

NOAA Climate Science & Services Monthly Climate Update



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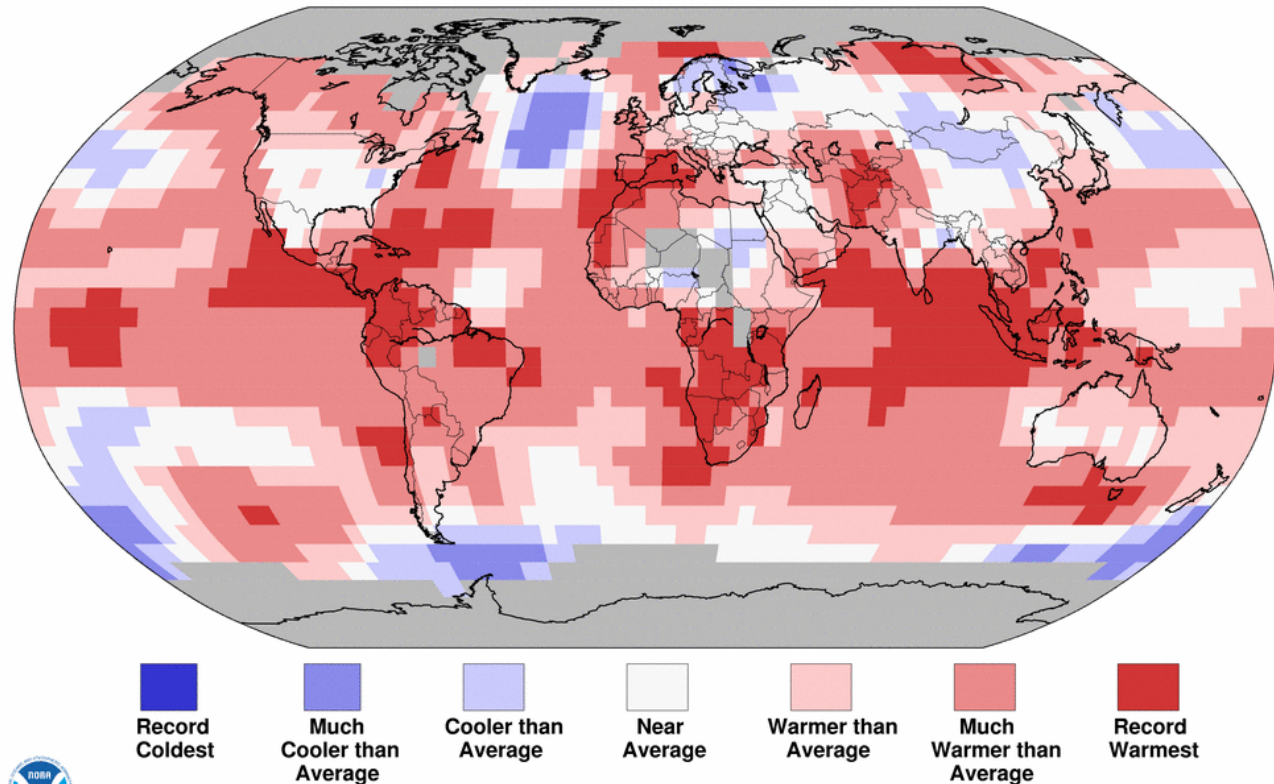
Meteorologist, Operational Prediction Branch
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Global Temperature: January 2016

- January +1.04°C warmer than 20th century average
 - Warmest January on record
 - 9th consecutive month of a record warm globe
 - 2nd largest monthly departure from average
- Land: +1.56°C
 - 2nd warmest January
- Ocean: +0.86°C
 - Warmest January
 - 2nd largest monthly departure from average

Land and Ocean Temperature Percentiles January 2016

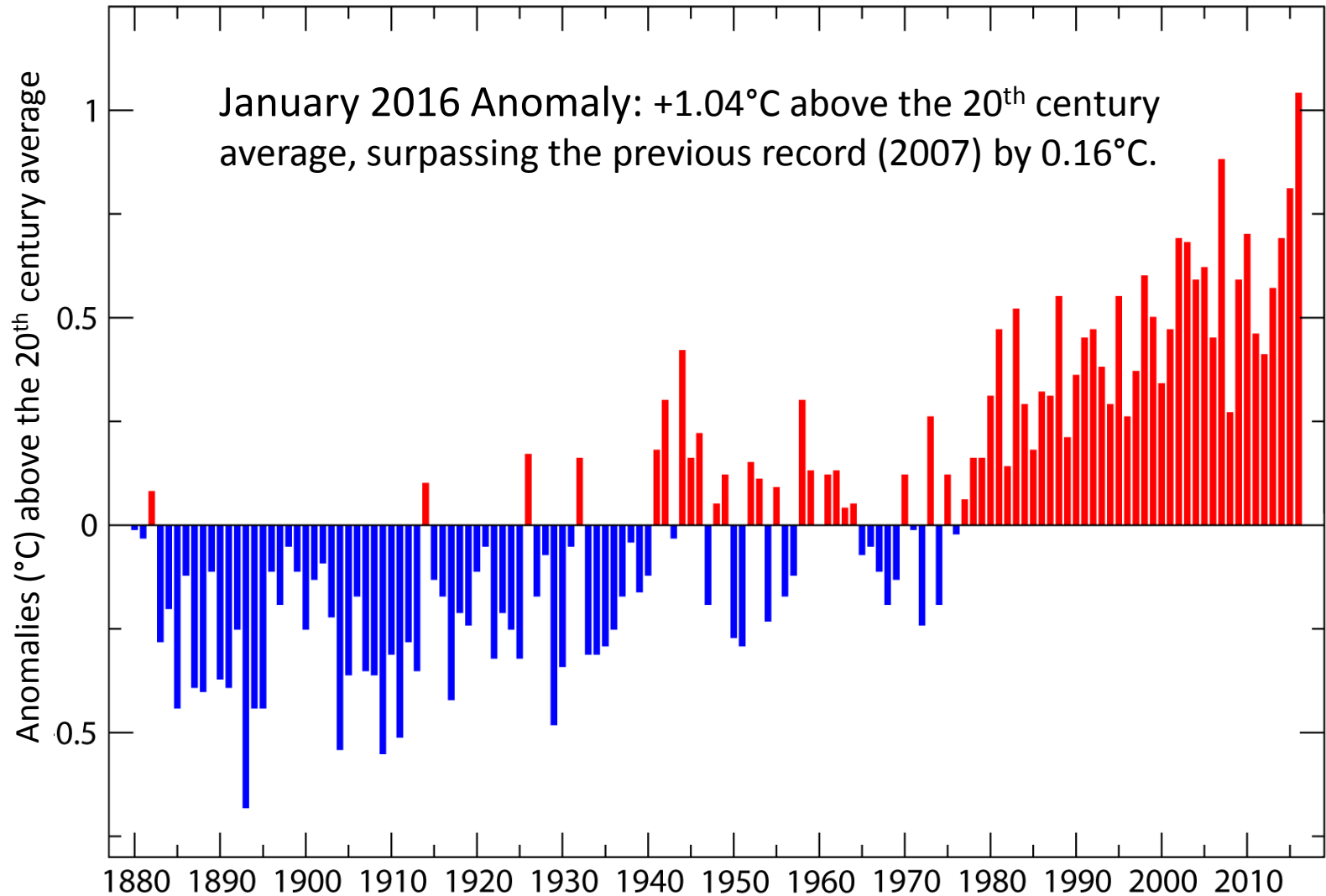
Data Source: GHCN-M version 3.3.0 & ERSST version 4.0.0



