

NOAA Climate Science & Services

Monthly Climate Update

A look back at August and Summer and
a preview of October-December

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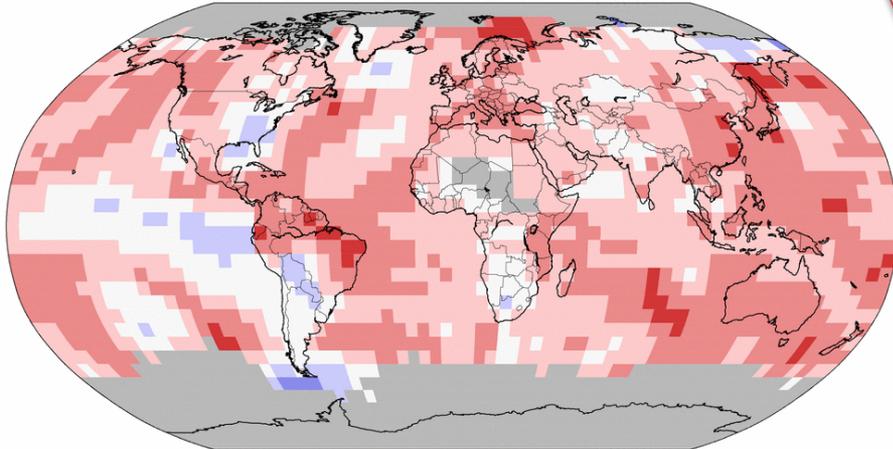


Global Climate Highlights

Land & Ocean Temperature Percentiles Aug 2013

NOAA's National Climatic Data Center

Data Source: MLOST version 3.5.4



Fri Sep 13 08:26:33 EDT 2013

August 2013 Temperatures:

- Tied 4th warmest August globally (+0.62°C/+1.12°F)
- Land: 11th warmest ; Ocean: Tied 1st warmest

Regional Analysis:

- New Zealand: Warmest August and winter season
- South Korea: Warmest August and summer season

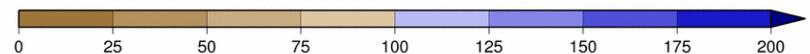
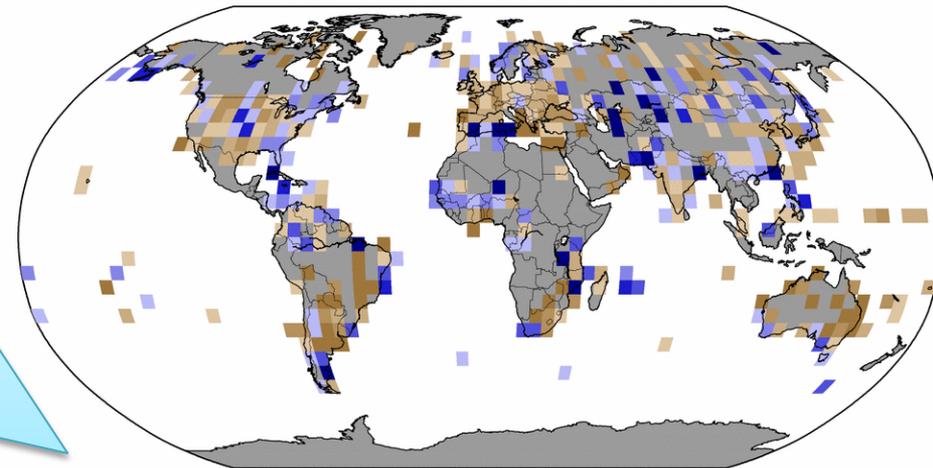
January-August 2013 Temperatures

- Tied 2003 as the 6th warmest January-August globally (+0.59°C/+1.06°F)

Land-Only Precipitation Percent of Normal Aug 2013

(with respect to a 1961–1990 base period)

Data Source: GHCN-M version 2



NOAA's National Climatic Data Center
Fri Sep 13 07:54:19 EDT 2013

Please Note: Gray areas represent missing data
Map Projection: Robinson

- Far East Russia had worst flooding in over a century.
- Tropical Storm Trami brought major flooding to the Philippines, Taiwan, and China. Trami the 12th tropical cyclone to impact China this year.
- Germany had its driest summer since 2003.
- India monsoon precipitation 110 percent of average.

Dry: Central S. America, Central Europe, Australia.

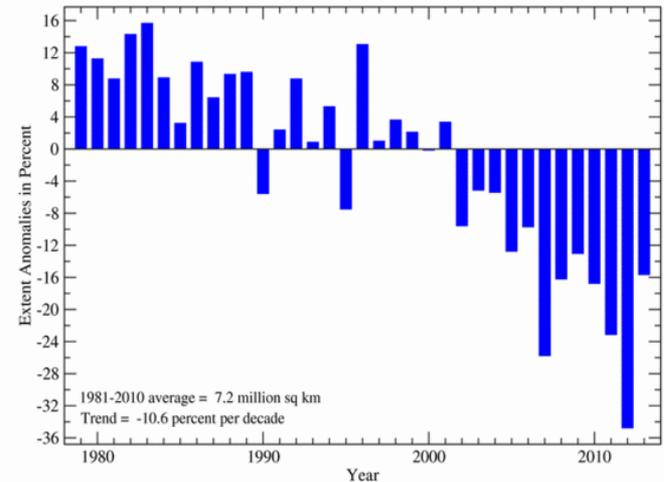
Wet: Southern Europe, Central Asia, Caribbean.

Global Climate Highlights

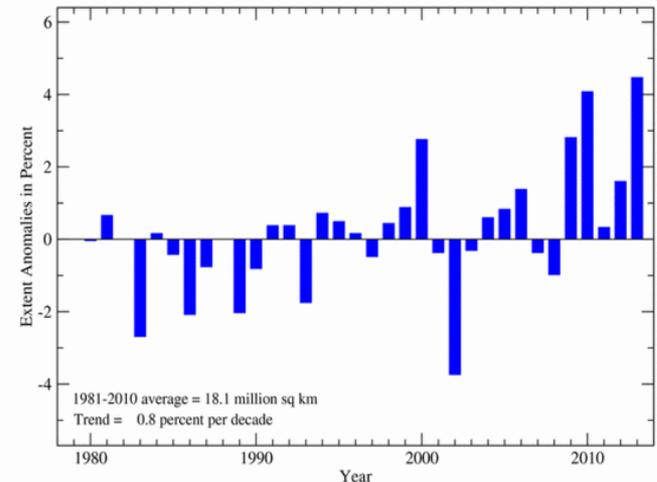
Global Sea Ice Conditions

- Arctic sea ice extent 15.7 percent below average – the 6th smallest August extent on record.
- August Arctic ice extent about 1.38 million square km larger than the record low monthly extent of last year.
- Antarctic sea ice extent 4.5 percent above average. The record largest August extent on record, surpassing August 2010.
- Global sea ice was 1.3 percent below average and the 13th smallest for the month.

