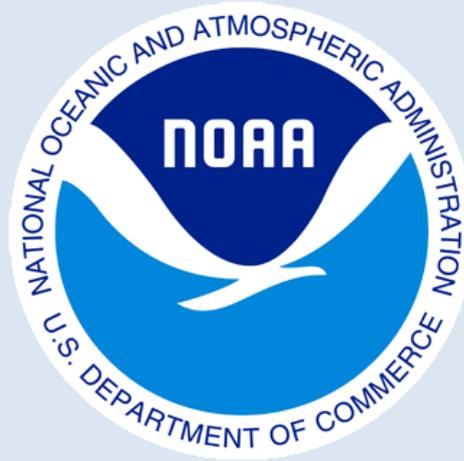
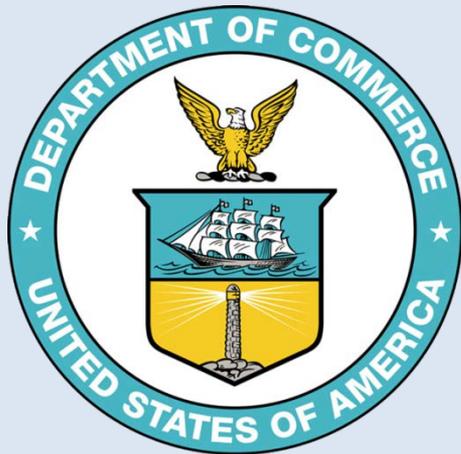


NOAA Climate Science & Services

Monthly Climate Update

A look back at July and a preview of September-November



Jake Crouch

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NOAA's National Climatic Data Center

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NOAA's National Weather Service - Alaska
Region

Anthony Artusa

Forecaster, Operational Prediction Branch
NOAA's Climate Prediction Center

U.S. Climate Highlights

Warmer and wetter than average nationally Drought creeps into Midwest; 5th wettest July on record.

Temperature: 0.8°F above average – 30th warmest

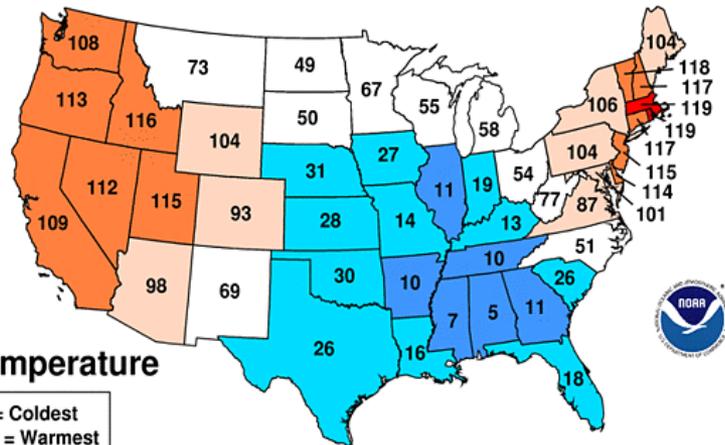
- **Cool:** Central and southeastern US.
- **Warm:** West and Great Lakes. Several cities in the West were record warm. MA and RI record warm.

Precipitation: 0.71" above average

- **Dry:** Northwest and Midwest. OR record dry.
- **Wet:** Southwest, Plains, and East Coast. FL record wet with 12.38" of rain.

