

NOAA Climate Science and Services Monthly Climate Update

Ahira Sánchez-Lugo

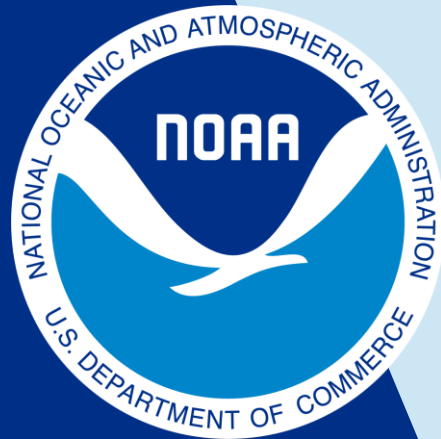
Climatologist, NOAA National Centers for Environmental Information (NCEI)

John Nielsen-Gammon

Ph.D., Director, Southern Regional Climate Center

Matt Rosencrans

Meteorologist, NOAA Climate Prediction Center (CPC)



National Oceanic and
Atmospheric Administration

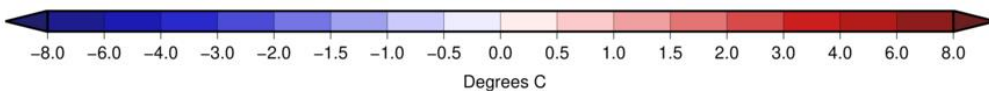
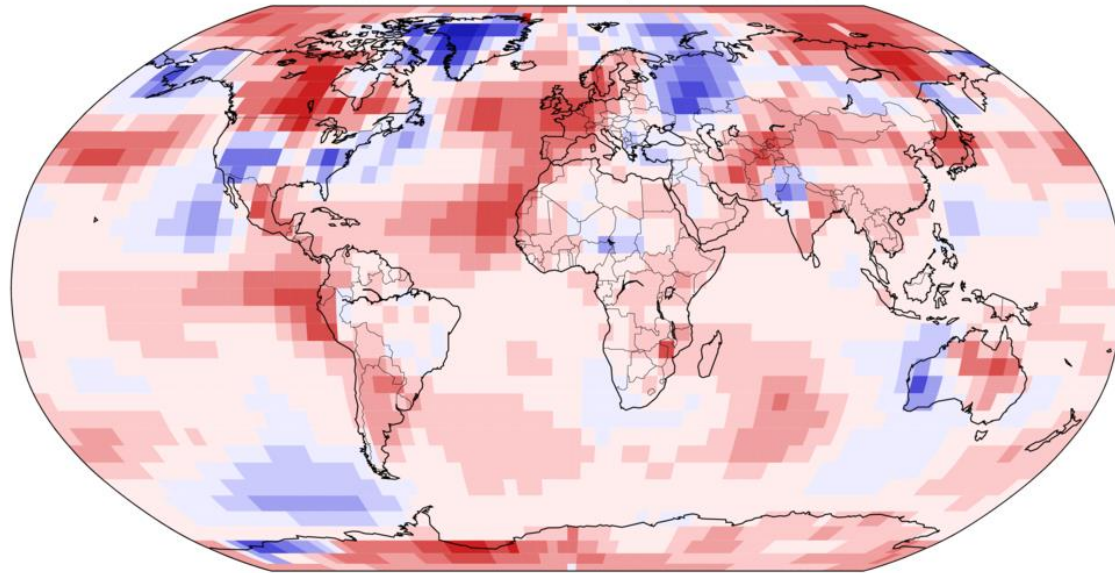
June 2023

June 2023 Global Temperature

The global temperature record dates back to 1850 (174 years)

Land & Ocean Temperature Departure from Average Jun 2023
(with respect to a 1991–2020 base period)

Data Source: NOAA GlobalTemp v5.1.0–20230708



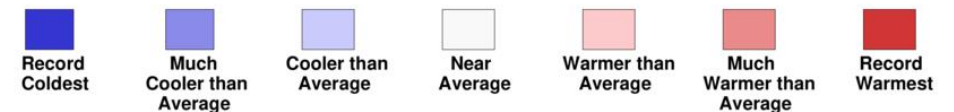
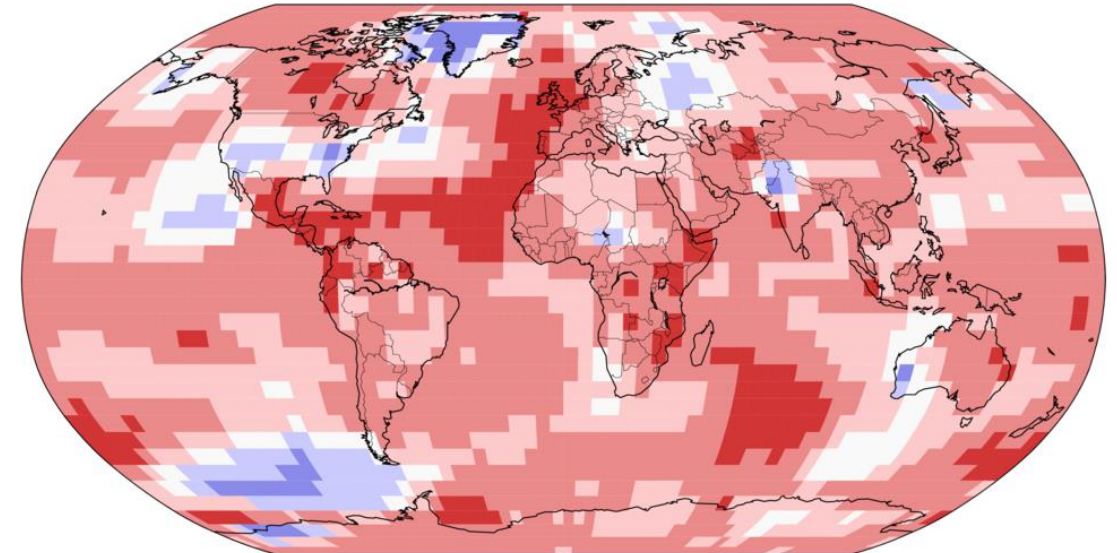
 National Centers for Environmental Information

Map Projection: Robinson

Land & Ocean Temperature Percentiles Jun 2023

NOAA's National Centers for Environmental Information

Data Source: NOAA GlobalTemp v5.1.0–20230708





Global Land & Ocean: +1.05°C / +1.89°F; warmest for June on record

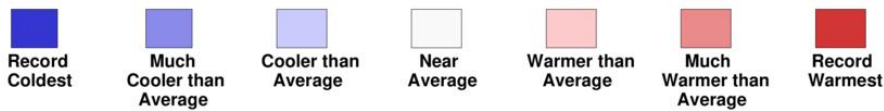
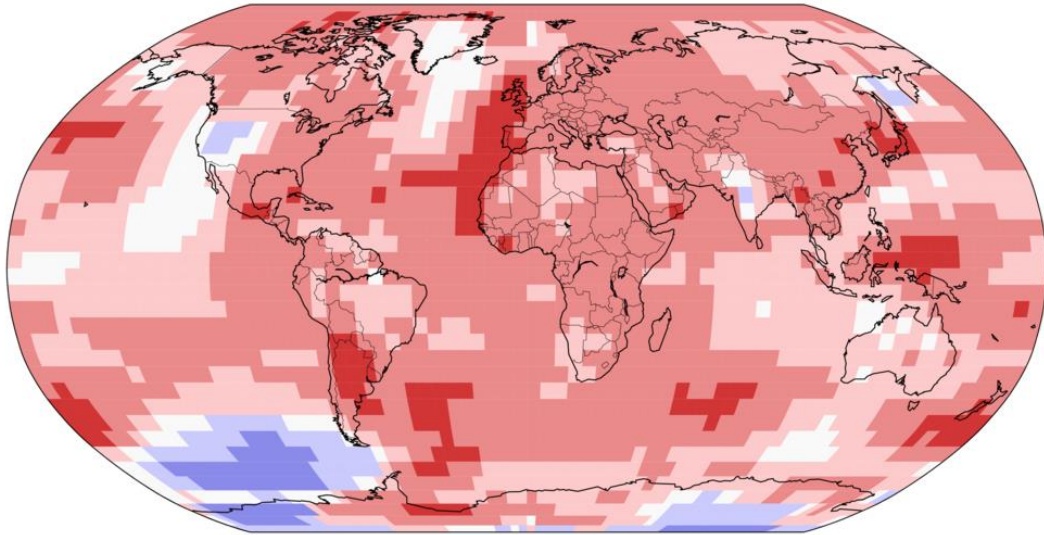
Global Land-only: +1.35°C / +2.43°F; warmest for June on record

Global Ocean-only: +0.92°C / +1.66°F; warmest on record

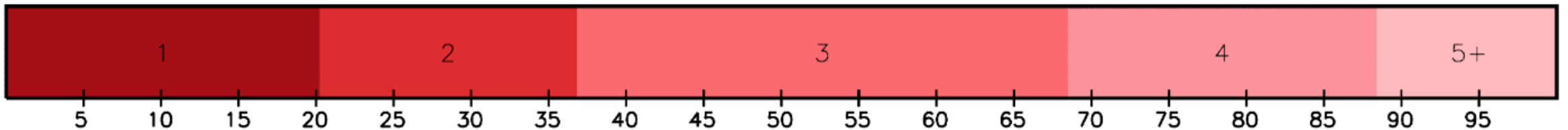
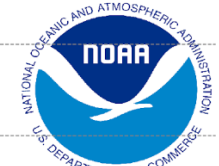
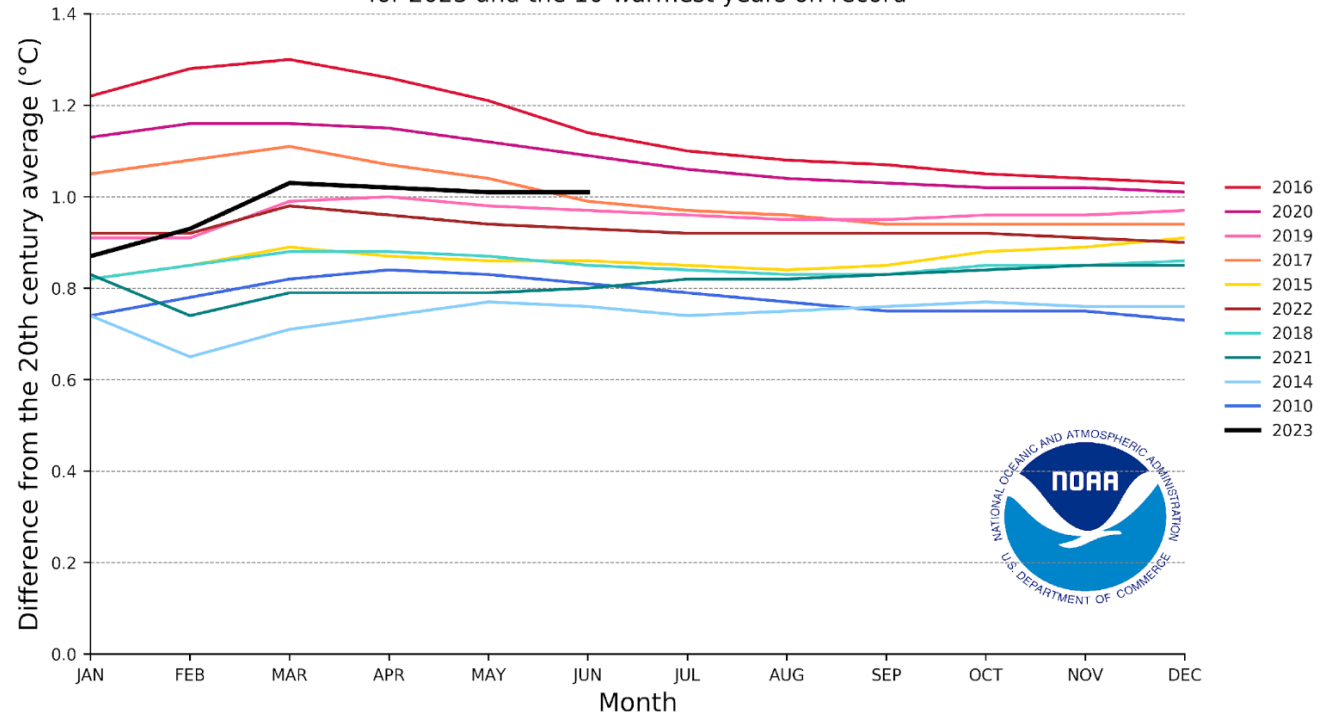
June 2023 Global Temperature

The global temperature record dates back to 1850 (174 years)

Land & Ocean Temperature Percentiles Jan–Jun 2023
NOAA's National Centers for Environmental Information
Data Source: NOAAGlobalTemp v5.1.0–20230708



