

# NOAA Climate Science & Services

## Monthly Climate Update



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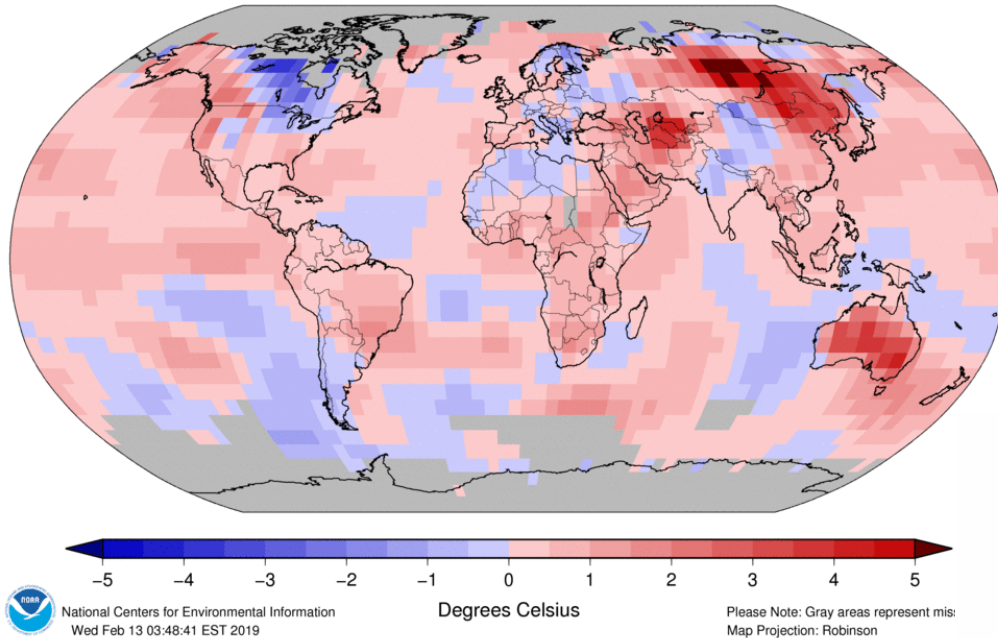
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Meteorologist & Seasonal Forecaster , NOAA Climate Prediction Center

# Global Temperature January 2019

## Land & Ocean Temperature Departure from Average Jan 2019 (with respect to a 1981–2010 base period)

Data Source: GHCN-M version 3.3.0 & ERSST version 4.0.0



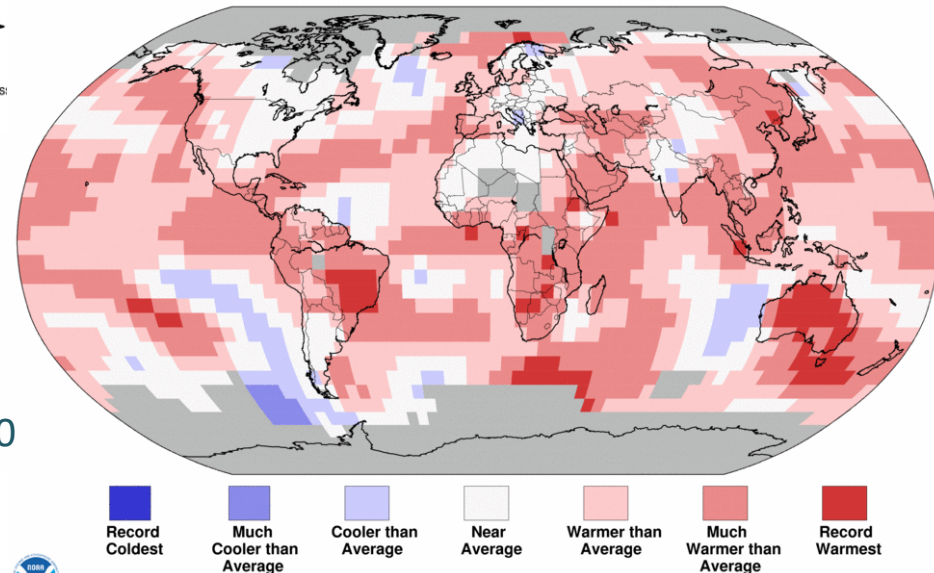
- Global Land:  $+1.51^{\circ}\text{C}$  /  $+2.72^{\circ}\text{F}$ 
  - 4th warmest on record
- Global Ocean:  $+0.65^{\circ}\text{C}$  /  $+1.17^{\circ}\text{F}$ 
  - 3rd warmest on record
- ❖ The global temperature record dates to 1880 (140 years)