July 2013 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



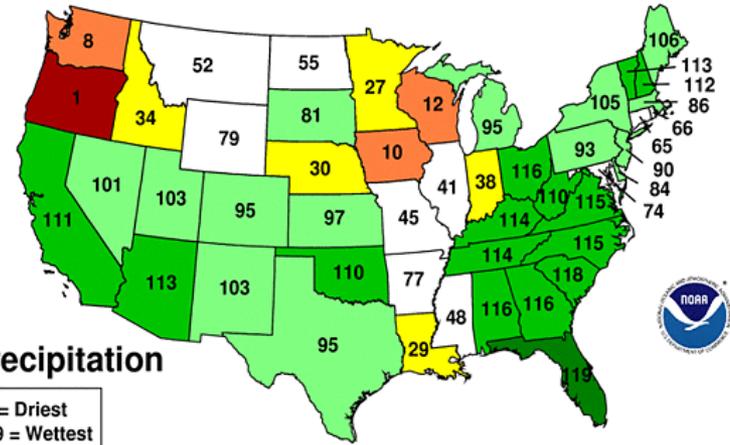
Temperature

1 = Coldest
119 = Warmest



July 2013 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



Precipitation

1 = Driest
119 = Wettest



U.S. Climate Highlights – Year-to-date

Slightly warmer than average, above-normal precipitation

Dry extremes in West; Wet extremes in East.

Temperature: 0.5°F above average

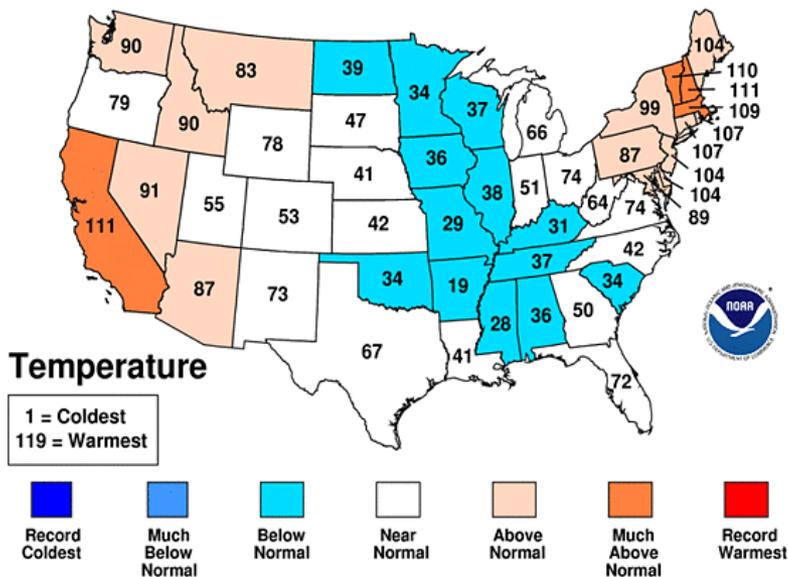
- **Cool:** Central and southeastern U.S.
- **Warm:** West Coast and Northeast. CA, NH, VT top ten warm for January-July.

Precipitation: 1.54” above average

- **Dry:** West. CA record dry. ID, NV, WA top ten dry.
- **Wet:** East. MI record wet. 10 states top ten wet, all East of the Rockies.

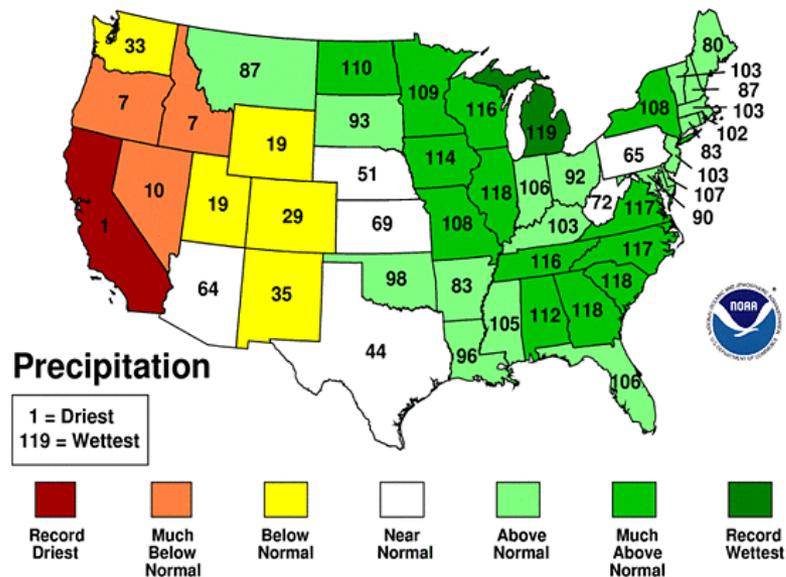
January-July 2013 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