Fri Feb 12 06:41:00 EST 2016

The global temperature record dates to 1880 (137 years)

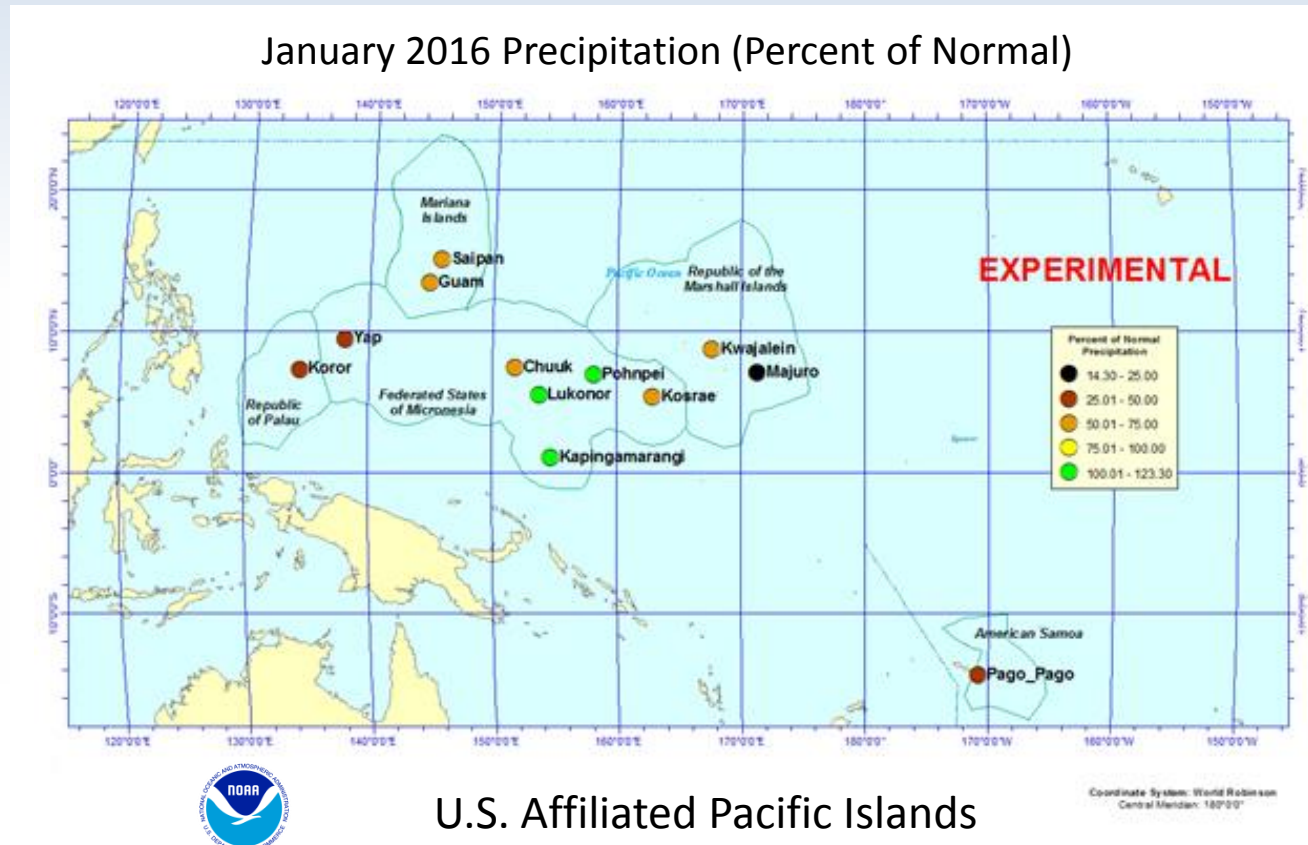
Global Temperature: January 2016



Drought Crisis in US Pacific Islands

Continued dryness across the western and central Pacific, related to El Niño, has resulted in drought conditions for several of the U.S. affiliated Pacific Islands

- Many of the islands need a minimum monthly precipitation total to meet water needs – lack of water storage
- Several locations record and near-record dry back to Sep/Oct
- Republic of the Marshall Islands has declared a state of emergency due to drought with only a few weeks of water supply remaining



