NOAA Climate Science and Services Monthly Climate Update

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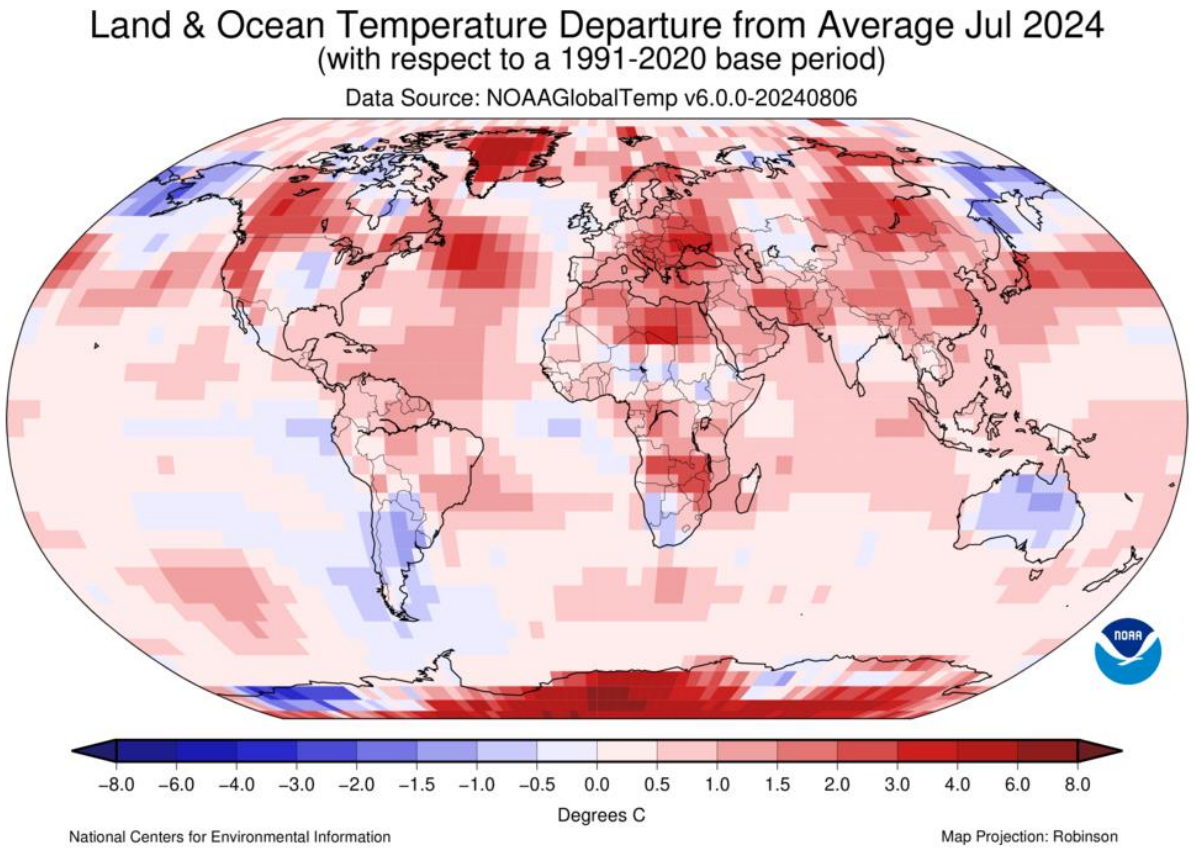
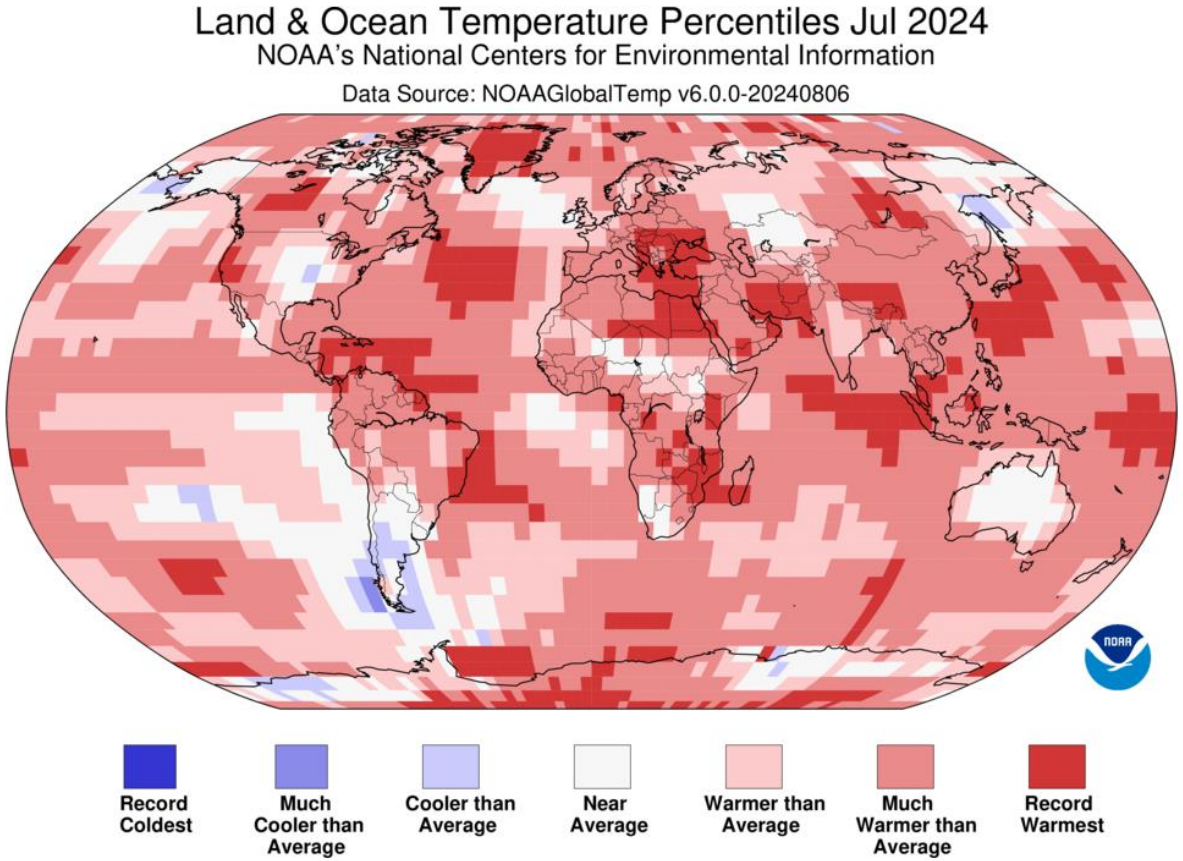
July 2024

July 2024 Global Temperature

The global temperature record dates back to 1850 (175 years)