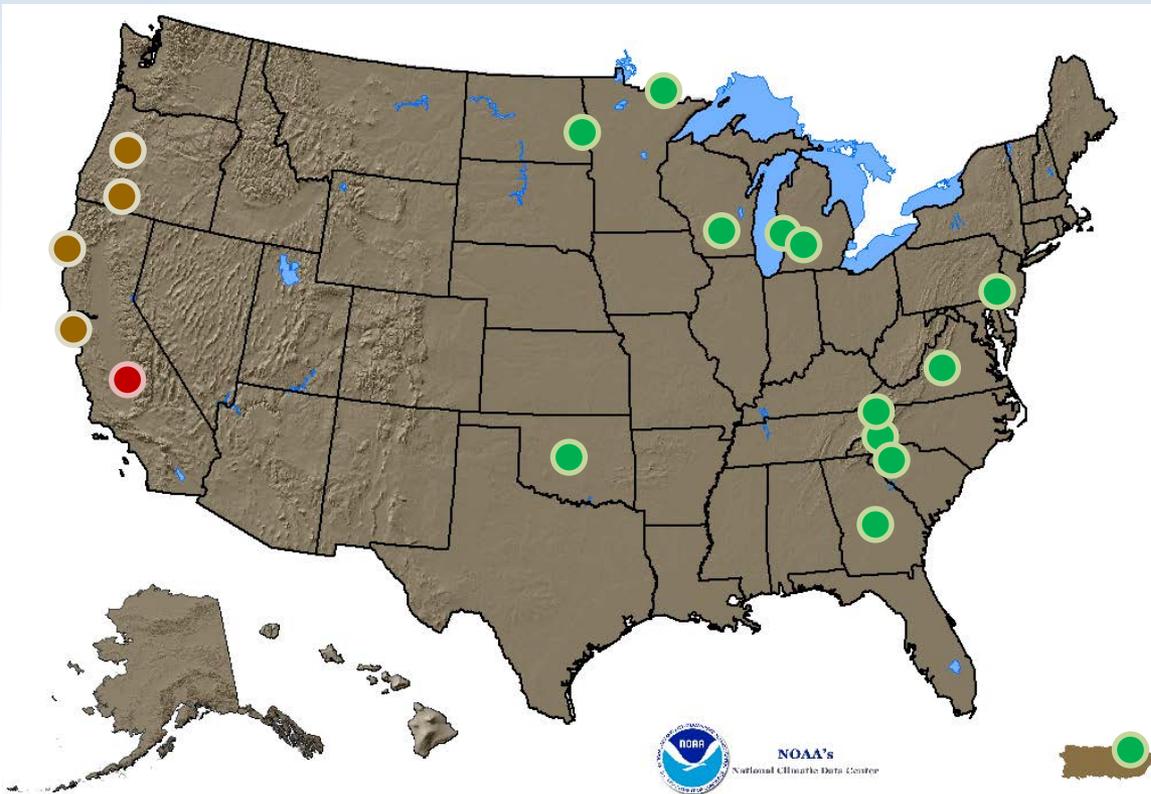
January-July 2013 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



U.S. Climate Highlights

Select cities with record conditions during January-July 2013



● Wettest Jan-Jul
 ● Driest Jan-Jul
 ● Warmest Jan-Jul

Location	Record	Amount	Departure
Asheville, NC	Wet	51.81"	+24.60"
San Juan, PR	Wet	50.26"	+22.10"
Macon, GA	Wet	47.92"	+20.08"
Greenville, SC	Wet	47.04"	+19.01"
Philadelphia, PA	Wet	36.34"	+11.82"
Roanoke, VA	Wet	39.80"	+15.23"
Johnson City, TN	Wet	40.18"	+14.20"
Oklahoma City, OK	Wet	41.70"	+20.09"
Madison, WI	Wet	34.97"	+14.42"
Muskegon, MI	Wet	29.32"	+12.13"
Fargo, ND	Wet	21.58"	+8.11"
International Falls, MN	Wet	21.39"	+7.24"
Grand Rapids, MI	Wet	30.44"	+9.31"
San Francisco, CA	Dry	1.90"	-11.18"
Eureka, CA	Dry	11.48"	-11.98"
Eugene, OR	Dry	9.70"	-15.70"
Medford, OR	Dry	4.14"	-5.60"
Fresno, CA	Warm	67.1°F	+3.1°F