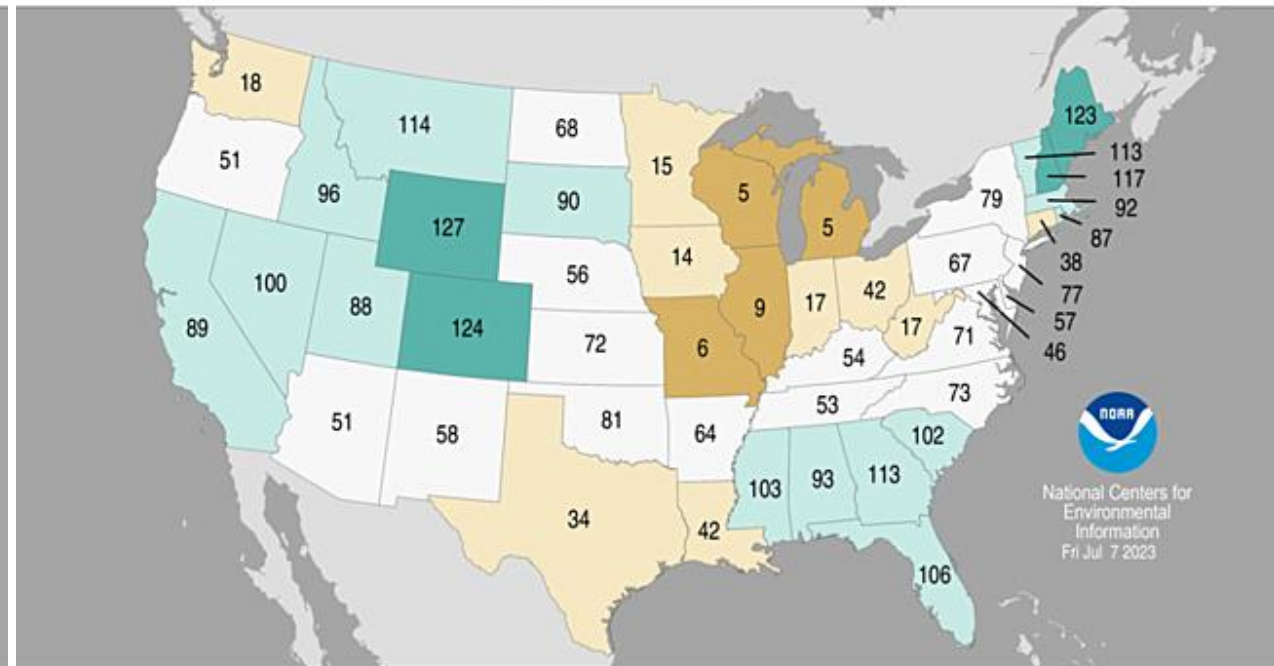
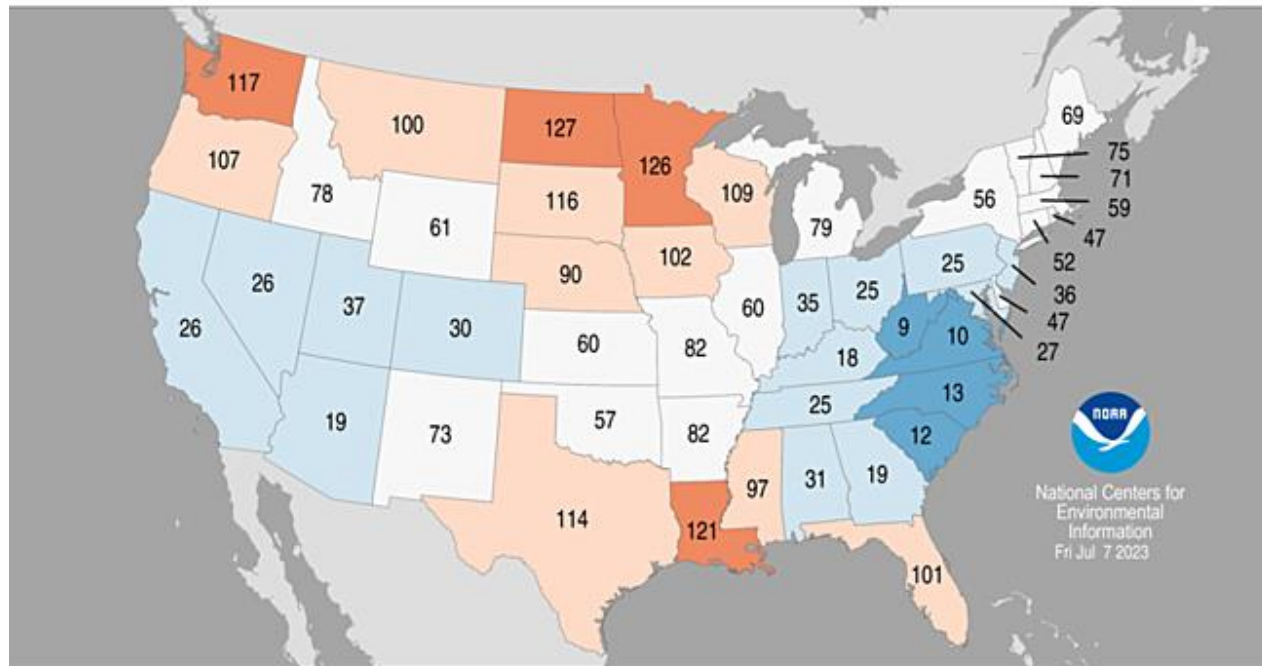
Global Year-to-Date Temperature Anomalies
for 2023 and the 10-warmest years on record



Contiguous U.S. June 2023

Statewide Average Temperature Ranks
June 2023
Period: 1895–2023

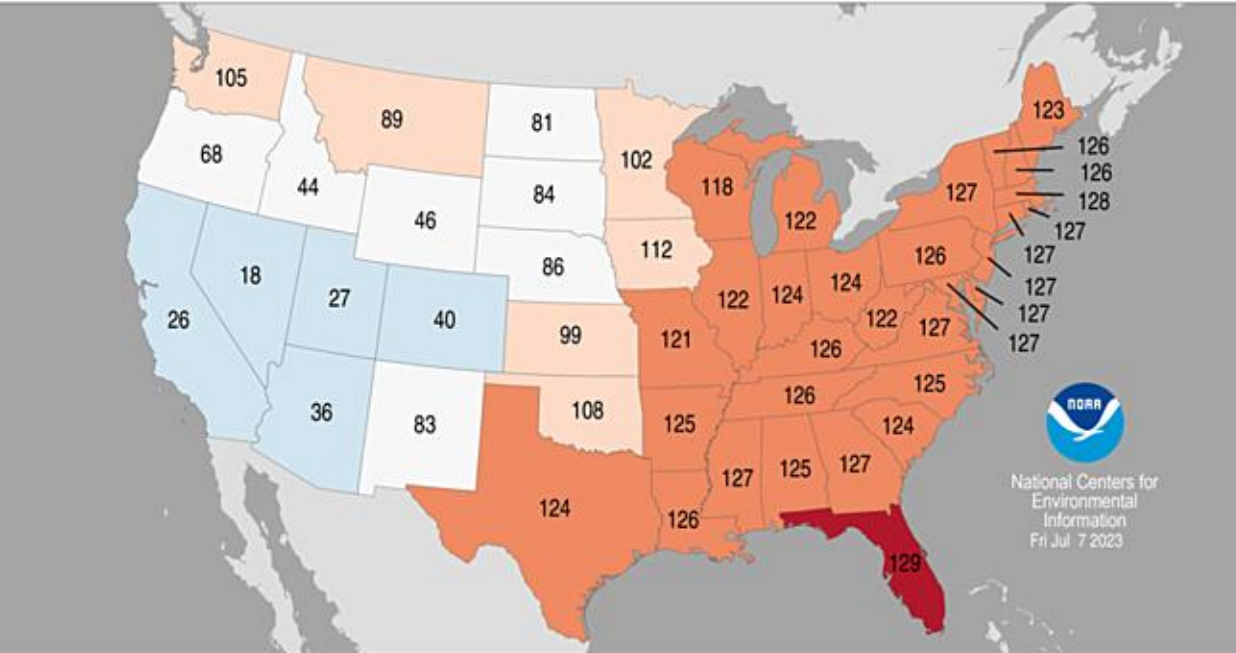
Statewide Precipitation Ranks
June 2023
Period: 1895–2023



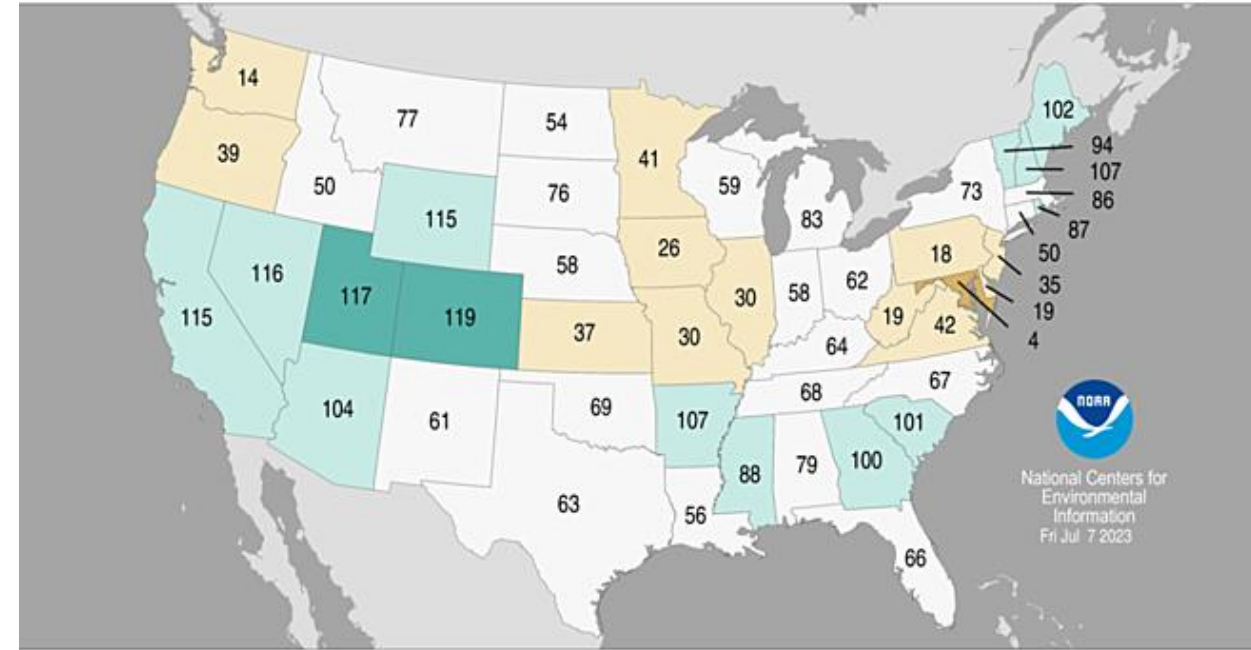
Temperature: 69.0°F, 0.5°F above average
Precipitation: 2.85 inches, 0.08 inch above average

Contiguous U.S. Jan-Jun 2023

Statewide Average Temperature Ranks
January – June 2023
Period: 1895–2023



Statewide Precipitation Ranks
January – June 2023
Period: 1895–2023

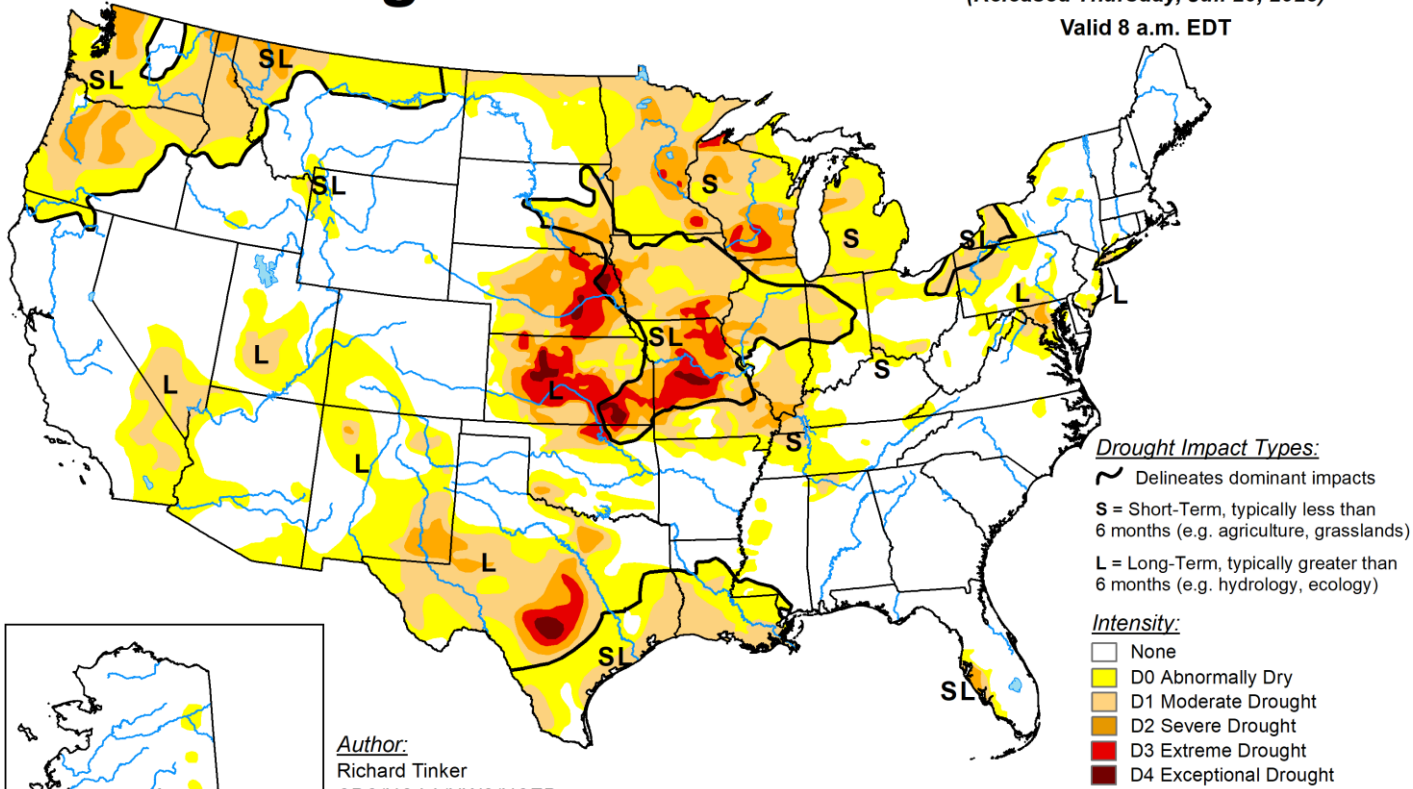


Temperature: 49.2°F, 1.7°F above average
Precipitation: 15.70 inches, 0.39 inch above average

Current U.S. Drought

U.S. Drought Monitor

July 18, 2023
(Released Thursday, Jul. 20, 2023)
Valid 8 a.m. EDT



About 26% of the contiguous U.S. is in some type of drought. This is about 1 percentage point less than a month ago.

Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

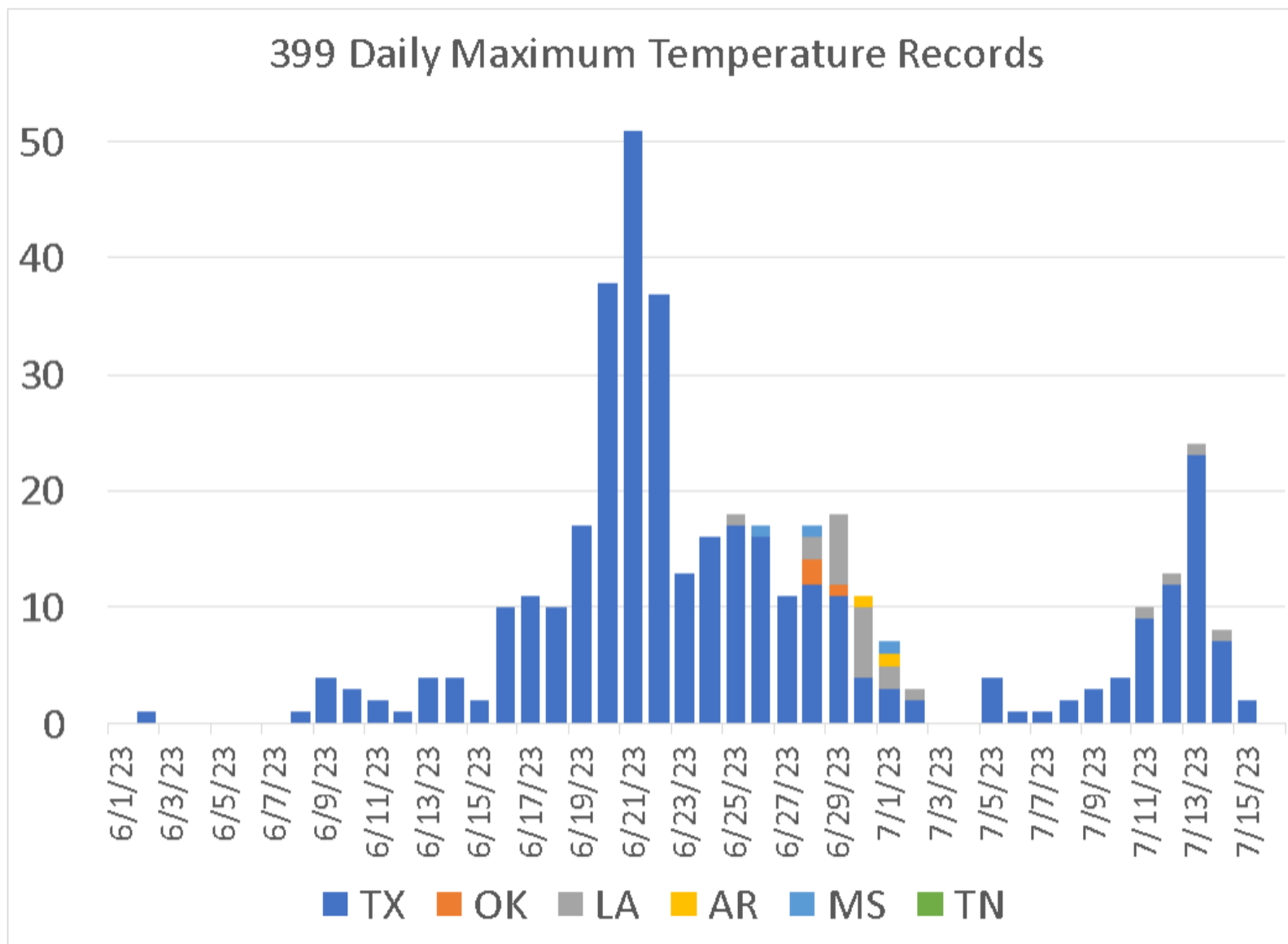
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>