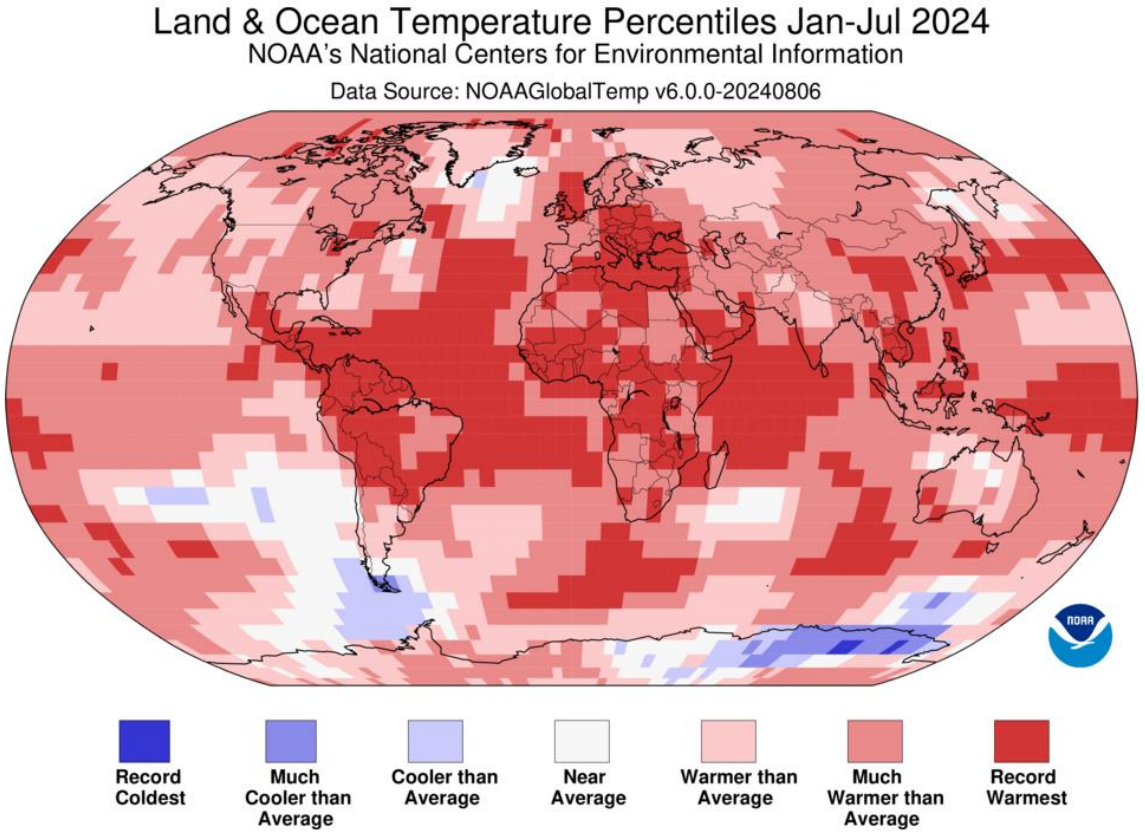


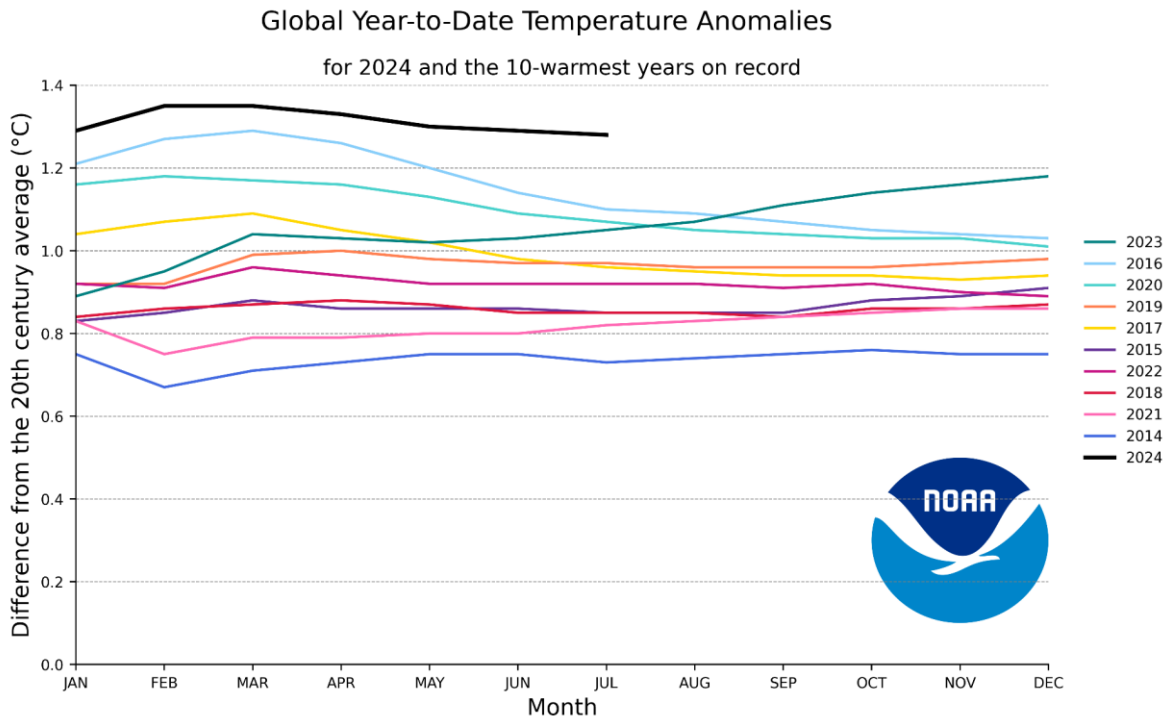


- **Global Land & Ocean:** +1.21°C/+2.18°F; **warmest** for July on record
- **Global Land-only:** +1.70°C/+3.06°F; **warmest** for July on record
- **Global Ocean-only:** +0.98°C/+1.76°F; **2nd warmest** for July on record

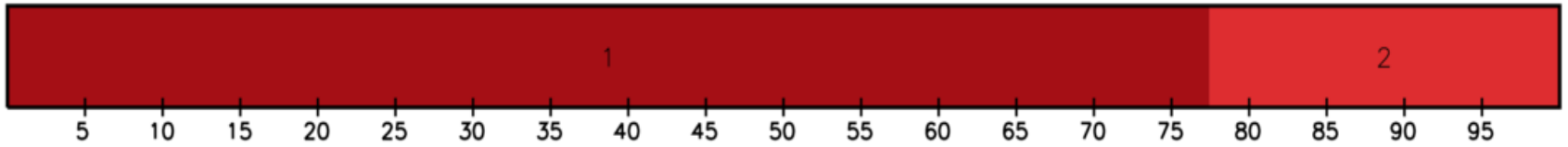
January-July 2024 Global Temperature

The global temperature record dates back to 1850 (175 years)





Global Land & Ocean: +1.28°C/+2.30°F; **warmest** for Jan-Jul on record

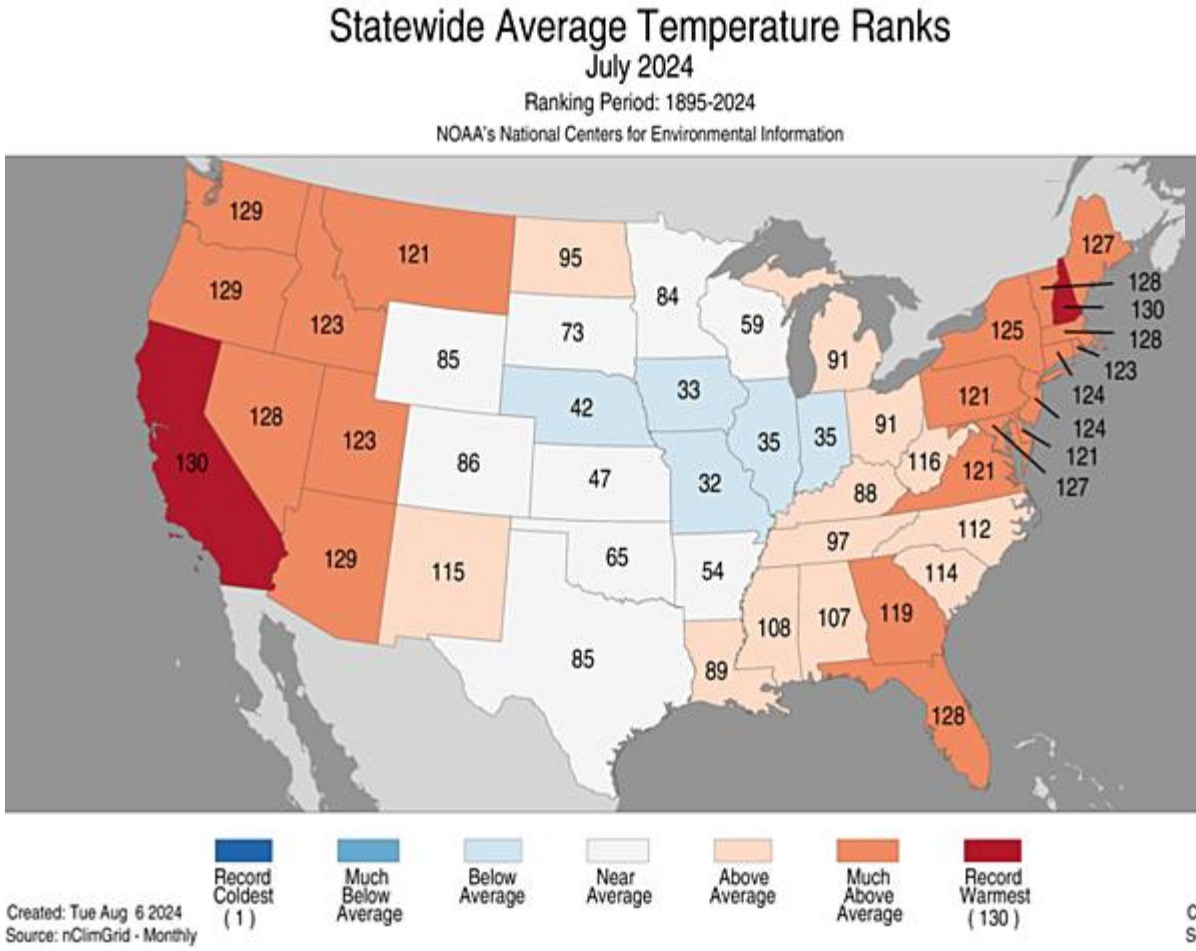


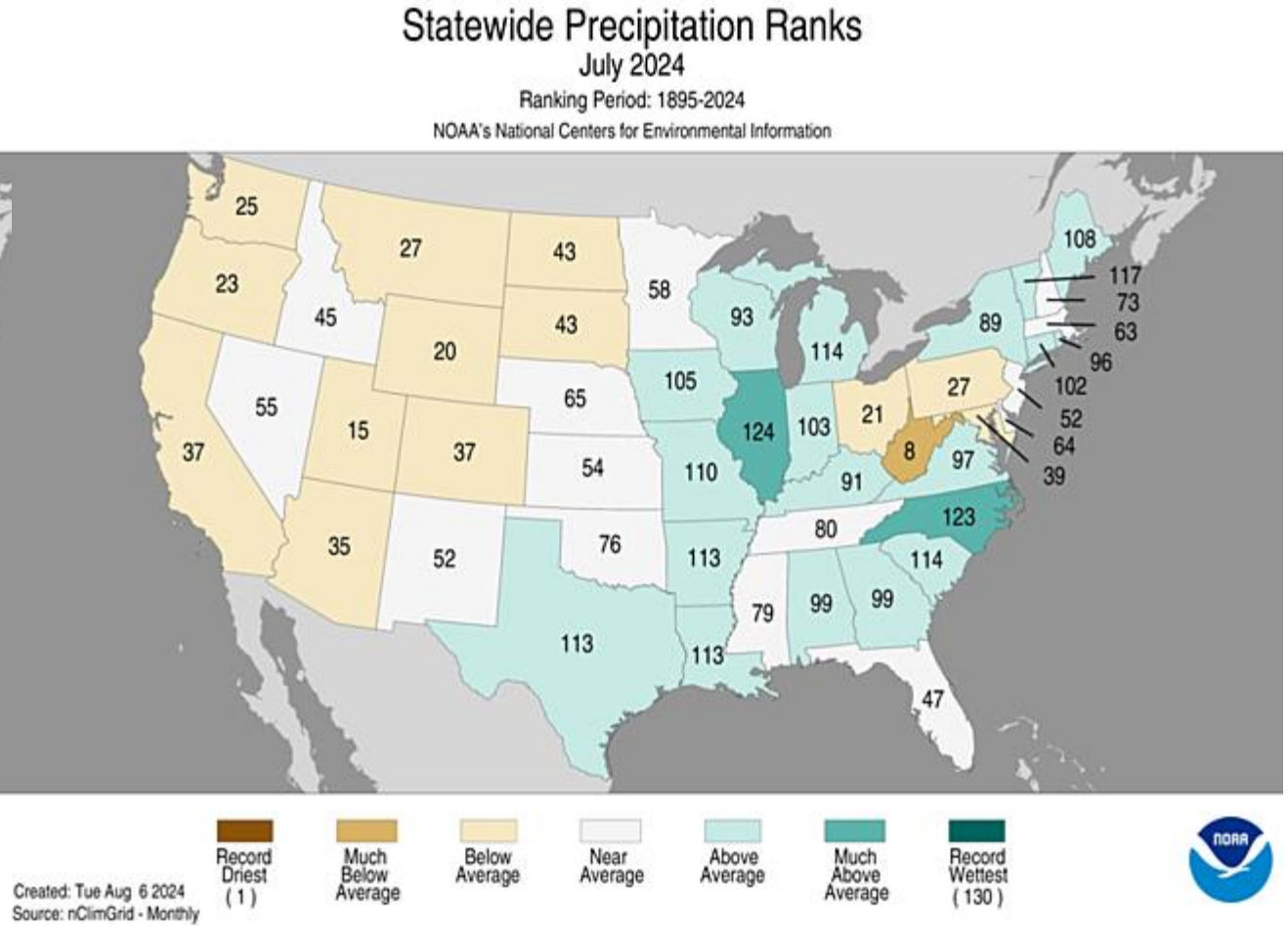
~77% chance 2024 will be warmest year on record