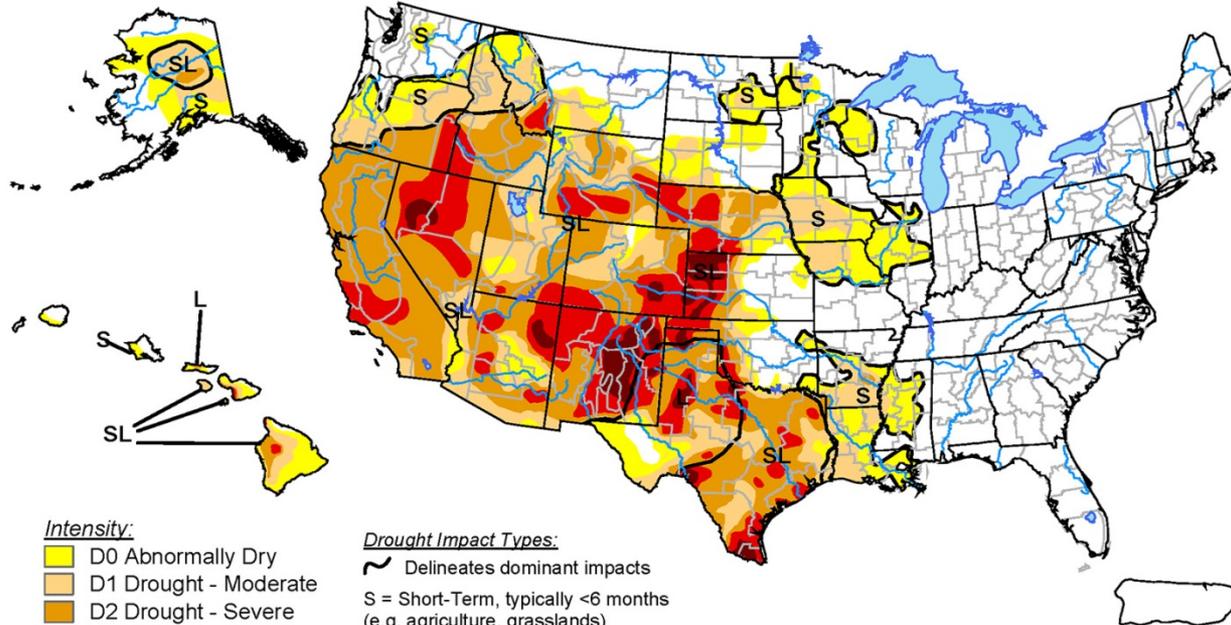


U.S. Drought Monitor

Drought expands to cover 45.3% of the Contiguous U.S.
Drought continues for Hawaii despite Tropical Storm Flossie
Severe Drought develops in central Alaska

U.S. Drought Monitor

August 13, 2013
Valid 7 a.m. EDT



Intensity:

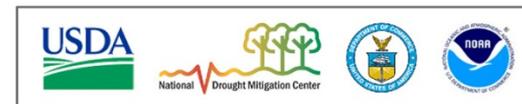
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:

- ~ Delineates dominant impacts
- S = Short-Term, typically <6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically >6 months (e.g. hydrology, ecology)

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, August 15, 2013

Author: Michael Brewer/L. Love-Brotak, NOAA/NESDIS/NCDC

Alaska's Climate Roller Coaster

- Spring: Coldest in decades (mainland); very late snow melt and river ice break-up
- Dramatic pattern change about May 20th
- Hot June, Warm July and August (so far)
- Both Spring and Summer: records set on multiple time scales: daily, monthly and seasonal