- Global Land + Ocean:  $+0.88^{\circ}\text{C}$  /  $+1.58^{\circ}\text{F}$ 
  - Tied with 2007 as the third warmest Jan in the 140-year record
  - The 10 warmest Jan have all occurred since 2002
  - Jan 2019 marks the 43rd consecutive Jan and the 409th consecutive month with temperatures above the 20th century average

## Land & Ocean Temperature Percentiles Jan 2019

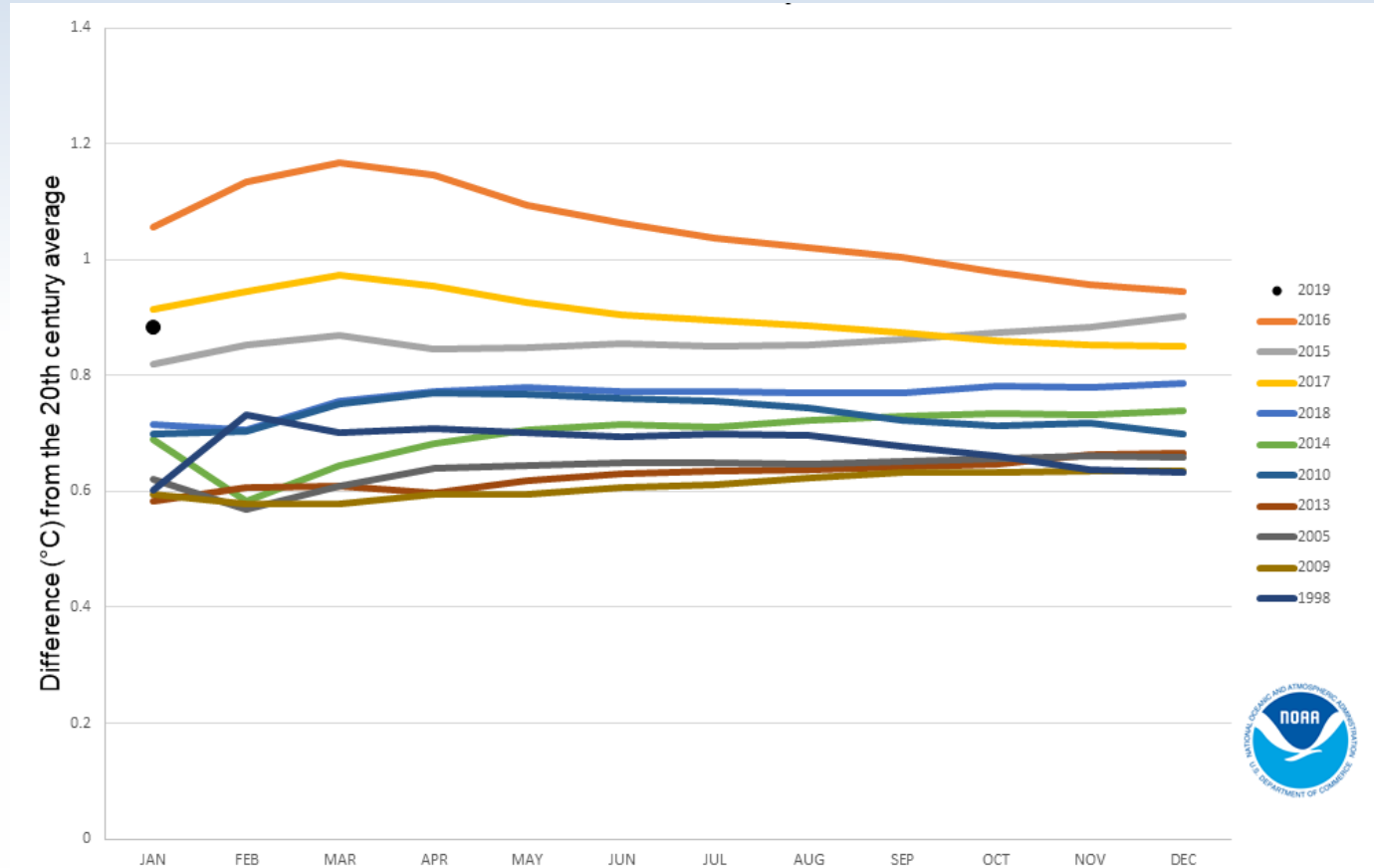
NOAA's National Centers for Environmental Information