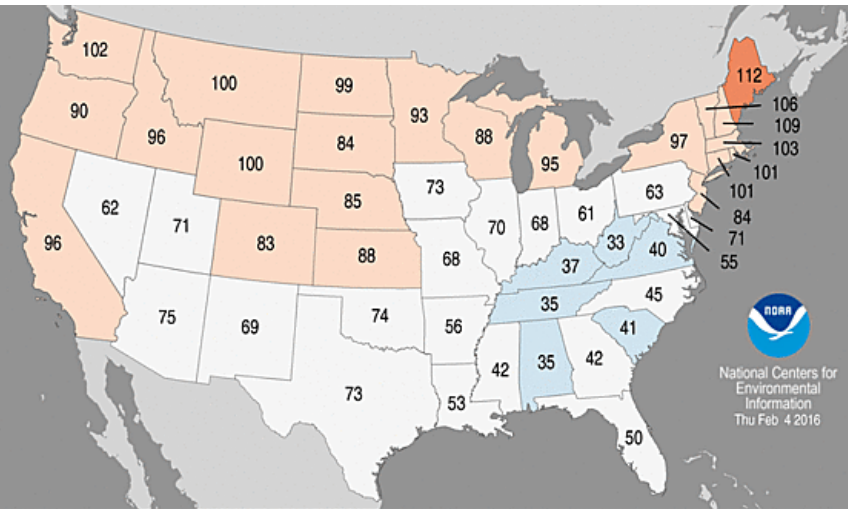
Contiguous U.S. January 2016

Temperature: 32.2°F, +2.1°F, 34th warmest January in 122-year period of record

Precipitation: 2.03", -0.28", 36th driest January on record

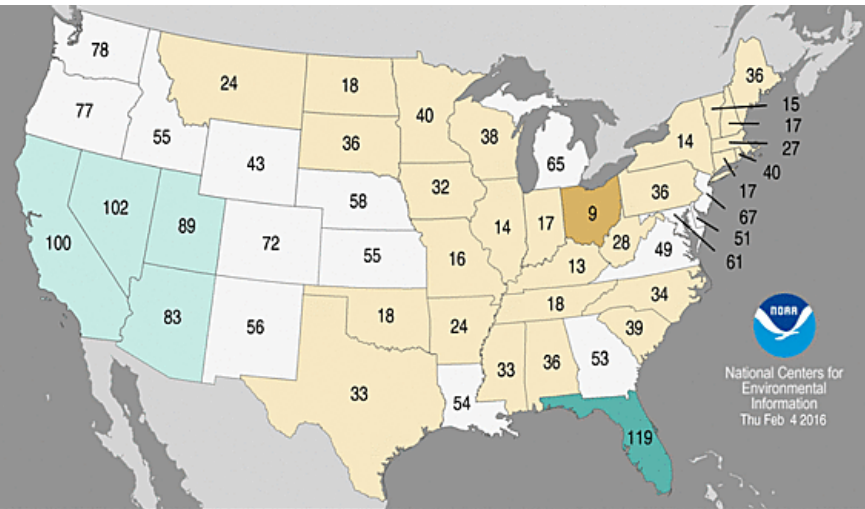
Statewide Temperature Ranks Jan 2016

Period: 1895-2016 (122 years)



Statewide Precipitation Ranks, Jan 2016

Period: 1895-2016 (122 years)



Record Coldest (1)
Much Below Average
Below Average
Near Average
Above Average
Much Above Average
Record Warmest (122)

Record Driest (1)
Much Below Average
Below Average
Near Average
Above Average
Much Above Average
Record Wettest (122)

- Warmer than average temperatures across the northern US
- Near to below-average temperatures across the South

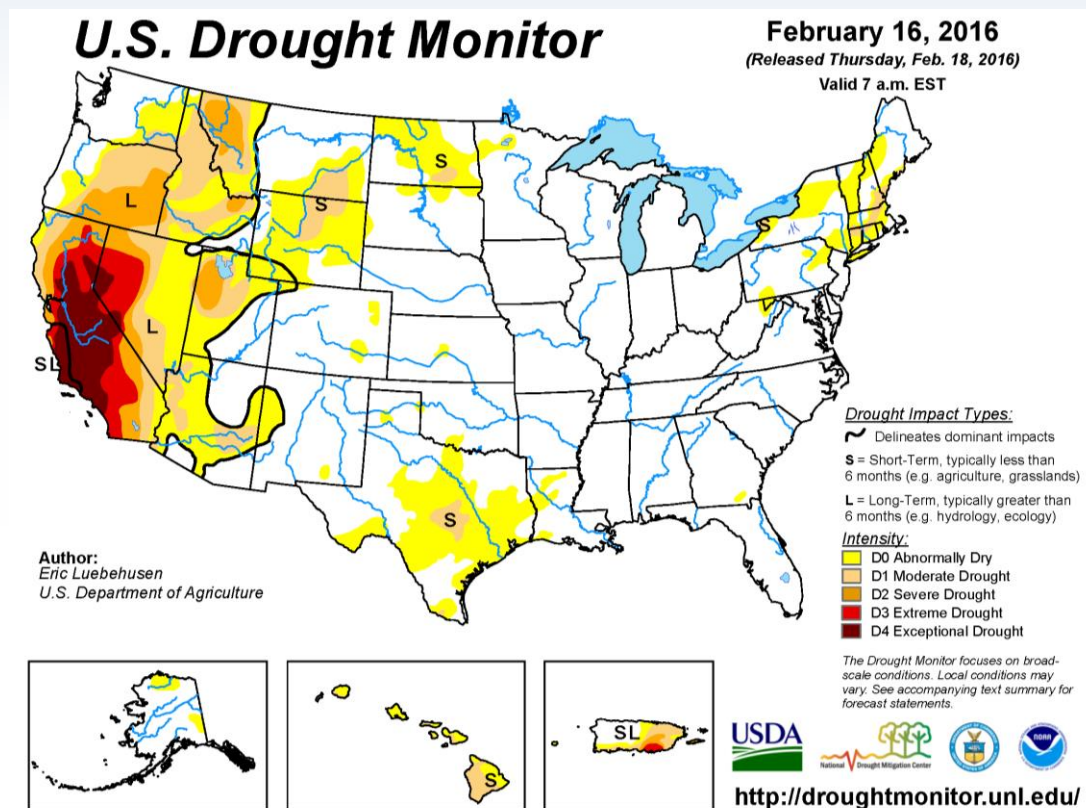
- Wet conditions across the West with some drought relief. FL had its 4th wettest January
- Most of Lower 48 was drier than average
 - Ohio had its 9th driest January
- Winter storm impacted Mid-Atlantic and Northeast. Several snowfall records broken

Current U.S. Drought

15.1% of Contiguous U.S. in Drought

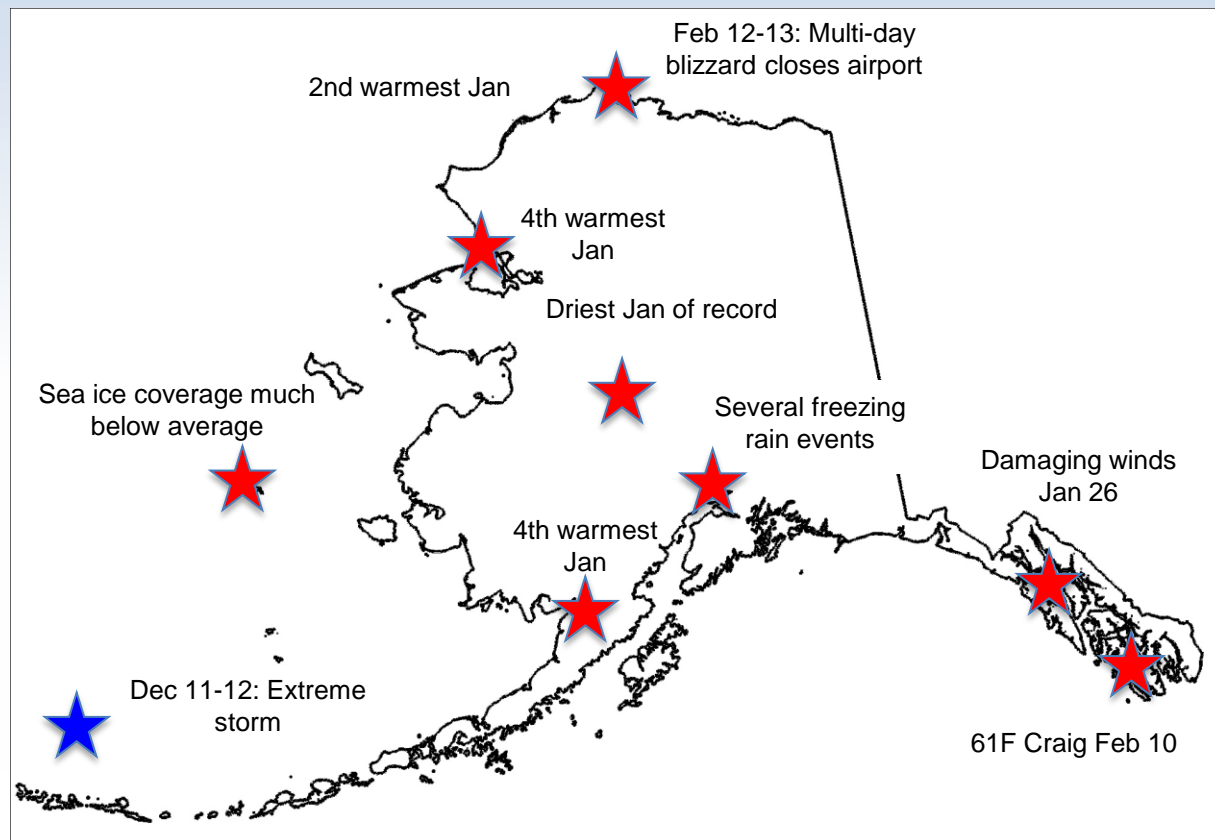
(↓ ~3.7 percentage points since late Dec)