Northern Hemisphere Sea Ice Extent
August Anomalies, 1979-2013



Southern Hemisphere Sea Ice Extent
August Anomalies, 1979-2013



Data provided by the National Snow and Ice Data Center (NSIDC)

U.S. Climate Highlights – Summer

Nation warmer and wetter than average

Alaska has 2nd warmest summer in 96-year period of record

Temperature: 1.2°F above average – 15th warmest

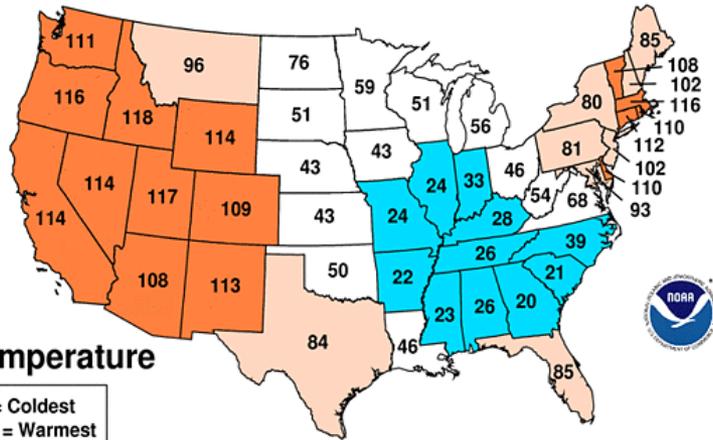
- **Cool:** Ohio Valley and Southeast.
- **Warm:** West and Northeast. 12 states had one of their ten warmest summers on record.

Precipitation: 1.28” above average – 8th wettest

- **Dry:** Parts of Plains and Midwest
- **Wet:** East Coast and Southwest. 20 states top ten wet. Four states record wet. 2nd record summer for FL.

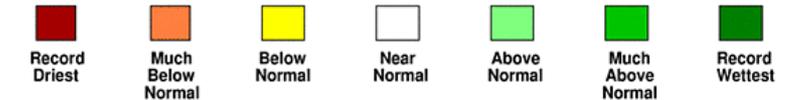
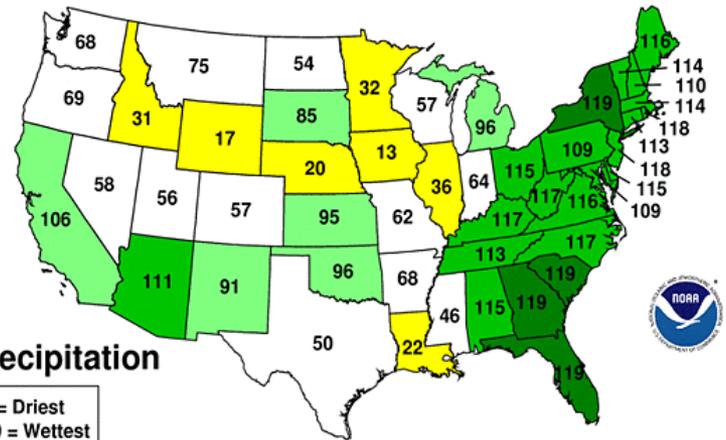
June-August 2013 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



June-August 2013 Statewide Ranks

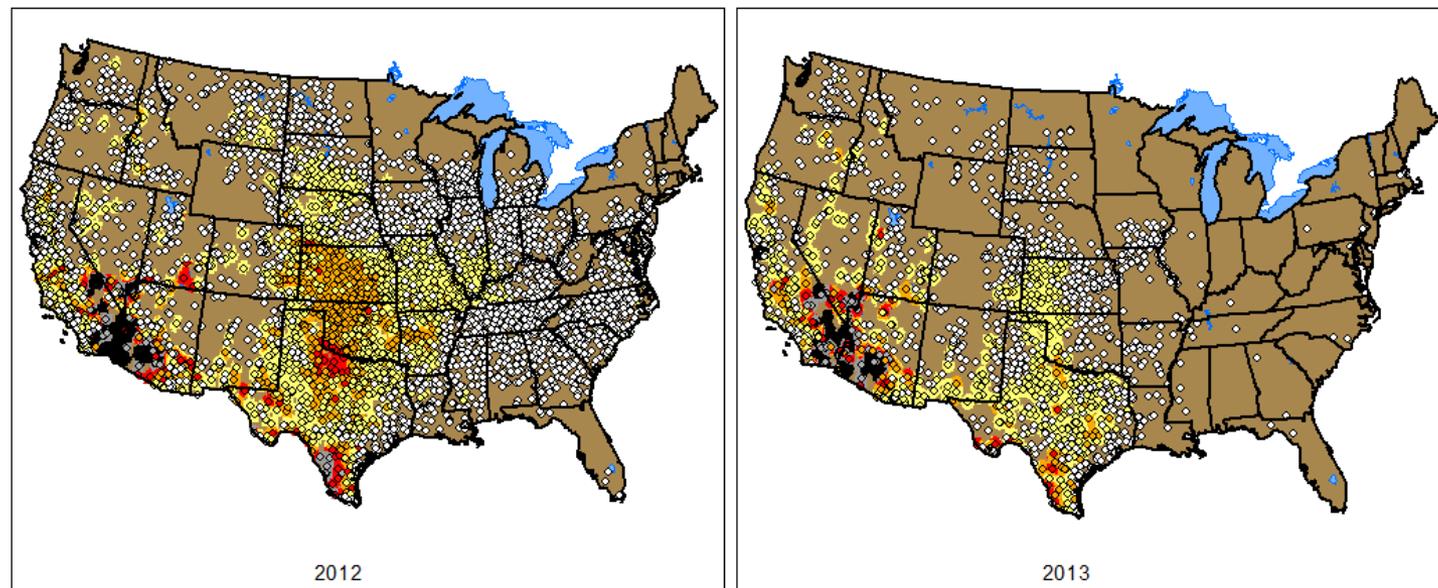
National Climatic Data Center/NESDIS/NOAA



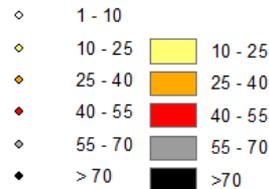
U.S. Climate Highlights – Summer

Comparison of Summers

Number of Days Maximum Temperature > 100°F
June 1 – August 31



Number of Days Max Temperature ≥ 100°F



	2012	2013
Total number of stations with at least 1 day that met or exceeded 100°F	4406	1667
Total number of stations with at least 10 days that met or exceeded 100°F	1832	687
Population affected by 10 or more 100°F days	~99.1 Million	~57.7 Million
Station with the most number of 100°F days	Death Valley, CA (90 of 92 days)	StovePipe Wells, CA (CRN) (90 of 92 days)

Data only includes 60 or more non-missing days. 2013 data is preliminary.
A more complete analysis will follow once additional stations have been processed.
Population data (2010 census) is based on the number of people within 20 miles of a station.
Last updated: September 10, 2013

