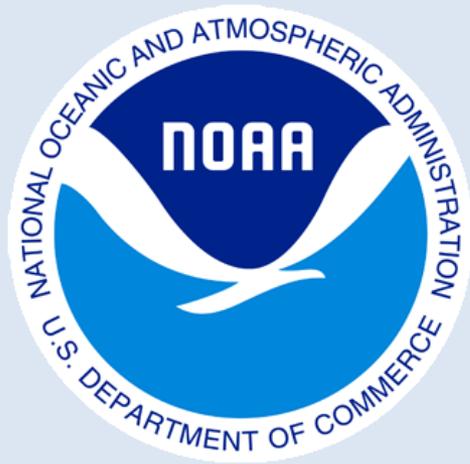


NOAA Climate Science & Services

Monthly Climate Update

A look back at February and a preview for the next 3 months



Jake Crouch

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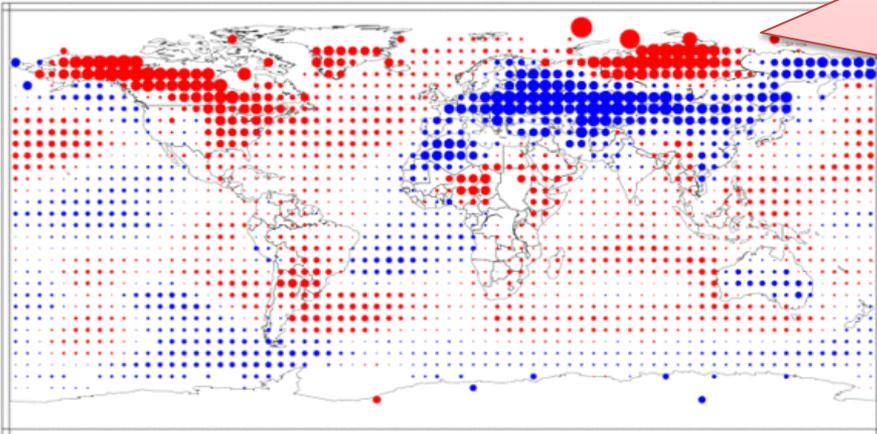
Huug van den Dool

NOAA's Climate Prediction Center
Monthly Forecaster

Global Climate Highlights

Temperature Anomalies February 2012

(with respect to a 1971-2000 base period)
National Climatic Data Center/NESDIS/NOAA



February 2012 Temperatures:

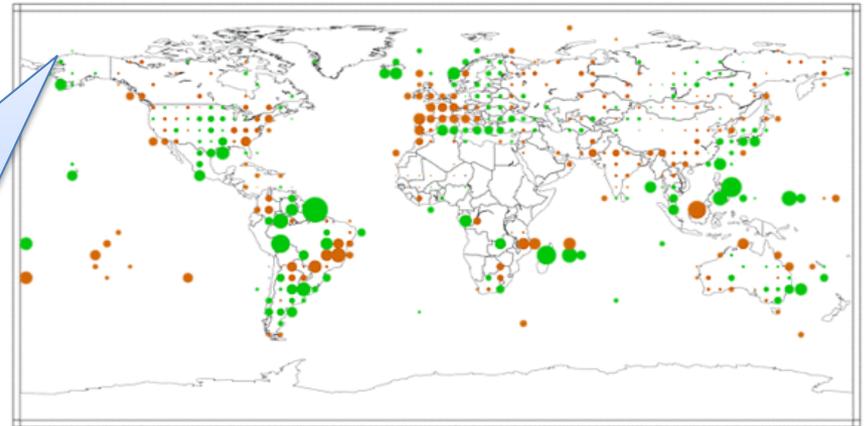
- 22nd warmest February globally
- Land: 37th warmest; Ocean: 12th warmest
- Large areas of warm and cool temperature anomalies
- La Niña weakens
- Coolest February global temperature anomaly since 2008

Regional Analysis:

- Much of Europe, central Asia, North Africa, and Australia cooler than average.
- Canada, the U.S., and Russia warmer than average.

Precipitation Anomalies February 2012

(with respect to a 1961-1990 base period)
National Climatic Data Center/NESDIS/NOAA



February 2012 Precipitation:

- Tropical Cyclone Giovanna impacted Madagascar dropping copious amounts of rainfall and leading to at least 23 fatalities.

Wet:

