation Outlook

**Analog weighted consensus: 2021-22, 2012-13, 2013-14, 2011-12, 2022-23, 2017-18, 2001-02, 2024-25, 2023-24, 2008-09**




## Snowfall for Dallas-Fort Worth

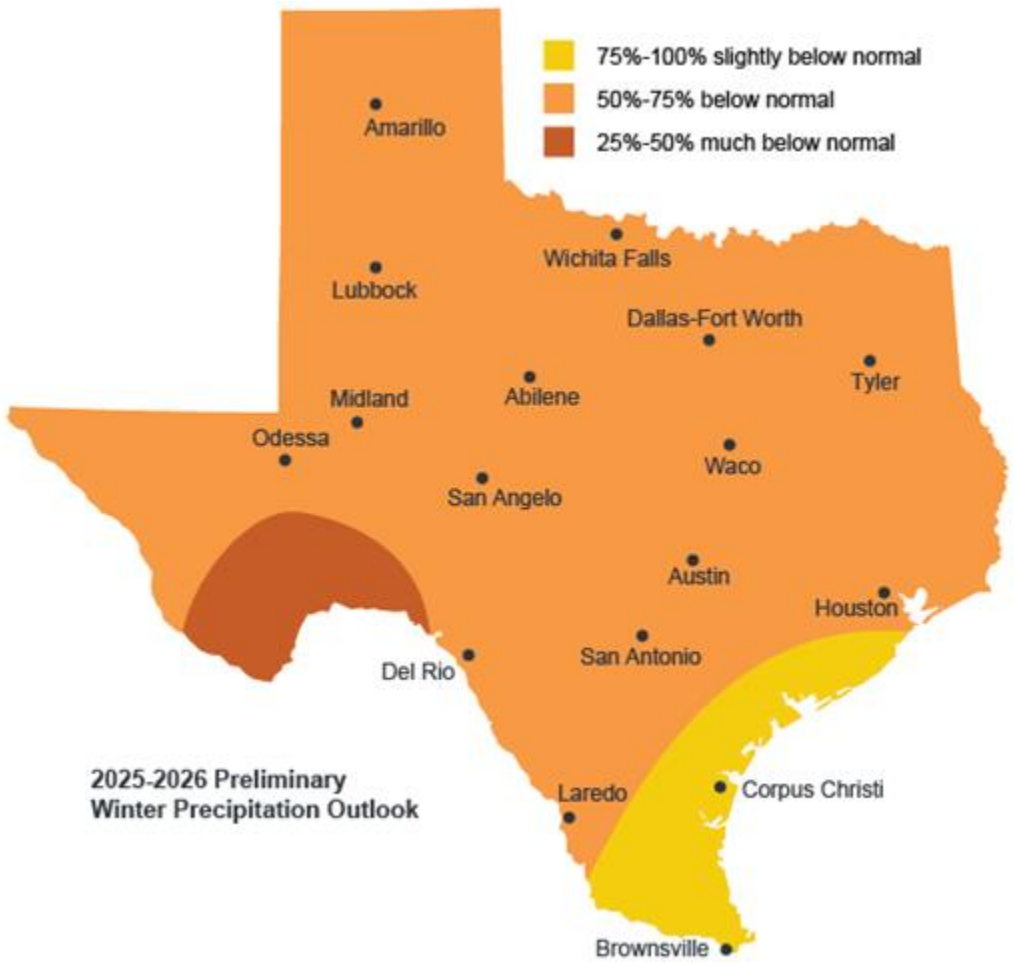
2021-22: 1.7”
2012-13: 0.8”
2013-14: 2.9”
2011-12: 0.3”
2022-23: 1.3”
2017-18: trace
2001-02: 3.8”
2024-25: 2.6”
2023-24: 1.5”
2008-09: 0.2”

(17.6” is the winter record)

**The analogs point even more heavily toward a dry winter than a warm winter**

Good chance for DFW to see some measurable snowfall this coming winter (1-2” is a reasonable very early estimate)