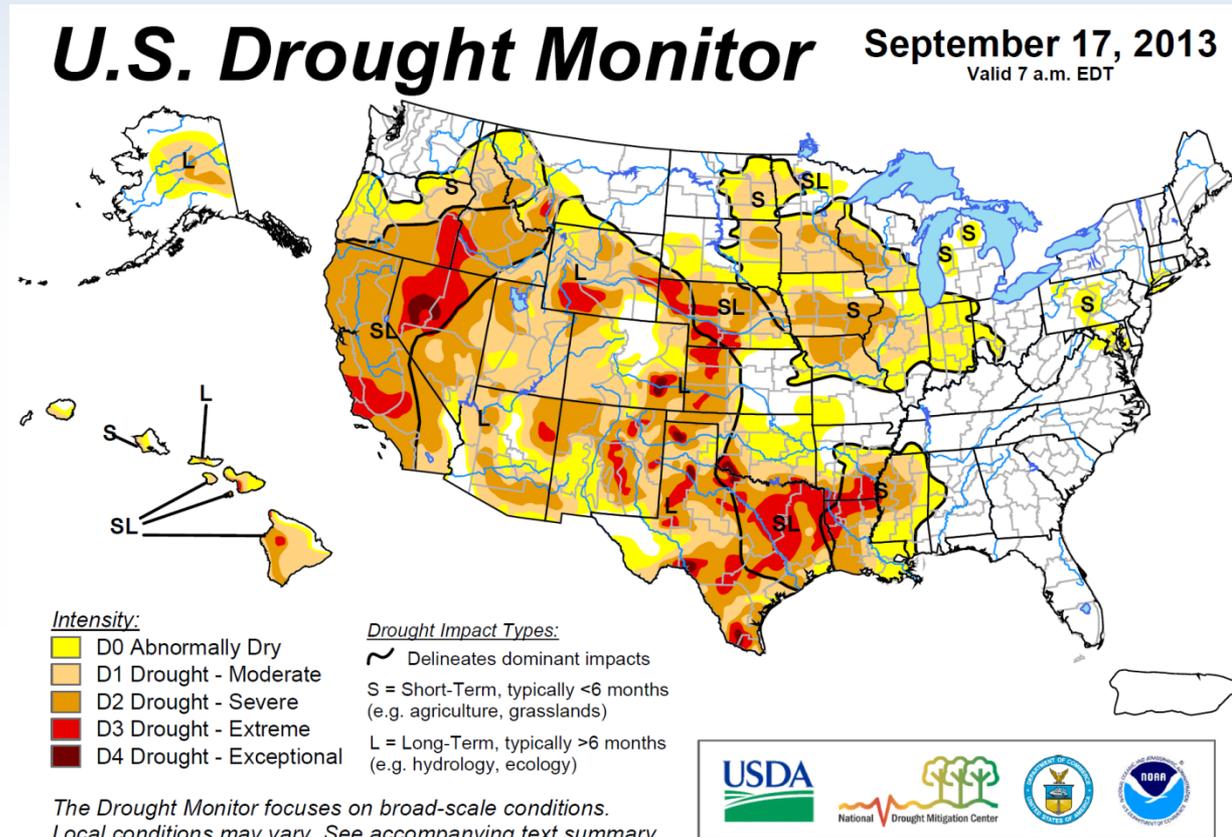


NOAA's
National Climatic Data Center



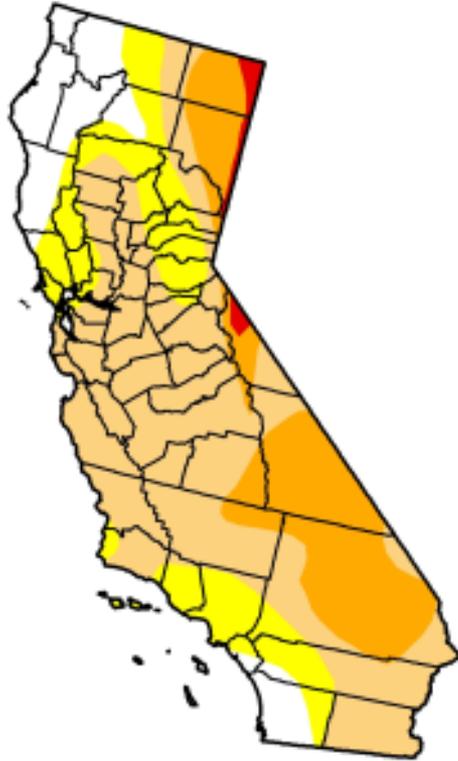
U.S. Drought Monitor

Drought expands to cover 48.2% of the Contiguous U.S.
Drought continues for Hawaii and Alaska, expanded into the Mississippi River Valley, and improves due to flooding in Colorado

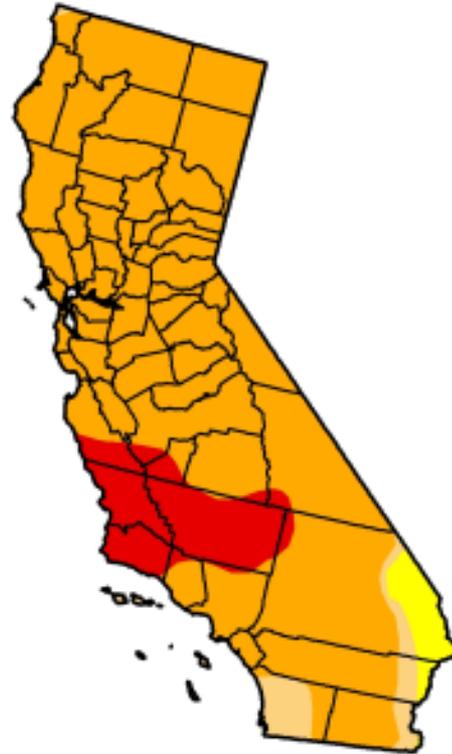


Released Thursday, September 19, 2013
Author: David Miskus, NOAA/NWS/NCEP/CPC

CA Drought Monitor Progression WY2013



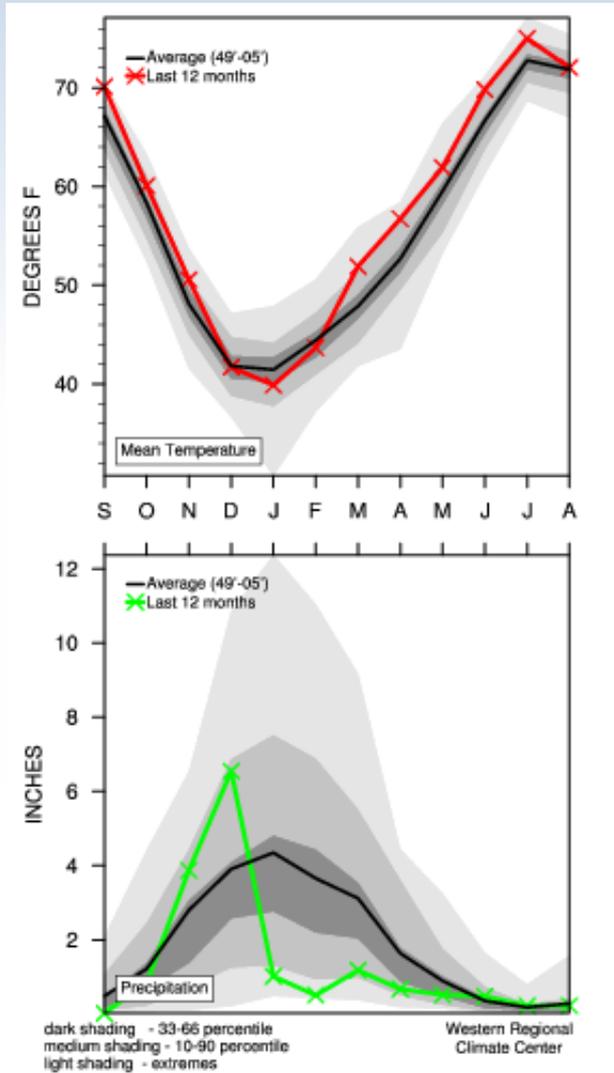
Released Thursday, October 4, 2012
Anthony Artusa, NOAA/NWS/NCEP/CPC