- Improvement: Parts of the West and Midwest
- Degradation: Parts of the Northern Plains and Rockies and the Southern Plains
- Outside CONUS: Drought development in Hawaii. Drought continues in eastern Puerto Rico



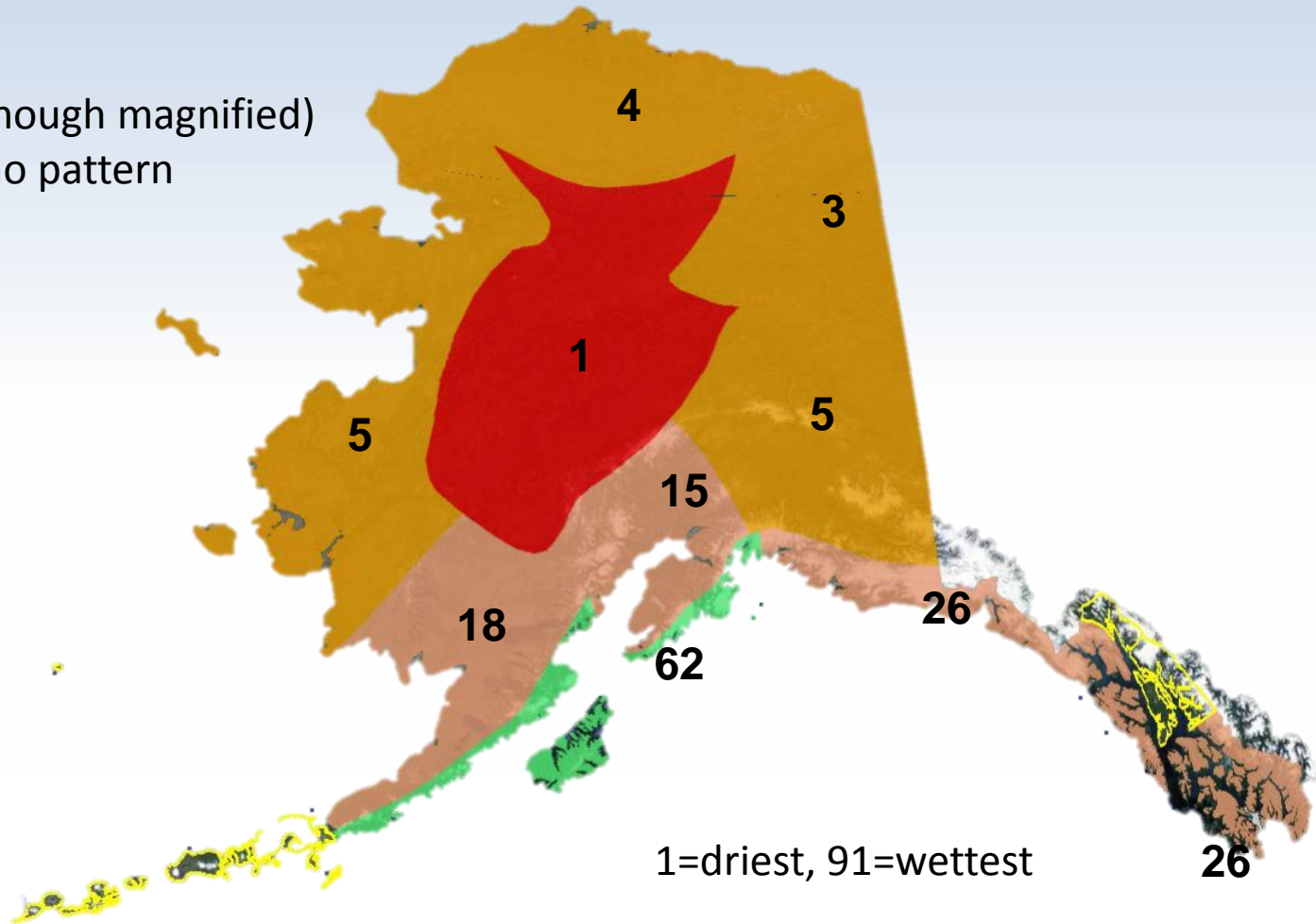
Alaska Highlights Winter 2015-16

- Third warm winter in a row, no deep cold
- Mostly dry after a wet (snowy) autumn
- High impact wind storms



December-January Precipitation Climate Division Ranks (1925-2016)

