

# Weather Outlook What to Expect in 2024?



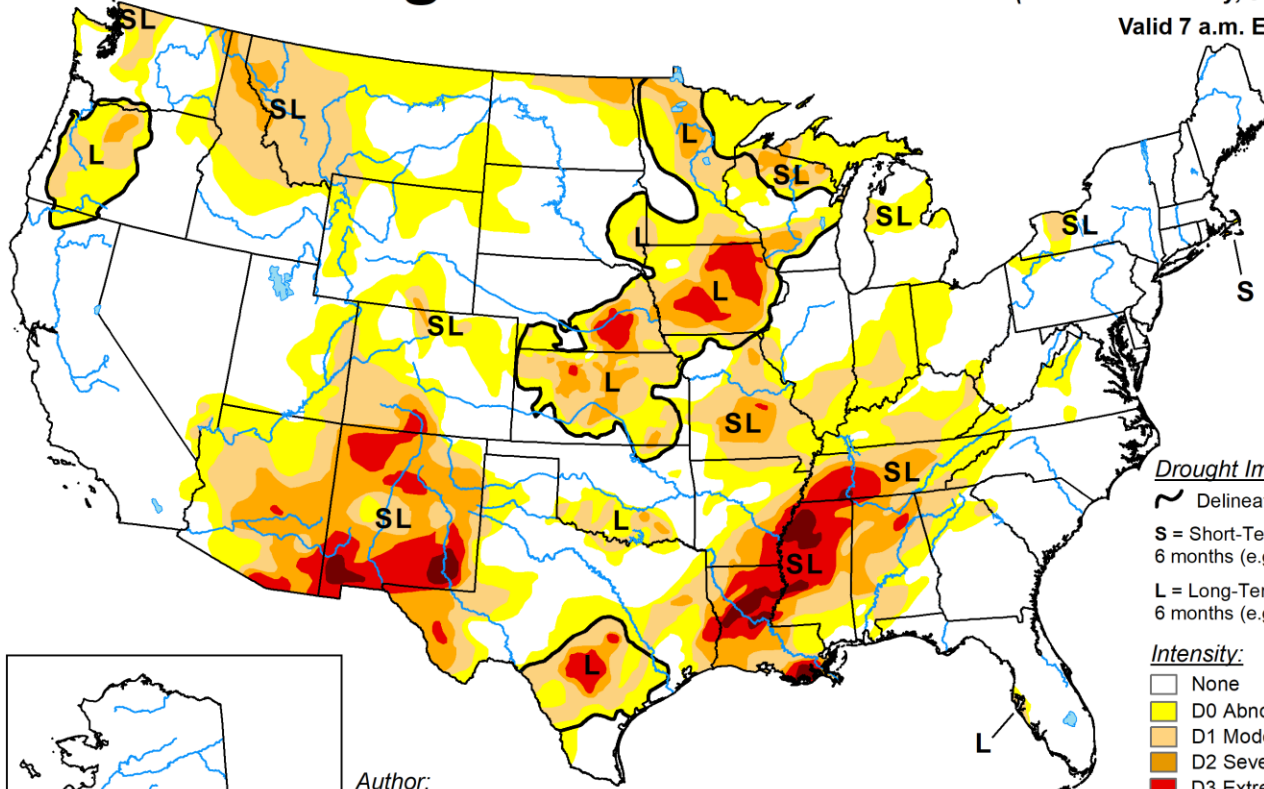
**JENNIFER PURYEAR  
METEOROLOGIST  
RMBJ GEO, INC.**

**JANUARY 24, 2024**

# Current 2024 Drought Monitor

## U.S. Drought Monitor

January 16, 2024  
(Released Thursday, Jan. 18, 2024)  
Valid 7 a.m. EST

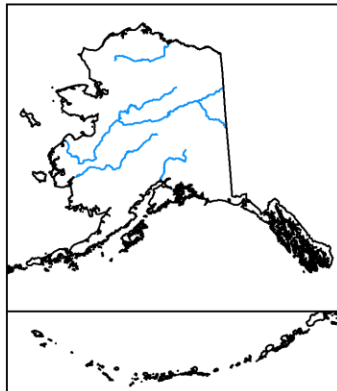


### Drought Impact Types:

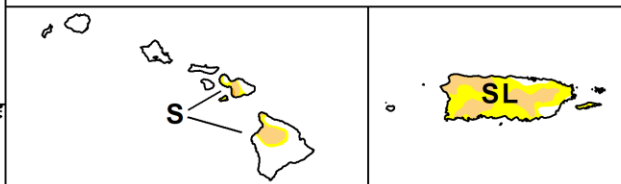
- ~ Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

### Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought



Author:  
Adam Hartman  
NOAA/NWS/NCEP/CPC



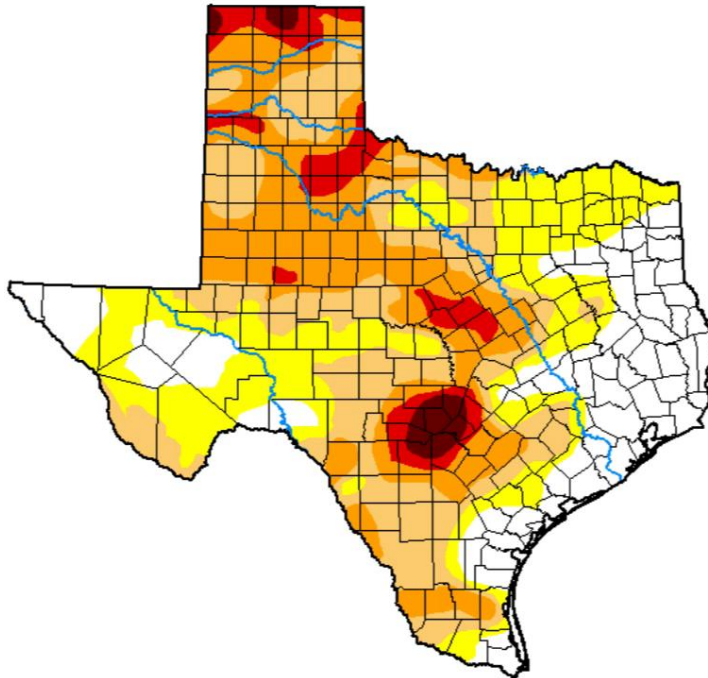
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>