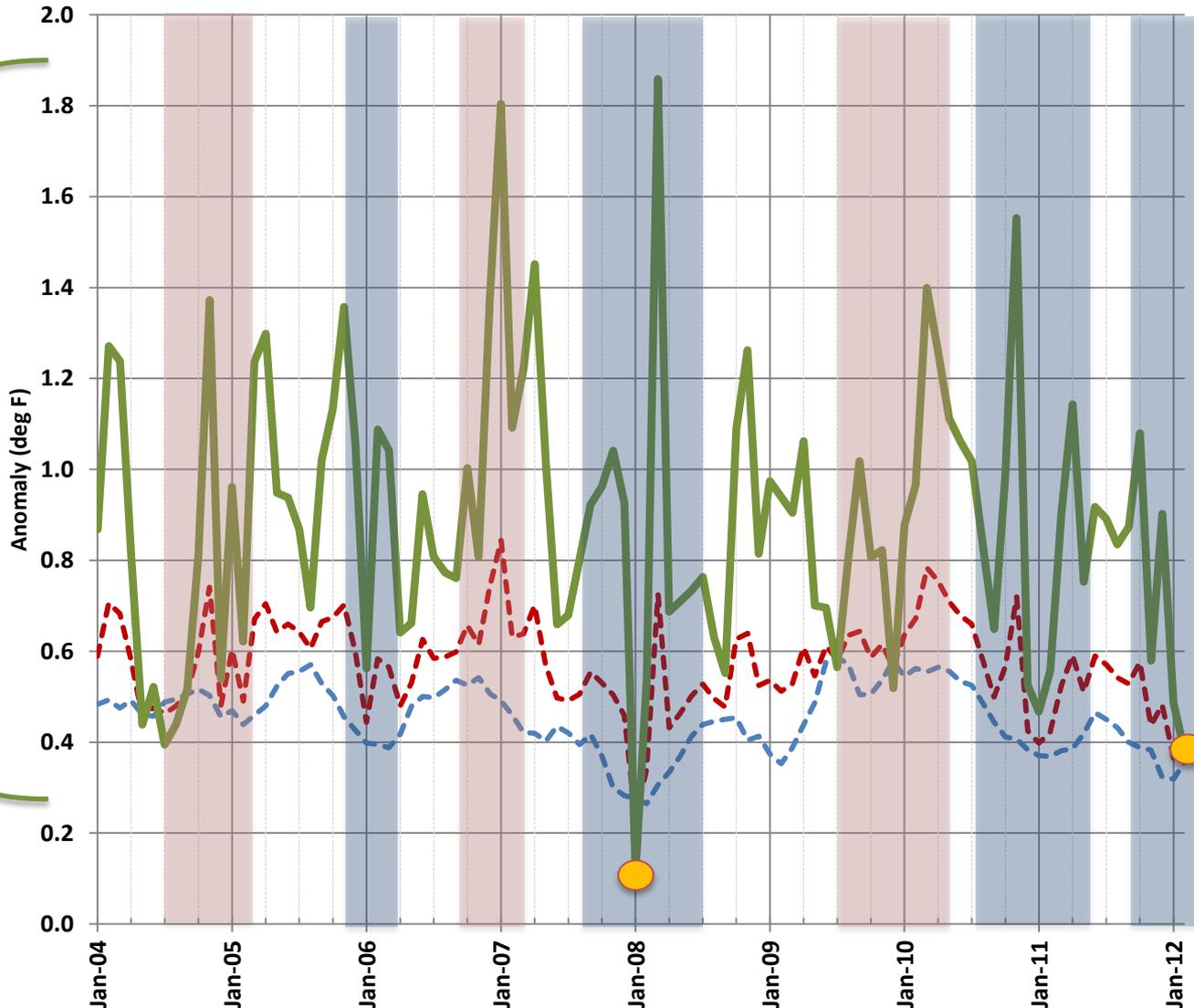
- Northern South America, Mexico, Argentina, southeastern Australia, the Philippines, and southern U.S.

Dry:

- Western Europe, eastern Brazil, and the eastern U.S

Global Climate Highlights

Global Surface Temperatures - January 2004 to present



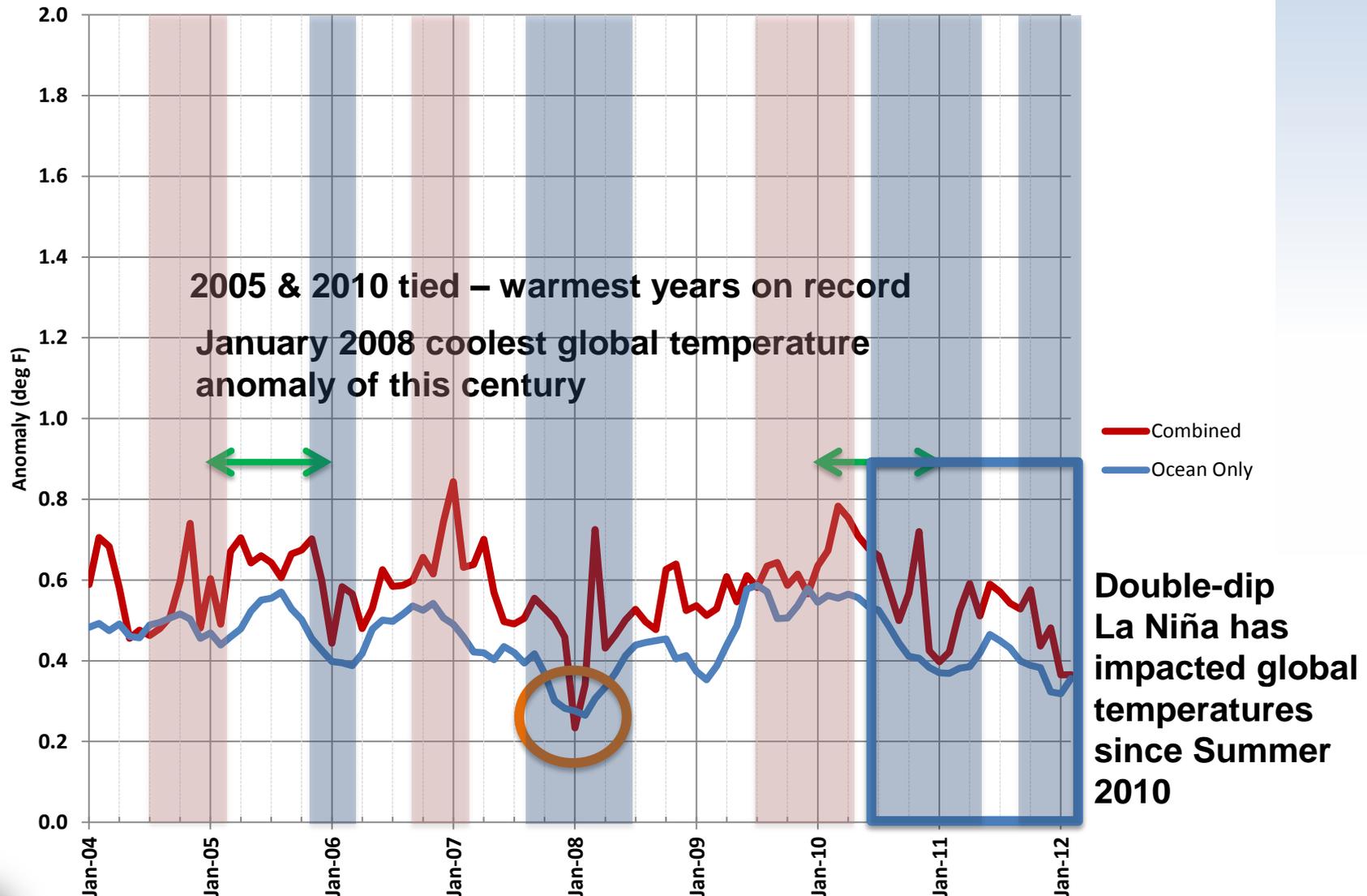
Land temperature (green) driven by regional climate patterns. Nature of land surfaces causes more noise in the signal.