Alaska's Spring 2013

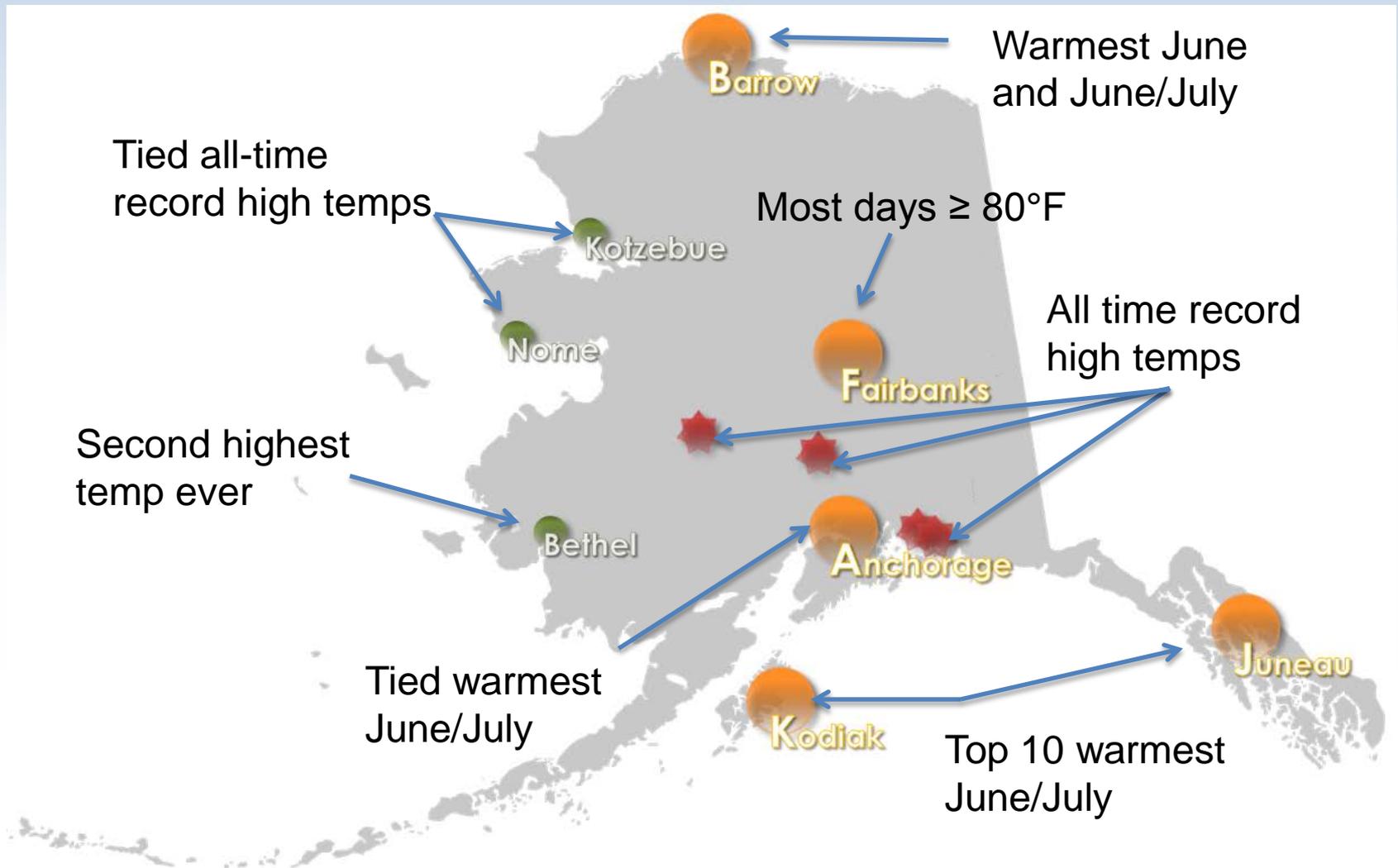
- Severe ice jam flooding on Yukon River
- Delayed barge traffic in Bering Sea (week to ten days)
- Greatly reduced walrus hunting success Saint Lawrence Island
- Delayed agricultural, construction and recreational activities
- Unusual bird migration problems