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

# Drought Monitor 2023 - 2024

## U.S. Drought Monitor Texas



**January 17, 2023**

(Released Thursday, Jan. 19, 2023)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	22.34	77.66	54.68	29.62	7.70	1.80
<b>Last Week</b> <small>01-10-2023</small>	26.83	73.17	51.66	27.31	7.70	1.80
<b>3 Months Ago</b> <small>10-18-2022</small>	6.59	93.41	71.77	43.11	12.80	1.40
<b>Start of Calendar Year</b> <small>01-03-2023</small>	28.84	71.16	49.90	26.60	7.41	1.60
<b>Start of Water Year</b> <small>09-27-2022</small>	14.96	85.04	61.36	31.61	8.82	1.06
<b>One Year Ago</b> <small>01-18-2022</small>	3.53	96.47	86.04	64.67	25.87	0.00

Intensity:



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Author:

Deborah Bathke  
National Drought Mitigation Center



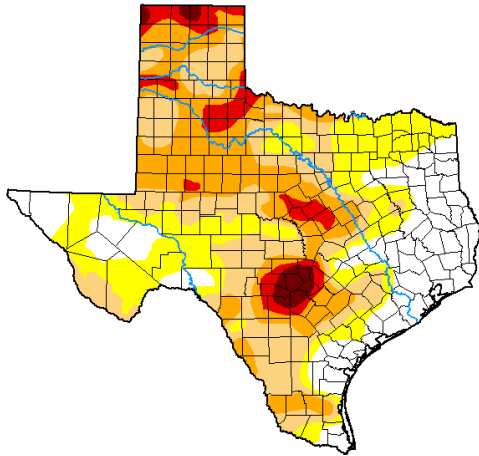
[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

# Drought Monitor 2023 - 2024

## January 17, 2023

## January 16, 2024

### U.S. Drought Monitor Texas



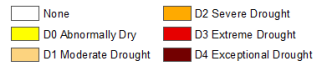
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Drought Conditions (Percent Area)

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<b>Current</b>	22.34	77.66	54.68	29.62	7.70	1.80
<b>Last Week</b> 01-10-2023	26.83	73.17	51.66	27.31	7.70	1.80
<b>3 Months Ago</b> 10-18-2022	6.59	93.41	71.77	43.11	12.80	1.40
<b>Start of Calendar Year</b> 01-01-2023	28.84	71.16	49.90	26.60	7.41	1.60
<b>Start of Water Year</b> 09-27-2022	14.96	85.04	61.36	31.61	8.82	1.05
<b>One Year Ago</b> 01-18-2022	3.53	96.47	86.04	64.67	25.87	0.00

**Intensity:**



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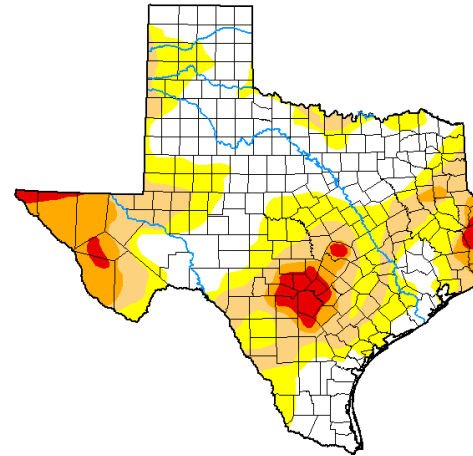
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National Drought Mitigation Center



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### U.S. Drought Monitor Texas



**January 16, 2024**

(Released Thursday, Jan. 18, 2024)  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	41.33	58.67	31.43	12.72	4.02	0.00
<b>Last Week</b> 01-09-2024	43.51	56.49	29.98	12.72	4.02	0.00
<b>3 Months Ago</b> 10-17-2023	11.24	88.76	74.43	53.45	26.75	7.02
<b>Start of Calendar Year</b> 01-01-2024	39.60	60.40	39.47	17.78	5.68	0.68
<b>Start of Water Year</b> 09-26-2023	3.03	96.97	80.64	59.66	38.06	12.68
<b>One Year Ago</b> 01-17-2023	22.34	77.66	54.68	29.62	7.70	1.80

**Intensity:**



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**Author:**

Adam Hartman  
NOAA/NWS/NCEP/CPC



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# Rainfall Sample 2023



	2023 Precipitation	Normal	Difference
DALHART	21.85	15.60	-6.25
AMARILLO	17.79	19.66	-1.87
PLAINVIEW	22.05	19.33	-2.72
LUBBOCK	17.61	18.33	-0.72
PLAINS	14.58	16.19	-1.61
MIDLAND	7.53	13.51	-5.98
SAN ANGELO	19.32	20.93	-1.61