A “typical” (though magnified)
El Niño pattern

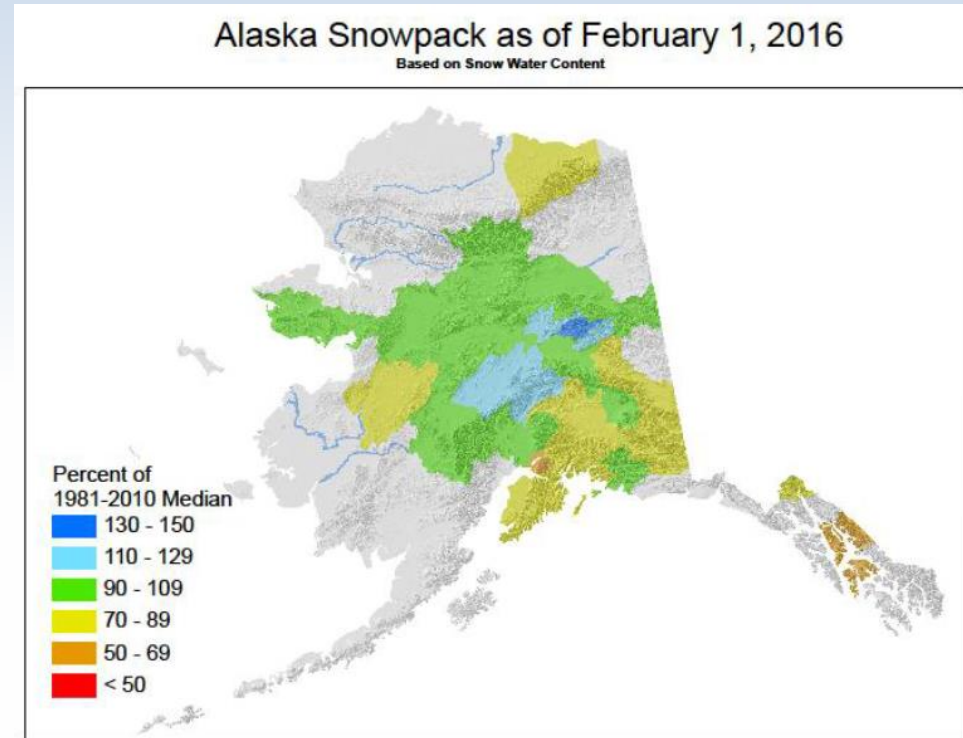


Alaska Snow “Highlights”

Since December 1st:

- Anchorage: 6.1” of snow (18% normal)
 - 1.2” average snow depth 3rd lowest
- Fairbanks: 2.5” snow (9% normal)

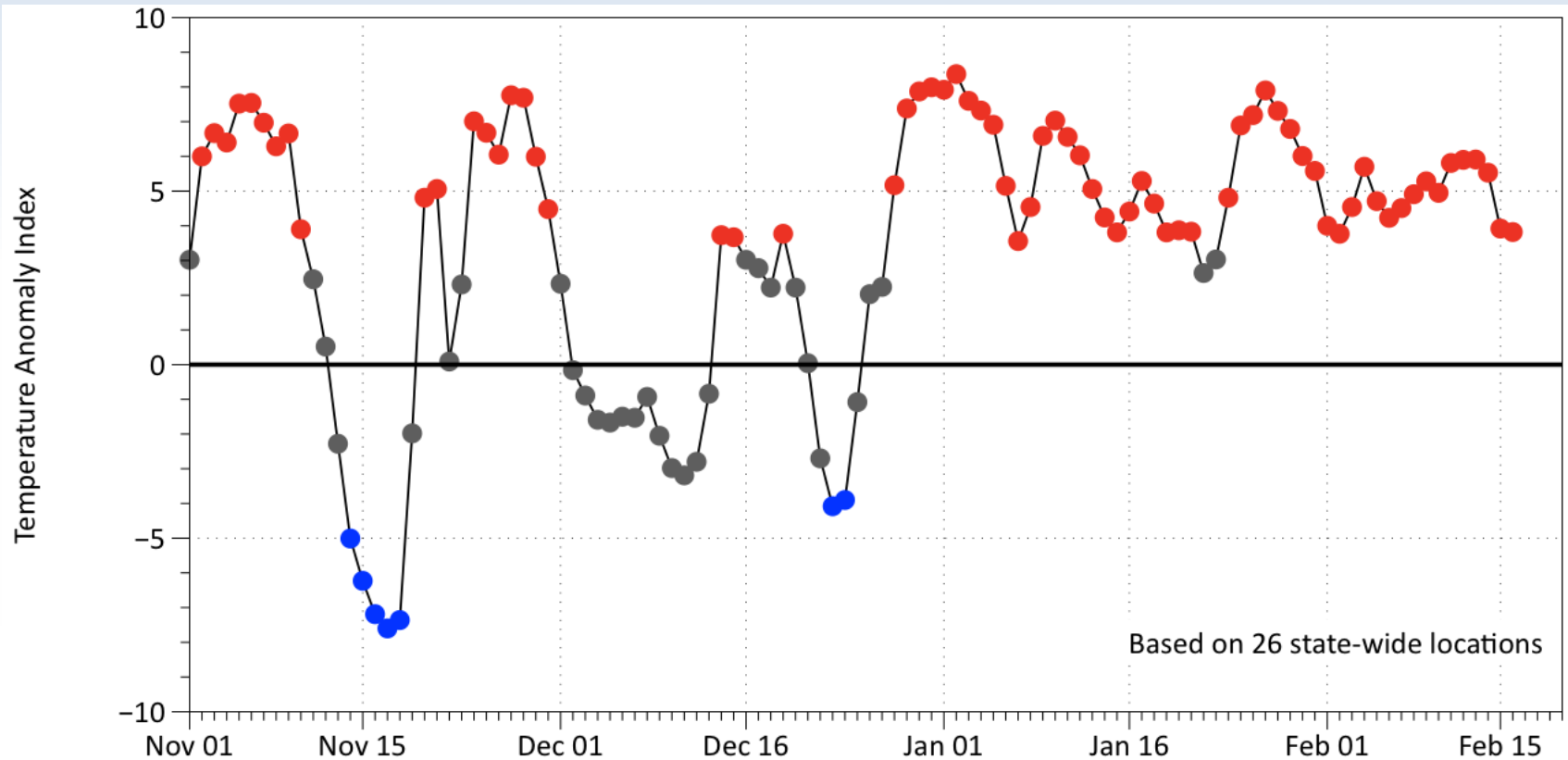
Juneau: no measurable snow since Dec 29th: longest such winter streak



