NOAA Climate Science & Services
Monthly Climate Update

A look back at April
A preview of Summer

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Global Temperature: April 2015

- April +1.33°F warmer than 20th century average
  - 4th warmest April on record
- Land: +2.00°F
  - 10th warmest
- Ocean: +1.08°F
  - 1st warmest

The global temperature record dates to 1880 (136 years)
January-April 2015 was record warm for the year-to-date

- Land and Ocean Temperature (record warm): +1.44°F
- Land Temperature (record warm): +2.66°F
- Ocean Temperature (2nd warmest): +0.99°F

Global Land and Ocean Temperature Departure from 20th Century Average, January-April
Contiguous U.S. April 2015

Temperature: 53.1°F, +2.1°F, 17th warmest April
Precipitation: 2.78", +0.26", 37th wettest April

Statewide Temperature Ranks, April 2015
Period: 1895-2015 (121 years)

Statewide Precipitation Ranks, April 2015
Period: 1895-2015 (121 years)

- The Southeast was very warm, driven by warm nighttime temperatures.
- FL was record warm with a temperature +6.1°F above the 20th century average.
- Large footprint of above-average temperatures, not much ‘extreme’ warmth or cold.

- The Southern tier and Ohio Valley were wetter than average. KY, LA, and WV were top 10 wet.
- Significant flooding in KY which had its 2nd wettest April.
- The West, Northern tier, and Northeast were dry.
- SD was much drier than average, continuing a record dry year for the state.
Temperature: 41.1°F, +2.0°F, 20th warmest Jan-Apr
Precipitation: 8.49”, -0.99”, 18th wettest Jan-Apr

The West was warm. Arizona and California were record warm. Florida was also warmer than average.
The Midwest and Northeast were cool, mostly due to record and near-record cold for the first part of 2015
— Massachusetts and New York had their 2nd coldest January-April.
31.5% of Contiguous U.S. in Drought

(\textasciitilde 2.8\% since beginning of January)

- **Improvement:** Central and Southern Plains to the Southeast
- **Degradation:** Parts of the Northern Rockies, Upper Midwest, Northeast, and Puerto Rico
- **Status quo:** The West Coast, through the Great Basin, and into the Southern Rockies
The TX Drought of October 2010 to May 2015 is clearly the 2\textsuperscript{nd} worst on record since 1900.
A comparison of drought in TX/OK from October 2011 to May 2015

October 11, 2011

99% of TX in severe drought
100% of OK in severe drought.

May 19, 2015

3% of TX in severe drought.
9% of OK in severe drought.
All of TX/OK have seen above normal rainfall in the past 60 days. Most areas >200% of normal
Ranking rainfall totals for the last 90 days compared to all years since 1948

OKC, Tyler, and Corpus Christi are all the wettest on record.
TX Reservoir Storage has increased from near record lows in February to 78% full. An increase of 3.3 Trillions Gallons!

Texas Reservoirs
- Monitored Water Supply Reservoirs are 78.5% full on 2015-05-20
Most reservoirs in OK are already at 100% storage (purple). Additional rain expected over the next 4-5 days means much enhanced risk of significant flooding.
May 2015

Sea Surface Temperatures and ENSO

**Sea surface temperatures**
- Above normal SSTs across the equatorial Pacific
- Above normal SSTs along the west coast of North America

**ENSO forecast**
- 90% chance of El Niño this summer
- Strength is uncertain at this point
- Large spread among predicted peak SST anomaly magnitudes
Seasonal Forecast (June-July-August)

June-August Average Temperature Probability

June-August Total Precipitation Probability
U.S. Drought Outlook
Drought Tendency During the Valid Period
May 21–August 30, 2015; Released May 21, 2015

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

Valid for May 21 - August 31, 2015
Released May 21, 2015

- **Drought persists/intensifies**
- **Drought remains but improves**
- **Drought removal likely**
- **Drought development likely**

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).

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- Dates for upcoming reports: http://www.ncdc.noaa.gov/monitoring-references/dyk/monthly-releases

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