Nearly a 100% chance 2024 will be a top 5 year

Contiguous U.S. July 2024

The U.S. record dates back to 1895 (130 years)

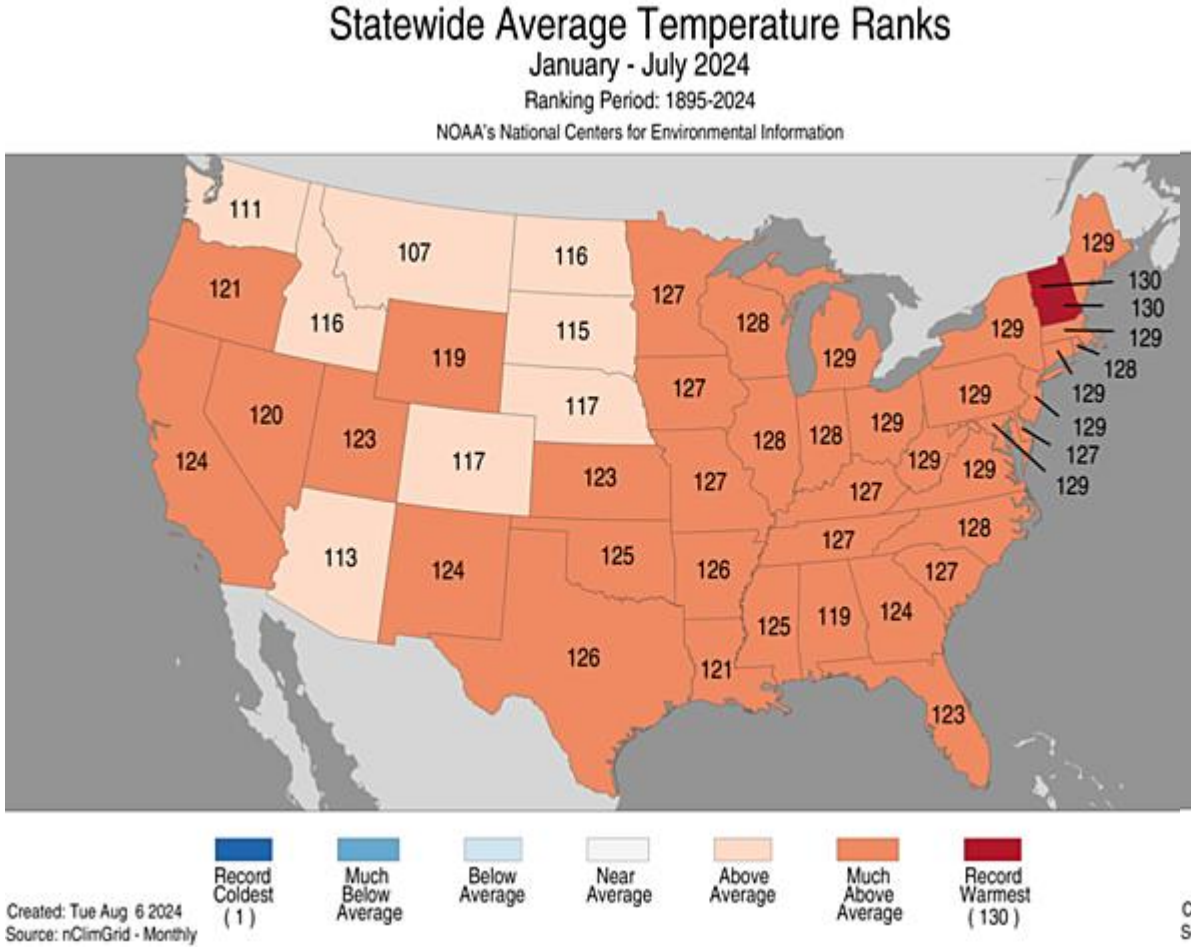


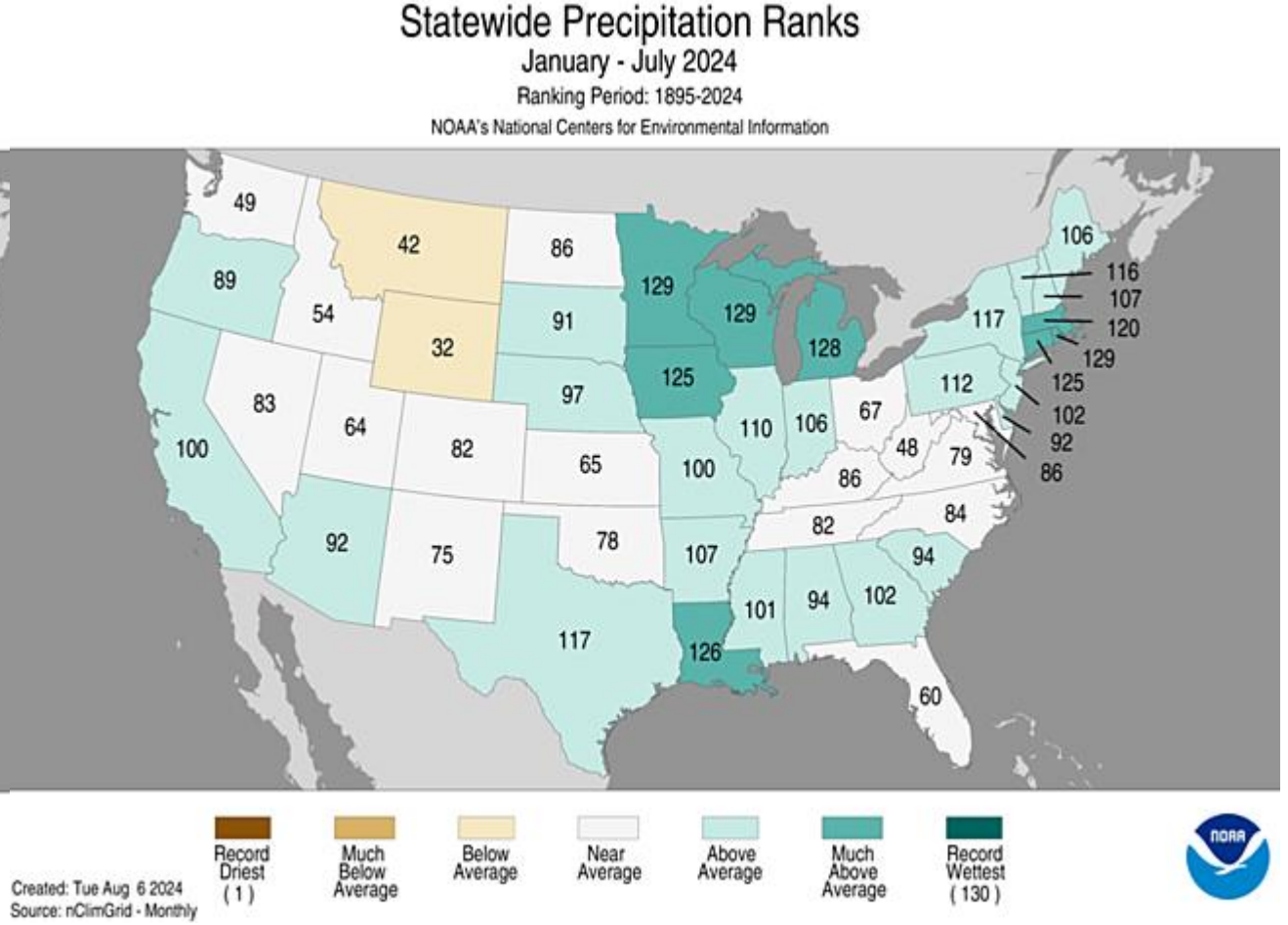


- **Temperature:** 75.7°F/+2.1°F; **11th warmest**
- **Precipitation:** 3.04 inches/+0.26 inch; **above average**

Contiguous U.S. January-July 2024

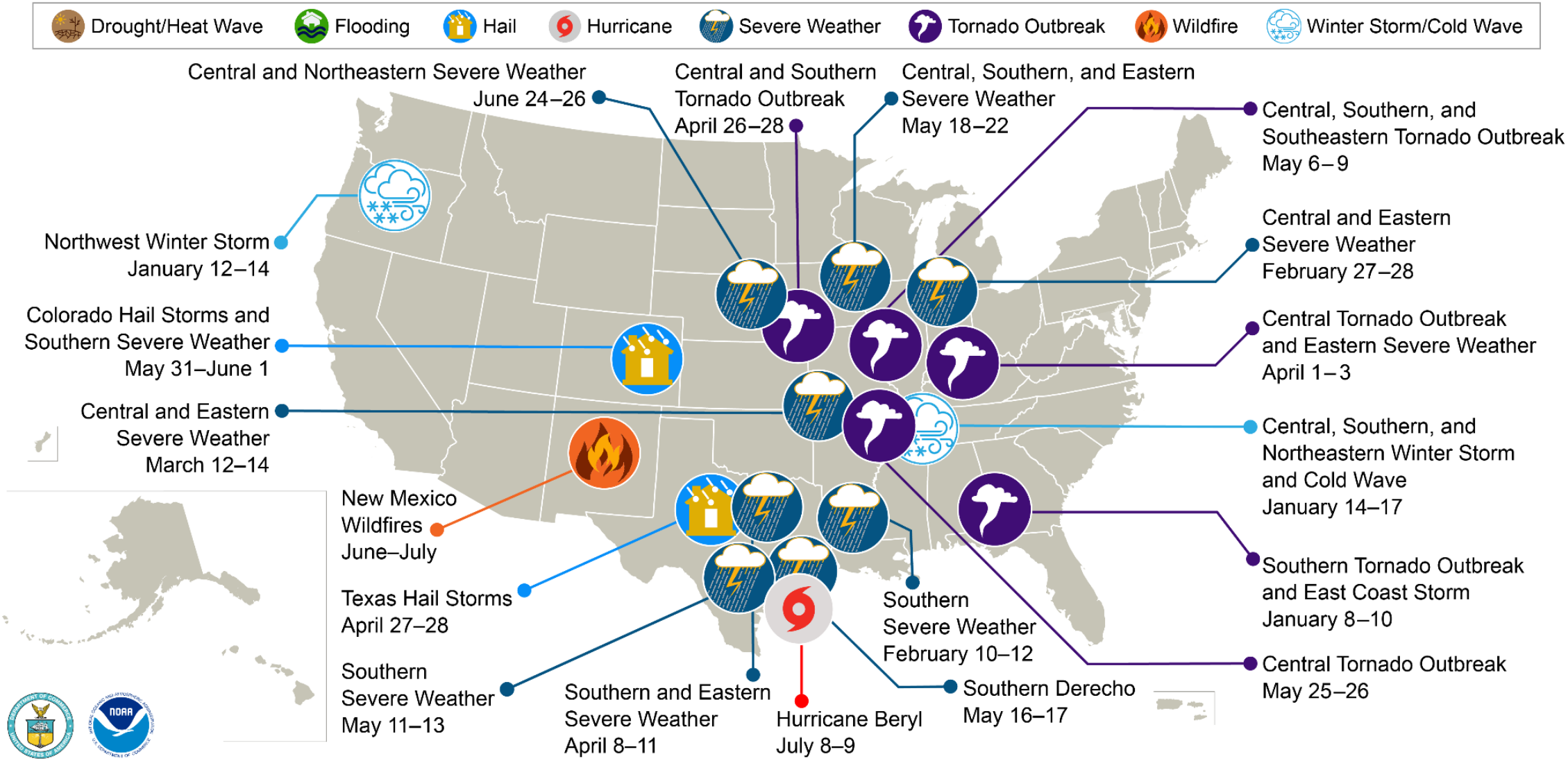
The U.S. record dates back to 1895 (130 years)