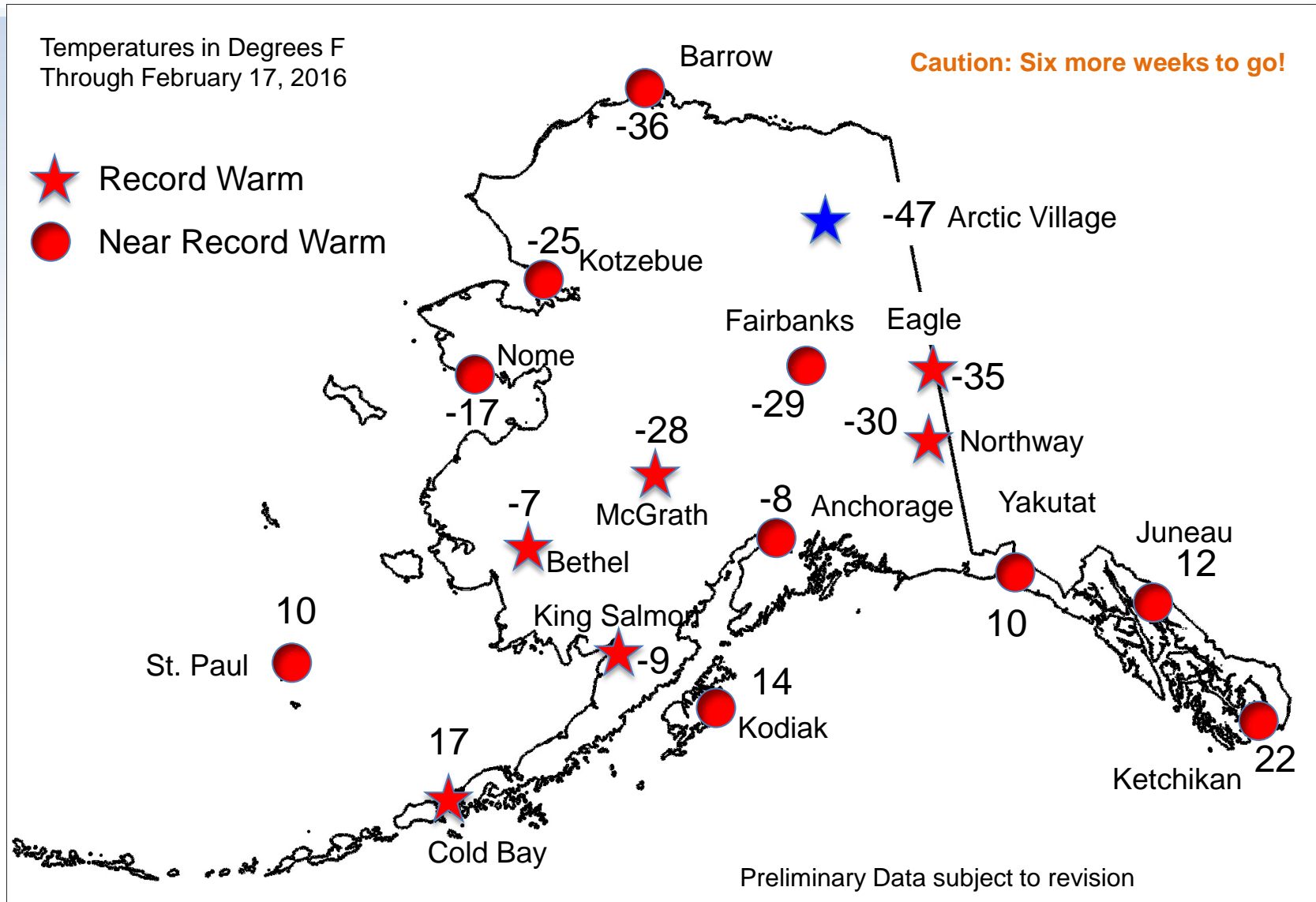
Near to above normal snowpack **entirely** from a snowy autumn