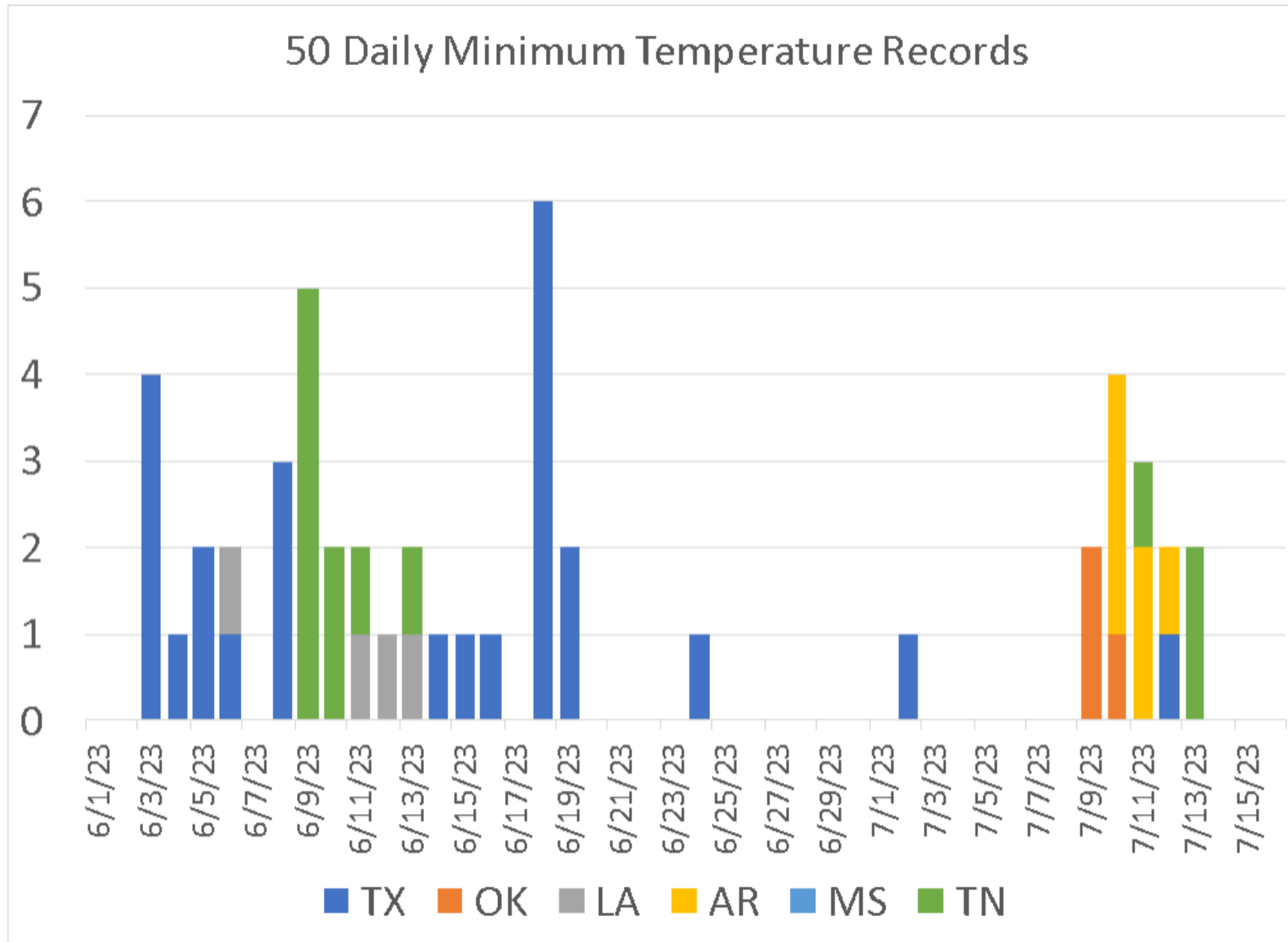
droughtmonitor.unl.edu



Southern US Temperature Records

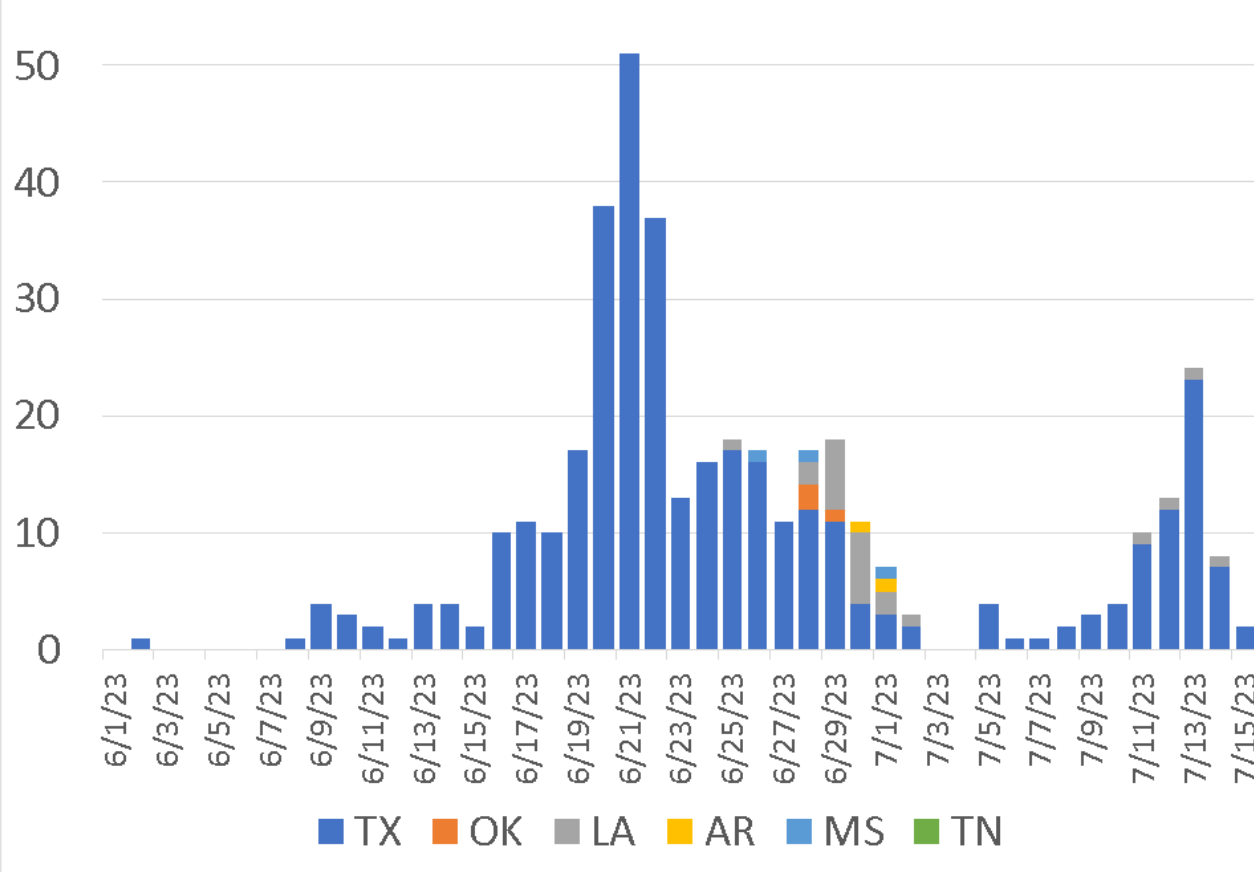


Southern US Temperature Records

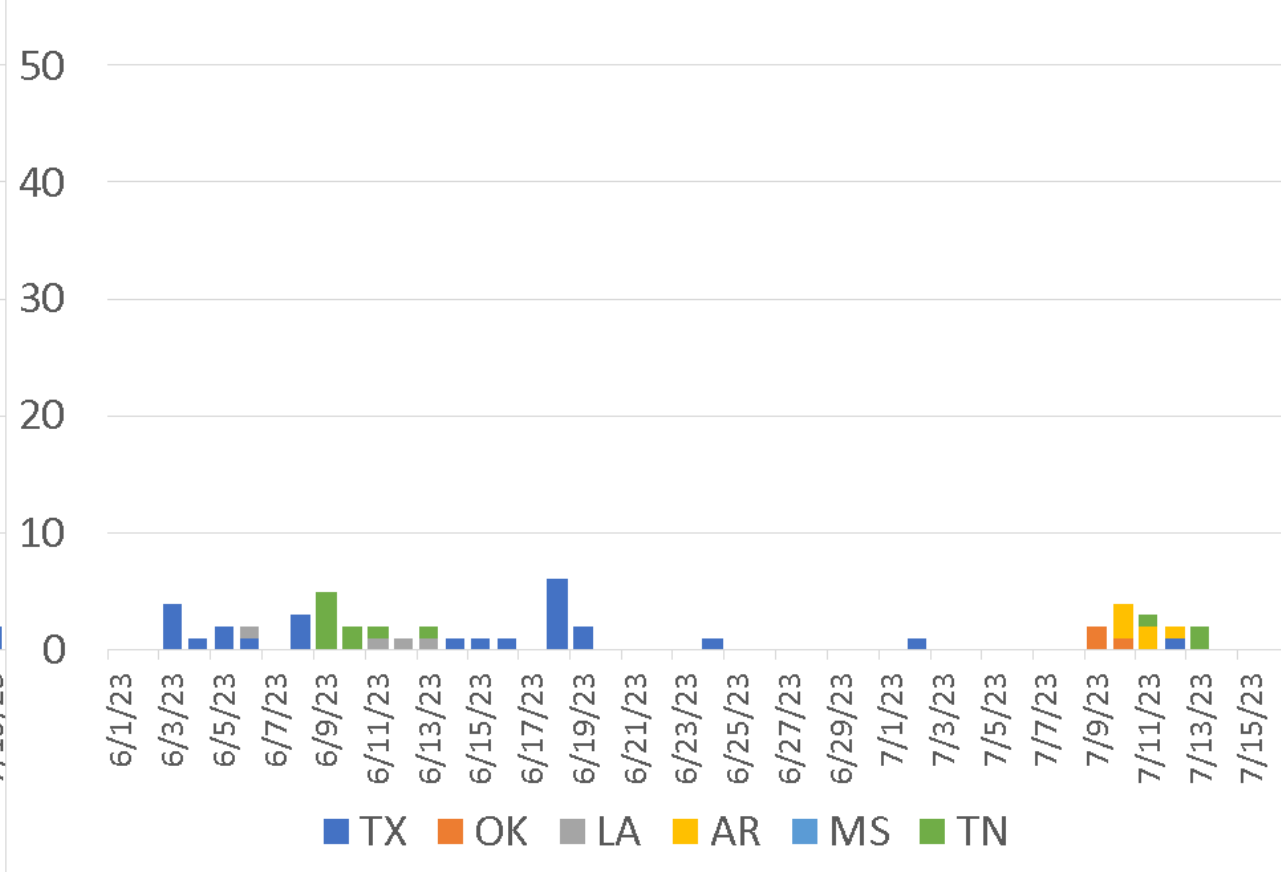


Southern US Temperature Records

399 Daily Maximum Temperature Records

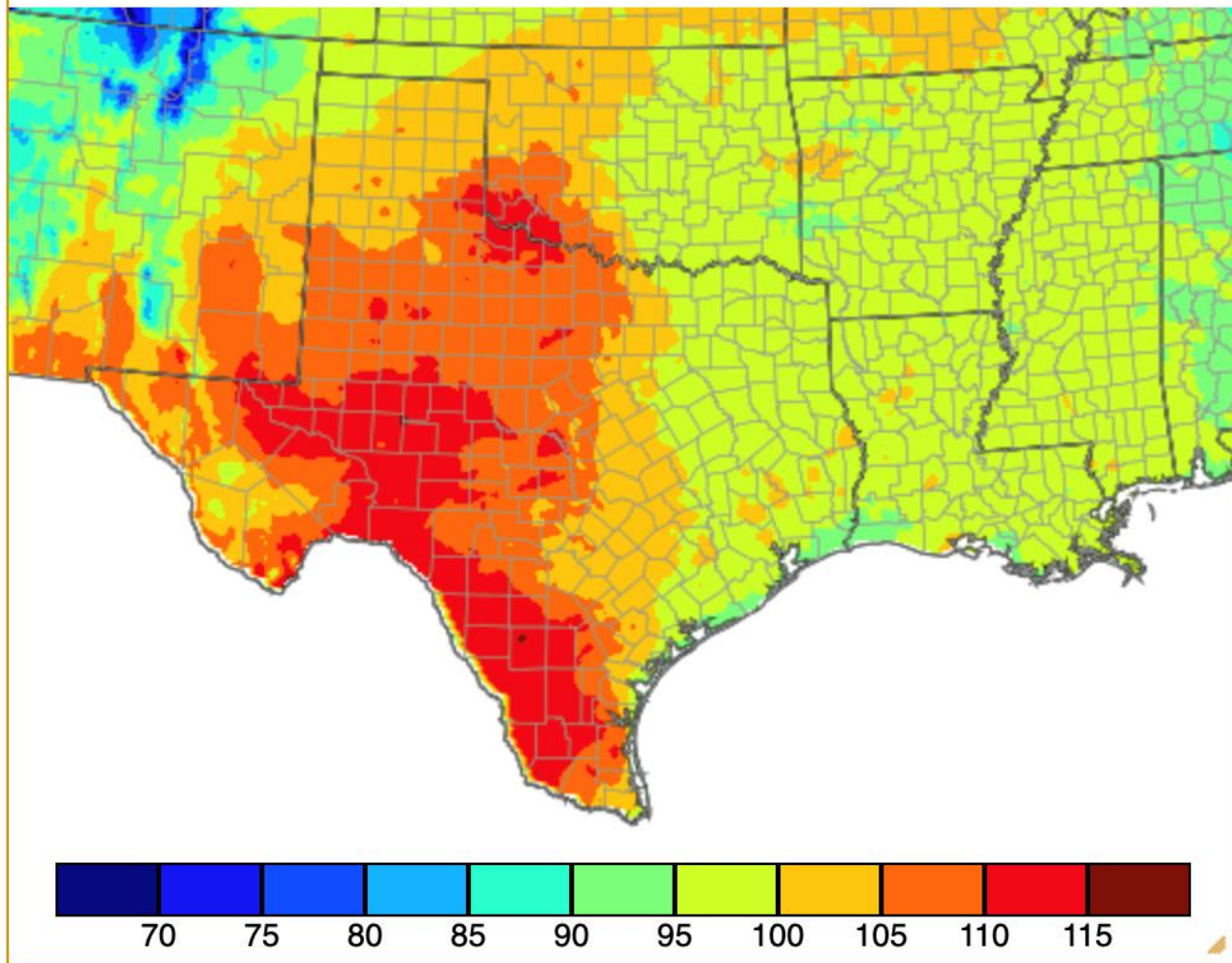


50 Daily Minimum Temperature Records