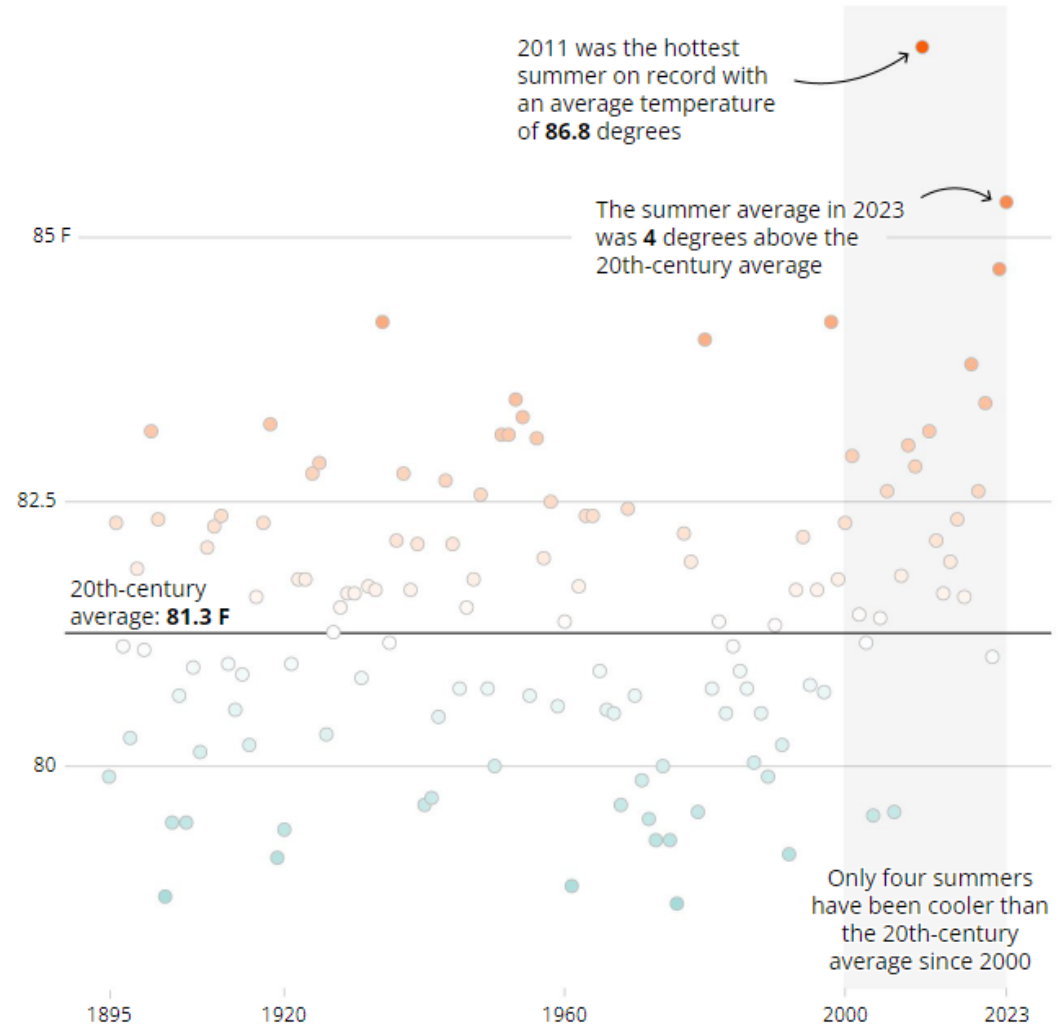


## Texas 2023 Summer Heat

- Second hottest summer on record behind 2011 at 86.8°F
- Average temperature was 85.3°F for June-August
- Four degrees above the 20<sup>th</sup> Century Average of 81.3°F

### The summer of 2023 was Texas' second hottest on record

The average temperature in June, July and August this year was 85.3 degrees, which was 4 degrees warmer than the 20th-century average. Since 2000, only four summers have been cooler than the 20th-century average, while 19 were warmer.



Sources: National Oceanic and Atmospheric Administration (1985-2022); John Nielsen-Gammon, Texas state climatologist (2023 estimate)

# Temperature Sample 2023



	2023 Average Temperature	Normal	Difference
DALHART	57.3	56.8	0.50
AMARILLO	60.2	58.7	1.50
PLAINVIEW	60.6	59.7	0.90
LUBBOCK	63.5	61.4	2.10
PLAINS	61.6	59.5	2.10
MIDLAND	66.9	65.8	1.10
SAN ANGELO	68.9	66.7	2.20

# Current ENSO: El Niño Advisory

- Final La Niña advisory issued March 9, 2023
- El Niño watch issued April 13, 2023
- El Niño Advisory issued June 8, 2023
- El Niño is expected to continue for the next several seasons, with ENSO-neutral favored during April – June 2024 (73% chance).

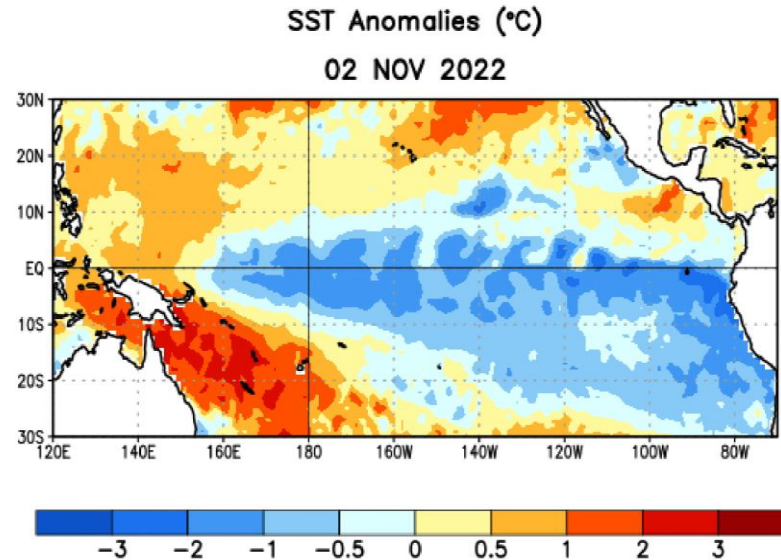
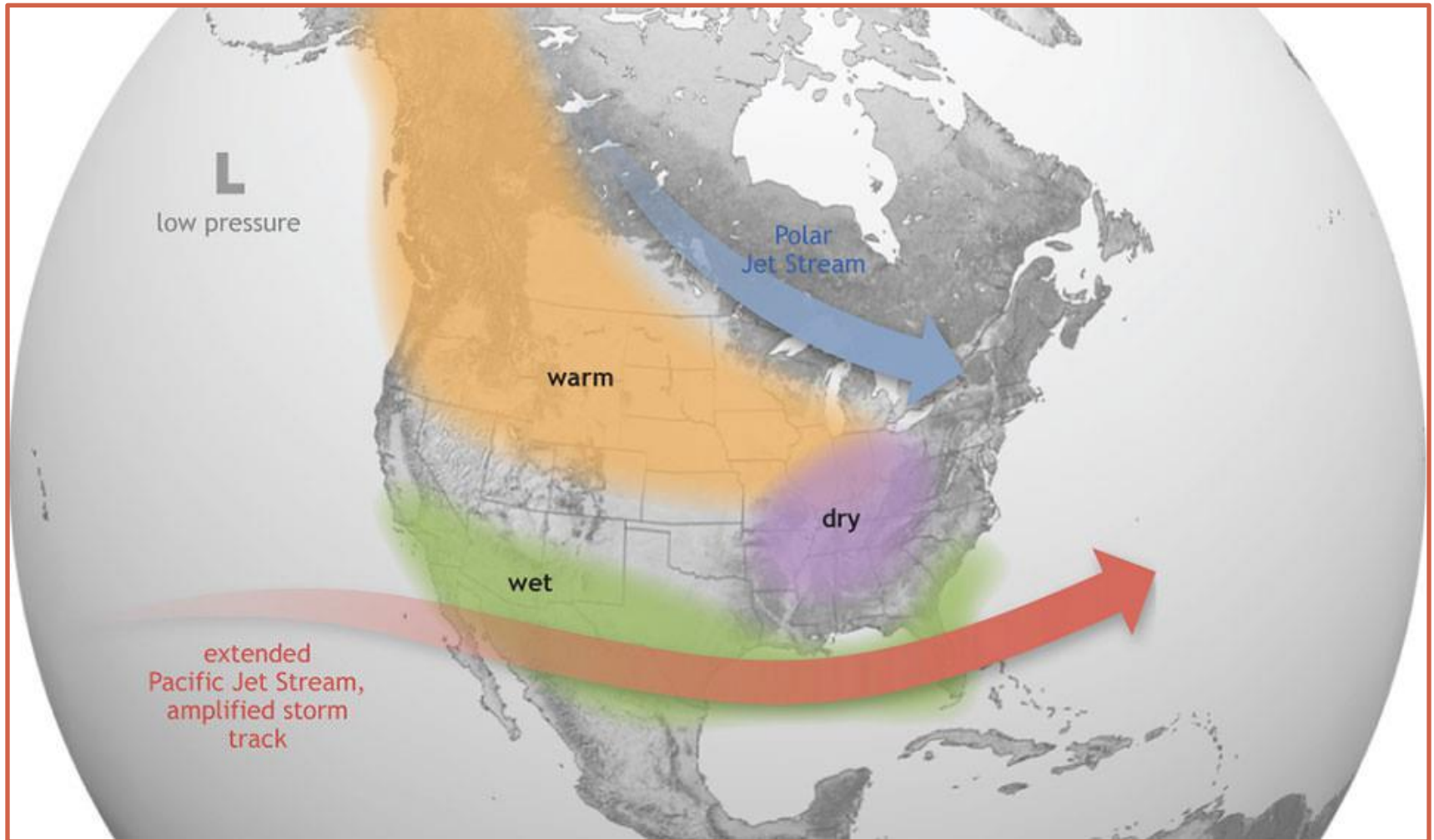