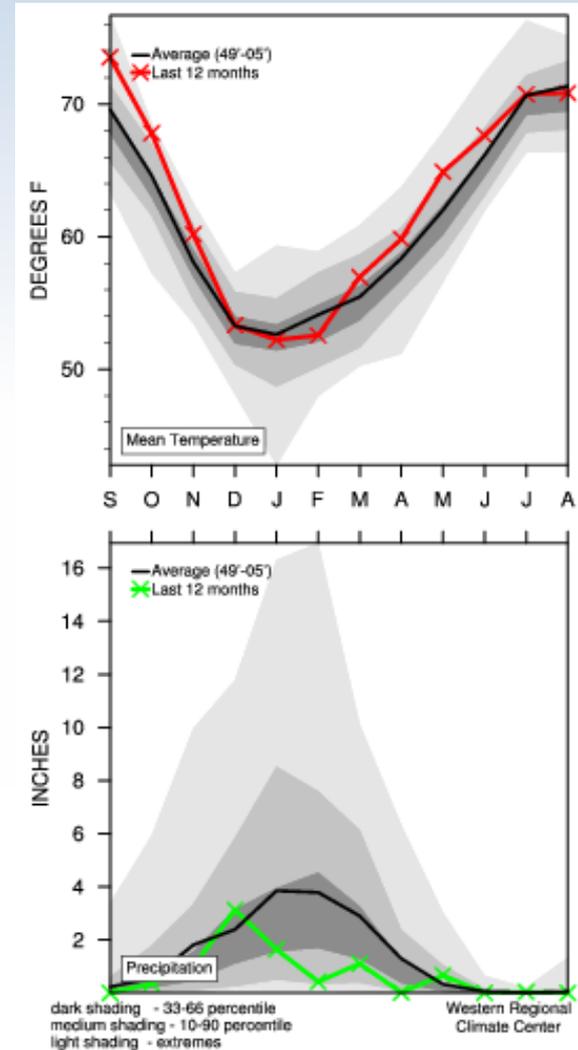
Released Thursday, September 12, 2013
Anthony Artusa, NOAA/NWS/NCEP/CPC

CA Climate Tracker WY2013

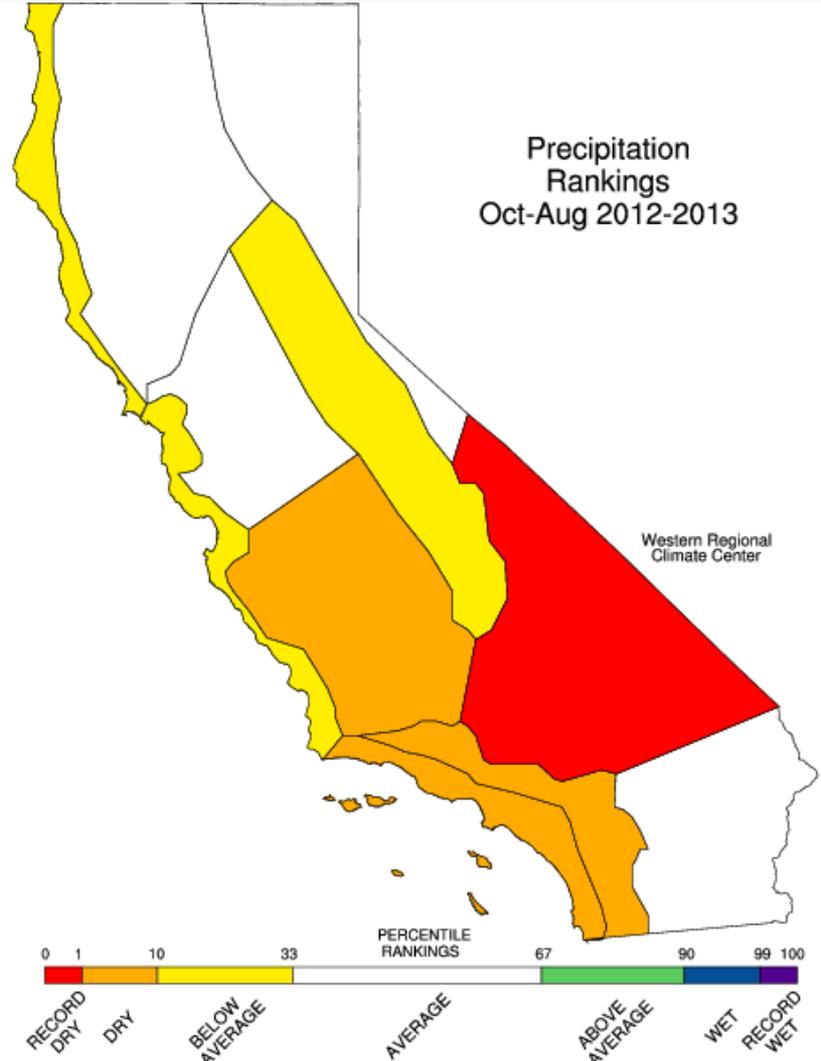
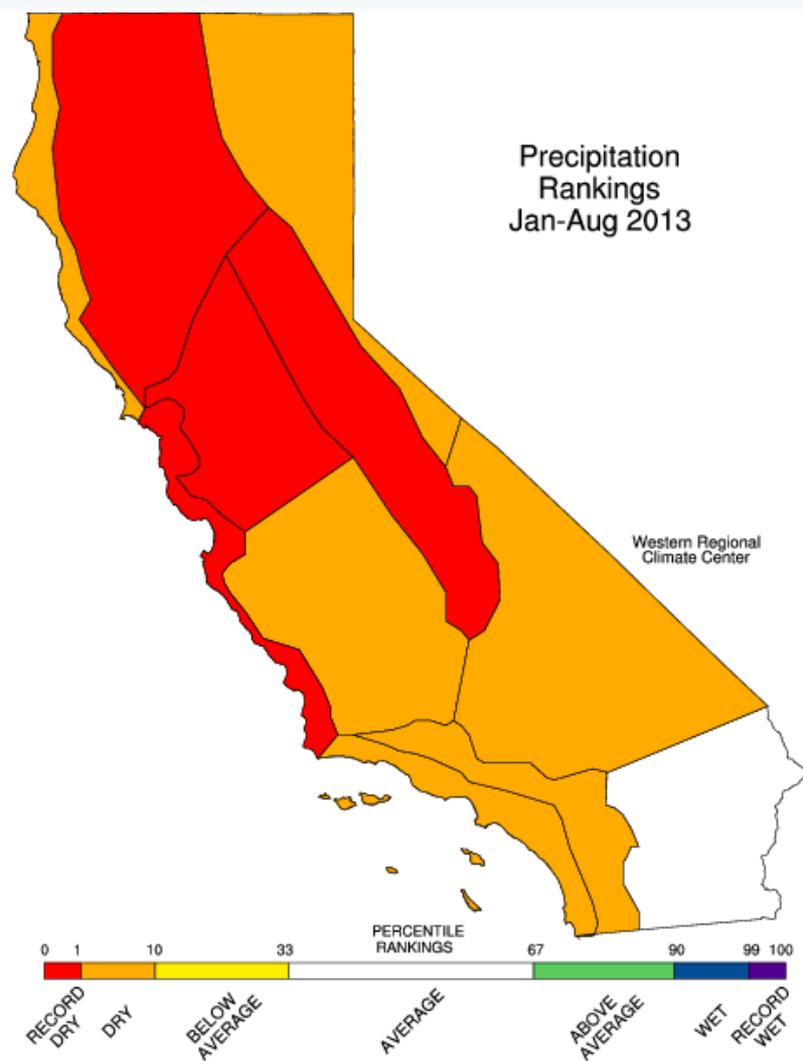
California Statewide Last 12 Months