Data Source: GHCN-M version 3.3.0 & ERSST version 4.0.0



# Global Temperature January 2019

## Year-to-Date Global Temperatures for 2019 and the ten warmest years on record



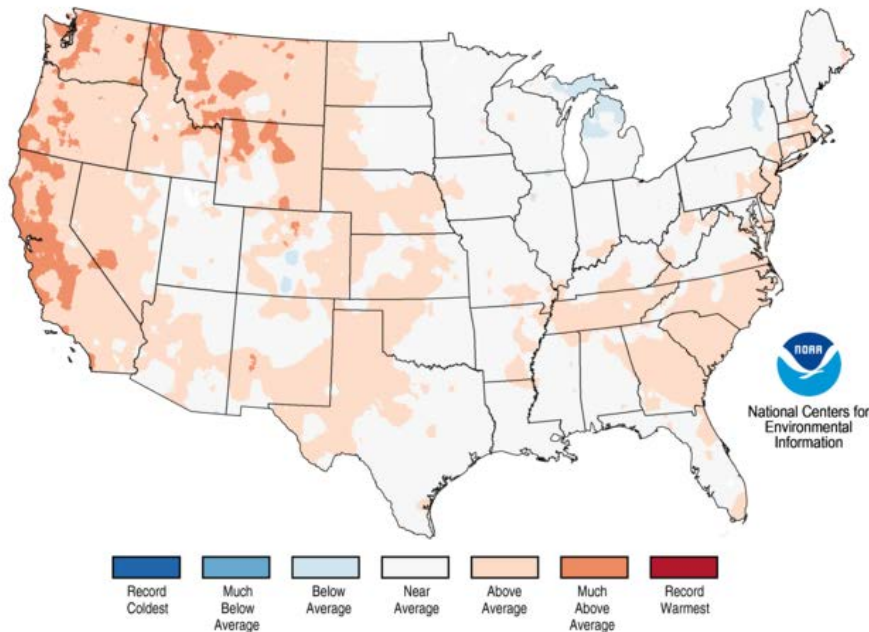
- Almost certain (99.9% chance) 2019 will end among the 10 warmest years on record

# Contiguous U.S. January 2019

Temperature: 32.7°F, +2.6°F, 29<sup>th</sup> warmest January on record

Precipitation: 2.49", +0.18", Tied with 1939 as 37<sup>th</sup> wettest January on record

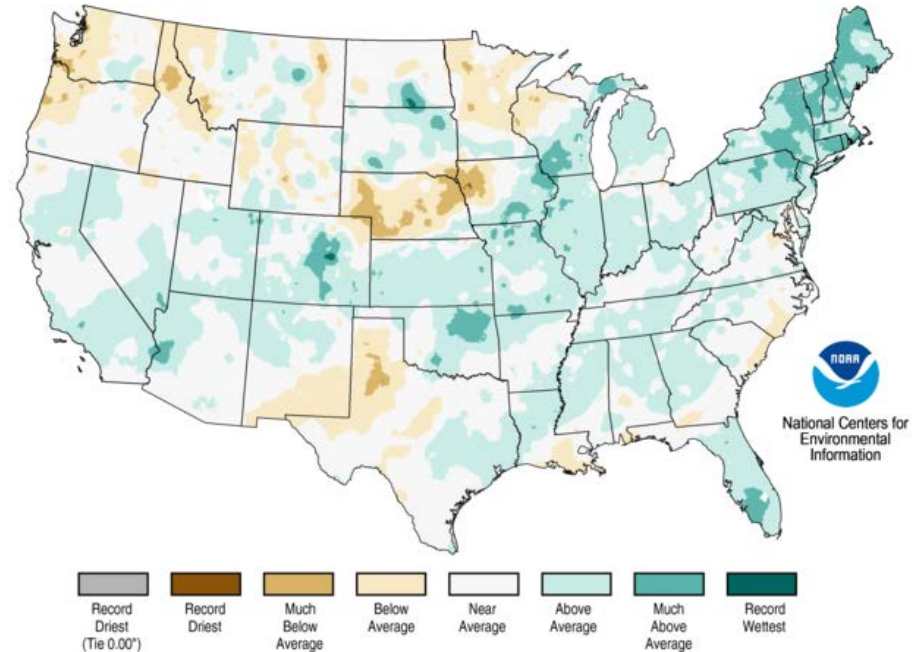
Temperature Percentiles January 2019  
Period: 1895-2019 (125 years)