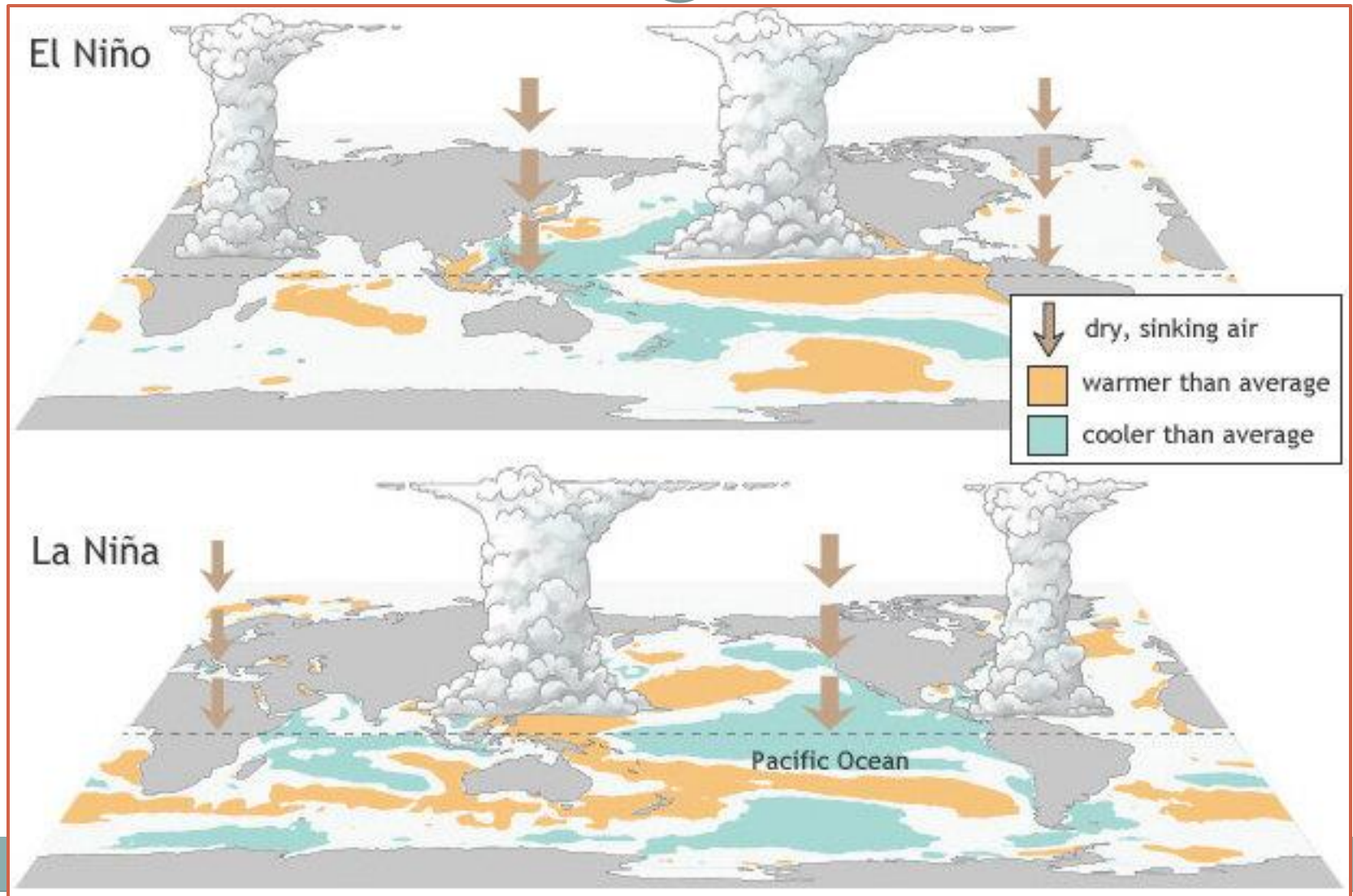
Figure 1. Average sea surface temperature (SST) anomalies (°C) for the week centered on 2 November 2022. Anomalies are computed with respect to the 1991-2020 base period weekly means.