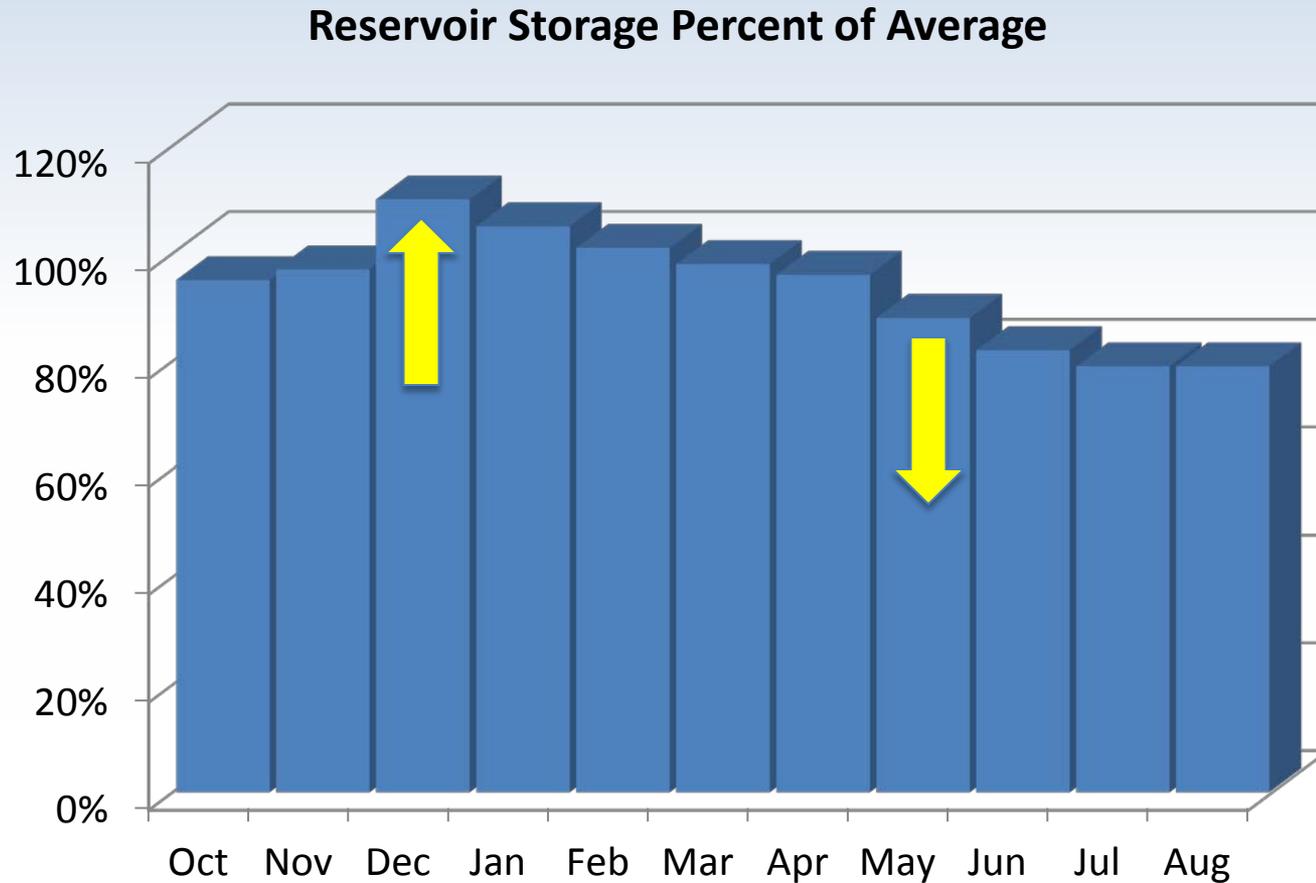
South Coast Region Last 12 Months



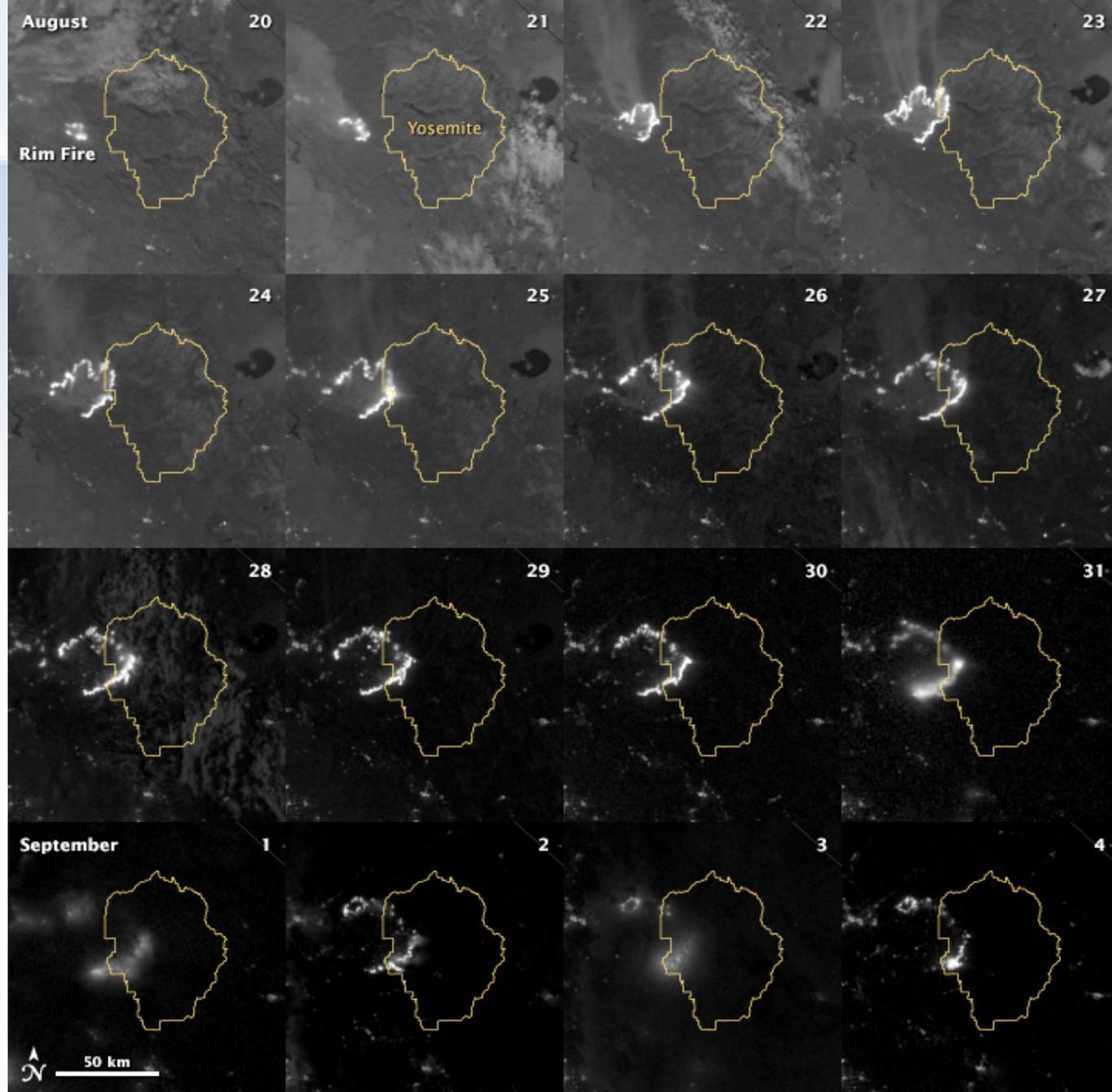
CA Climate Tracker WY2013



CA Water Year 2013 Reservoir Storage

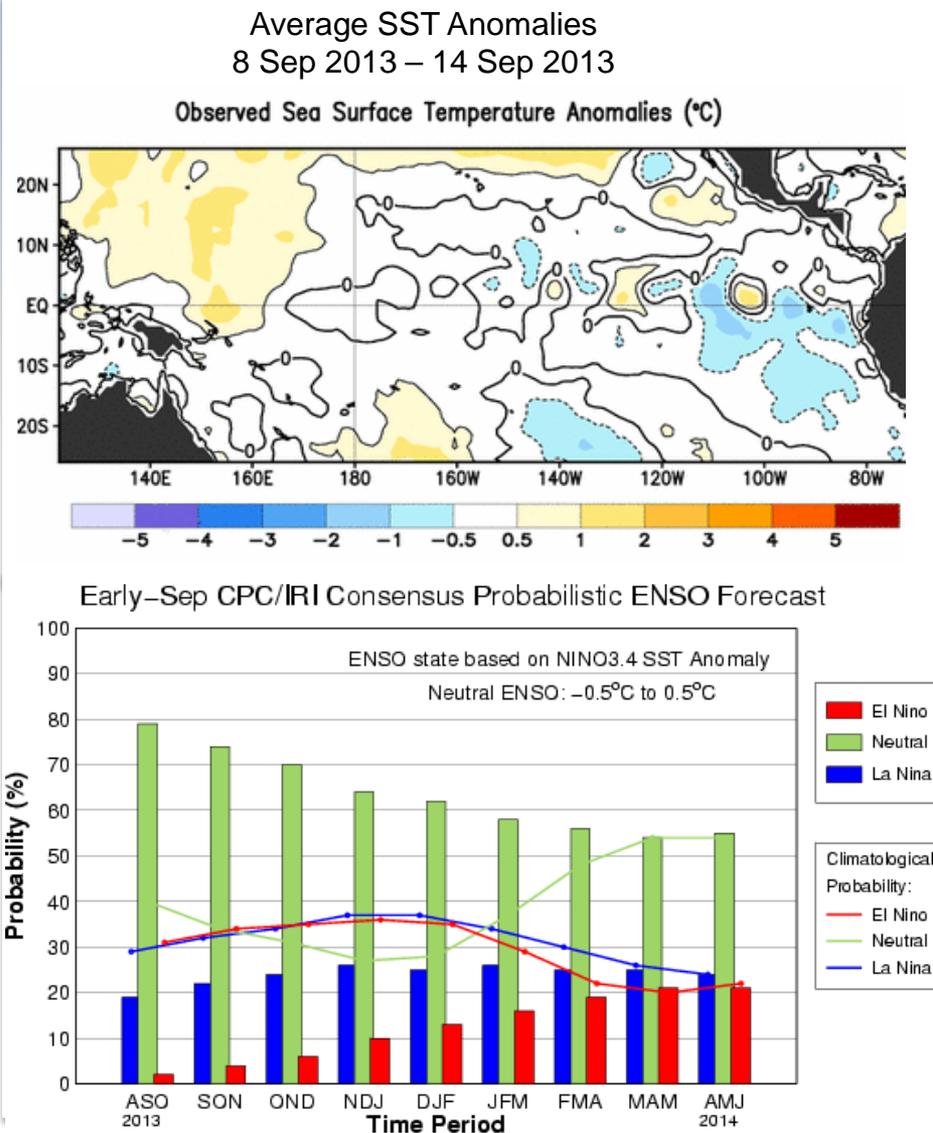


Satellite view of Rim Fire evolution from August 20th to September 4th