February 2012 coolest land temperature anomaly since January 2008.



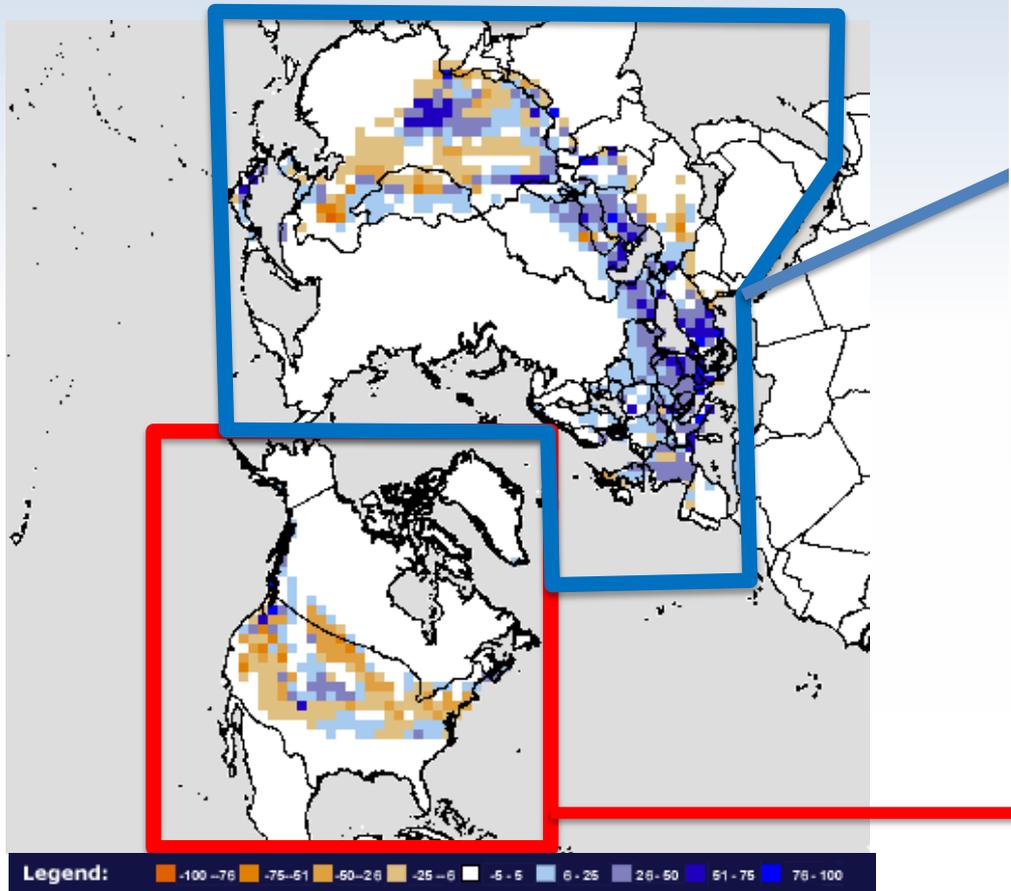
Global Climate Highlights

Global Surface Temperatures - January 2004 to present



Global Climate Highlights

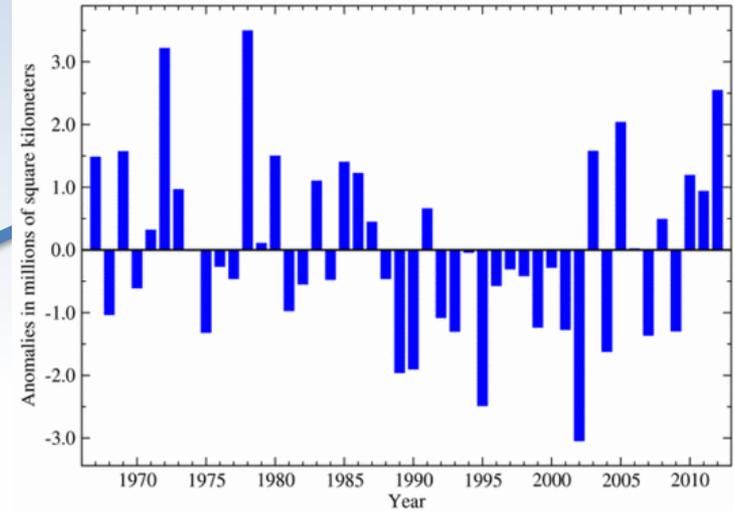
Northern Hemisphere Snow Cover Anomalies