Alaska's Summer 2013

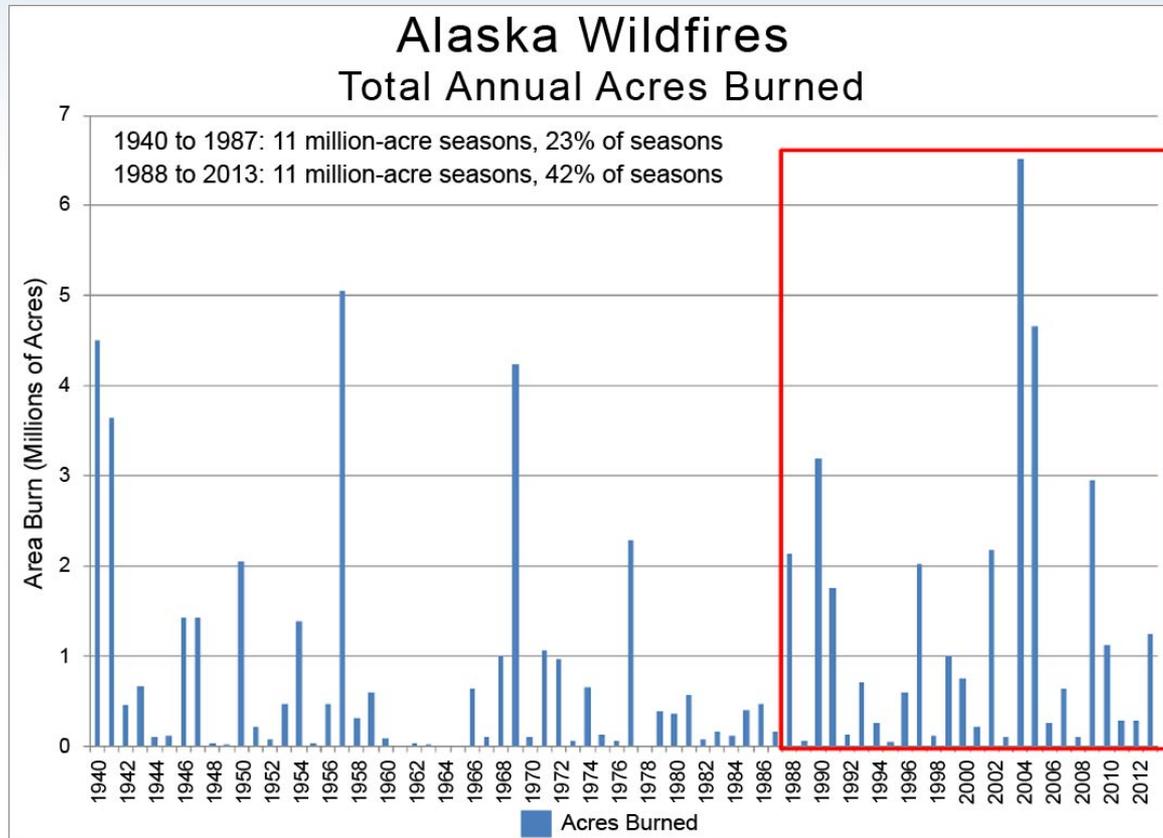
- Fire weather: 1.25 million acres burned
 - Air quality impacts from smoke
- Low water levels on rain-fed rivers
- Long-term heat and drought stress on boreal forest regions
- Fish quality problems due to warm waters
- Partially made up for late spring for agricultural interests
- Unusually good building season