Created: Mon Feb 04 2019

Data Source: 5km Gridded Dataset (nClimGrid) Created: Mon Feb 04 2019

Precipitation Percentiles January 2019  
Period: 1895-2019 (125 years)



Data Source: 5km Gridded Dataset (nClimGrid)

- The western half of the CONUS and parts of the southeast had warmer-than-average conditions
- CA's Jan 2019 temperature ranked as 11<sup>th</sup> warmest
- No state ranked below-average for Jan

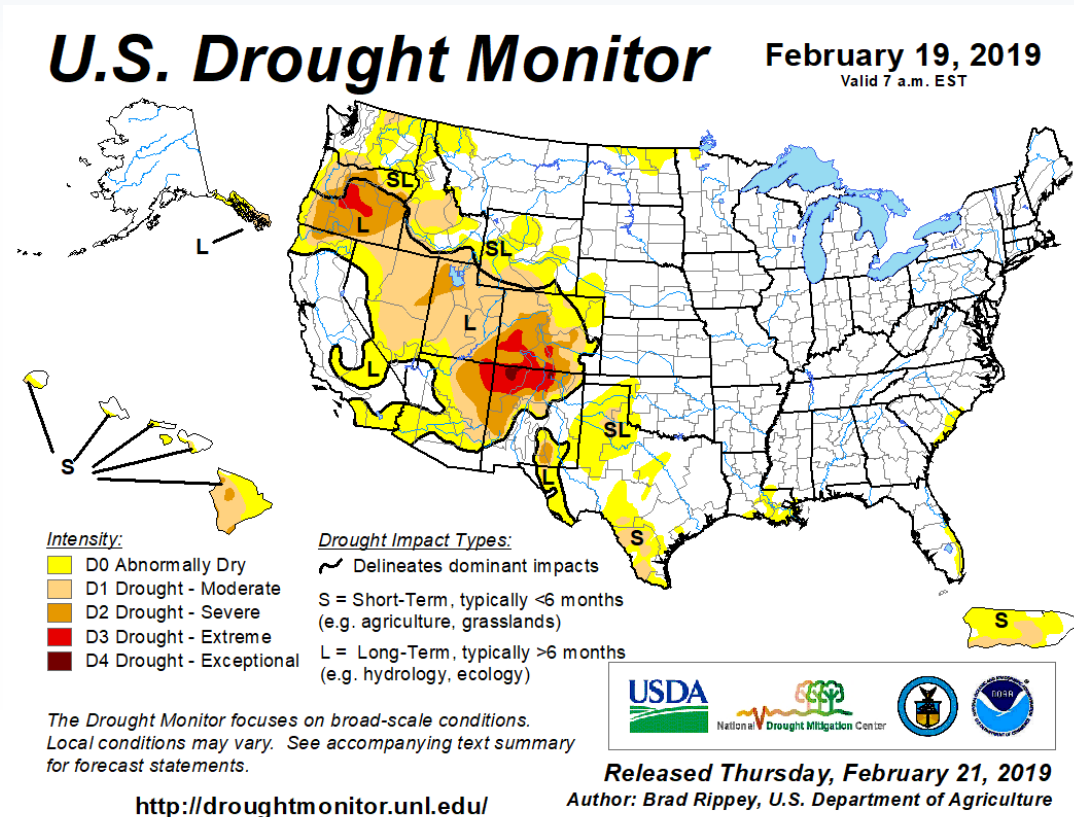
- Northeast, parts of the Midwest, High Plains and Florida were much wetter than average
- Northwest and parts of New Mexico and Texas were drier than average
- Precipitation helped bring back snowpack back to near-normal levels

# Current U.S. Drought

## 15.1% of Contiguous U.S. in Drought

(↓ 1.4 percentage points since late Jan)