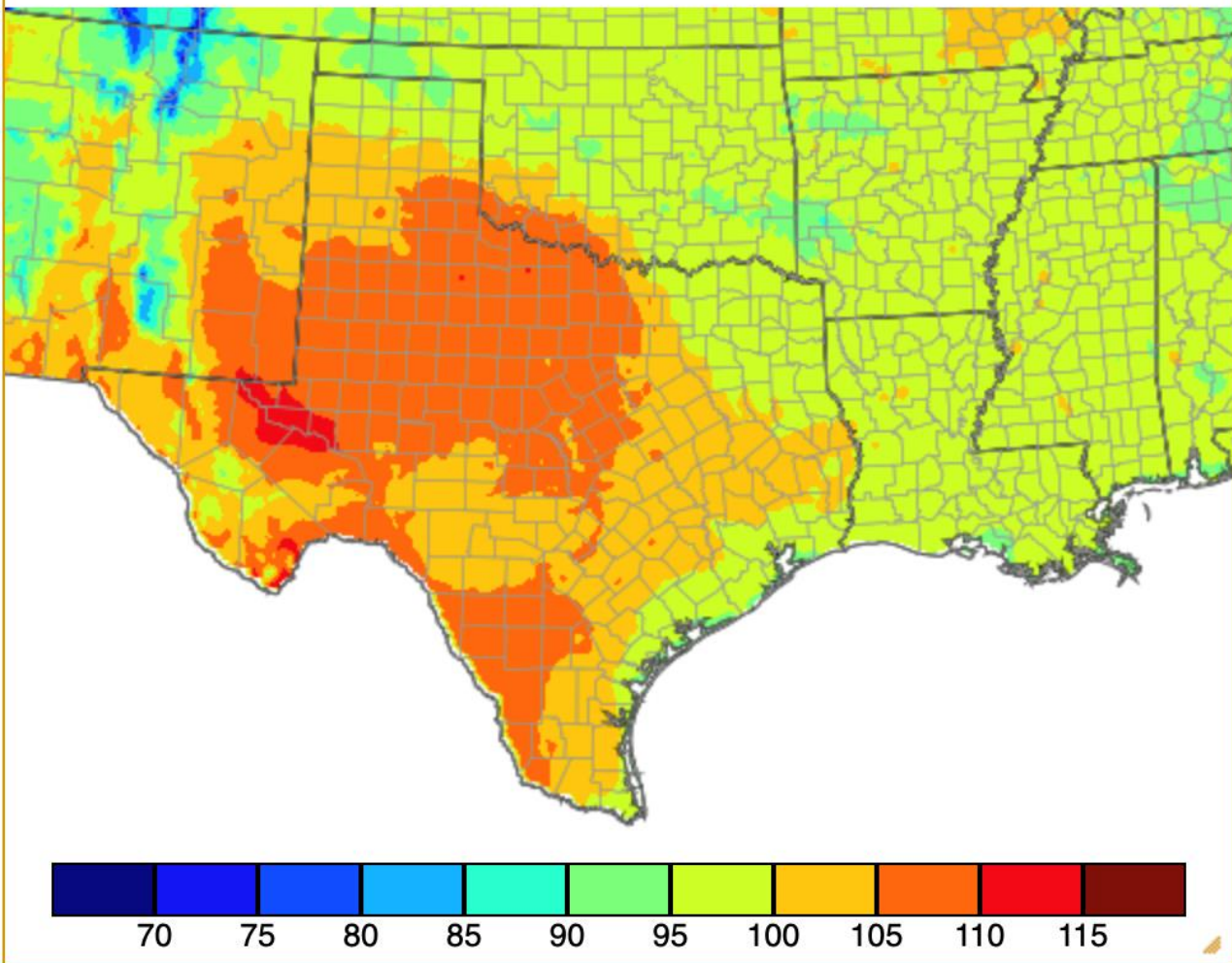


Maximum Temperature Patterns

Highest Max Temperature - June 2023

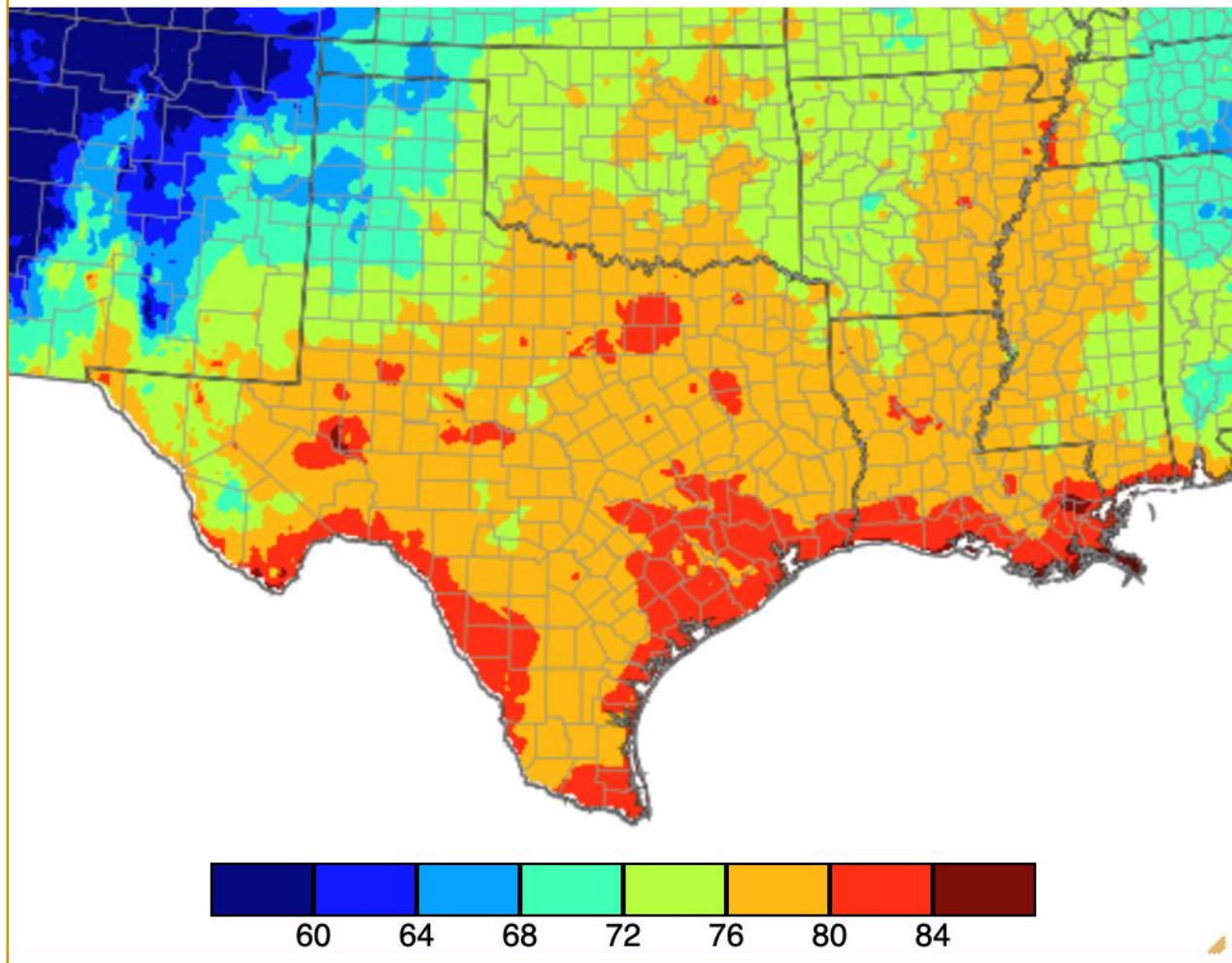


Highest Max Temperature - July 1, 2023 through July 15, 2023

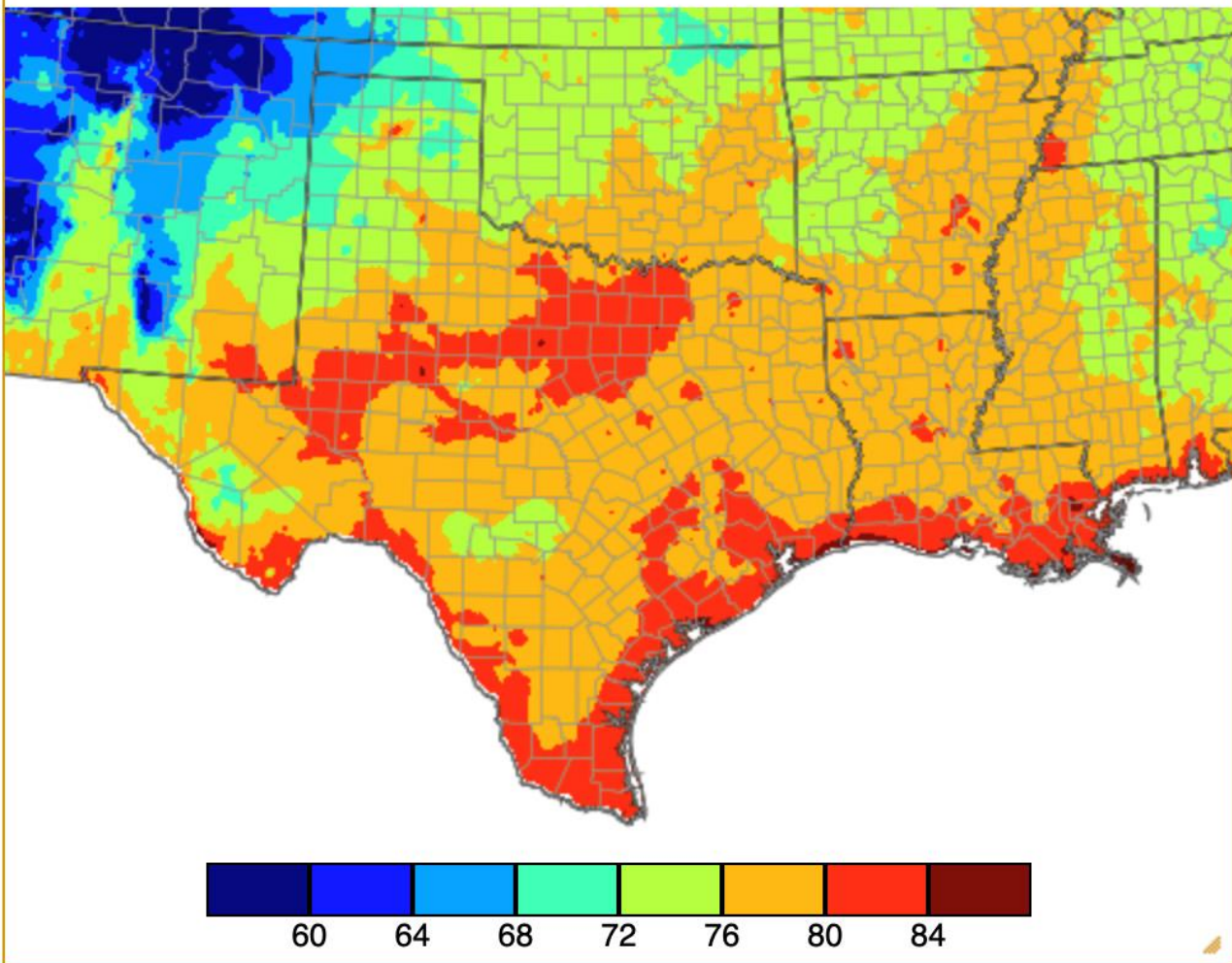


Minimum Temperature Patterns

Highest Min Temperature - June 2023

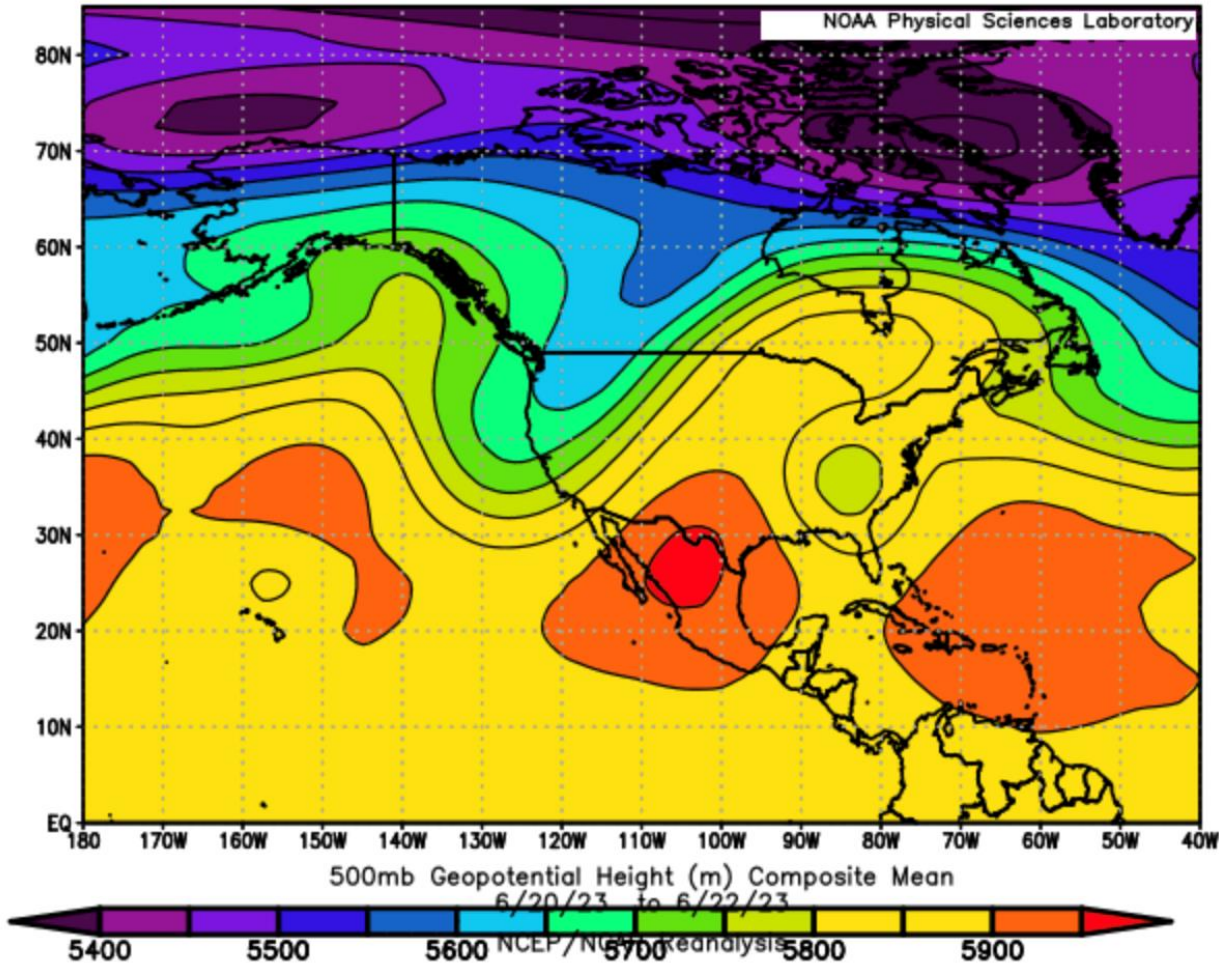


