NOAA Climate Science and Services
Monthly Climate Update

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Global Temperature (May & Mar-May)
The global temperature record dates back to 1880 (143 years)

- **Global Land & Ocean:** +0.77°C/+1.39°F; 9th warmest
- **Global Land:** +1.12°C / +2.02°F; 11th warmest
- **Global Ocean:** +0.64°C / +1.15°F; 8th warmest

- **Global Land & Ocean:** +0.85°C/+1.53°F; 6th warmest
- **Global Land:** +1.40°C / +2.52°F; 5th warmest
- **Global Ocean:** +0.65°C / +1.17°F; 6th warmest
Global Temperature (Jan-May)
The global temperature record dates back to 1880 (143 years)

Global Land & Ocean: +0.85°C/+1.53°F; 6th warmest

~9% probability of top 5 year
>99% probability of top 10 year
Contiguous U.S. May 2022

Temperature: 61.9°F (+1.7°F) – above average
Precipitation: 3.17” (+0.26”) – above average

- Cool: NW & northern Rockies
- Warm: SW, South & eastern half of CONUS
- WA: 8th coolest May; TX: 2nd warmest May on record

Temperature Percentiles: May 2022
Period: 1895-2022 (128 years)

- Wet: NW, n & c Plains, OH Valley, e Gulf Coast
- Dry: CA to TX, parts of NE
- AZ: 5th driest May; WA: 8th wettest May on record

Precipitation Percentiles: May 2022
Period: 1895-2022 (128 years)
Contiguous U.S. March-May 2022 (MAM)

Temperature: 52.2°F (+1.3°F) – above average
Precipitation: 8.07” (+0.13”) – near average

Temperature Percentiles: Mar-May 2022
Period: 1895-2022 (128 years)

- Cool: PNW to Upper Midwest
- Warm: CA to Deep South, MS River to East Coast
- RI: 4th warmest MAM on record (9 add’l states top 10)

Precipitation Percentiles: Mar-May 2022
Period: 1895-2022 (128 years)

- Wet: NW, n Plains to Great Lakes, c Plains to Gulf Coast
- Dry: CA to High Plains, w Gulf Coast
- NM: 6th driest MAM; ND: 4th wettest MAM on record
Contiguous U.S. January-May 2022 (YTD)

**Temperature:** 44.3°F (+1.0°F) – above average  
**Precipitation:** 11.48” (-0.91”) – below average

- **Cool:** parts of NW & northern Plains to Midwest  
- **Warm:** CA to TX, c Gulf Coast to New England  
- **CA:** 8th warmest YTD on record

- **Wet:** n Plains to Great Lakes, mid-MS Valley to NE  
- **Dry:** West, Deep South, parts of c Plains  
- **CA:** driest YTD; ND: 4th wettest YTD on record
Current U.S. Drought

~44.5% of Contiguous U.S. in Drought

(↓ ~9.2 percent since early May)

Drought severity/extent lessened across Northwest, northern Rockies, Plains, parts of Southeast

Drought severity increased from central California to New Mexico

Outside CONUS:
Drought expanded across Puerto Rico and Alaska while drought severity/extent lessened across Hawaii
Since 1895, Texas as a whole saw its 2\textsuperscript{nd} Hottest May on Record, with an average statewide anomaly of +5.5°F. Only 1996 was hotter.

79 of the 254 Counties in TX saw record hot temperatures for the month of May.

These included the metro areas of Houston, Austin, San Antonio, and Corpus Christi.

The largest anomalies were seen in Kimble and Menard Counties in the Hill Country, at +8.5°F.
Texas also had its 8\textsuperscript{th} driest January 1-May 31 on record. Statewide average of 6.55”, or about 60% of normal.

Not coincidentally, 9 counties in central TX and the Hill Country have experienced their driest January 1 to May 31 on record.

Driest statewide Since 2011. Of course, 2011 was the hottest and driest summer on record for TX.

Much of TX has seen record heat the first half of June.
40% of TX is in Extreme (D3) to Exceptional (D4) Drought  
The highest amount since May 2014.

On the same day in 2011, 85% of TX was in D3 to D4 Drought.

But, TX is clearly trending worse through the rest of June.
Statewide Reservoir Levels are at 77.4% of normal, or about 10% below the 30 year average of 85% for mid June.

Reservoir Levels were at 75% of capacity on same date in 2011
Additional Impacts

- The just completed TX Winter Wheat harvest fell from 74M bushels in 2021 to 40,300M bushels in 2022 – about a 40% drop.
- The Electrical Reliability Council of TX (ERCOT) reported a peak hourly power usage of 74,916 MW on Sunday, June 12th, establishing a new usage record for the state. Unheard of to see this in June.
- Streamflows on the Lower Colorado River Highland Lakes was 3% of normal In May. Should be the month w/highest inflows.
Sea Surface Temperatures and ENSO

• Sea surface temperatures
  – Below normal sea surface temperatures continue across the central and eastern equatorial Pacific Ocean.
  – The oceanic and atmospheric observations currently reflect La Niña conditions.

• ENSO forecast
  – La Niña is favored to continue during July-August-September.
  – Probabilities for La Niña are near 60 percent through the late fall and winter.
Three-Month Forecast (Jul, Aug, Sep)

Seasonal Temperature Outlook

Seasonal Precipitation Outlook

Equal Chances

Above

Below

Probability (Percent Chance)

Leaning Above

Likely Above

National Oceanic and Atmospheric Administration (NOAA)
Monthly Climate Briefing
U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period

Valid for June 16 - September 30, 2022
Released June 16

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).

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

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

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TODAY’S PRESENTATION:
• http://www.ncdc.noaa.gov/sotc/briefings

NOAA’s National Centers for Environmental Information: www.ncdc.noaa.gov
• Monthly climate reports (U.S. & Global): www.ncdc.noaa.gov/sotc/
• 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

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