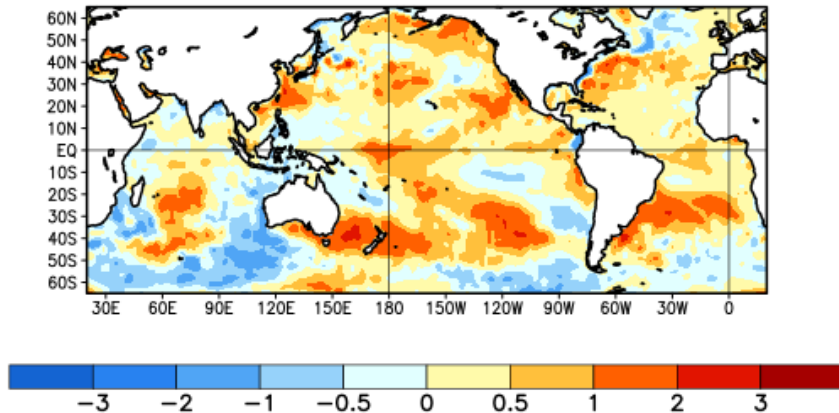
- Improvement: Parts of the West, High Plains and Florida
- Degradation: Parts of Texas and Idaho
- Outside CONUS: Drought improved in Hawaii, while it deteriorated across Puerto Rico's southwestern coast





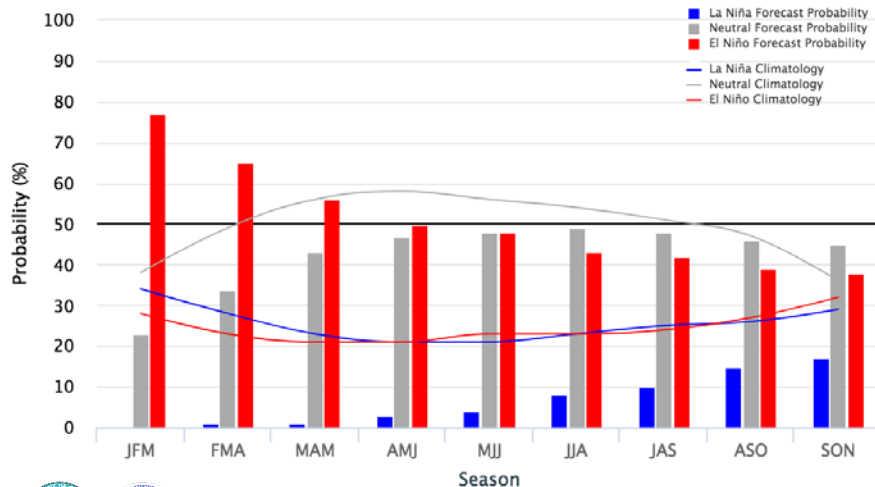
# Sea Surface Temperatures & ENSO

Average SST Anomalies  
20 JAN 2019 – 16 FEB 2019



Early-February 2019 CPC/IRI Official Probabilistic ENSO Forecasts

ENSO state based on NINO3.4 SST Anomaly  
Neutral ENSO:  $-0.5^{\circ}\text{C}$  to  $0.5^{\circ}\text{C}$



- Sea surface temperatures

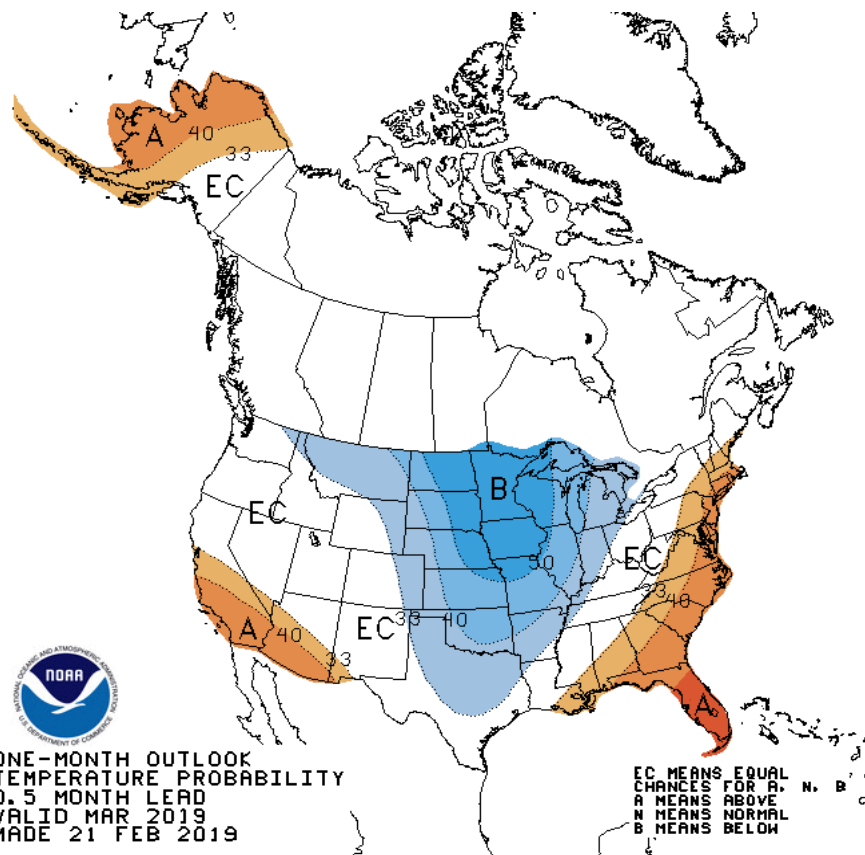
- Above normal SSTs in the eastern and central equatorial Pacific
- Atmosphere and ocean conditions more aligned
- El Niño conditions are present, with an El Niño Advisory issued 14 Feb