* Data/map provided by Rutgers Global Snow Lab

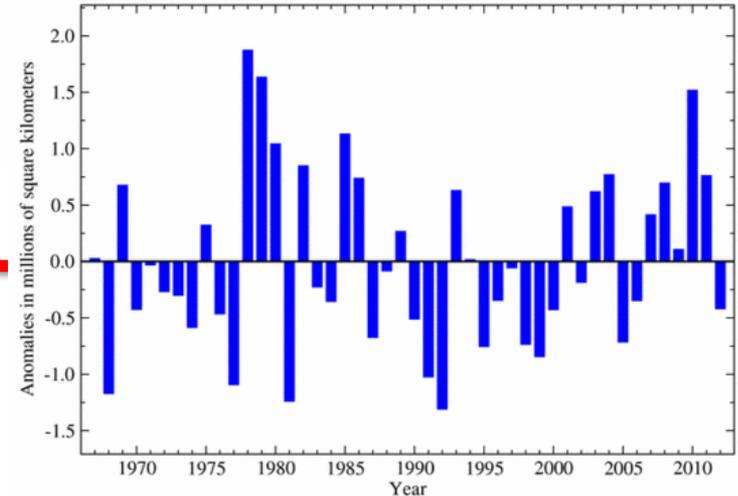
Eurasia Snow Cover Anomalies

February (1967-2012)



North America Snow Cover Anomalies

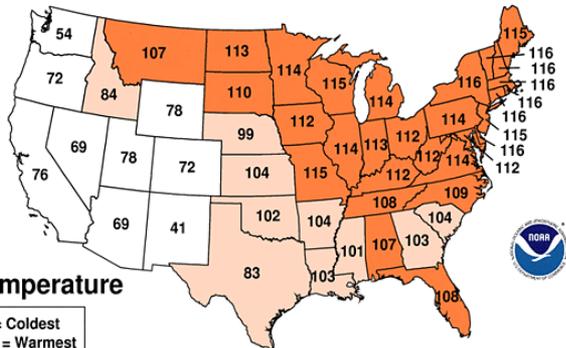
February (1967-2012)



U.S. Climate Highlights – Winter

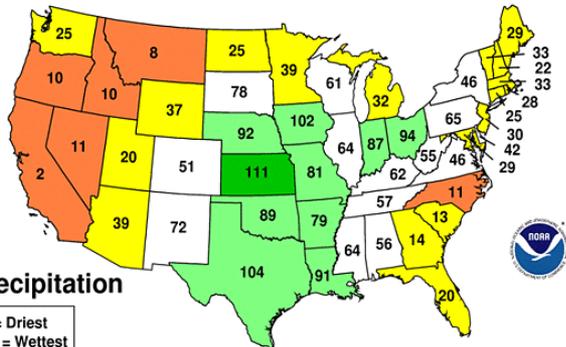
Dec 2011-Feb 2012 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



Temperature

1 = Coldest
117 = Warmest



Precipitation

1 = Driest
117 = Wettest

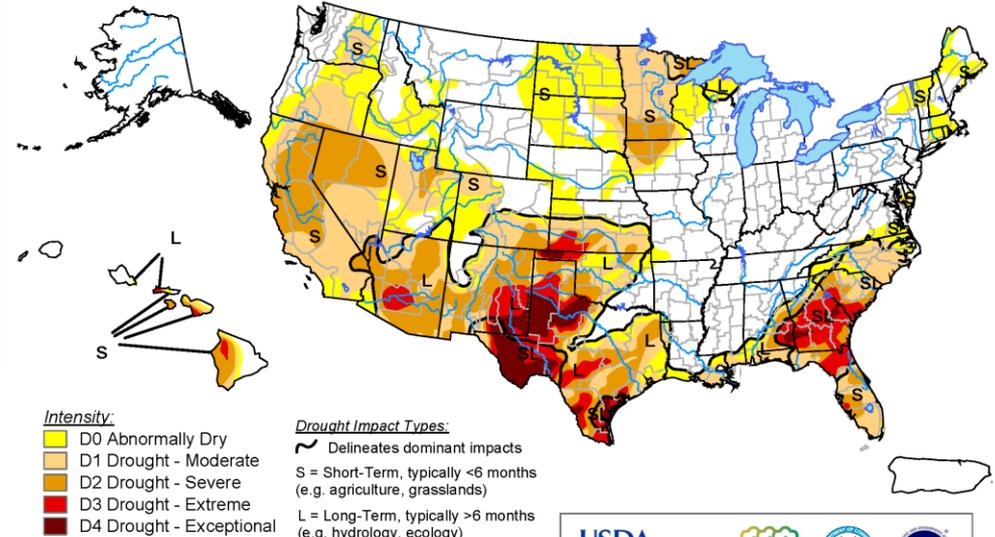


4th Warmest Winter (Dec 2011- Feb 2012)

- 27 states top ten warm for winter season.
- New Mexico and Alaska only states cooler than average.
- Wet in Southern Plains, drought conditions improve.
- 3rd smallest winter snow cover extent for CONUS. Several cities had record and near-record low snow totals.
- Dry in the West, development of drought and low snowpack totals.