Alaska Warmth Persistent

Alaska Daily Temperature Anomaly Index 2015–16

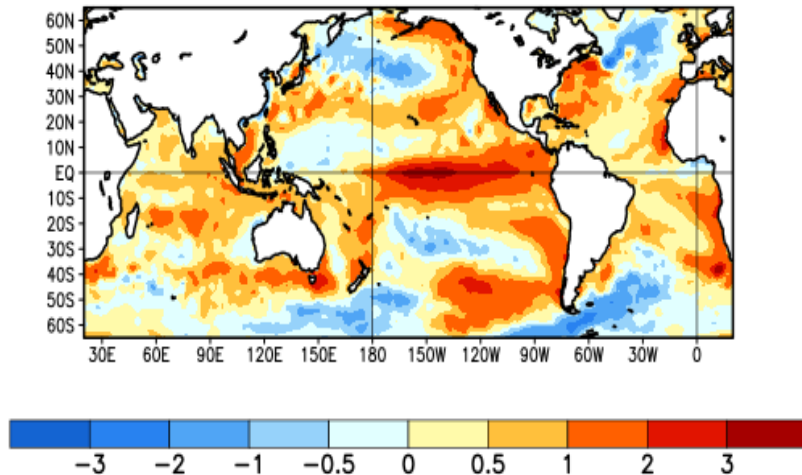


Low Temperatures So Far This Winter

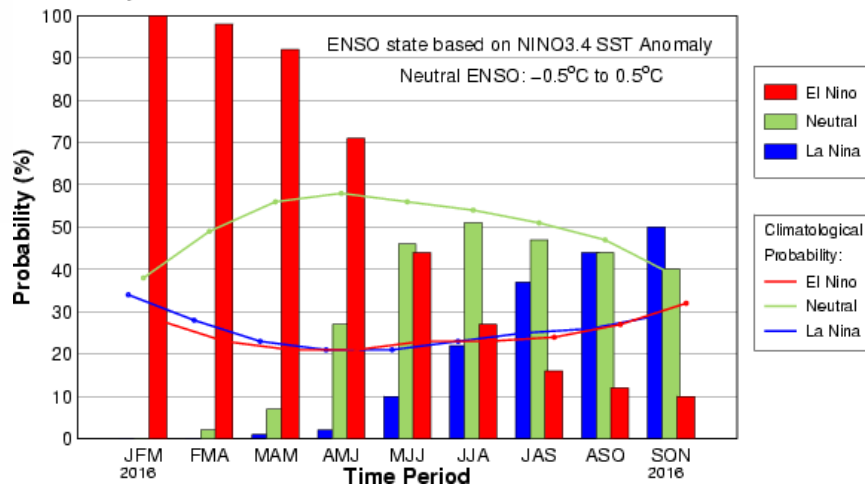


Sea Surface Temperatures and ENSO

Average SST Anomalies
17 JAN 2016 – 13 FEB 2016



Early-Feb CPC/IRI Consensus Probabilistic ENSO Forecast



- Sea surface temperatures

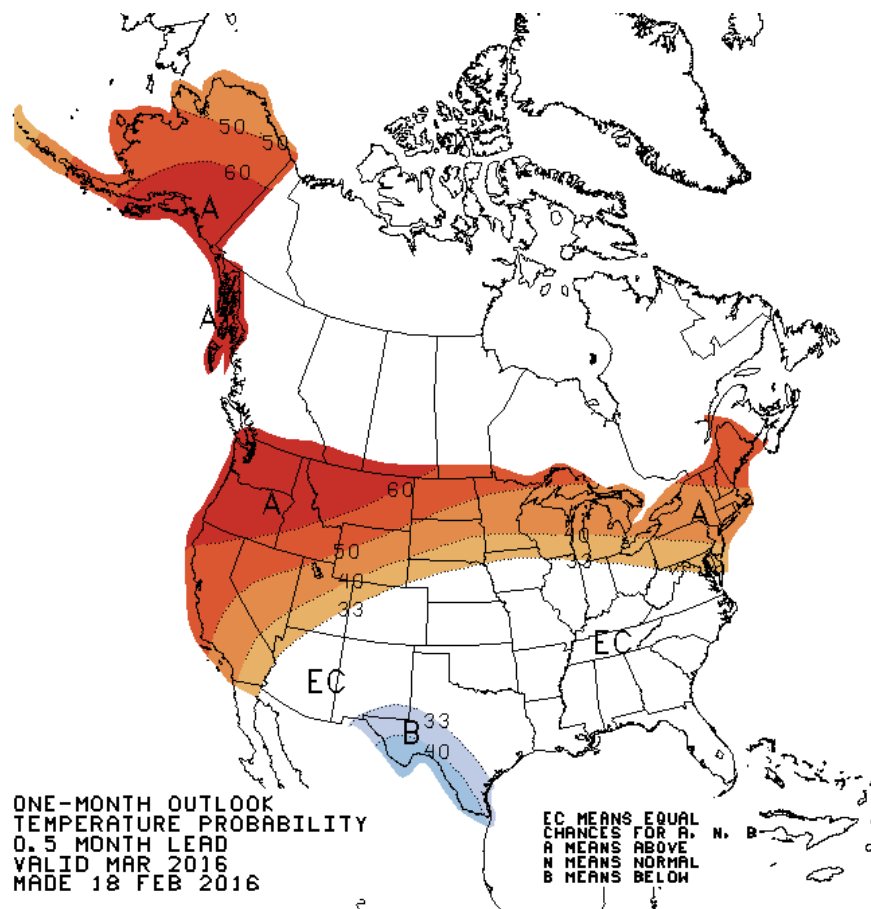
- Much above normal SSTs across the equatorial Pacific
- Above normal SSTs along the west coast of North America
- El Niño Advisory remains in place

- ENSO forecast

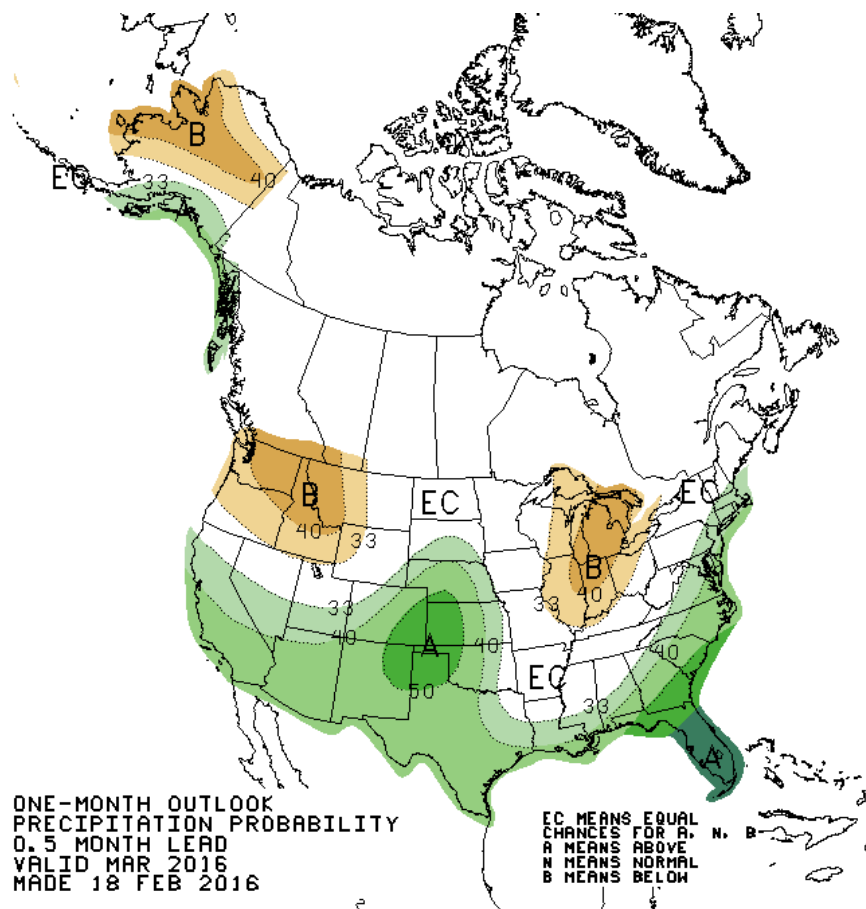
- El Niño is now past its peak intensity in term of SST anomaly values
- A transition to ENSO neutral is anticipated during the late spring or early summer 2016
- Enhanced odds of La Niña are forecast by late summer and early fall

Monthly Forecast (March)