# Typical El Niño Pattern North America

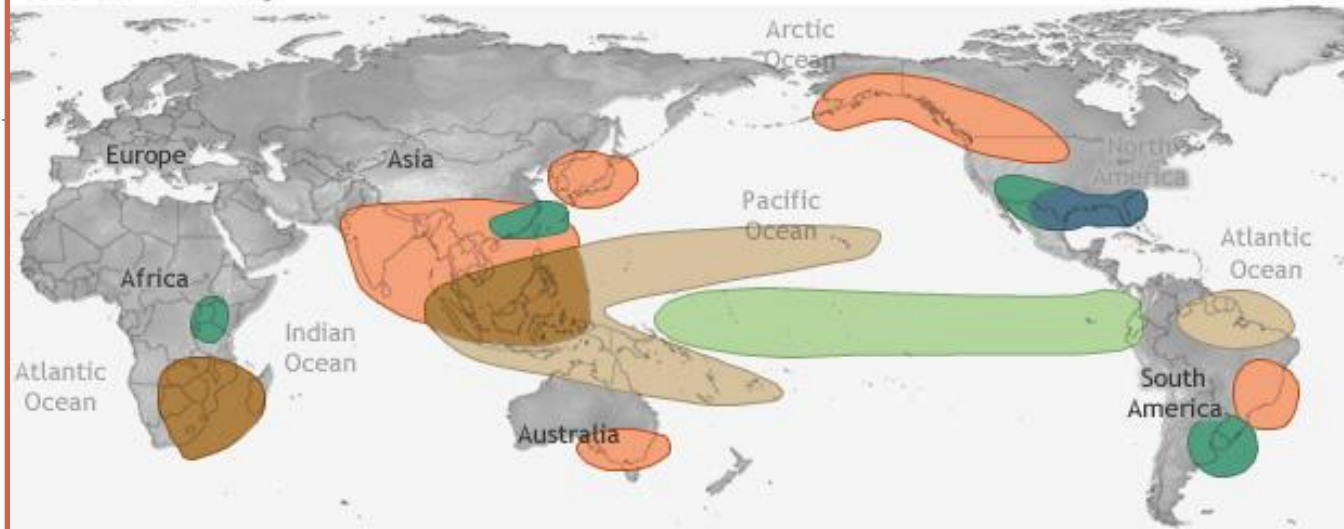


# Typical El Niño Pattern North America

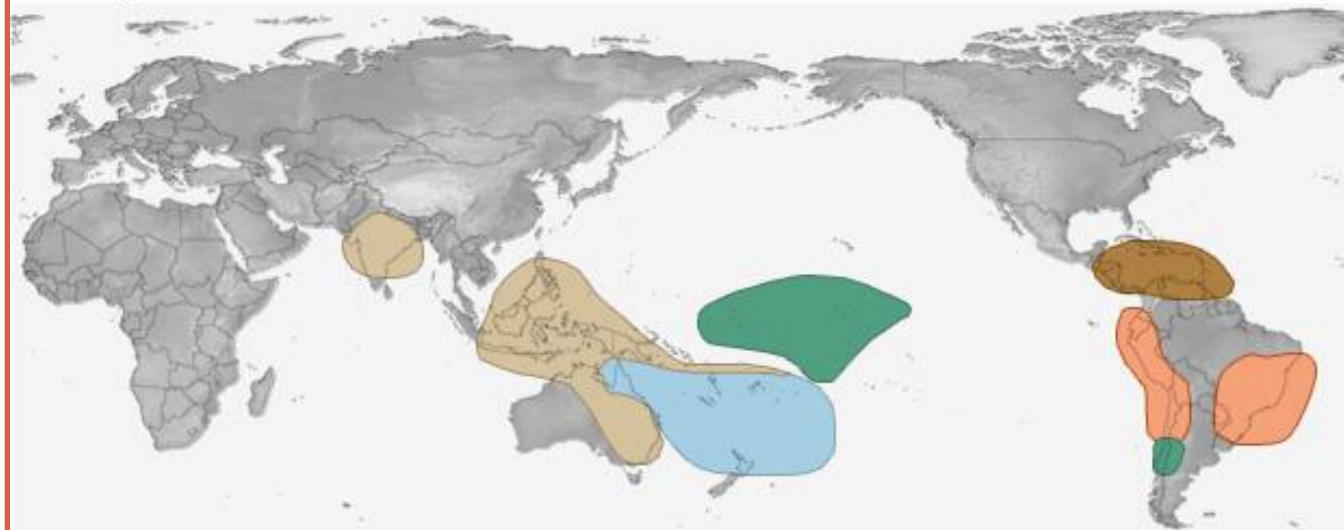


# EL NIÑO CLIMATE IMPACTS

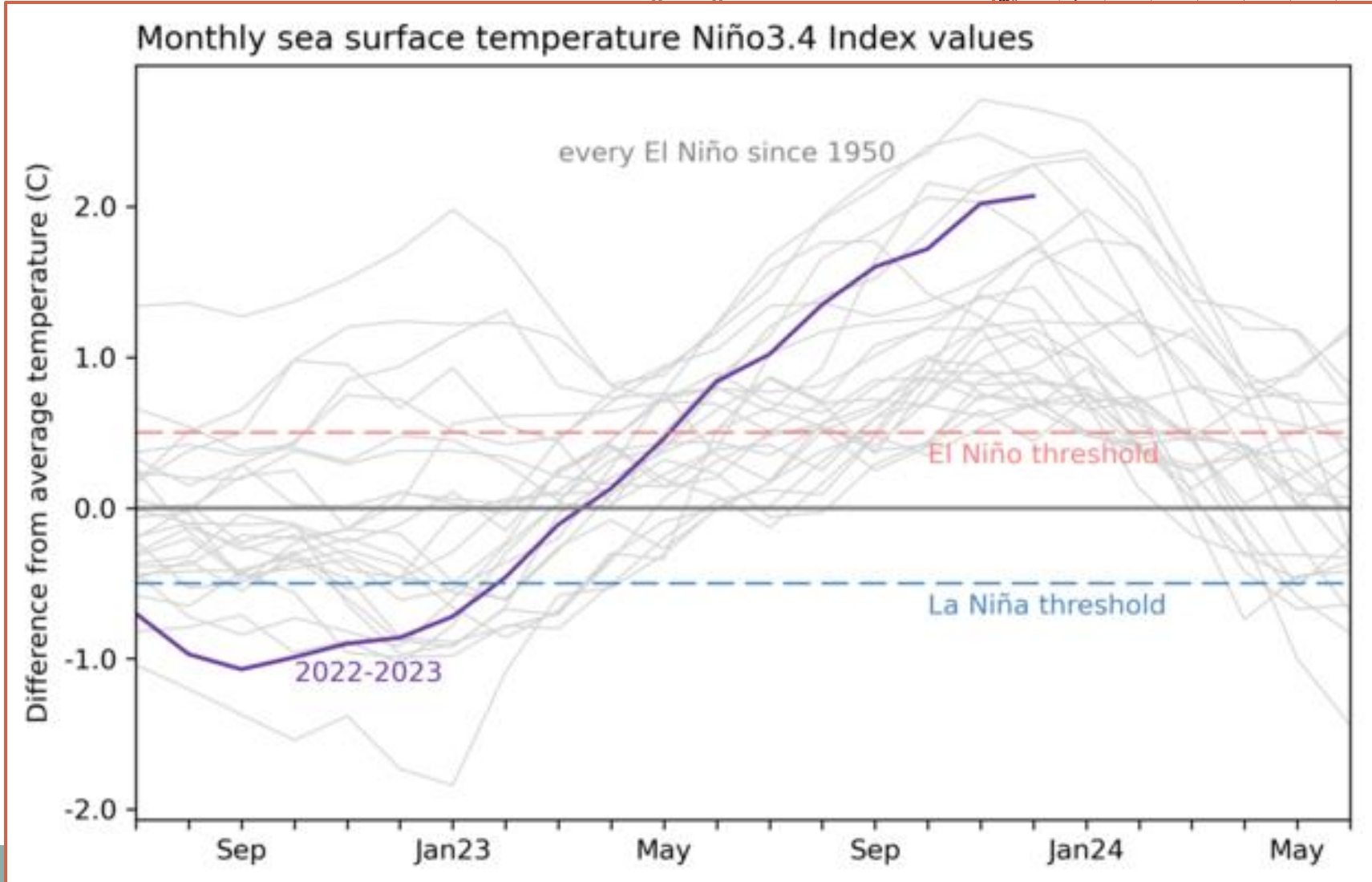
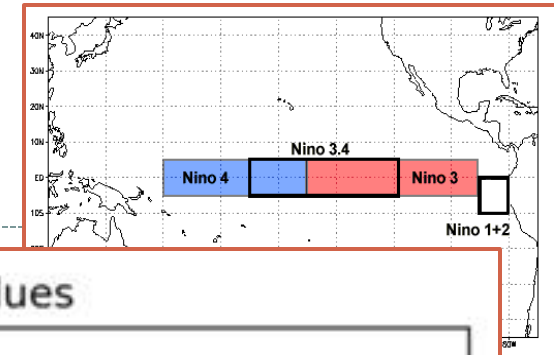
December-February



June-August