U.S. Drought Monitor

March 13, 2012
Valid 7 a.m. EDT



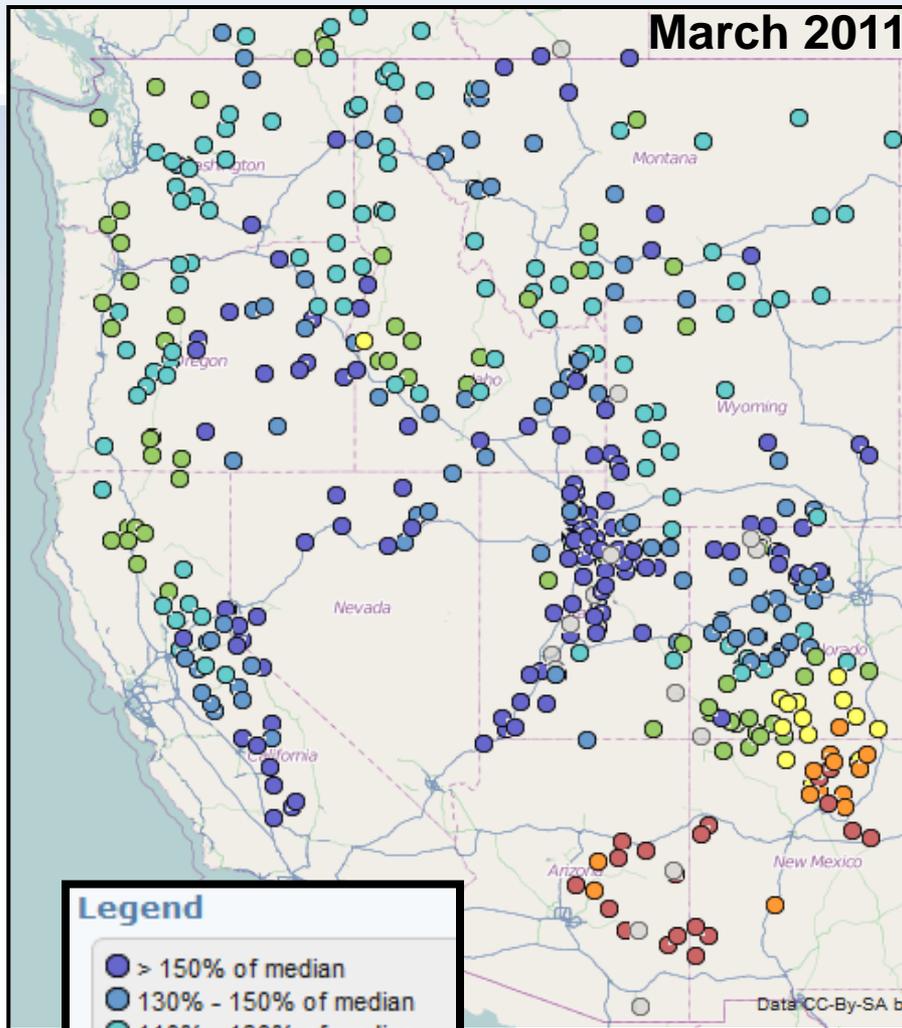
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu/>

Released Thursday, March 15, 2012
Author: Michael Brewer/L. Love-Brotak, NOAA/NESDIS/NCDC