- **Temperature:** 54.5F/+3.2°F; **2nd warmest**
- **Precipitation:** 20.44 inches/+2.36 inches; **11th wettest**

U.S. 2024 Billion-Dollar Weather and Climate Disasters

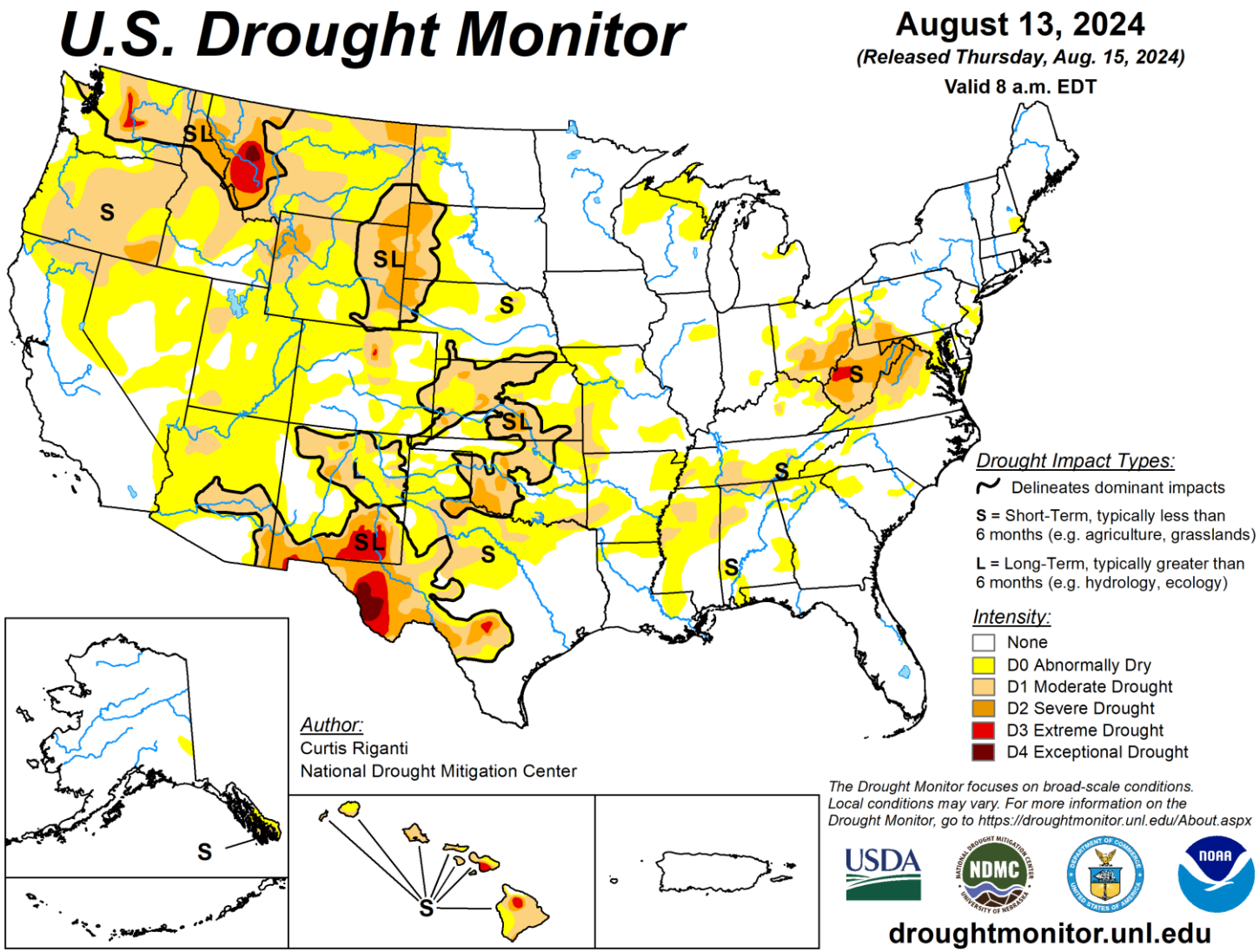


*This map denotes the approximate location for each of the **19 separate billion-dollar weather and climate disasters that impacted the United States through July 2024.***

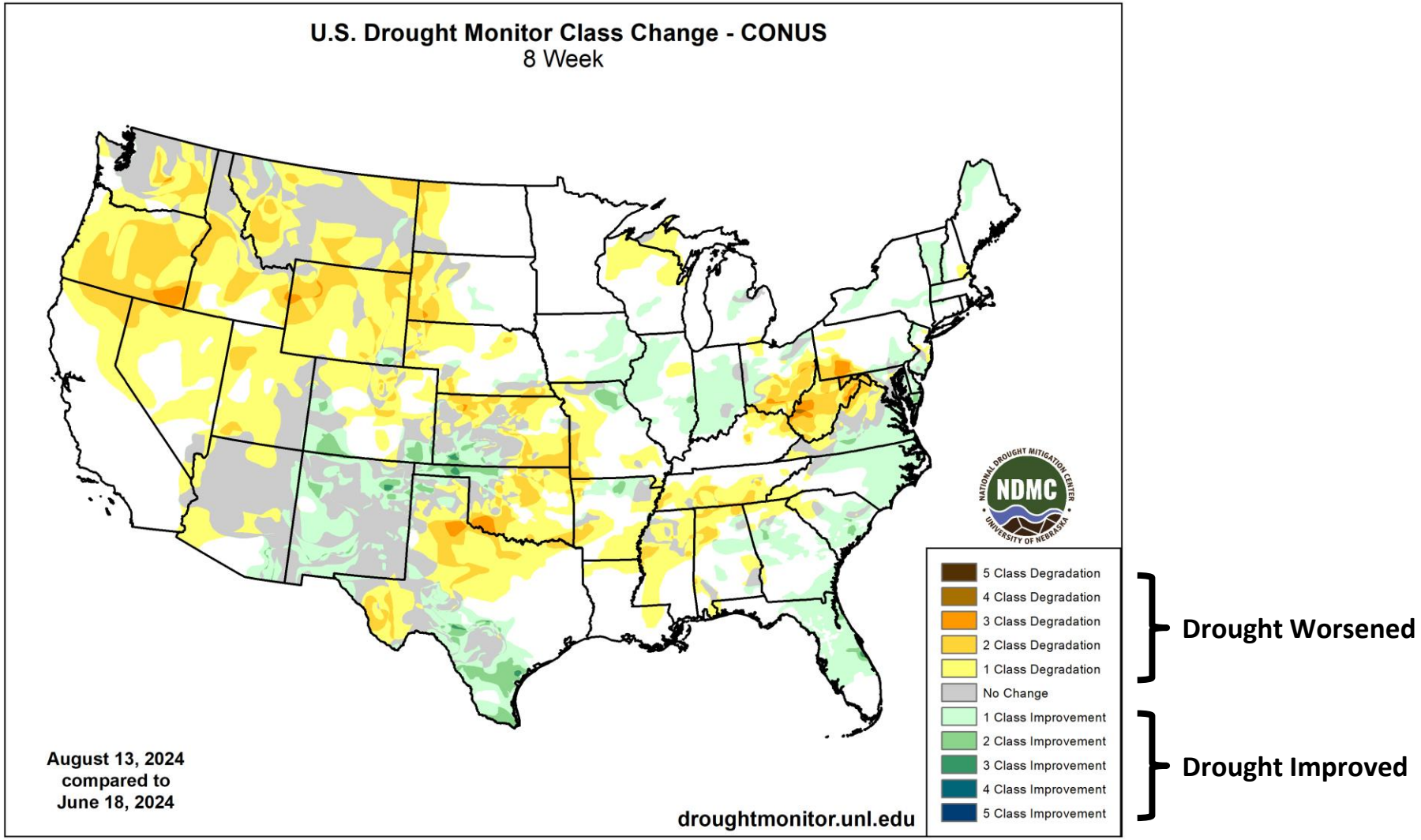
Current U.S. Drought

22.2% of the contiguous U.S. is in drought (up about 3.5% since early July)

- **Drought conditions lessened/diminished:** Southeast, Midwest
- **Drought conditions expanded/intensified:** Ohio Valley, central & southern Plains, PNW, northern Rockies
- **Outside the contiguous U.S.:** Drought coverage expanded and intensified across Hawaii