Alaska's Summer 2013



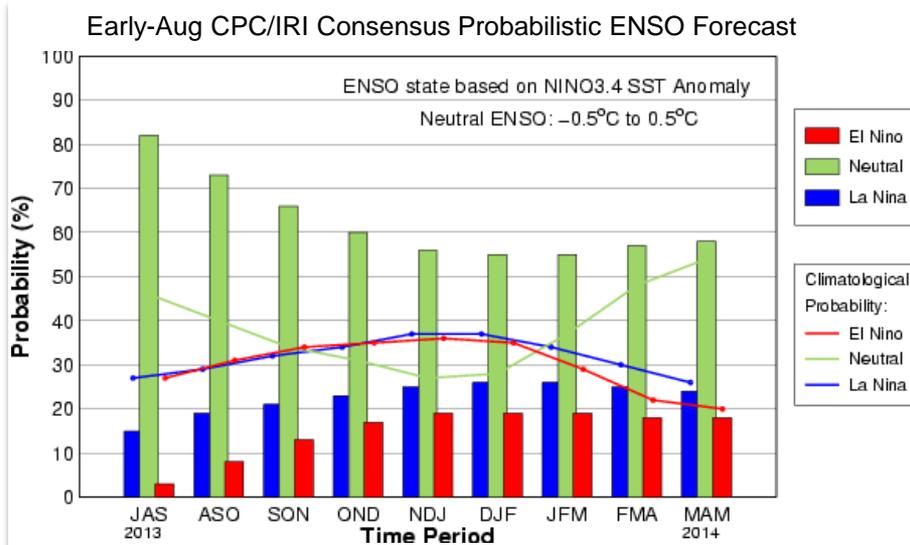
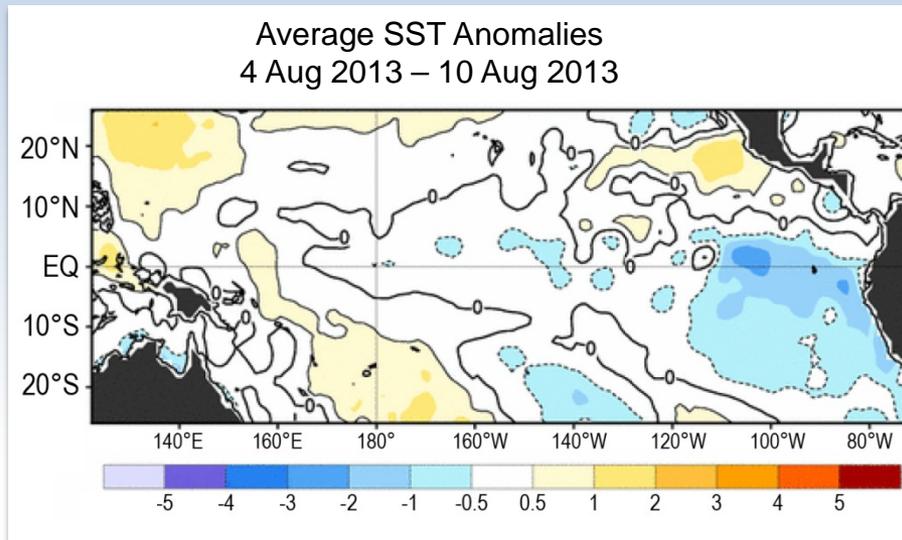
Alaska's Summer 2013

- 2013 wildfire activity not excessive by historical standards but part of multi-decadal trend toward increased acreage burned