- ENSO forecast

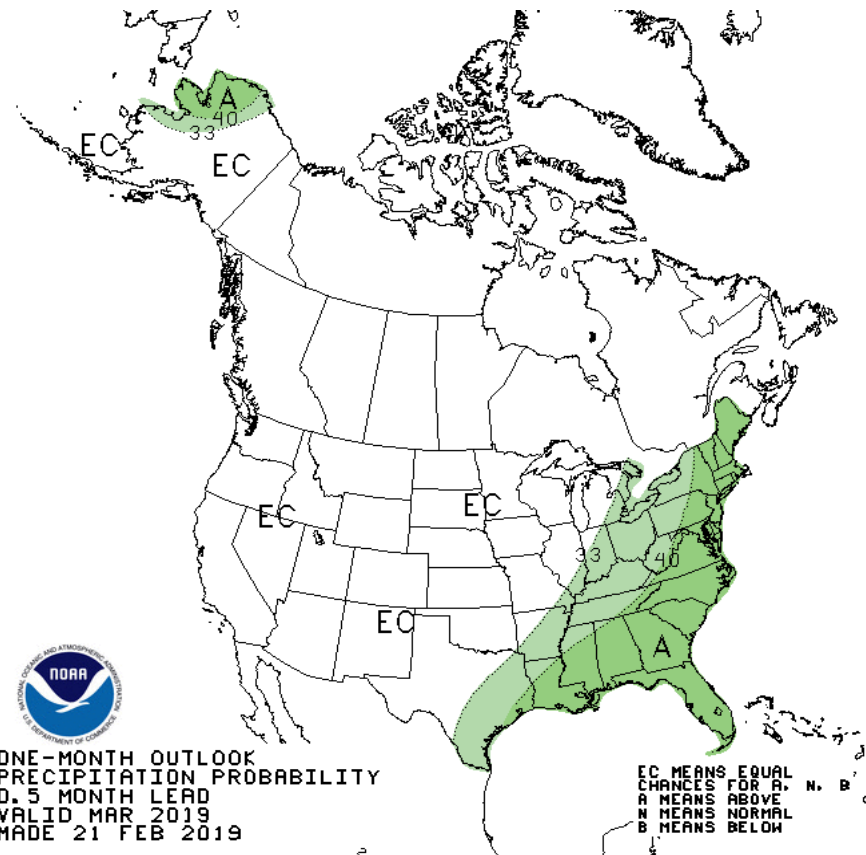
- El Niño likely to persist through spring 2019
- The chances of returning to Neutral increase during the summer
- ENSO Neutral likely during autumn 2019