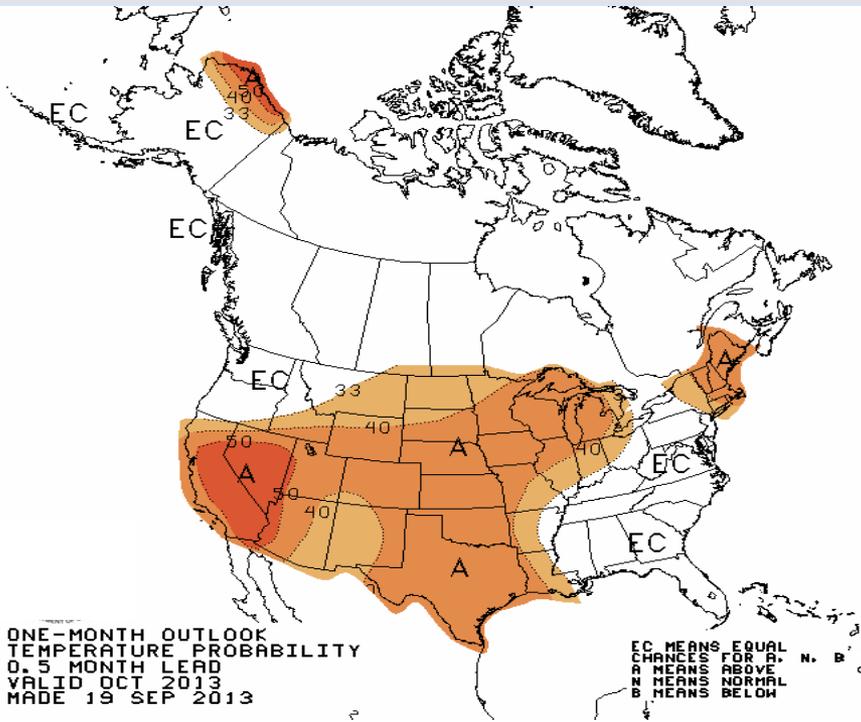
El Niño/La Niña Southern Oscillation (ENSO) Sea Surface Temperature Update

- Departures from normal remain small across the western and central Pacific
- Cooler than normal water is evident in the eastern Pacific
- ENSO neutral conditions continue
- ENSO neutral is favored well into autumn 2013