# Niño 3.4 Index Values



# ENSO Forecast

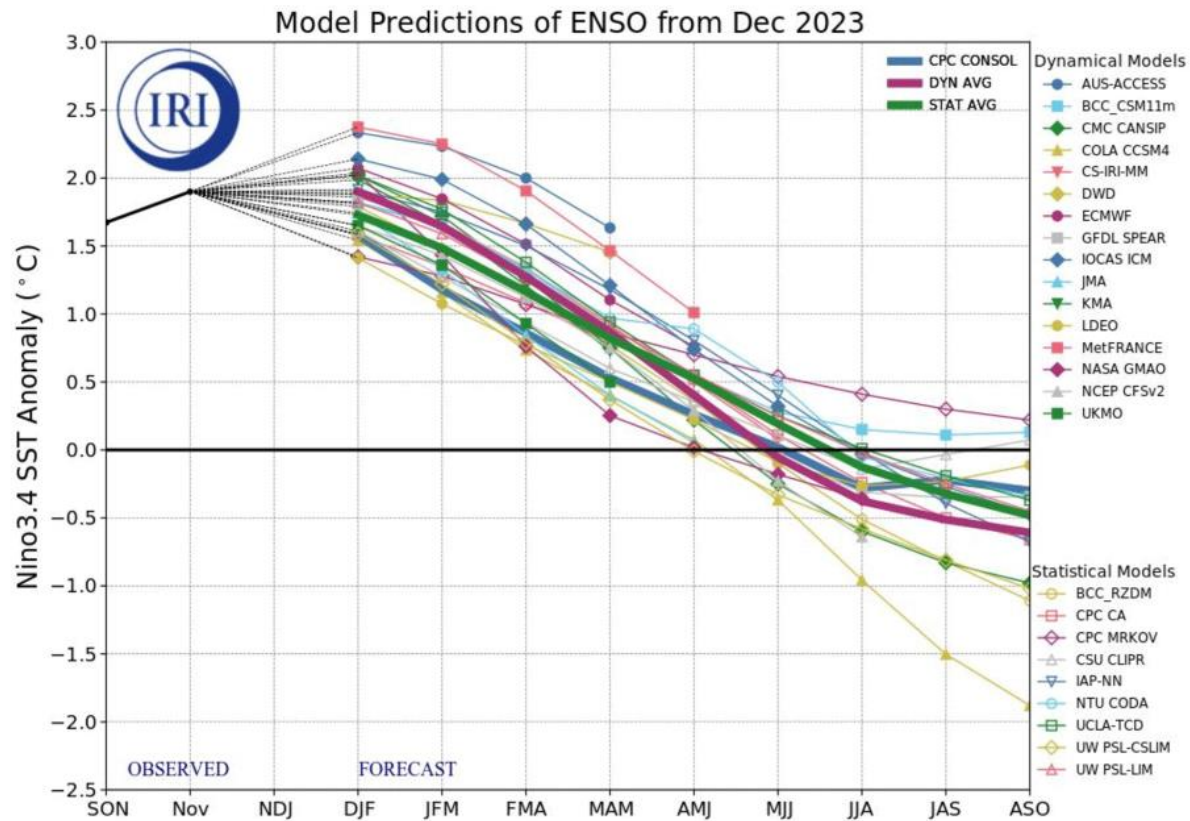


Figure 6. Forecasts of sea surface temperature (SST) anomalies for the Niño 3.4 region (5°N-5°S, 120°W-170°W). Figure updated 19 December 2023 by the International Research Institute (IRI) for Climate and Society.