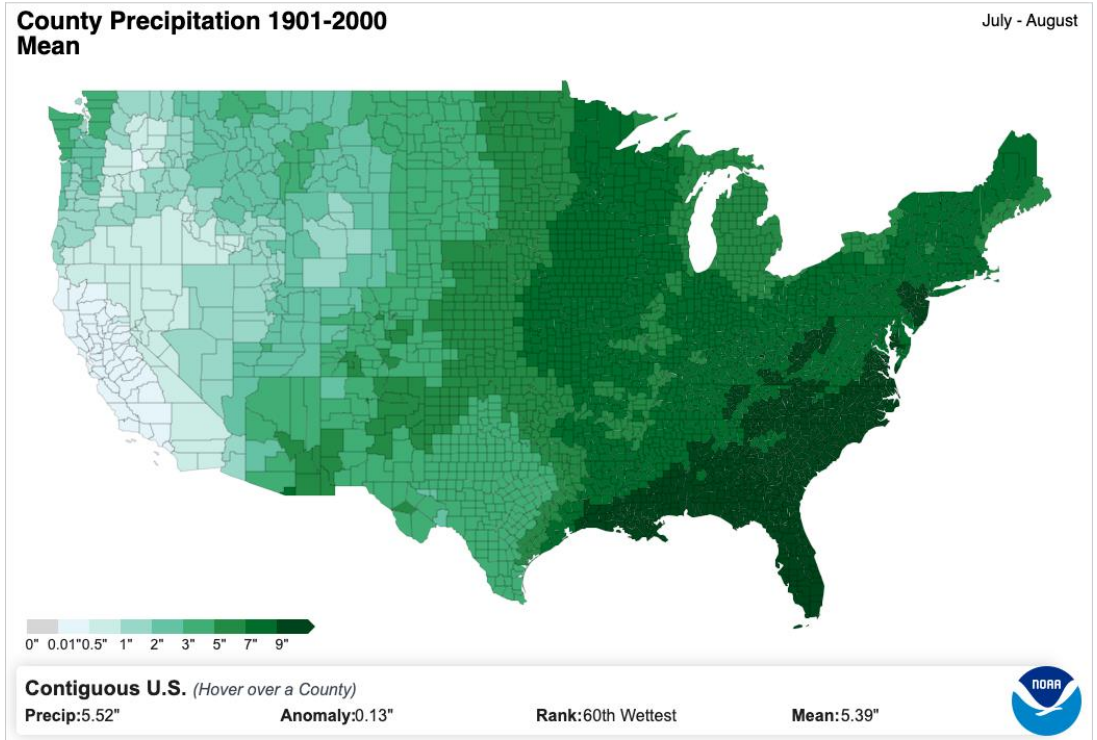


Drought Recently Worsened in Western U.S.

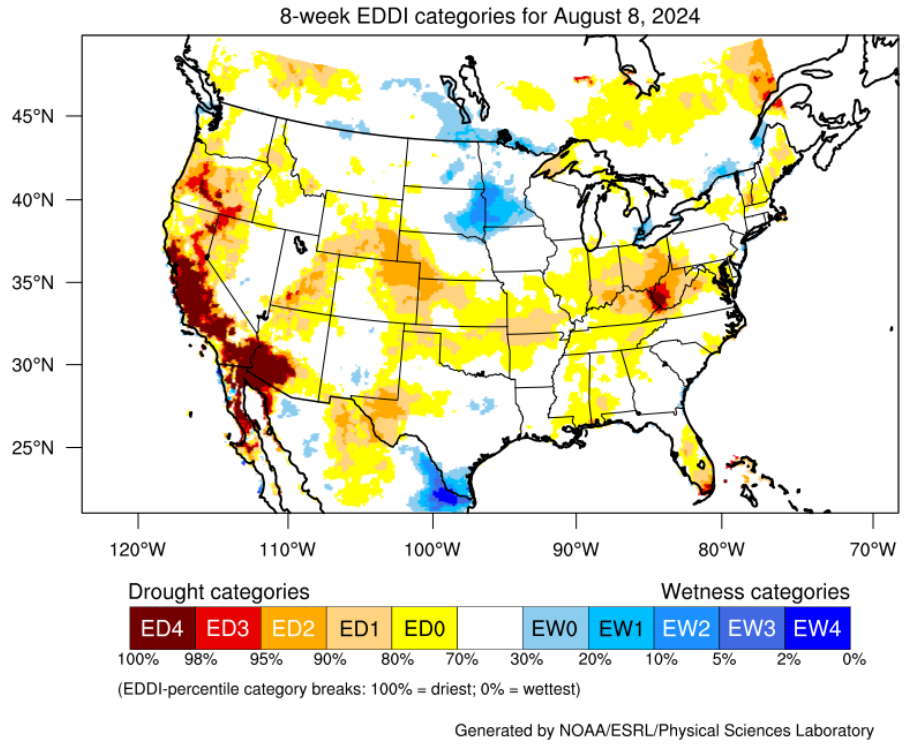


Drought Intensification Due to Loss of Moisture to Atmosphere Compared to its Supply