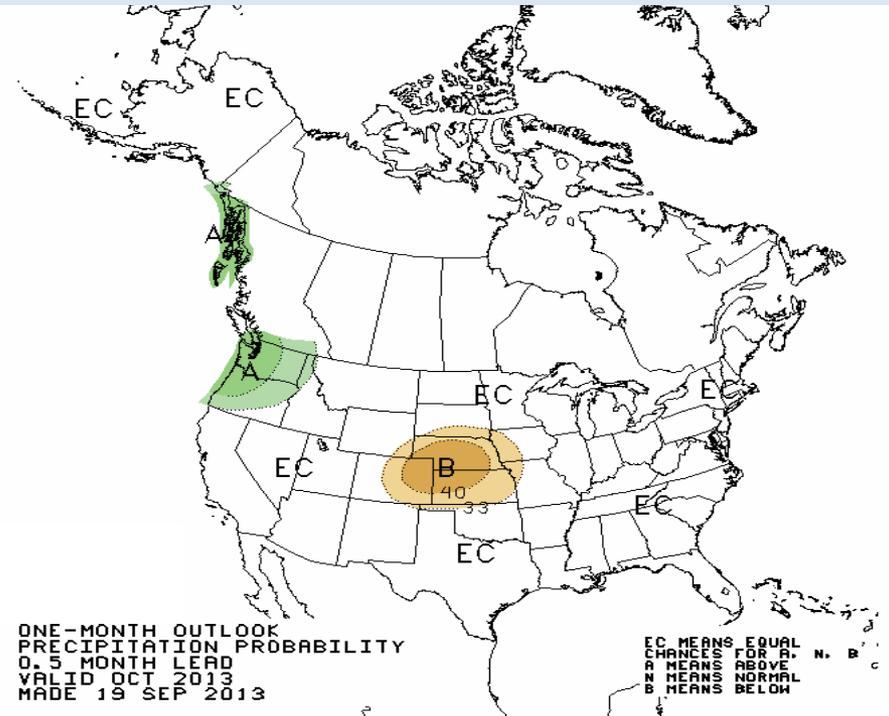


Monthly Forecast (October)

October Average Temperature Probability

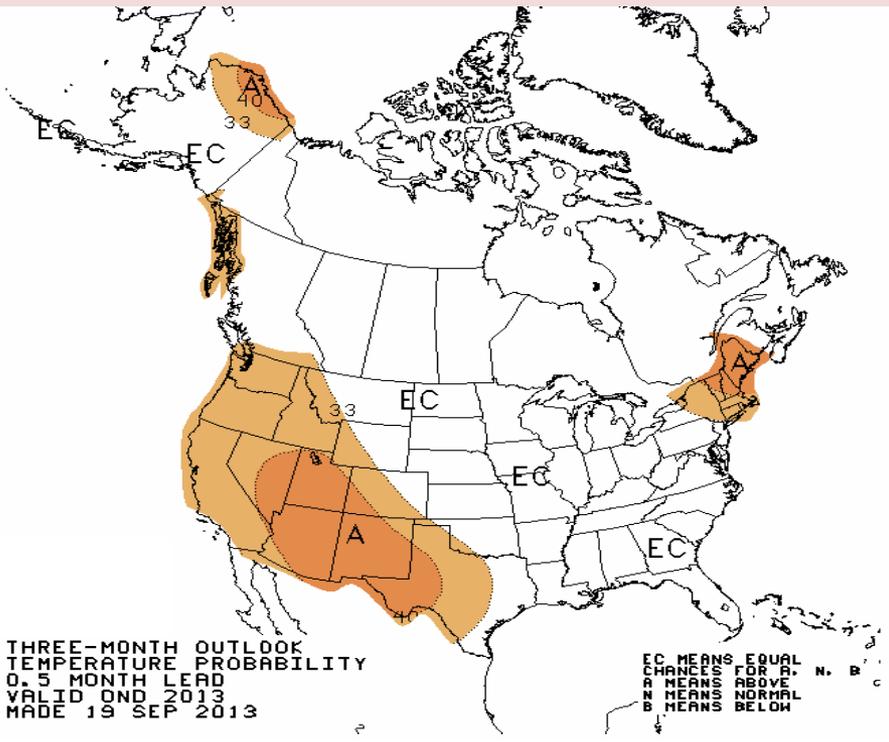


October Total Precipitation Probability

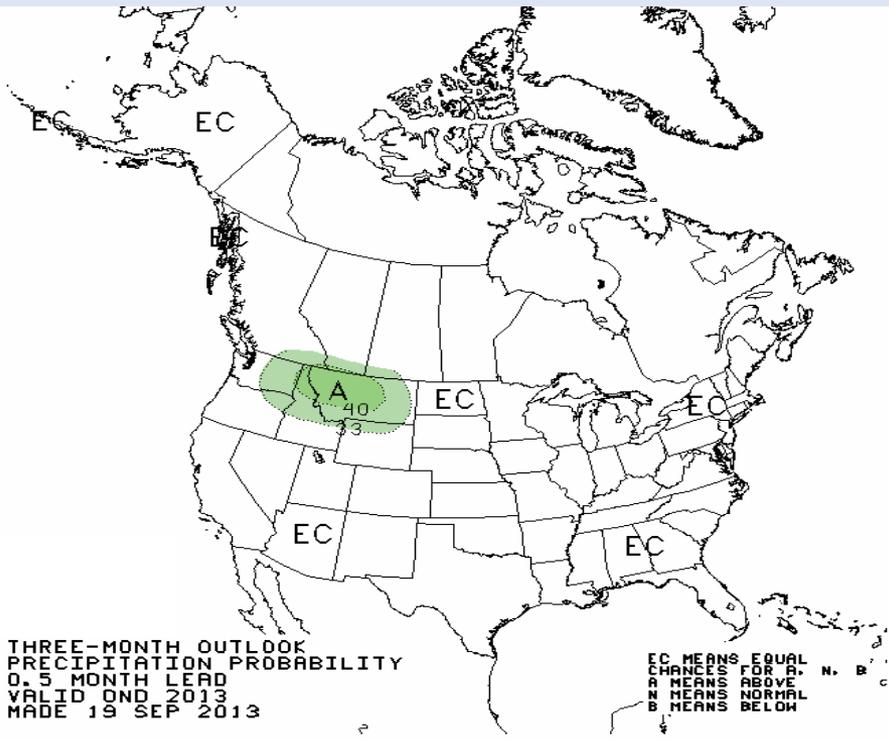


Seasonal Forecast (Oct-Nov-Dec)