March Average
Temperature Probability

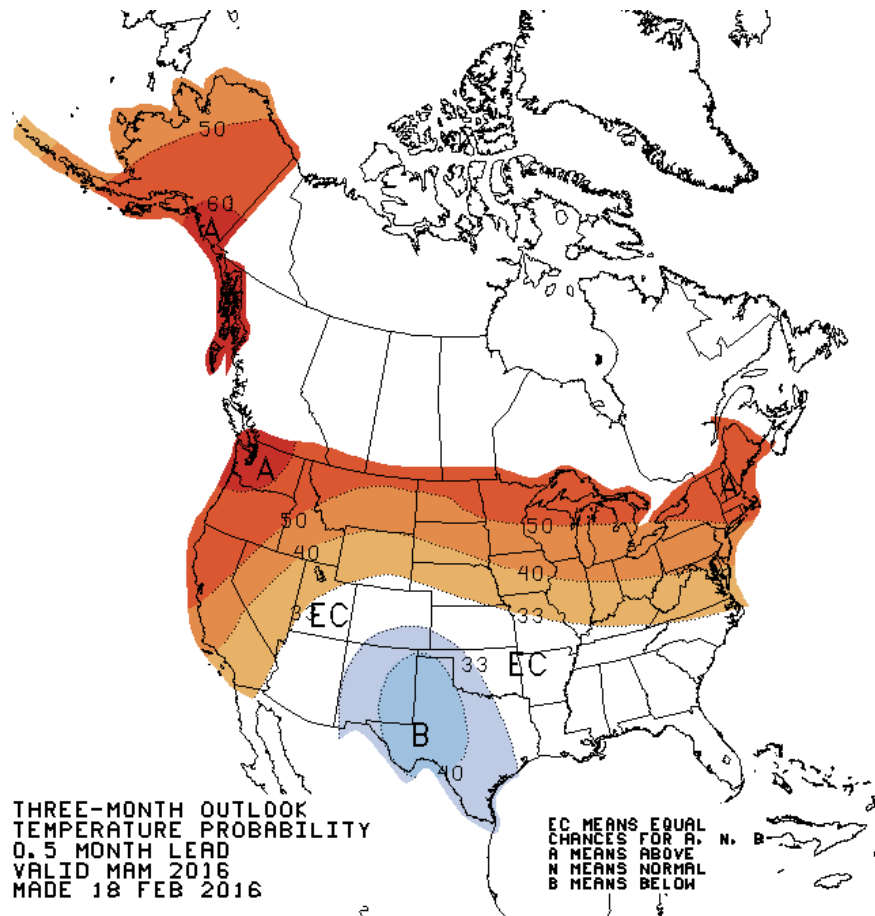


March Total
Precipitation Probability

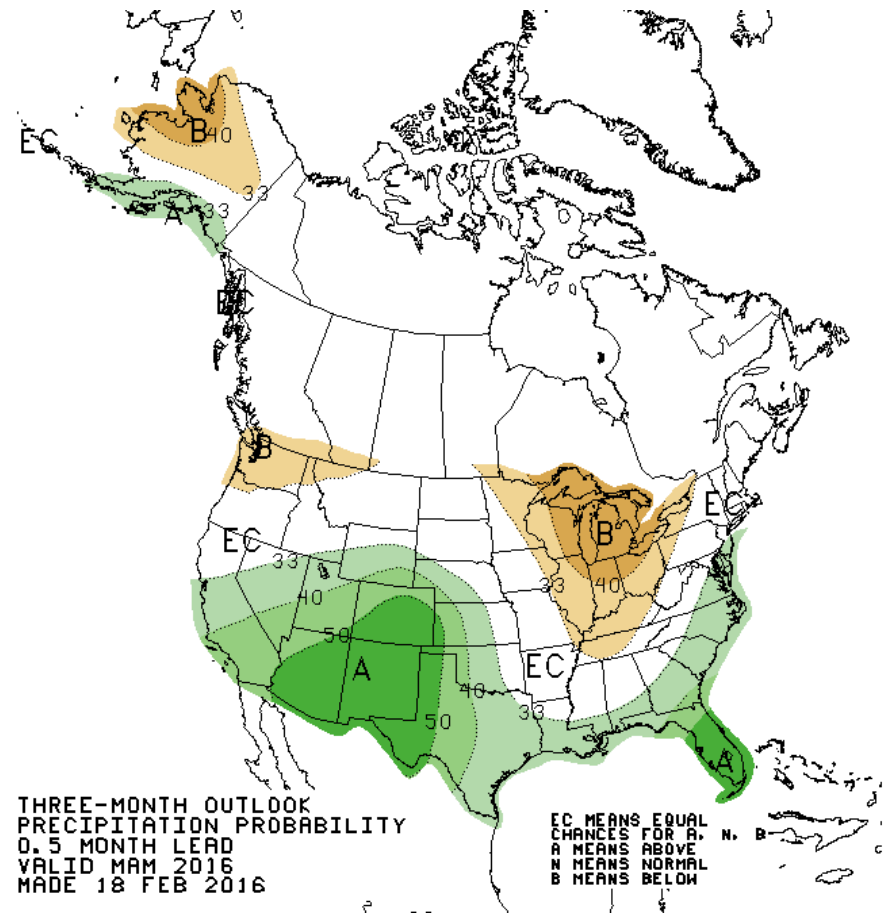


Seasonal Forecast (Mar–Apr–May)

March-April-May Average Temperature Probability



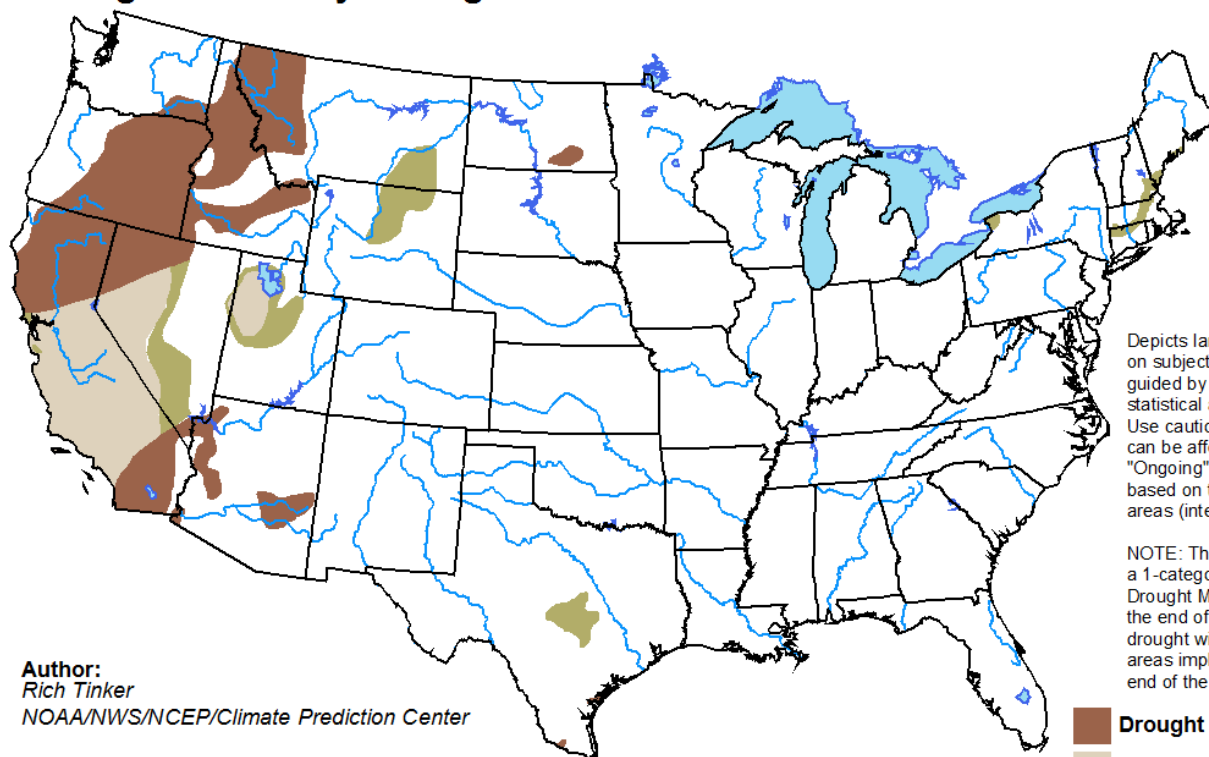
March-April-May Total Precipitation Probability



U.S. Drought Outlook

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





Valid for February 18 - May 31, 2016
Released February 18, 2016

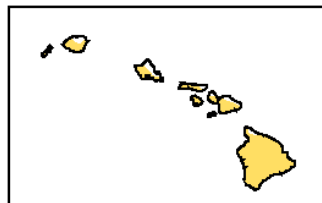
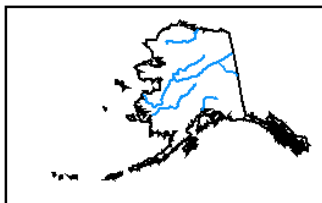


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Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on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

- Monthly climate reports (U.S. & Global): 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

National Weather Service Alaska Region: <http://www.arh.noaa.gov/>

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

Climate Portal: www.climate.gov

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