Summer Moisture Supply in Western U.S. is Small

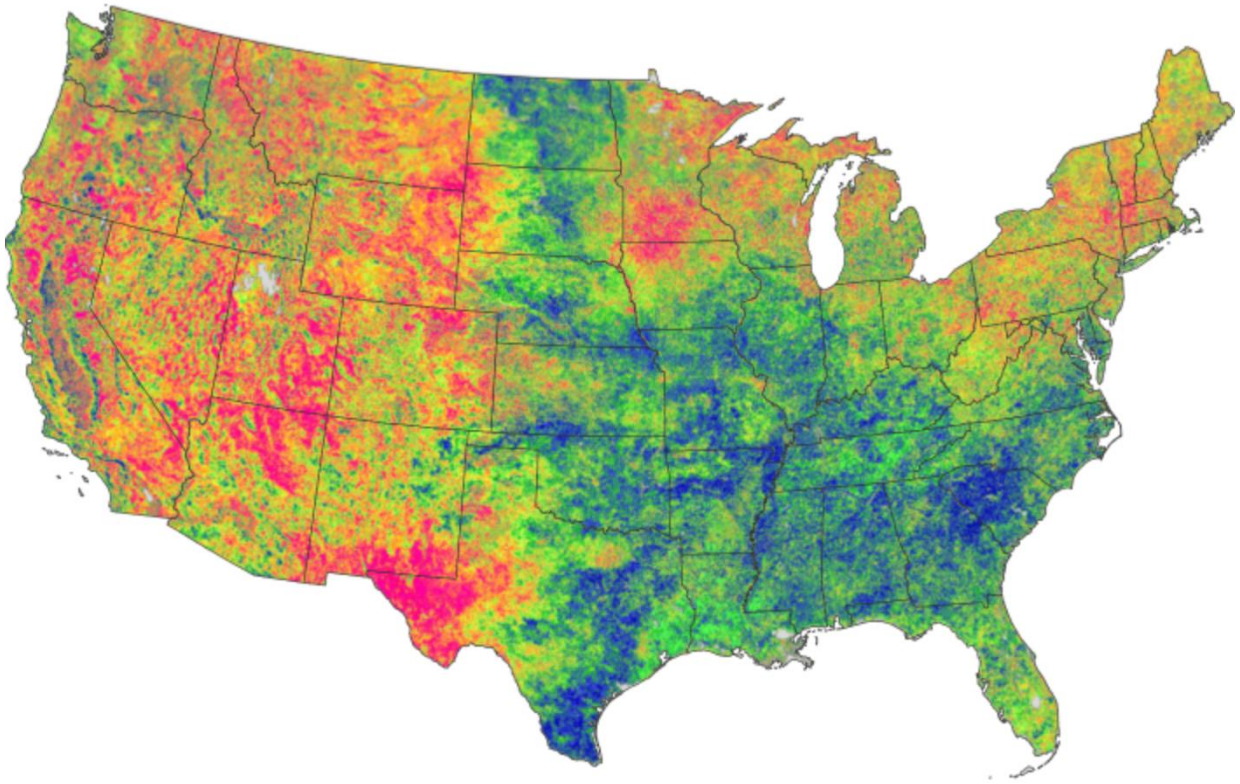


Meanwhile, Large Loss of Moisture to Atmosphere



Drought Intensification Led to Vegetation Health Declines

Vegetation Health Index



Unfavorable Conditions

0 6 12 24 36 48

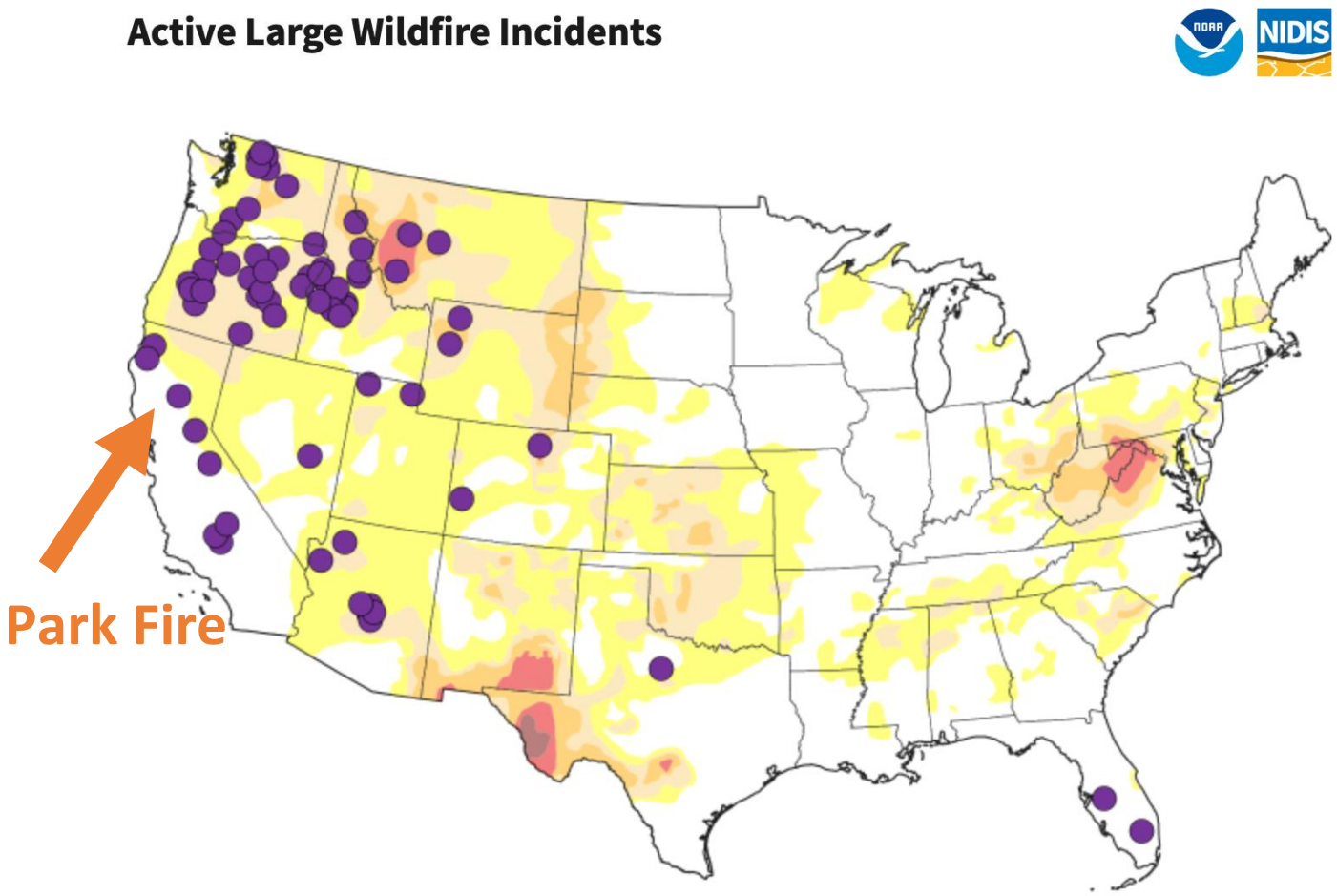
Favorable Conditions

48 60 72 84 100

Source(s): NOAA STAR
Data Valid: 08/06/24

Drought.gov

Diminished Vegetation Health Fuels Wildland Fires



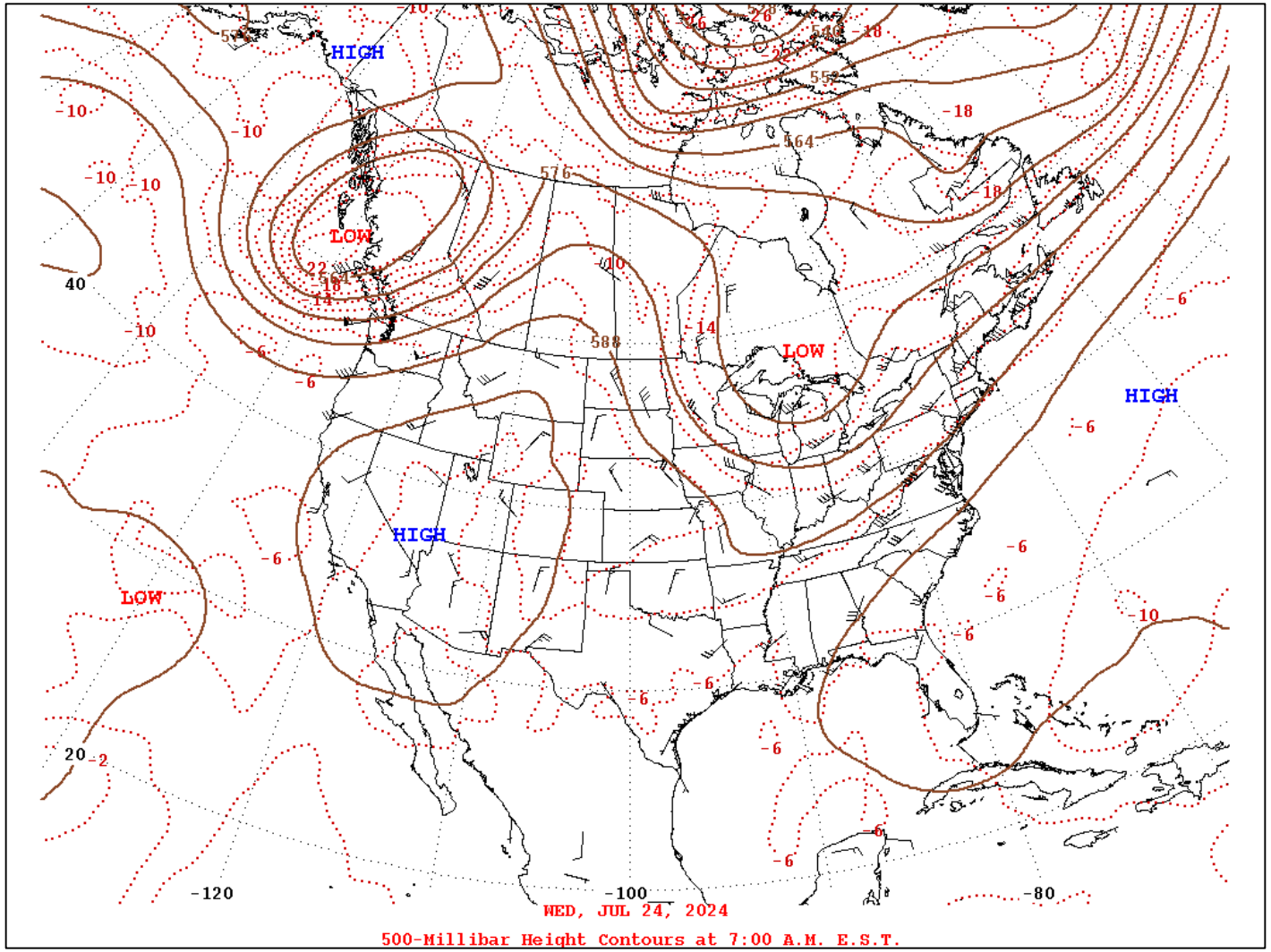
California Park Fire

Ignition: July 24, 2024, 2:52pm **Area Burned:** 429,263 acres (4th Largest) **Cause:** Arson

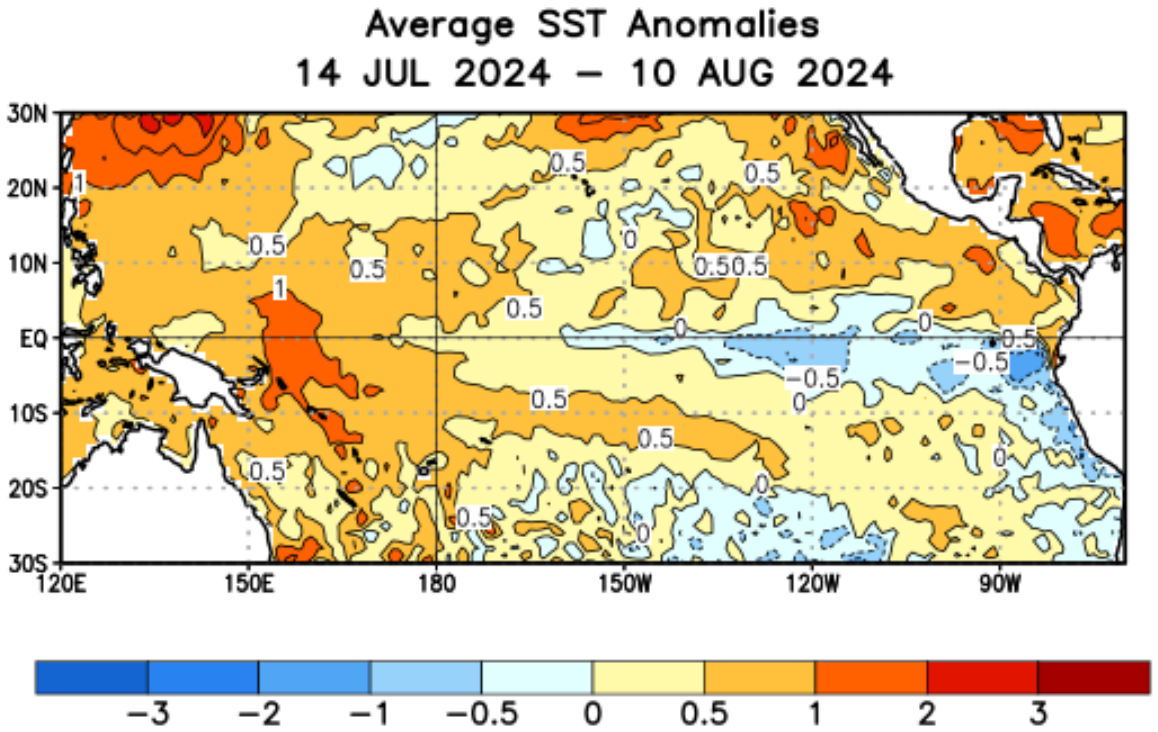
	July 24, 2024 2:53pm	July 24, 2024 Daily Extremes	July 25, 2024 Daily Extremes	July 26, 2024 Daily Extremes
Temperature (ºF)	107	108	102	102
Relative Humidity (%)	14	14	10	11
Wind Speed (mph)	18 SSE	29 S	30 SSE	16 S

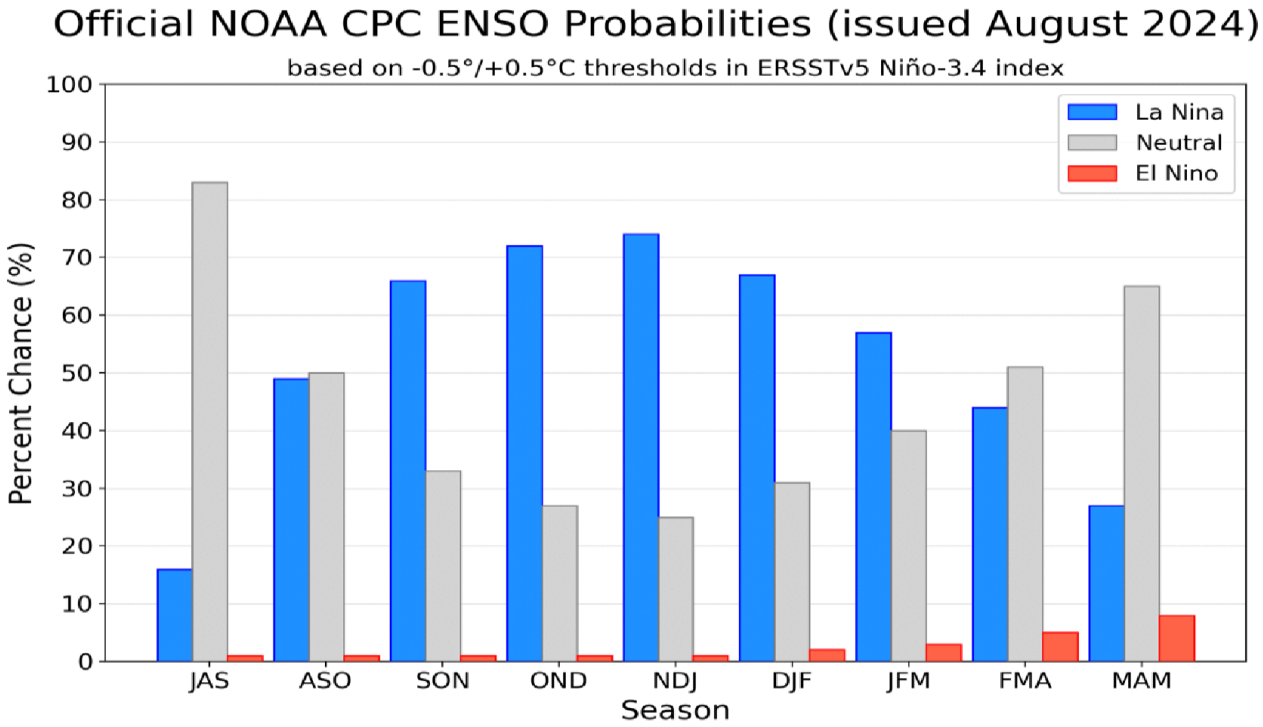
Conditions at Chico Regional Airport (KCIC)