# ENSO Forecast

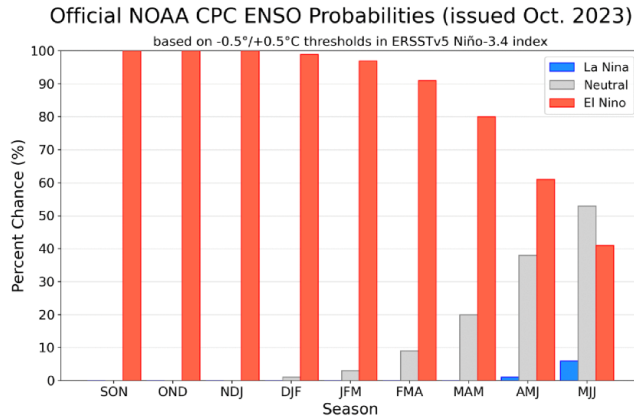


Figure 7. Official ENSO probabilities for the Niño 3.4 sea surface temperature index ( $5^{\circ}\text{N}$ - $5^{\circ}\text{S}$ ,  $120^{\circ}\text{W}$ - $170^{\circ}\text{W}$ ). Figure updated 12 October 2023.

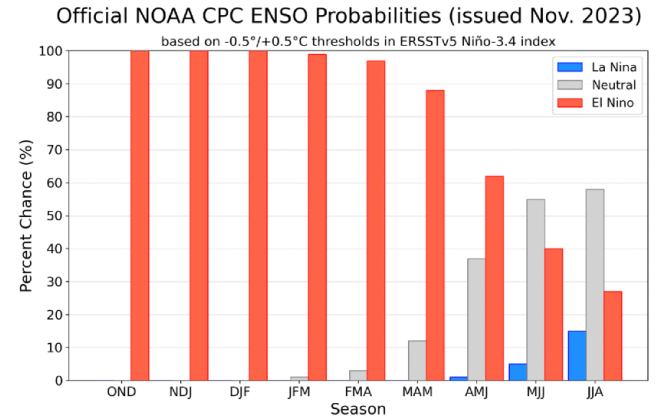


Figure 7. Official ENSO probabilities for the Niño 3.4 sea surface temperature index ( $5^{\circ}\text{N}$ - $5^{\circ}\text{S}$ ,  $120^{\circ}\text{W}$ - $170^{\circ}\text{W}$ ). Figure updated 9 November 2023.

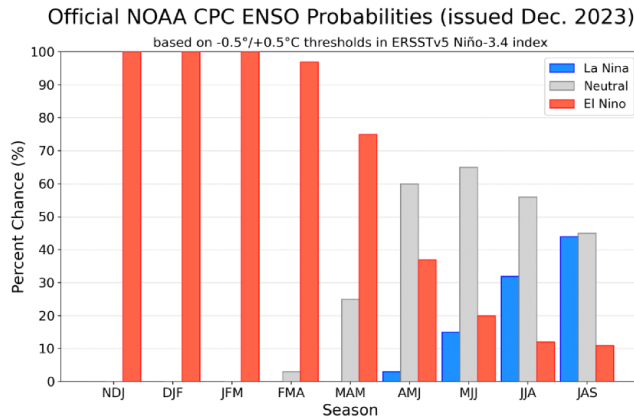


Figure 7. Official ENSO probabilities for the Niño 3.4 sea surface temperature index ( $5^{\circ}\text{N}$ - $5^{\circ}\text{S}$ ,  $120^{\circ}\text{W}$ - $170^{\circ}\text{W}$ ). Figure updated 14 December 2023.