# Monthly Forecast (March)

## March Average Temperature Probability

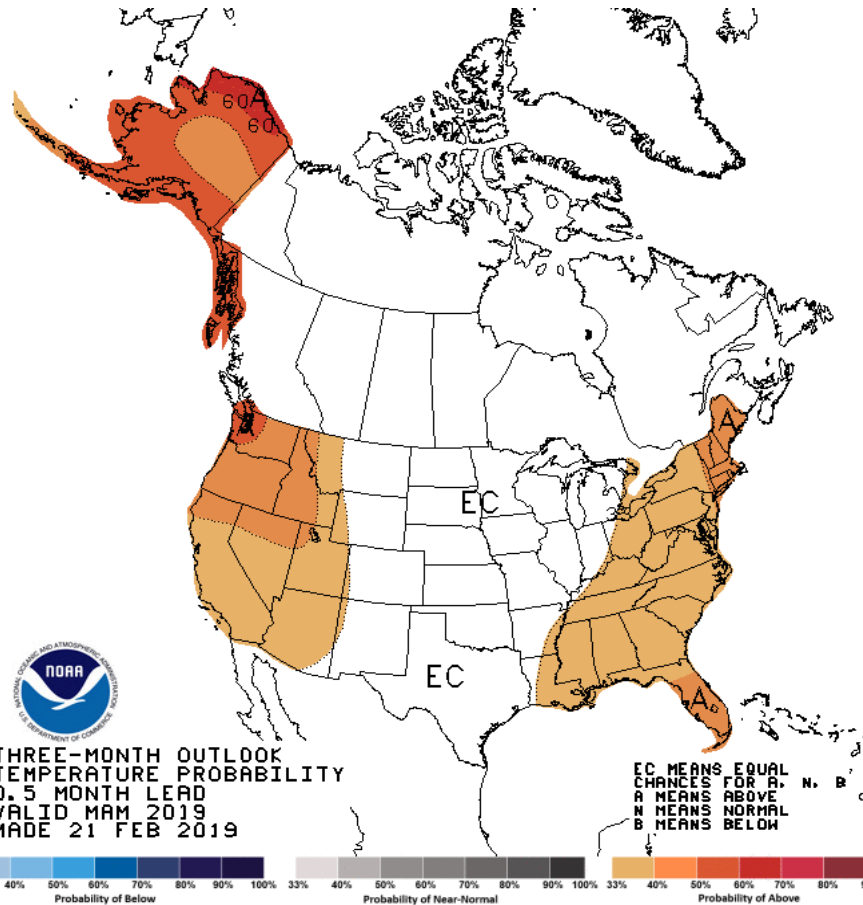


## March Total Precipitation Probability

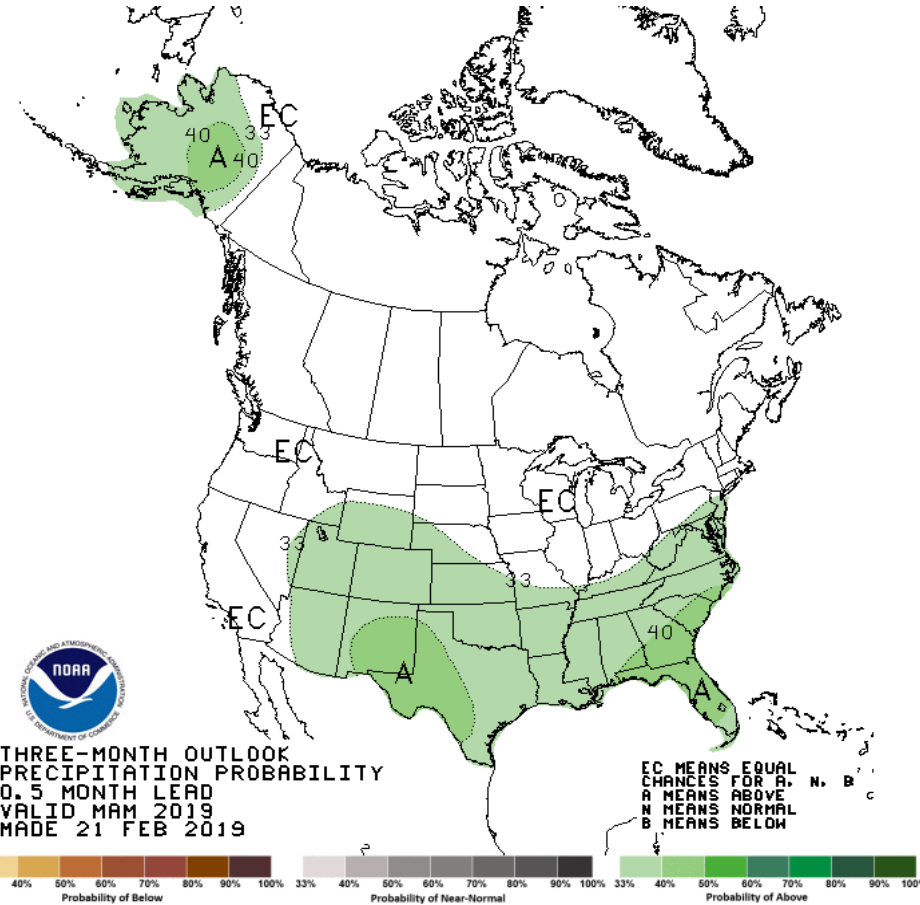


# Seasonal Forecast (March-April-May)

## March-April-May Average Temperature Probability



## March-April-May Total Precipitation Probability

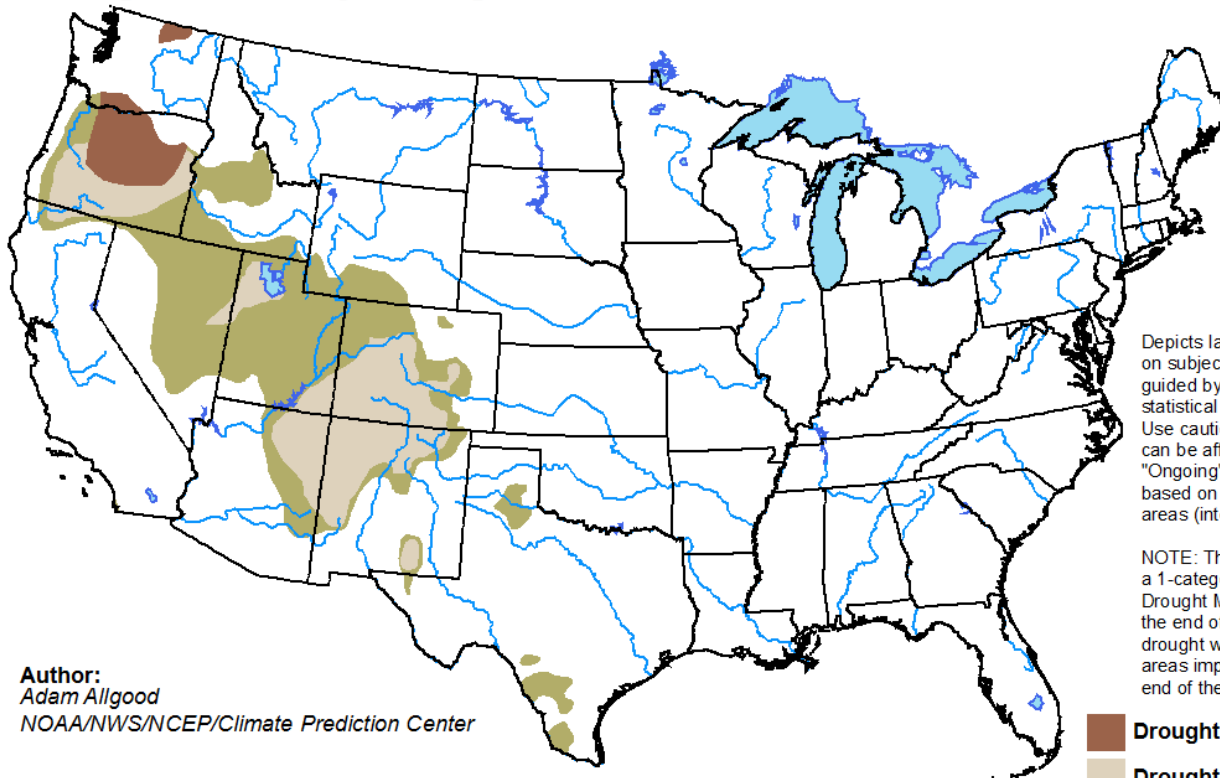




# U.S. Drought Outlook

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





Valid for February 21 - May 31, 2019  
Released February 21

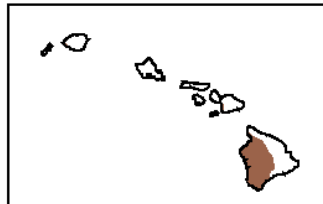
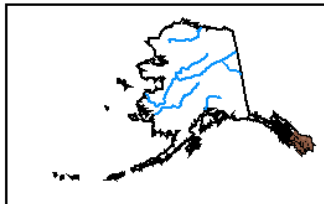


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Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on 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>

# For More Information



## TODAY'S PRESENTATION:

- <http://www.ncdc.noaa.gov/sotc/briefings>

## NOAA's National Centers for Environmental Information

[www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)

- Monthly climate reports (U.S. & Global): [www.ncdc.noaa.gov/sotc/](http://www.ncdc.noaa.gov/sotc/)
- Dates for upcoming reports: <http://www.ncdc.noaa.gov/monitoring-references/dyk/monthly-releases>

**NOAA's Climate Prediction Center:** [www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)

**U.S. Drought Monitor:** <http://drought.gov>

**Climate Portal:** [www.climate.gov](http://www.climate.gov)

**NOAA Media Contacts:** [Lauren.Gaches@noaa.gov](mailto:Lauren.Gaches@noaa.gov), 301-683-1327, (NOAA Communications/HQ)