Weather Pattern Conducive for Western Fires



Sea Surface Temperatures and ENSO

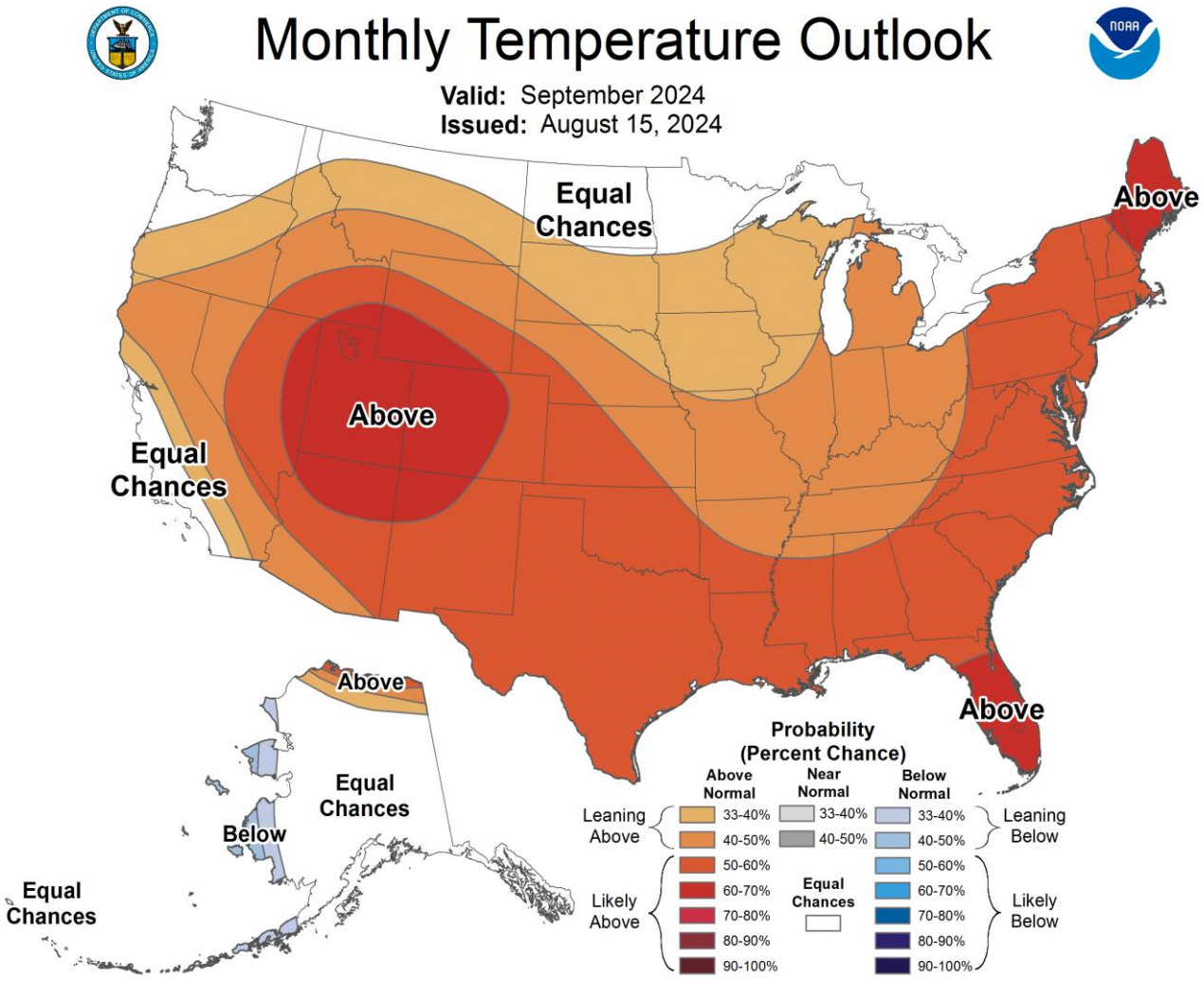


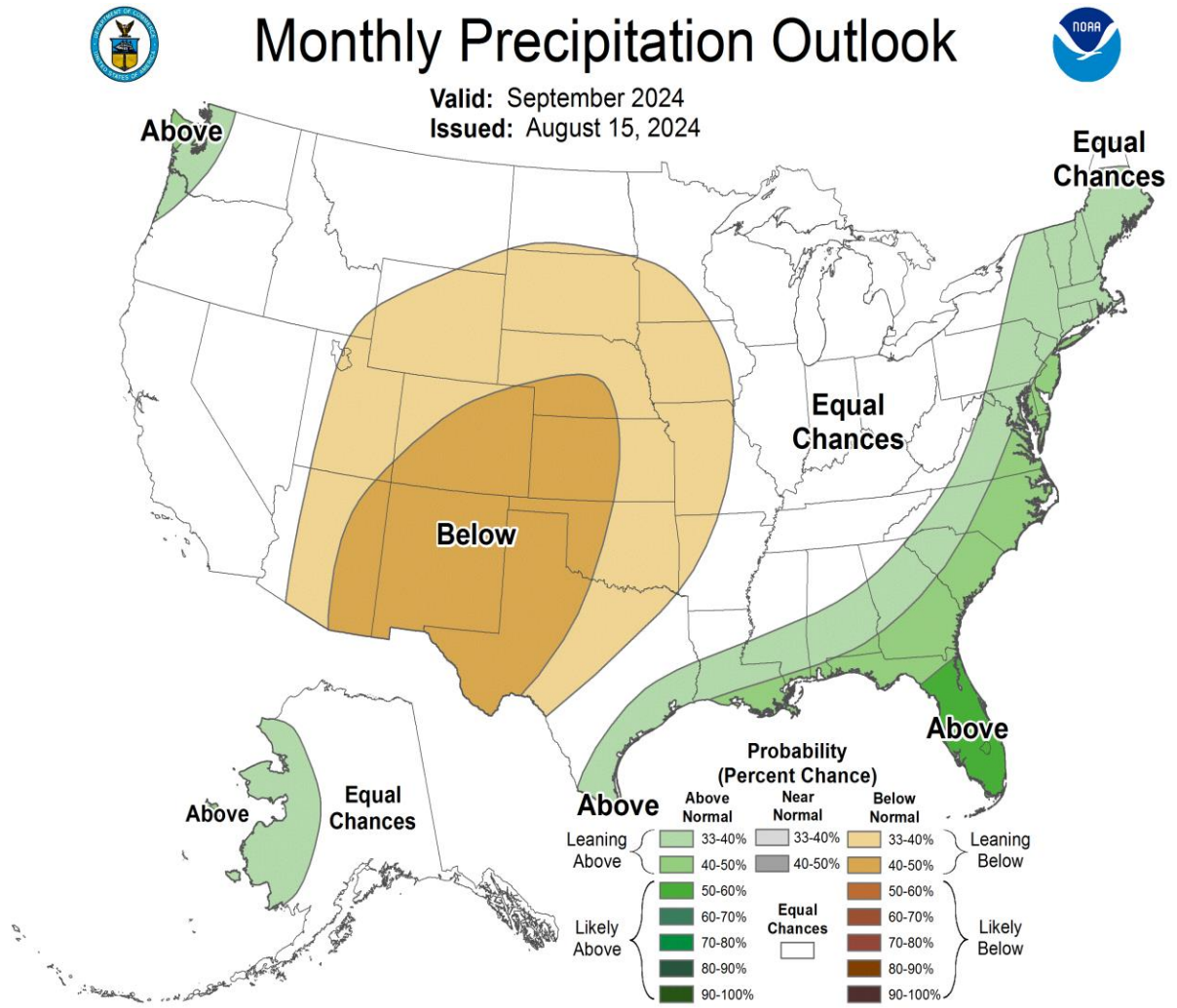


- Sea surface temperatures
  - Below normal sea surface temperatures are starting to develop across the eastern equatorial Pacific
  - The oceanic and atmospheric observations currently reflect ENSO-neutral conditions