Highest Min Temperature - July 1, 2023 through July 18, 2023

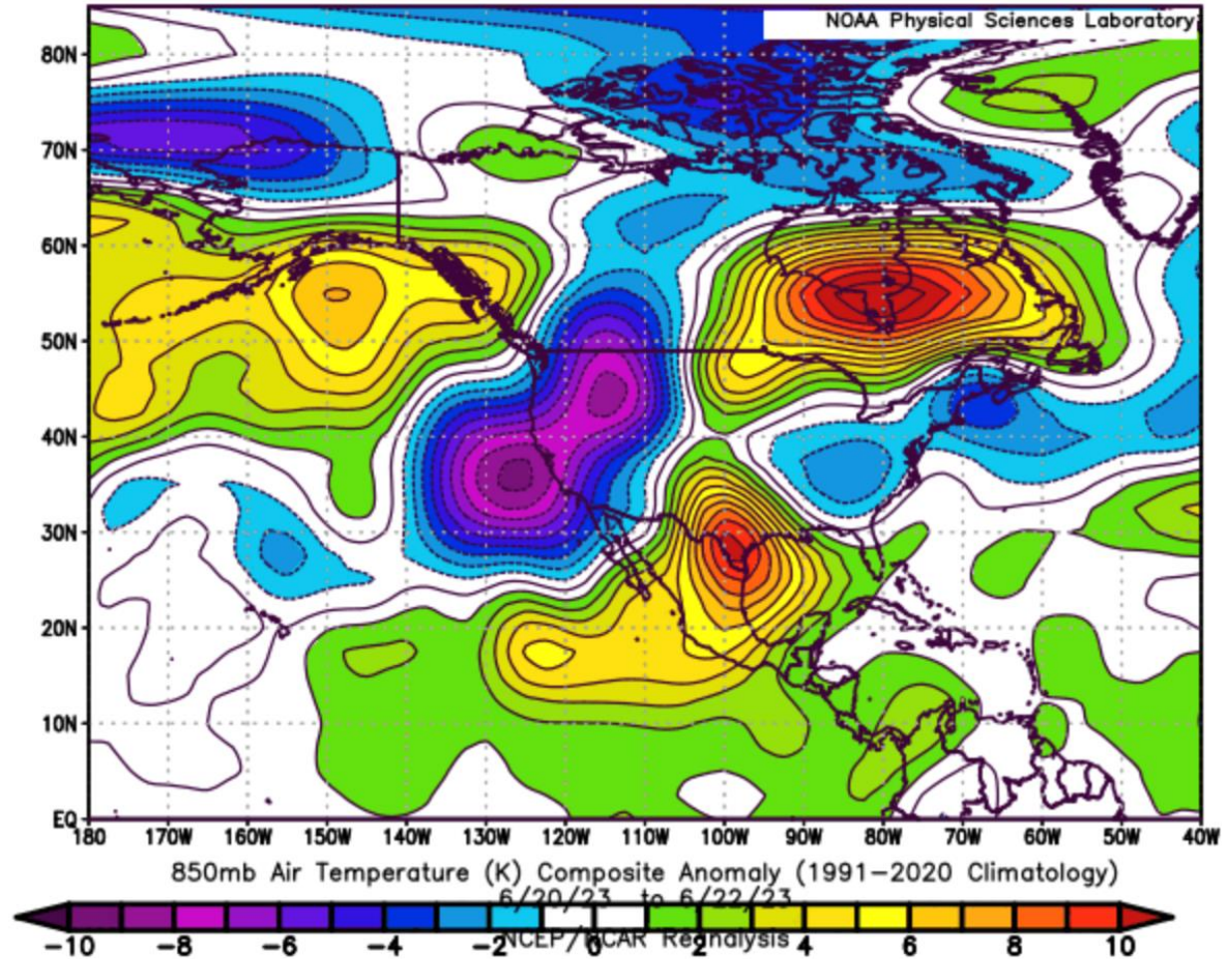


June Heat Weather Pattern

Jet Stream

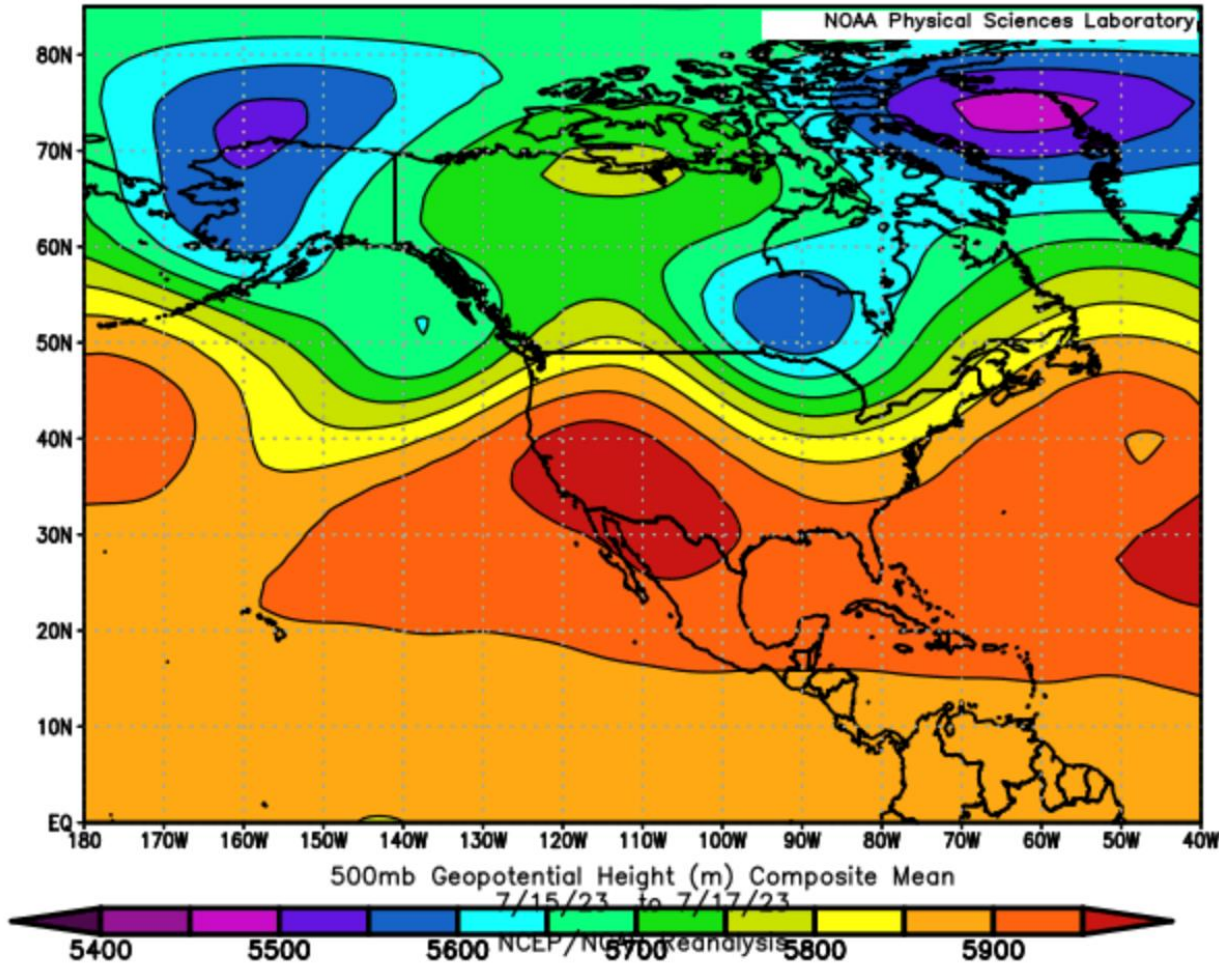


850 mb Temperature Anomalies

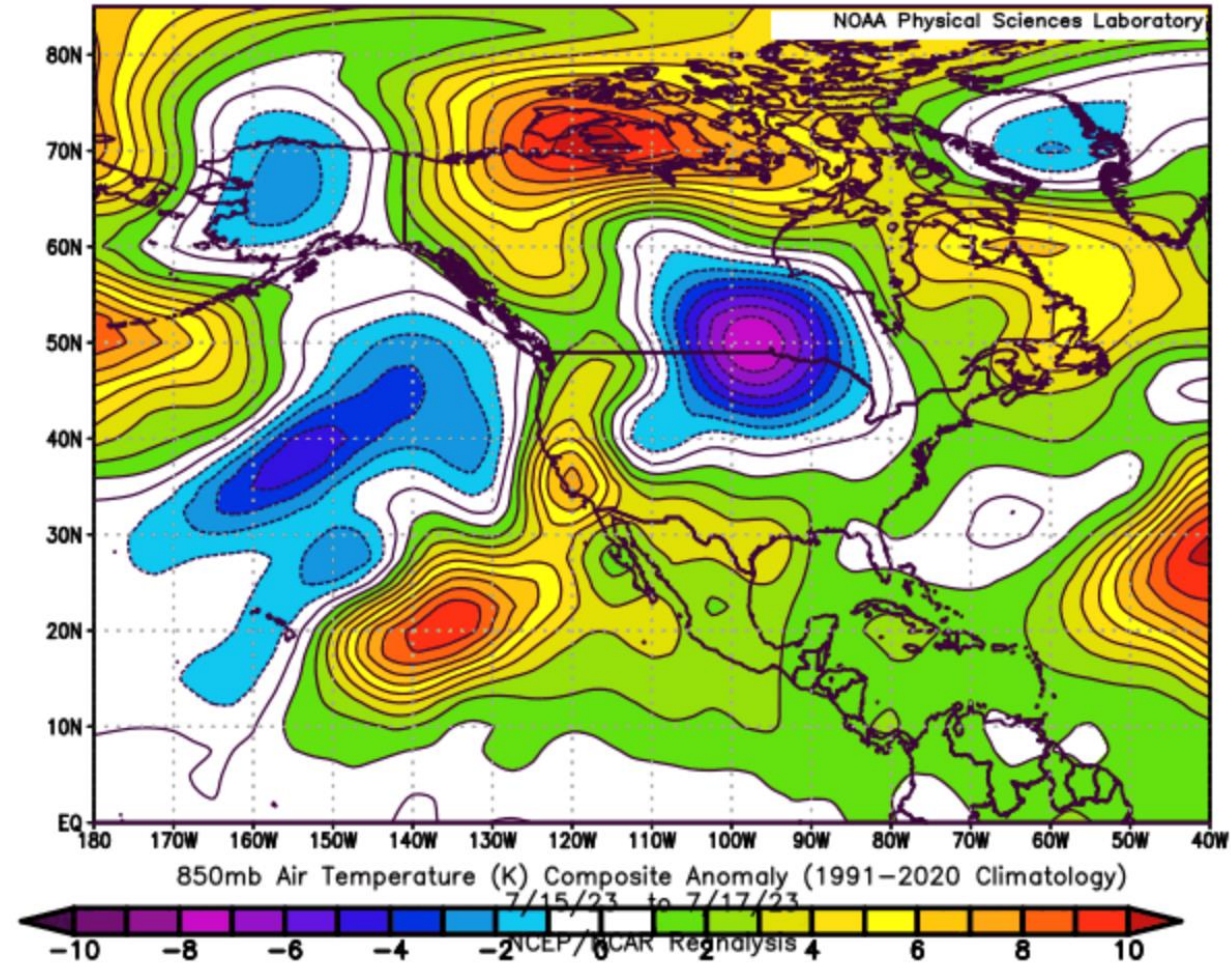


July Heat Weather Pattern

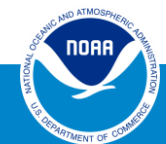
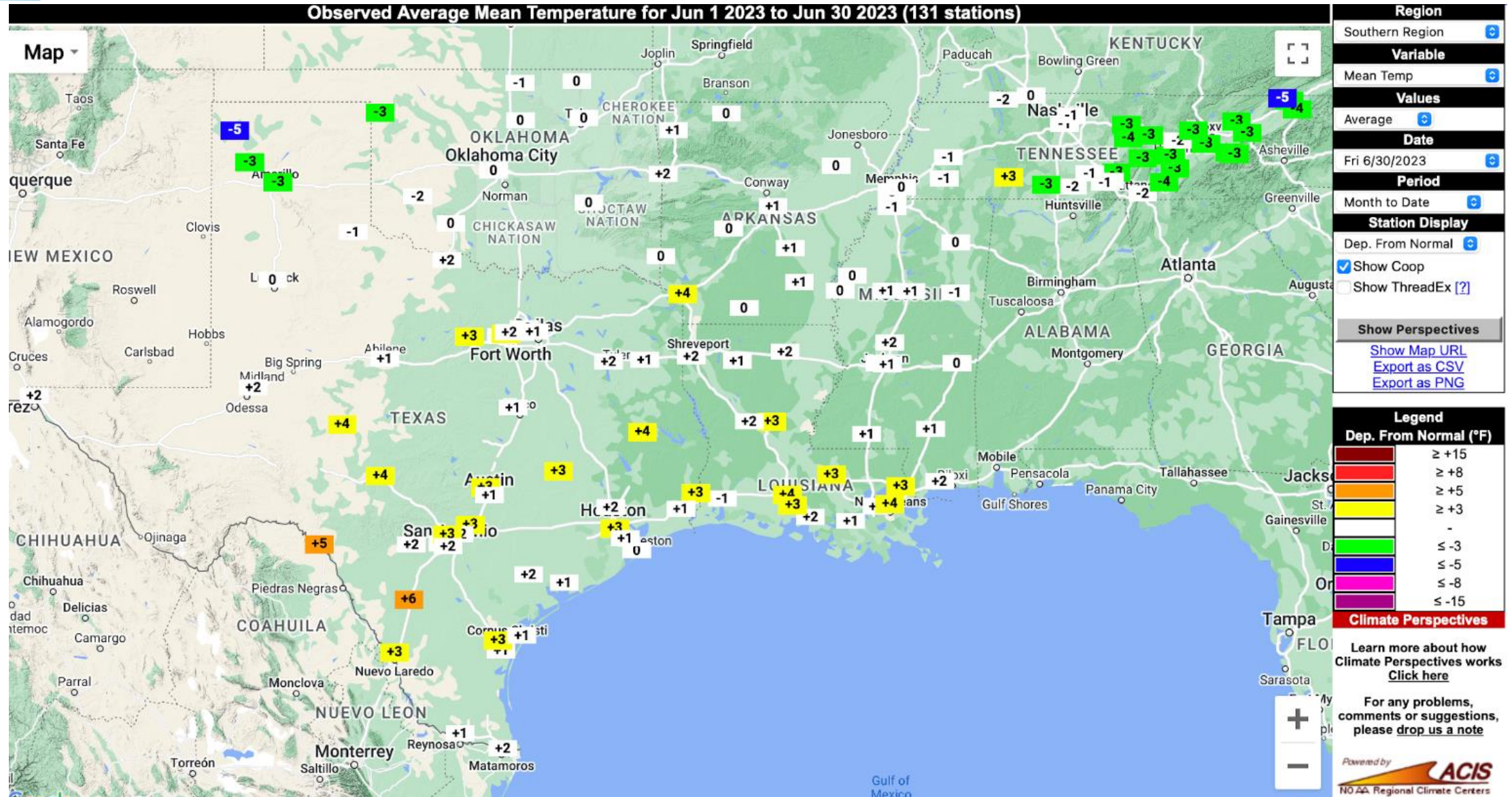
Jet Stream