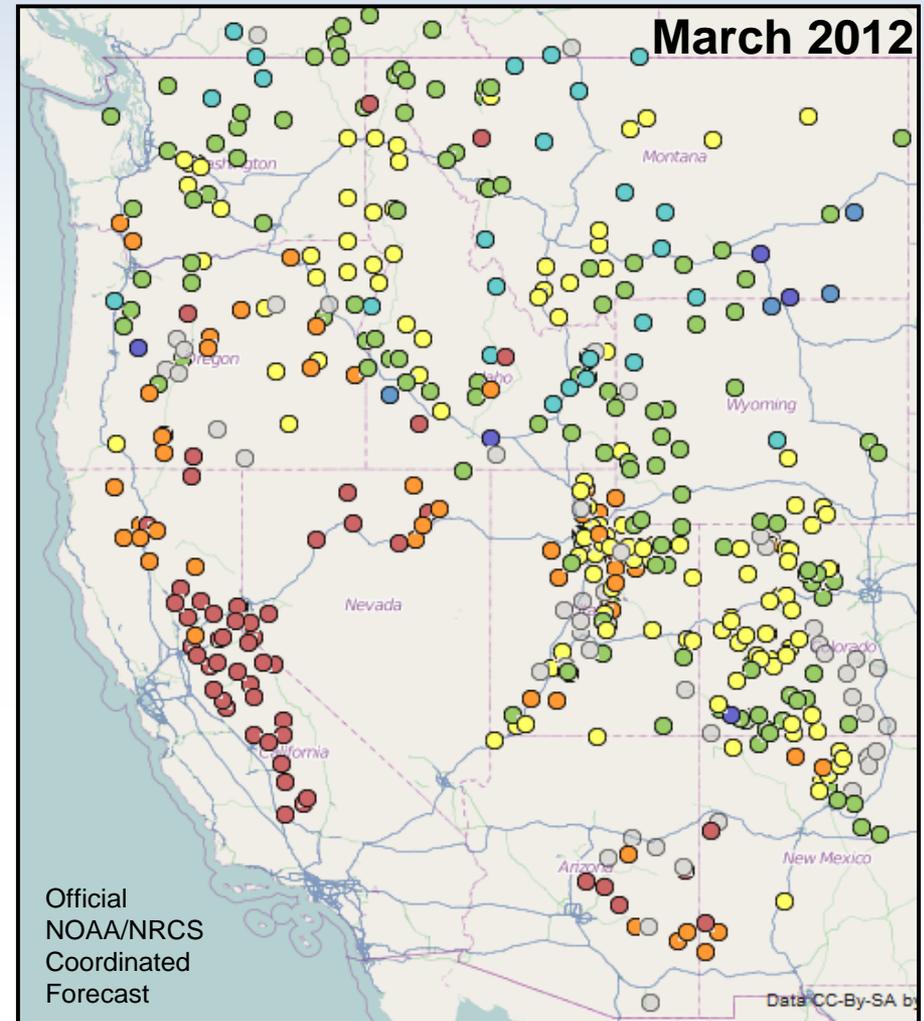


Comparison of Water Supply Forecasts for the West



Legend

- > 150% of median
- 130% - 150% of median
- 110% - 130% of median
- 90% - 110% of median
- 70% - 90% of median
- 50% - 70% of median
- < 50% of median
- No median
- No Forecast



Western Water Supply

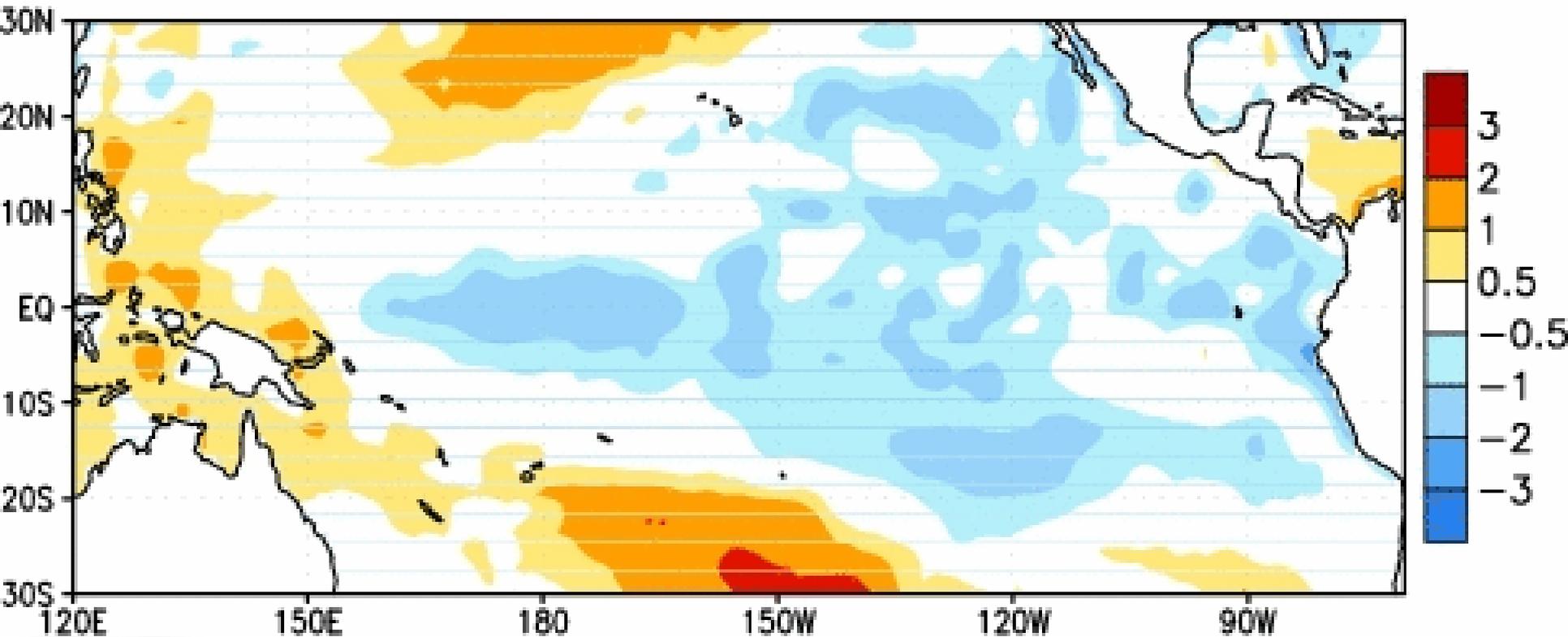
As of March 1, 2012

- **March snow conditions and water supply forecasts below average over much of the west**
 - Dismal snow pack in the CA/NV Sierra and Arizona this year (2011/2012)
 - Economic impacts with late start to ski season, potential increased need for irrigation, etc.
- **Many medium and large reservoirs are forecast to fill and/or be above average based on carryover from last year's inflow**
 - Above average 2010/2011 water year provided surplus in many areas
 - Large reservoirs designed to mitigate below average melt year(s) and can typically sustain water supply over multiple years of low runoff
 - Rangelands and areas relying on smaller reservoirs may face spring/summer water supply issues and a higher potential for fire danger.
- **Caveats:**
 - Spring storm activity can change the western drought picture quickly, especially in the southwest
 - Many drought impacts are felt after multiple consecutive years of low snow pack