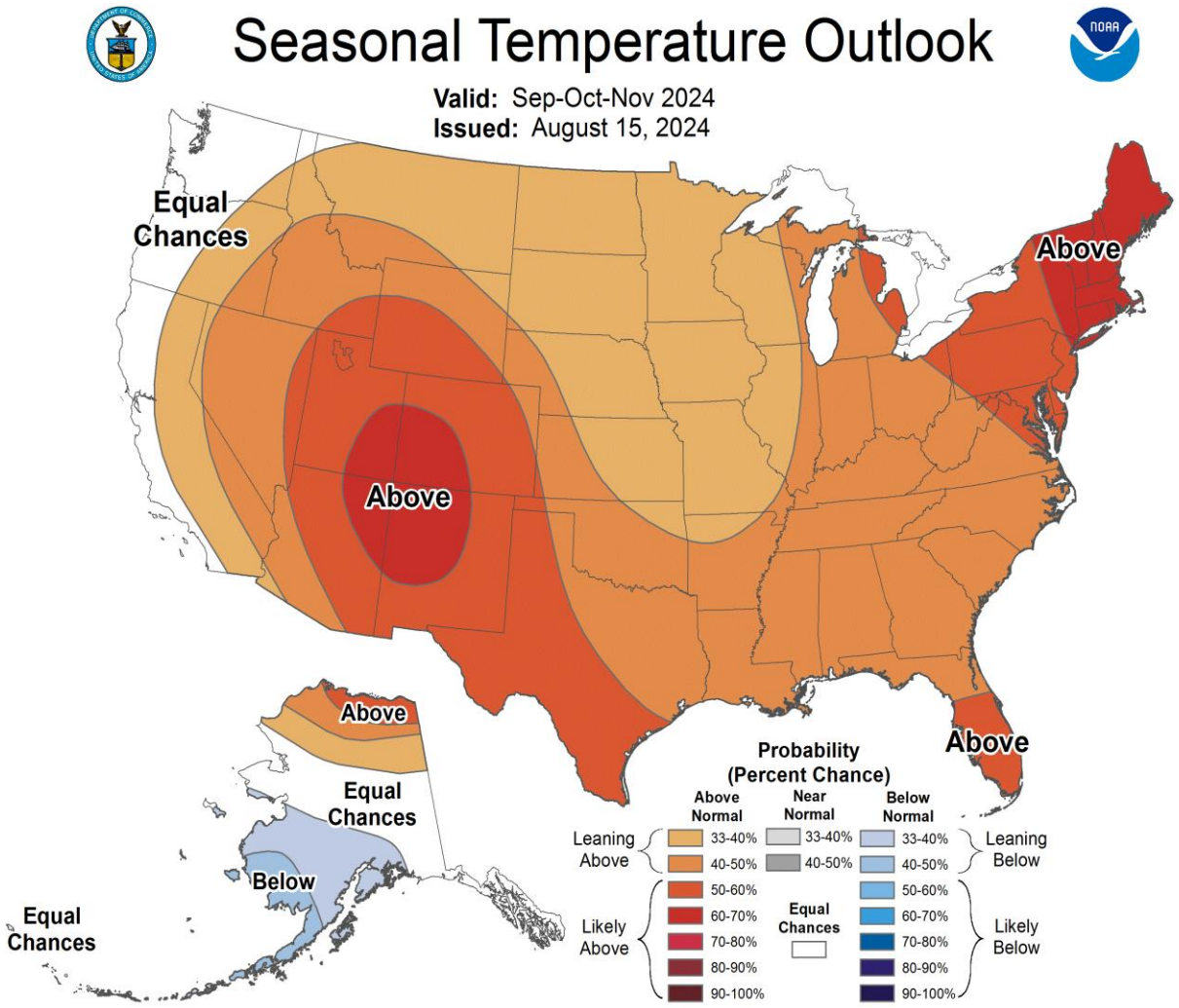
- ENSO forecast
  - 66 percent chance of La Niña developing during September-October-November 2024
  - Greater than a 60 percent chance that La Niña persists through the winter 2024-2025

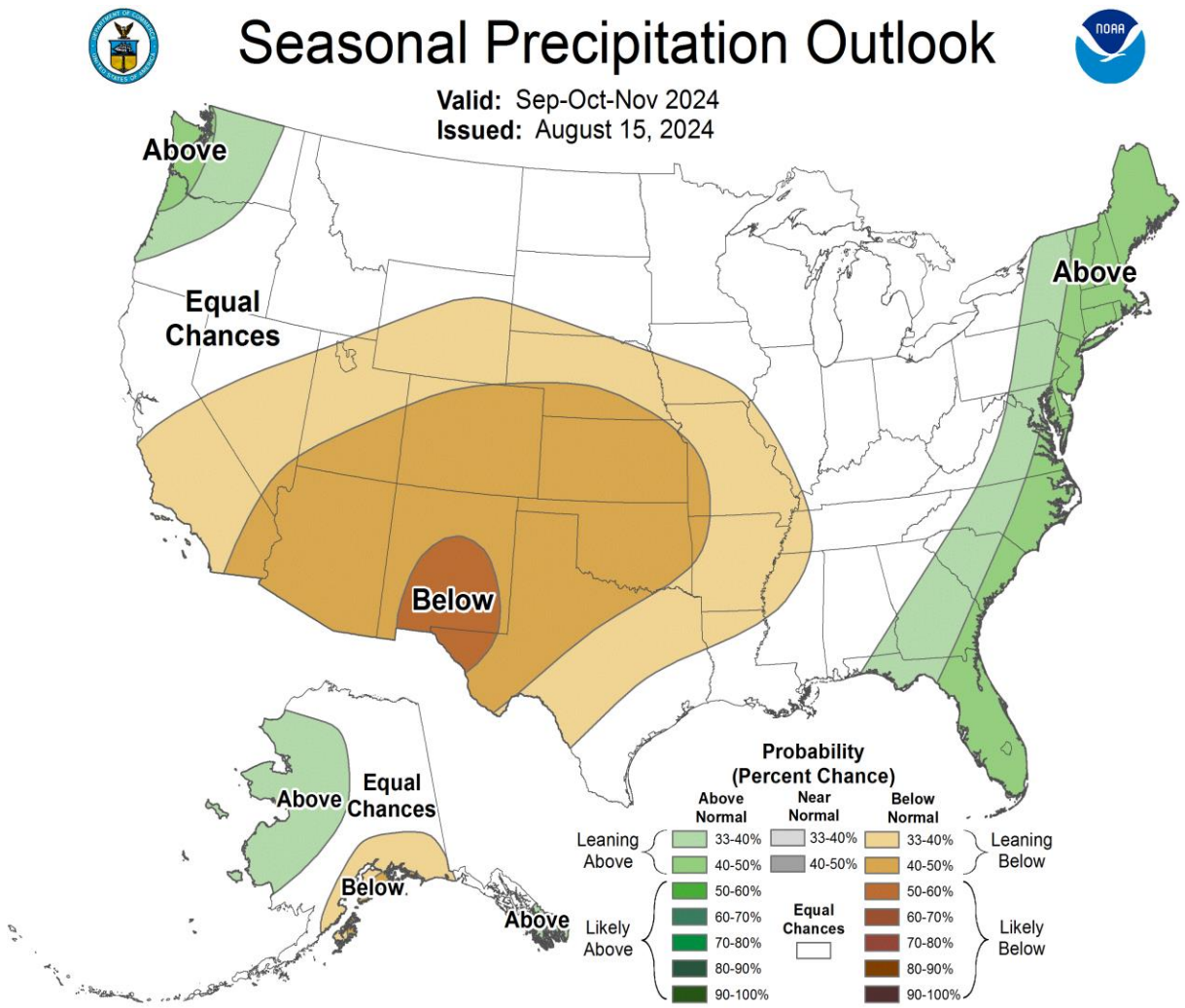
Monthly Forecast (September)



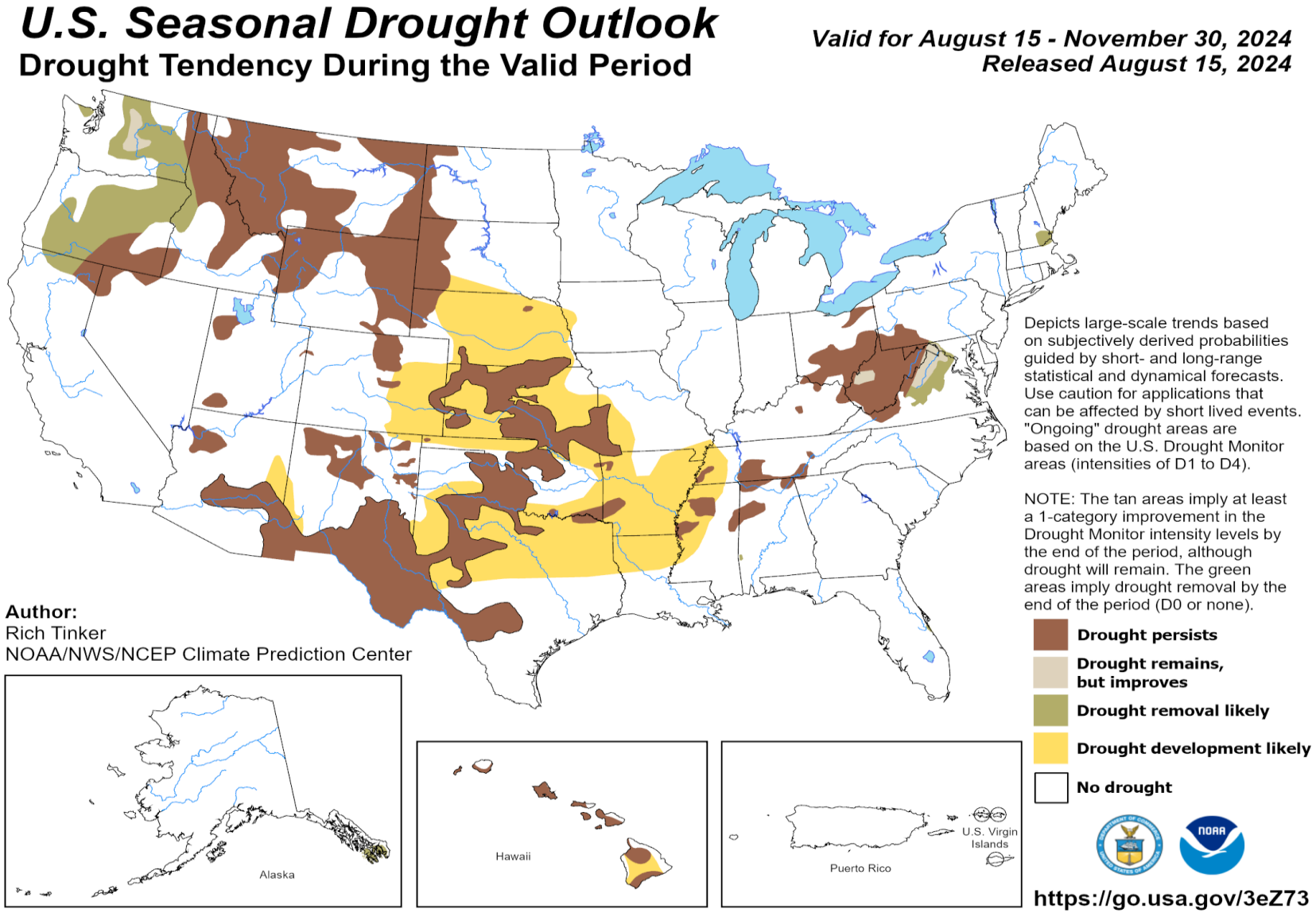


Three-Month Forecast (Sep, Oct, Nov)





Drought Outlook



For More Information

Today's presentation:

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

NOAA's National Centers for Environmental Information: www.ncei.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

NOAA's Storm Prediction Center: www.spc.noaa.gov

Climate Portal: www.climate.gov

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