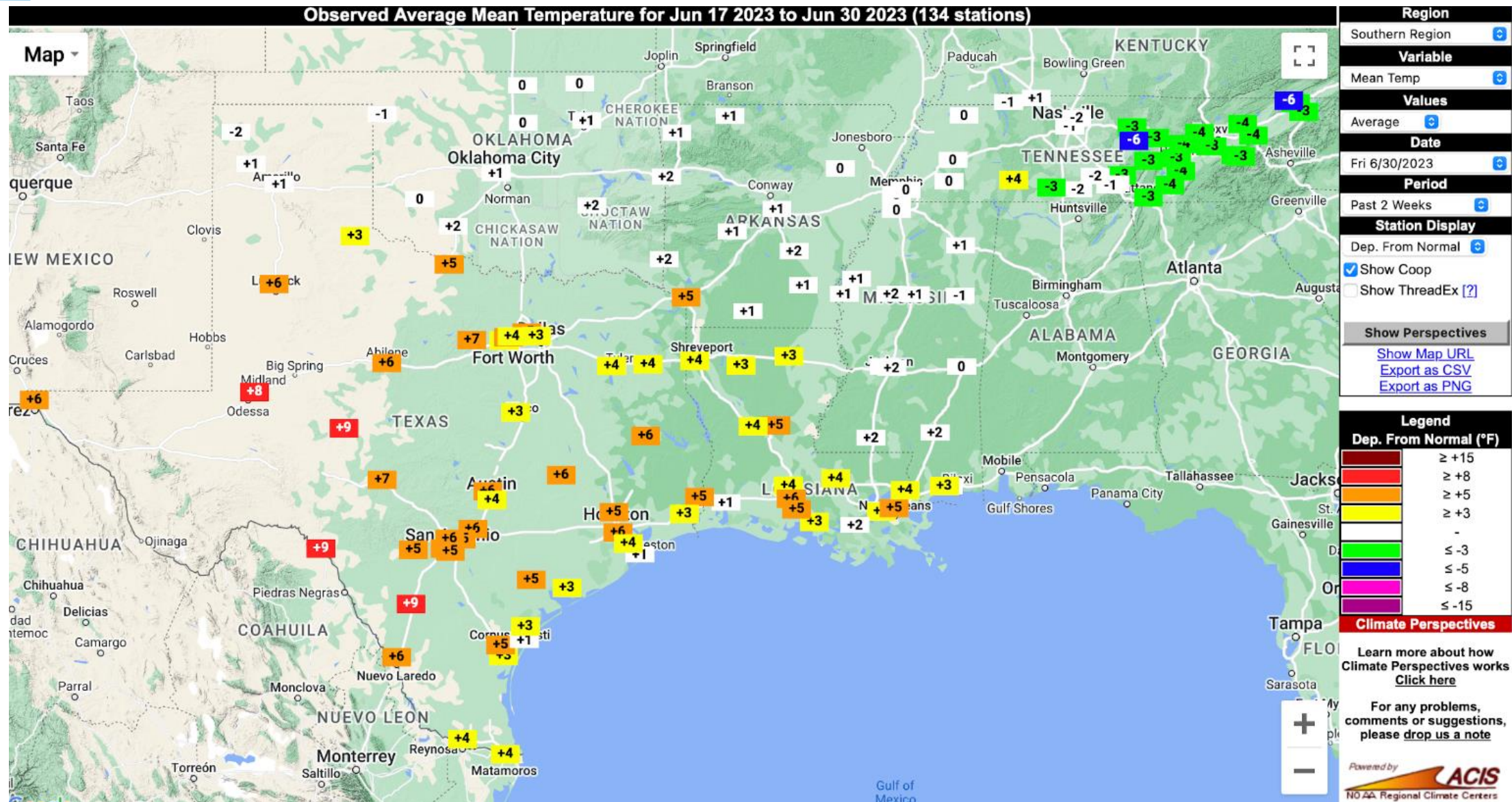
850 mb Temperature Anomalies



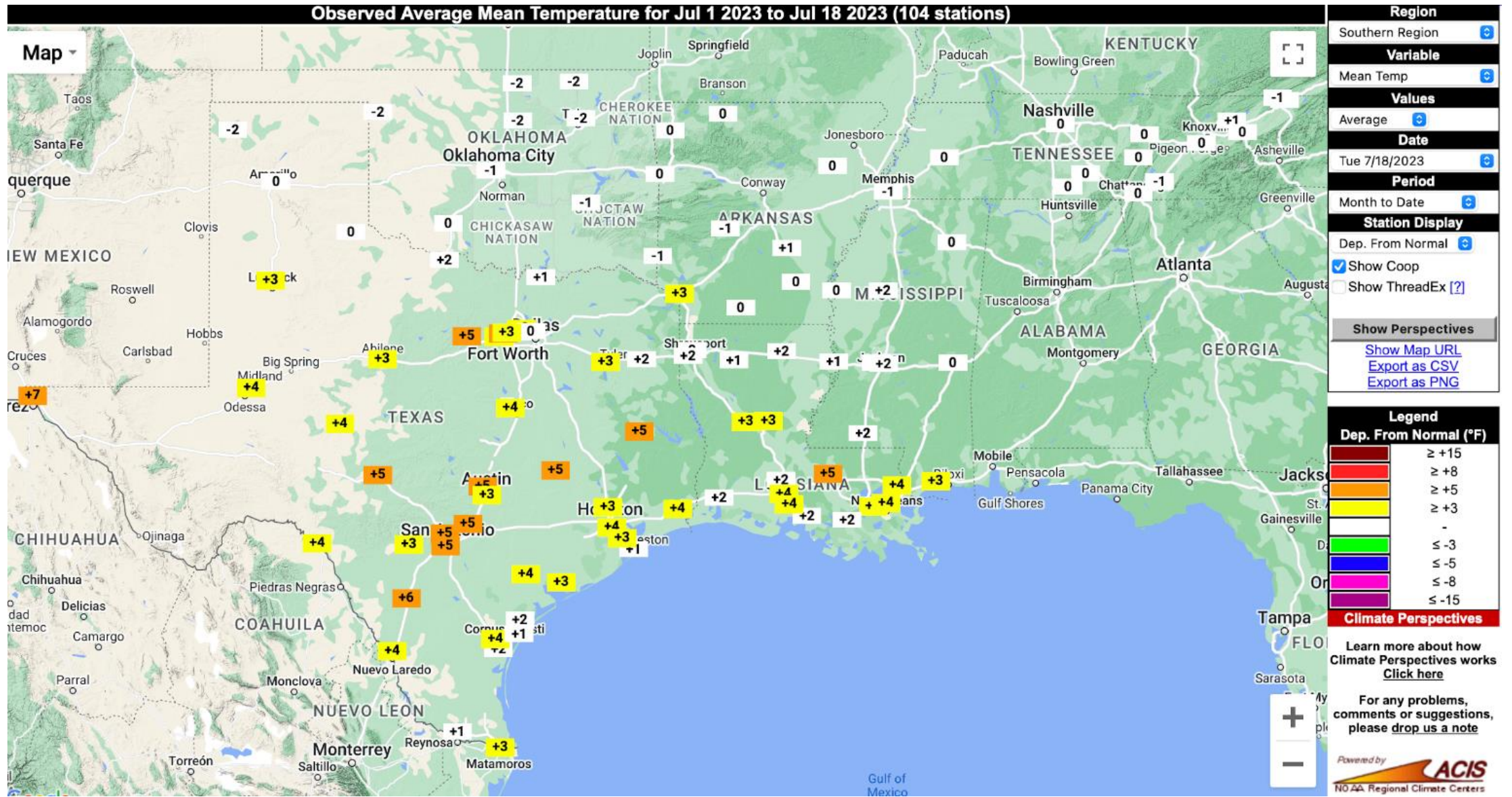
June Departures from Normal



June 17-30 Departures from Normal

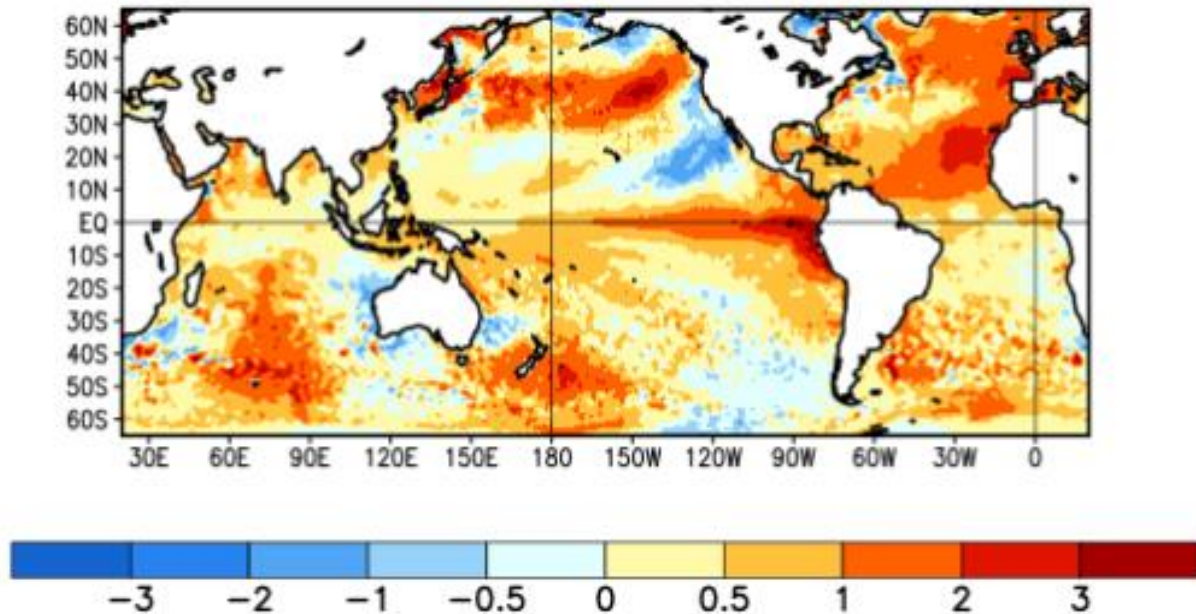


July 1-18 Departures from Normal

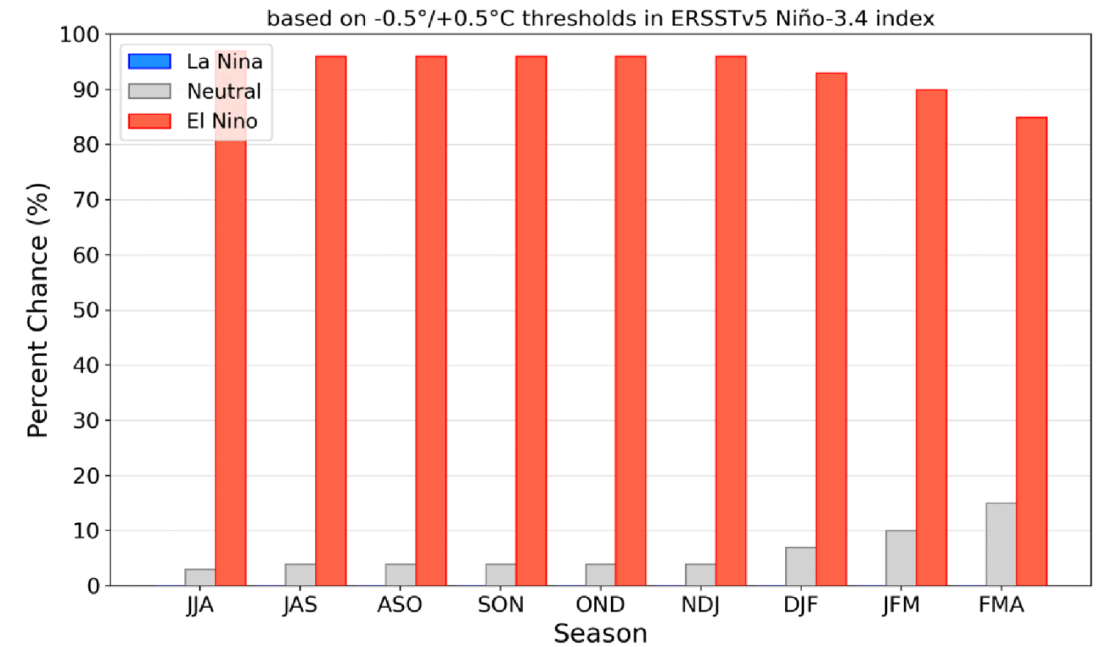


Sea Surface Temperatures and ENSO

Average SST Anomalies
18 JUN 2023 – 15 JUL 2023



Official NOAA CPC ENSO Probabilities (issued July 2023)

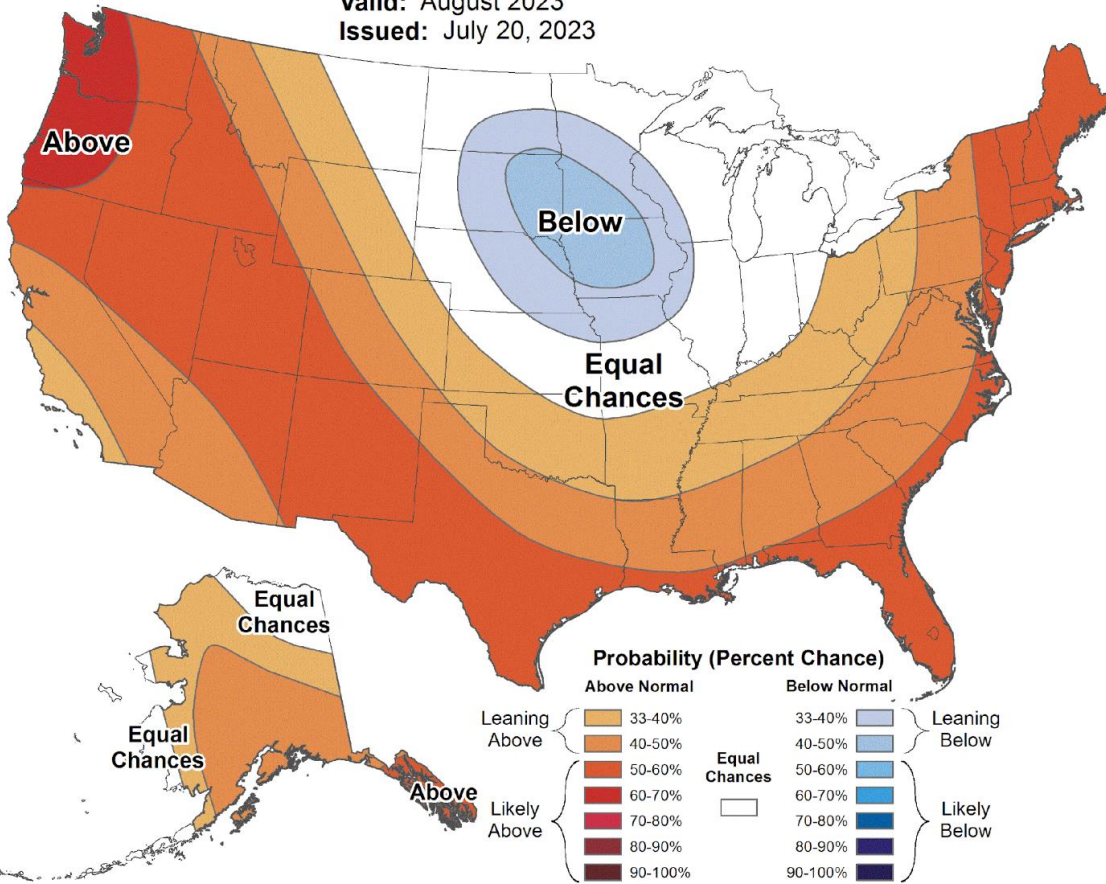


- El Niño advisory - SSTs above normal in the equatorial Pacific, winds responding
- El Niño like to continue through 2023
- SSTs in the Atlantic well above normal

Monthly Forecast (August)