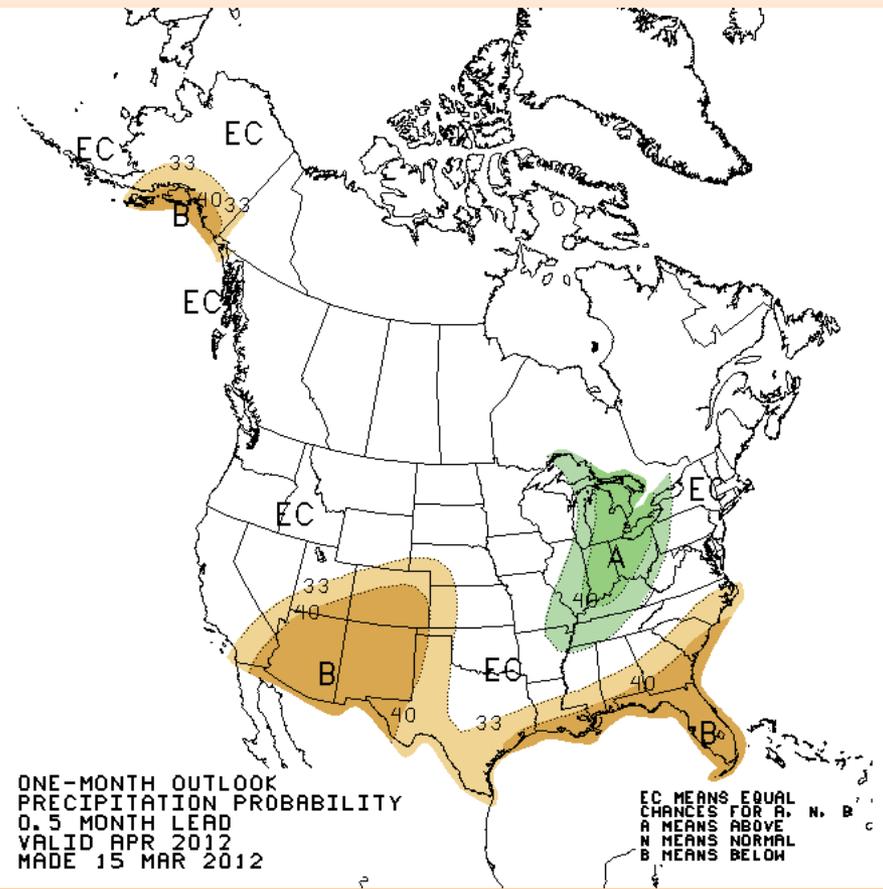
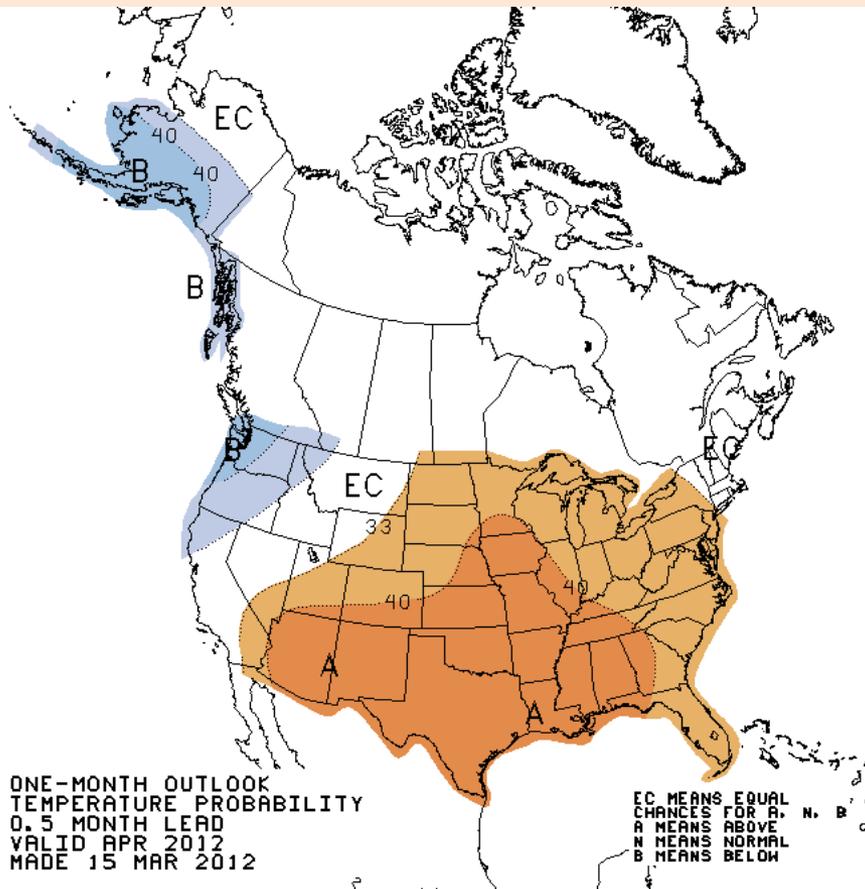
Current El Nino/Southern Oscillation (ENSO) Status