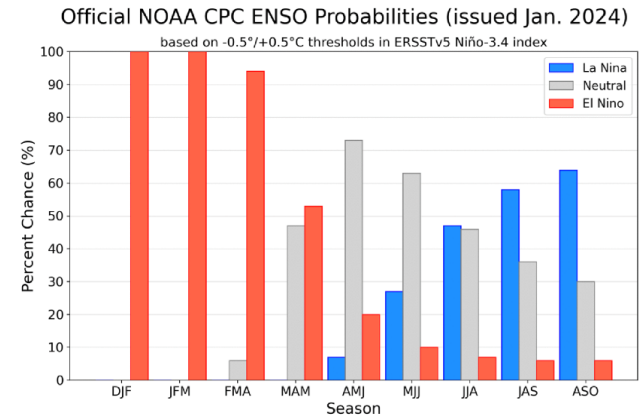
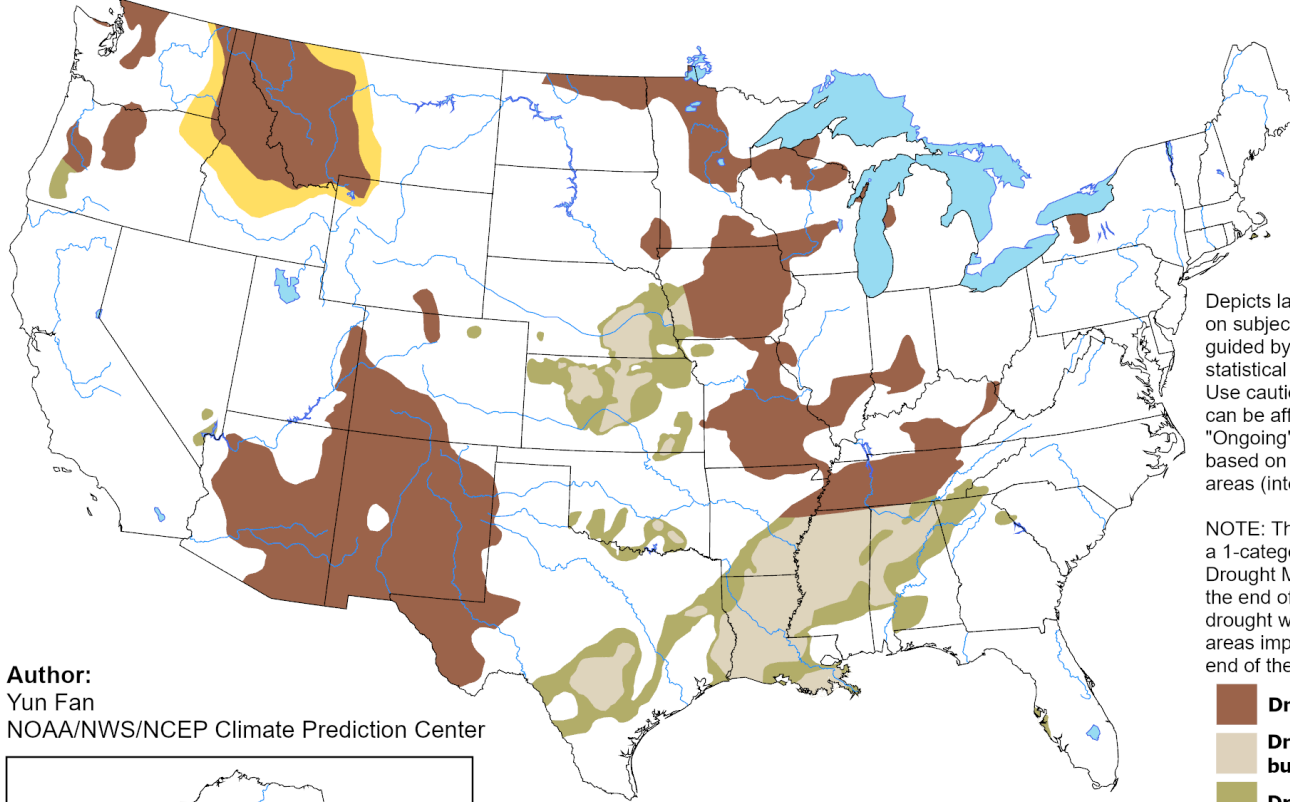


Figure 7. Official ENSO probabilities for the Niño 3.4 sea surface temperature index ( $5^{\circ}\text{N}$ - $5^{\circ}\text{S}$ ,  $120^{\circ}\text{W}$ - $170^{\circ}\text{W}$ ). Figure updated 11 January 2024.

# US Drought Outlook Through April 2023

## U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

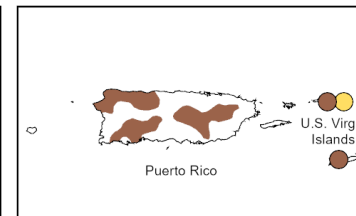
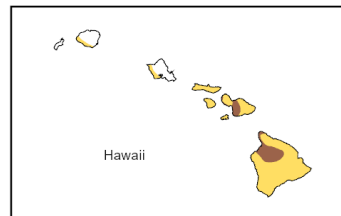
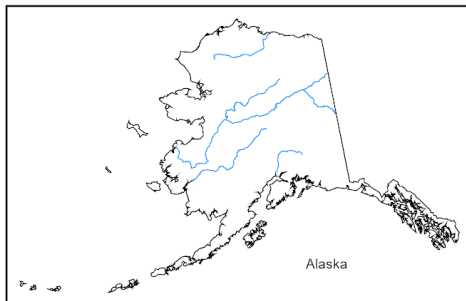
Valid for January 18 - April 30, 2024  
Released January 18, 2024



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:  
Yun Fan  
NOAA/NWS/NCEP Climate Prediction Center



- Drought persists
- Drought remains, but improves
- Drought removal likely
- Drought development likely
- No drought



<https://go.usa.gov/3eZ73>

# Three Month Forecast Feb-Mar-Apr

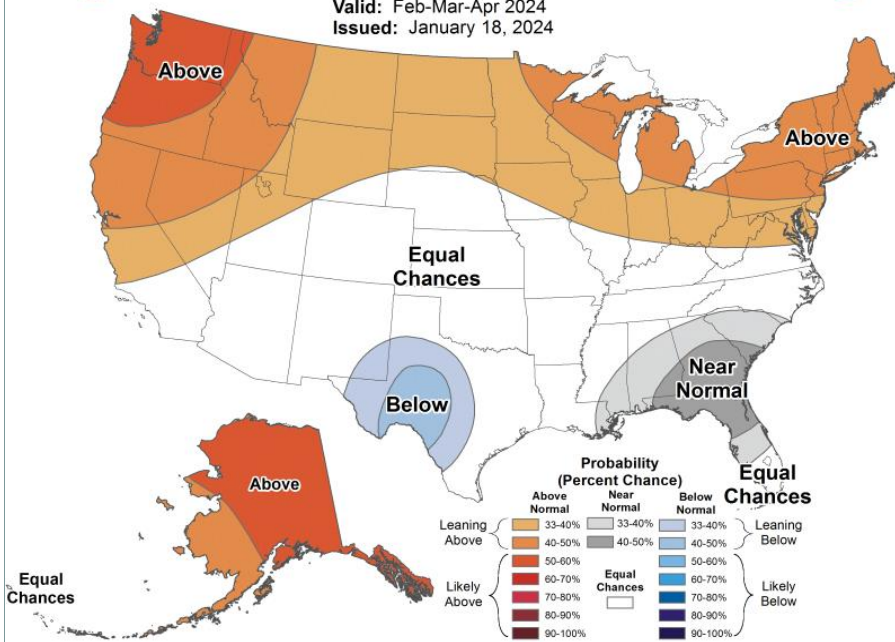
## Temperatures

## Precipitation



### Seasonal Temperature Outlook

Valid: Feb-Mar-Apr 2024  
 Issued: January 18, 2024



### Seasonal Precipitation Outlook

Valid: Feb-Mar-Apr 2024  
 Issued: January 18, 2024