Oct-Nov-Dec Average Temperature Probability



Oct-Nov-Dec Total Precipitation Probability



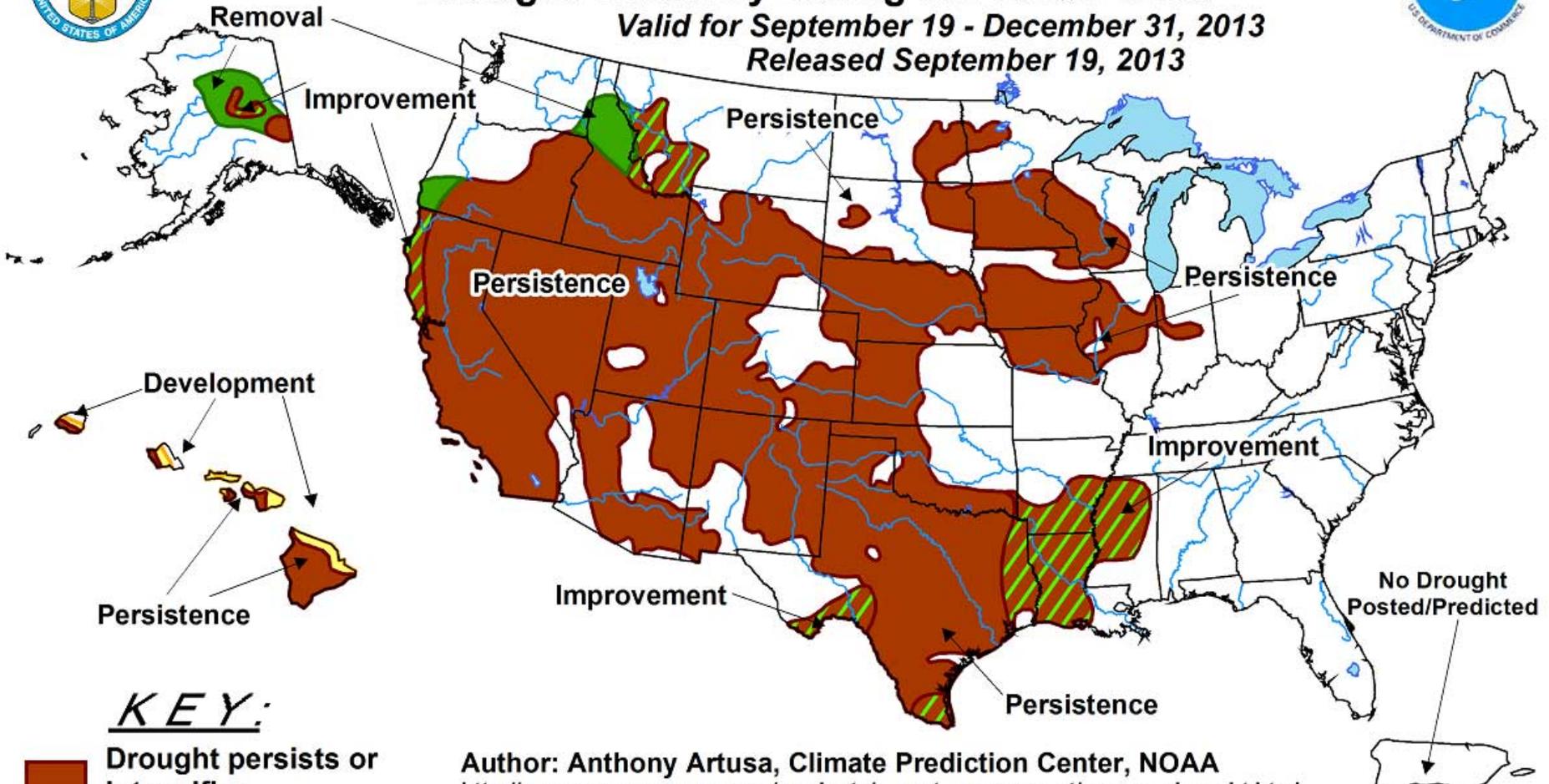


U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for September 19 - December 31, 2013

Released September 19, 2013



KEY:

-  Drought persists or intensifies
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely

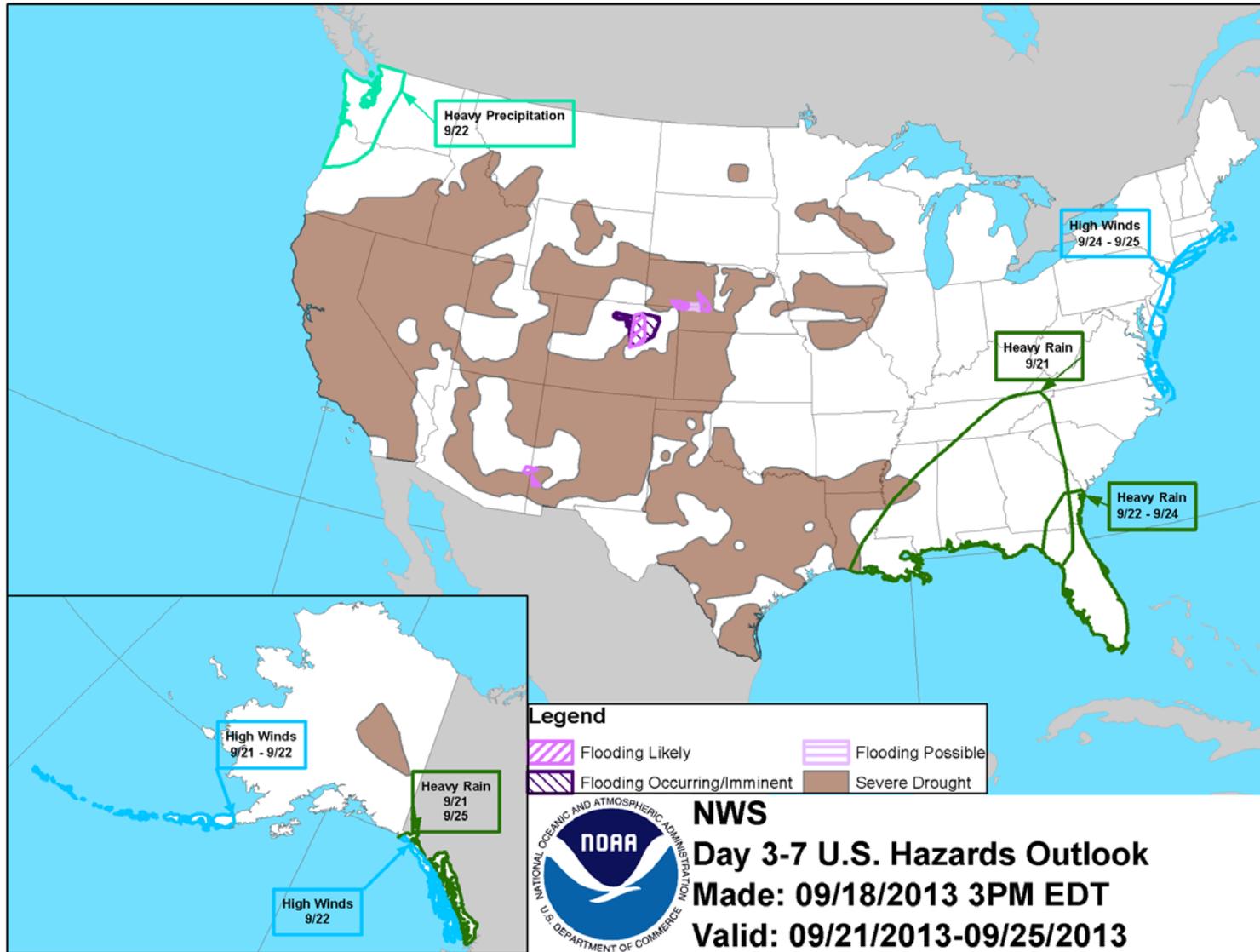
Author: Anthony Artusa, Climate Prediction Center, NOAA

http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.html

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor.

NOTE: The Green and Brown hatched 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)

U.S. Hazards Outlook (3-7 Days)



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

California State Climatologist: <http://www.water.ca.gov/floodmgmt/hafoo/csc/>

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

Climate Portal: www.climate.gov

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