La Niña Has Weakened, Likely to End by May

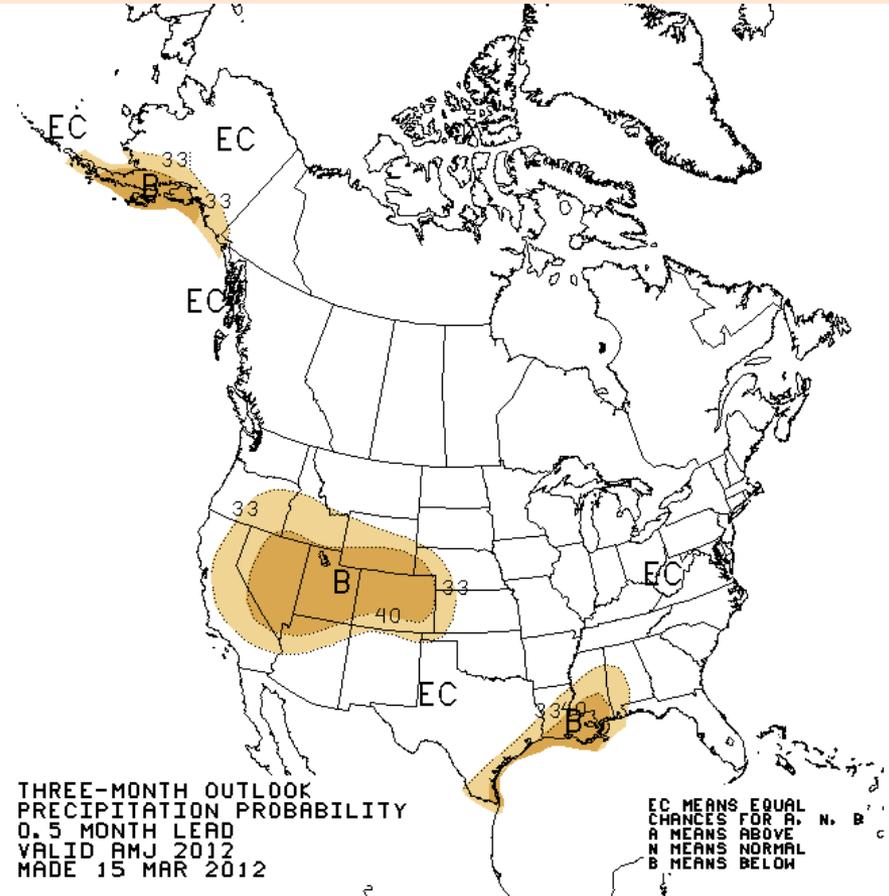
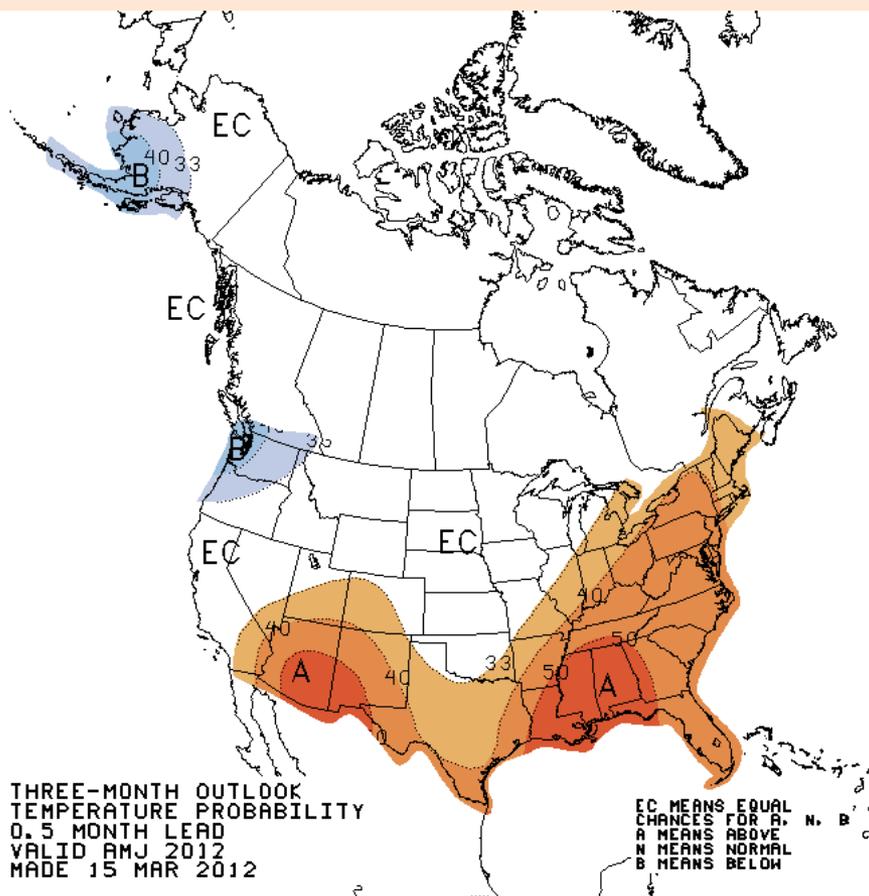
Week centered on 21 DEC 2011
SST Anomalies (°C)



1-Month Temperature and Precipitation Outlooks



3-Month Temperature and Precipitation Outlooks



For More Information



- Today's Presentation: <http://www.ncdc.noaa.gov/sotc/briefings>
- NOAA's National Climatic Data Center: www.ncdc.noaa.gov
 - Monthly climate reports (U.S. & Global): www.ncdc.noaa.gov/sotc/
- NOAA's Climate Prediction Center: www.cpc.ncep.noaa.gov
- Climate Portal: www.climate.gov
- U.S. Drought Monitor: www.drought.gov