# Preliminary Winter 2025-26 Precipitation Outlook

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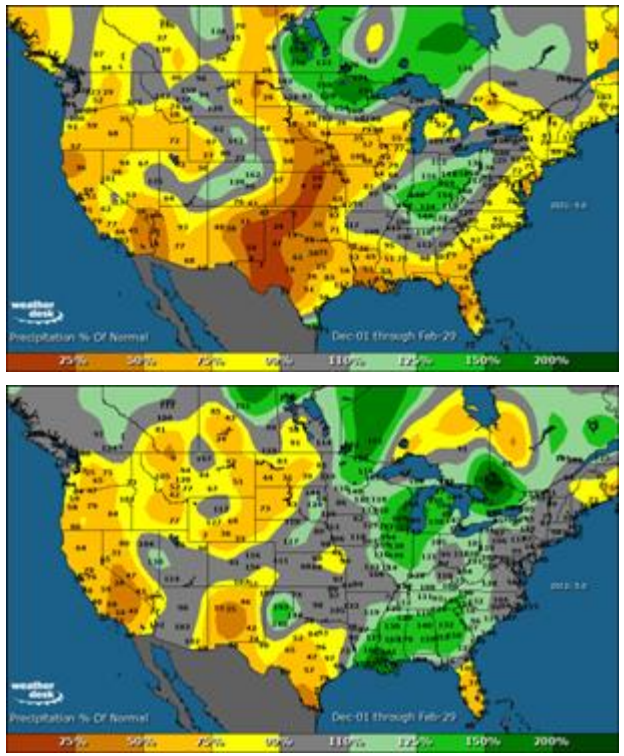


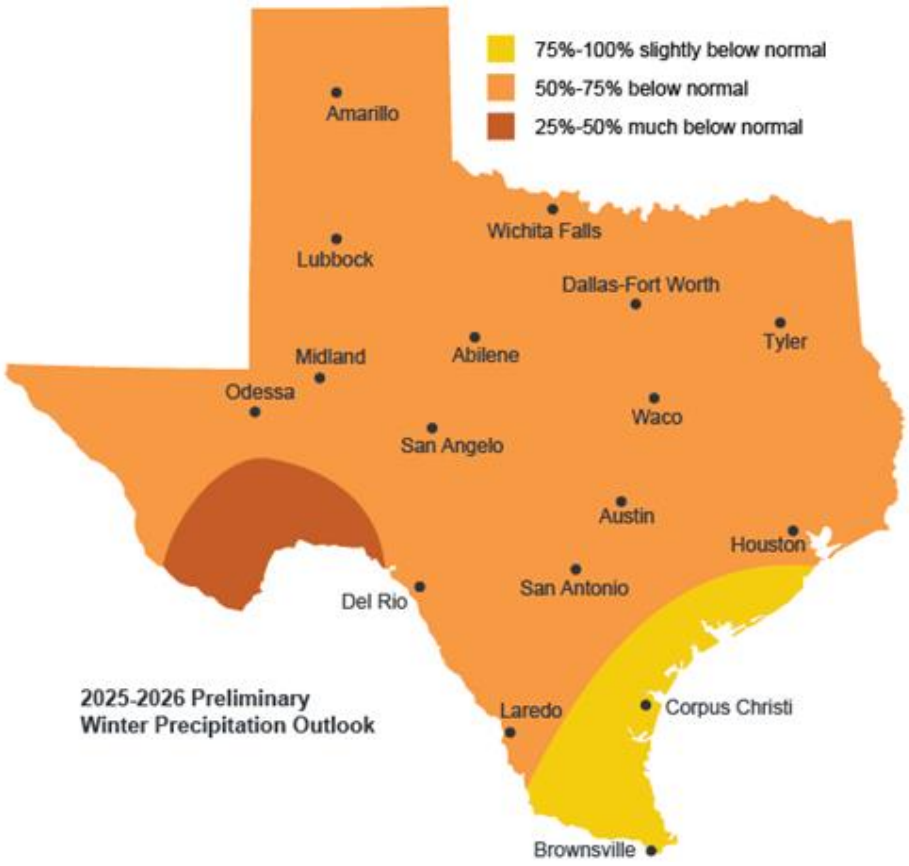
Top two analogs

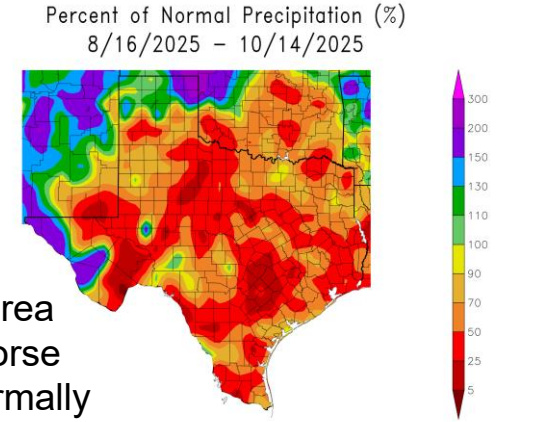
The 2025-26 winter is forecasted to see below normal precipitation across almost all of Texas