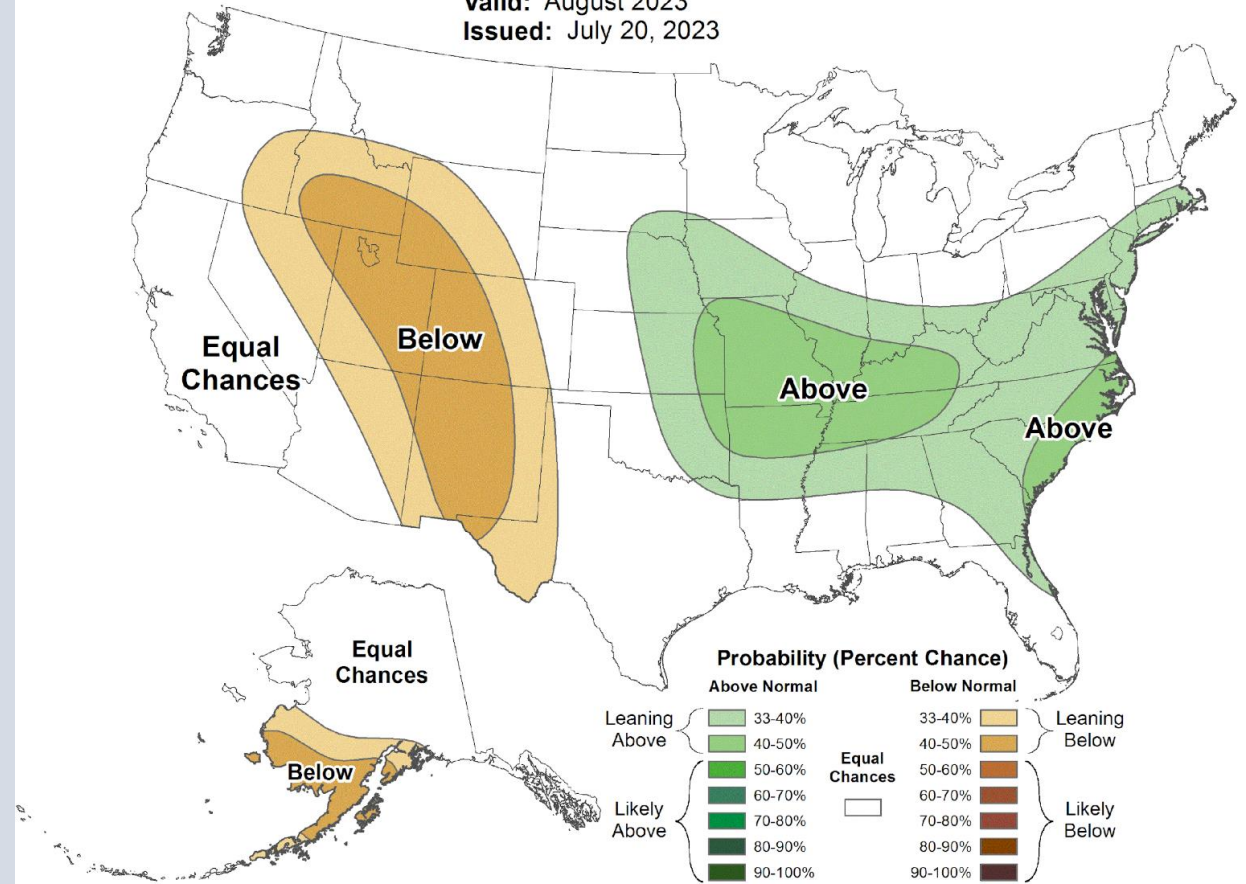
Monthly Temperature Outlook

Valid: August 2023
Issued: July 20, 2023

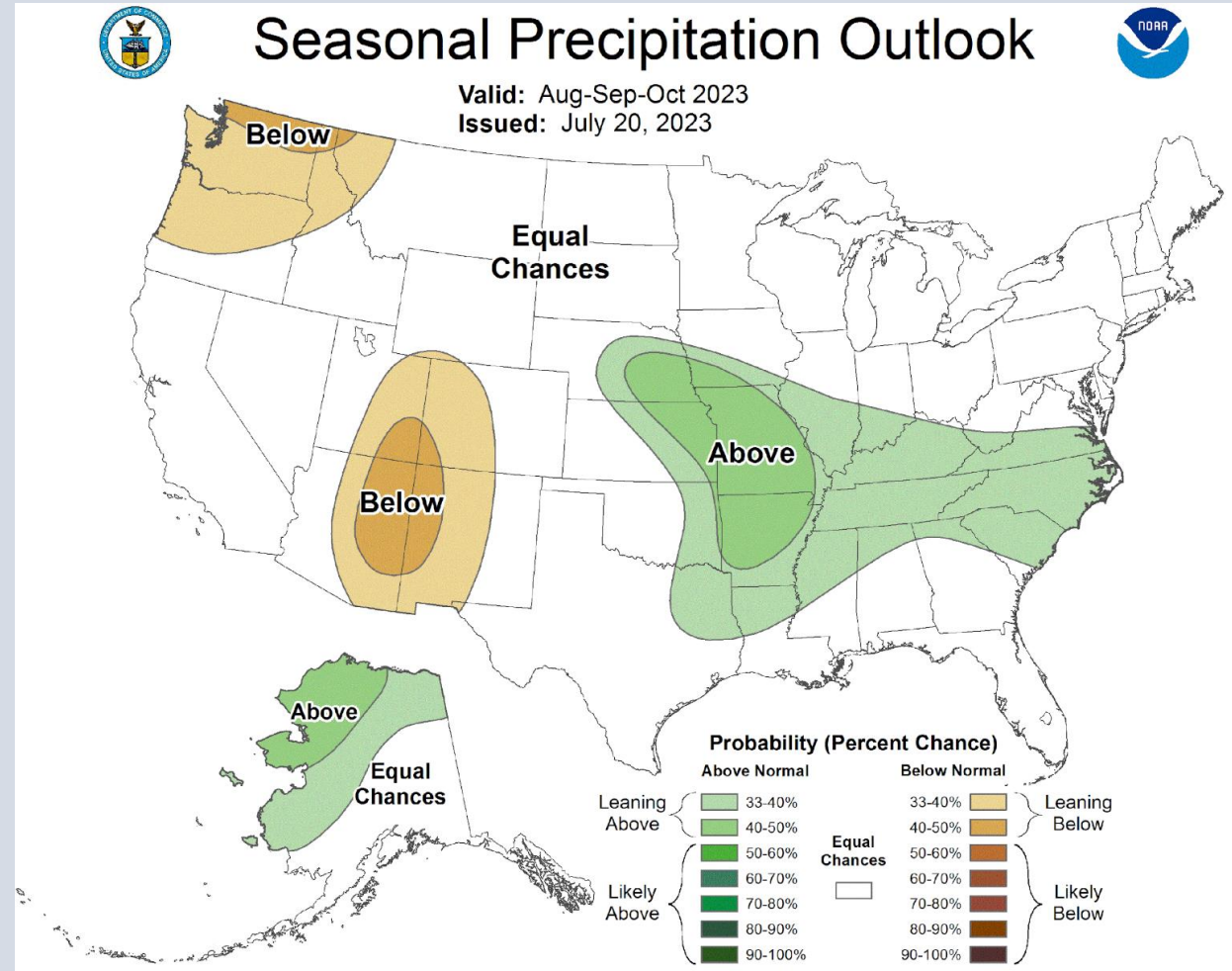
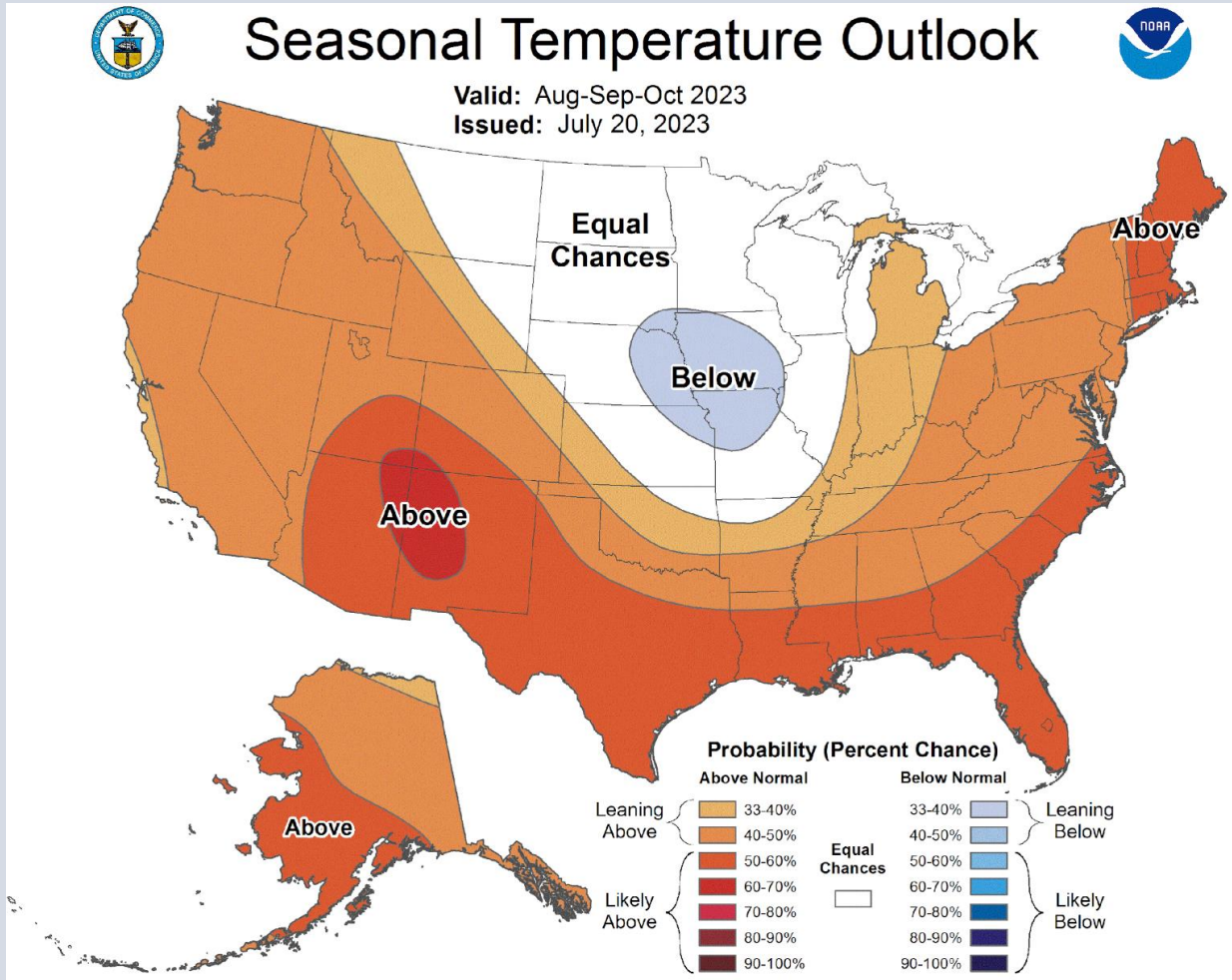


Monthly Precipitation Outlook

Valid: August 2023
Issued: July 20, 2023



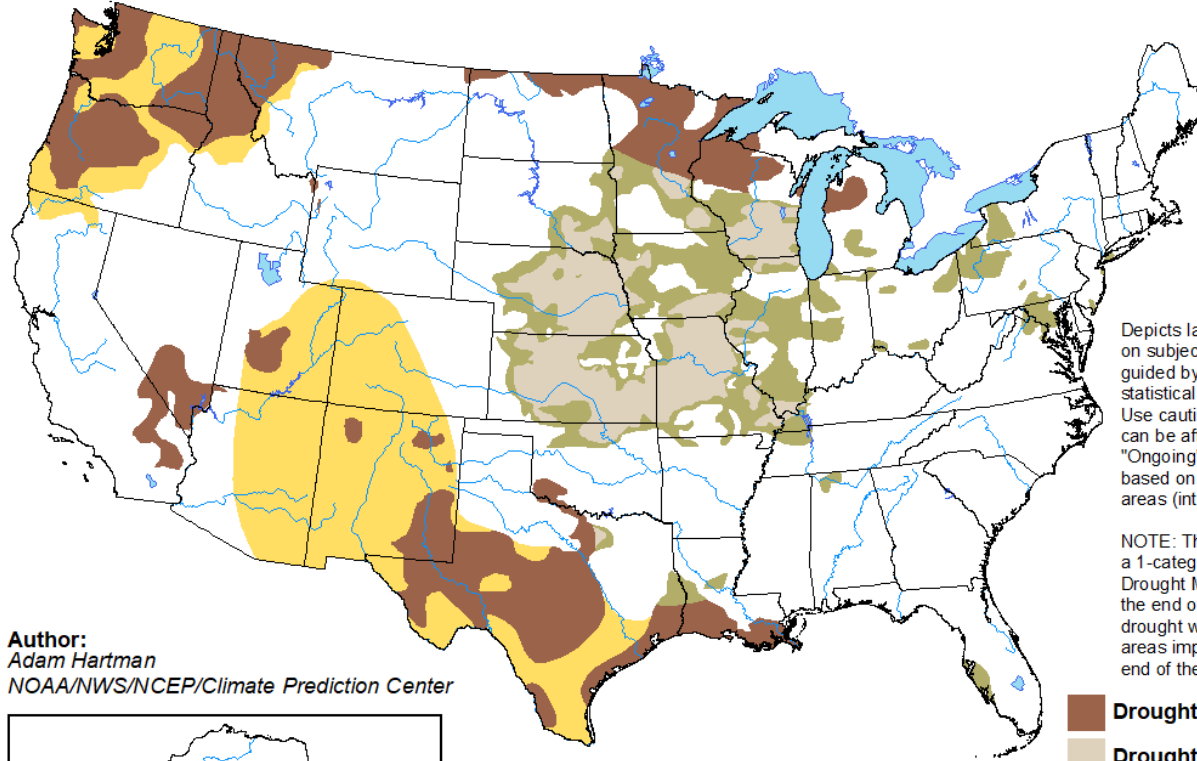
Three-Month Forecast (Aug, Sep, Oct)



Drought Outlook

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

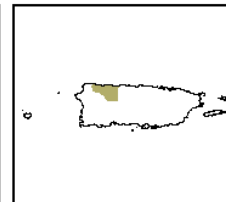
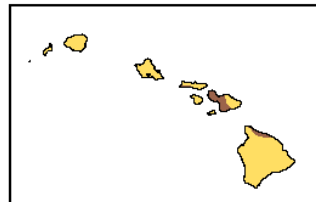
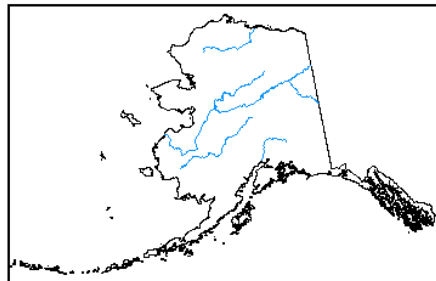
Valid for July 20 - October 31, 2023
Released July 20







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:
Adam Hartman
NOAA/NWS/NCEP/Climate Prediction Center



-  Drought persists
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely



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

For More Information



Today's presentation:

- <https://www.ncei.noaa.gov/access/monitoring/monthly-report/briefings>

NOAA's National Centers for Environmental Information: www.ncdc.noaa.gov

- Monthly climate reports (U.S. & Global): <https://www.ncei.noaa.gov/access/monitoring/monthly-report/>
- Dates for upcoming reports: <https://www.ncei.noaa.gov/access/monitoring/dyk/monthly-releases>

NOAA's Climate Prediction Center: www.cpc.ncep.noaa.gov

U.S. Drought Monitor: www.drought.gov

Climate portal: www.climate.gov

NOAA media contacts: john.jones-bateman@noaa.gov, 202-424-0929 (NOAA/NESDIS PAO)