La Niña (especially second-year events) show strong support for a dry winter

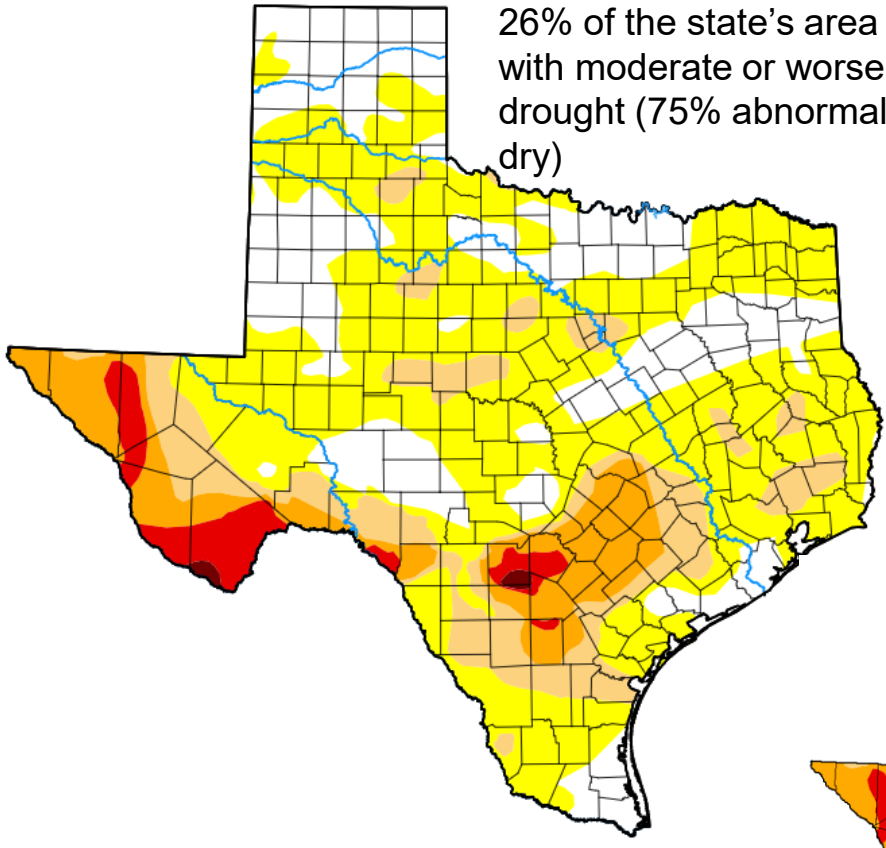
This winter is likely to be drier than last winter (which was also drier than normal)

# Winter 2025-26 Precipitation Outlook vs Drought

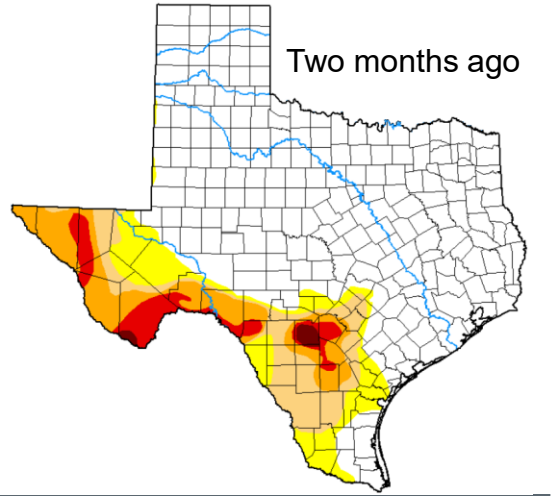



Current Drought:
26% of the state's area with moderate or worse drought (75% abnormally dry)



Two months ago



The winter precipitation outlook supports increasing drought

# Preliminary 2025-26 Winter Weather Outlook Summary

- The preliminary winter forecast suggests a mostly mild and dry winter in Texas (above normal temperatures, below normal precipitation)
- 4 of the past 5 second-year La Nina events were warmer and drier than the first year
- While this winter's forecast does not currently show as much potential for an extreme event as last winter (and most recent winters), it would be premature to write off an extreme event. Long-range forecasts are not designed to pick up on single events
- There is support for the polar vortex to have some impact on North America this winter. Preliminarily, the western half of the continent shows higher potential for Arctic outbreaks
- 2013-14 winter is a secondary analog worth monitoring, as the polar vortex had high impacts on Texas (frequent strong cold fronts, though not extreme) – update: this scenario is trending less likely to occur
- Fairly high confidence in a relatively dry winter (and drier than last winter)
- Signs point toward increasing drought this fall and winter

- There is not a strong correlation between the winter temperature anomaly and period(s) of extreme cold
- **Every winter should be accompanied by a mindset for a period of extreme cold**

The final winter forecast will be published in November