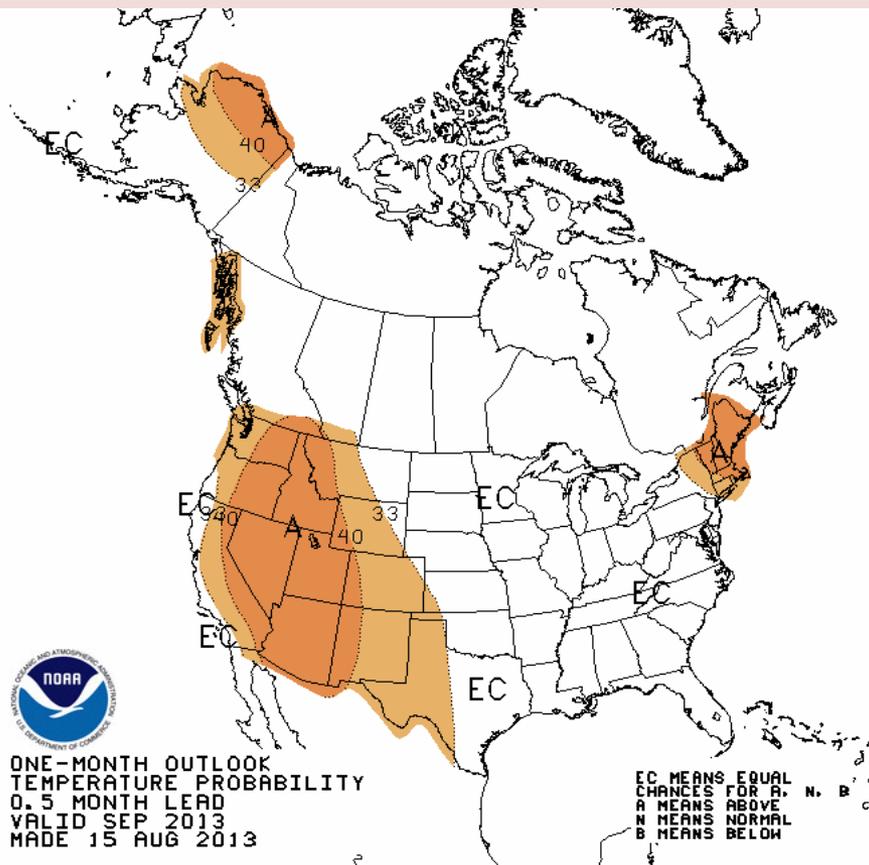
El Niño/La Niña Southern Oscillation (ENSO) Sea Surface Temperature Update

- 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

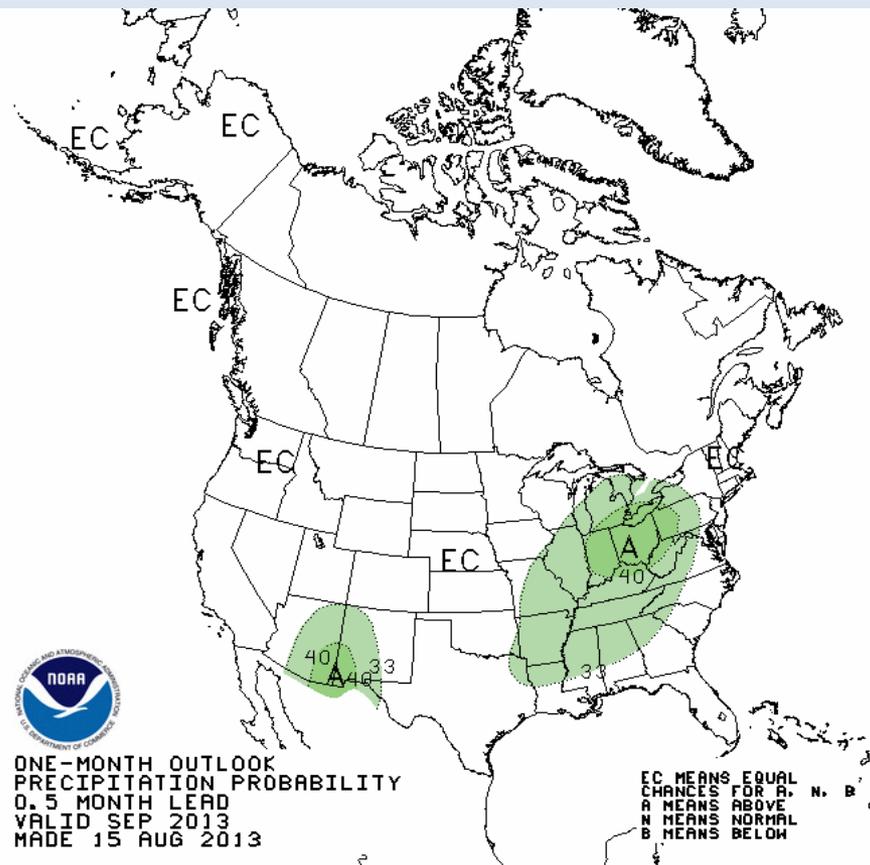


Monthly Forecast (September)

September Average Temperature Probability

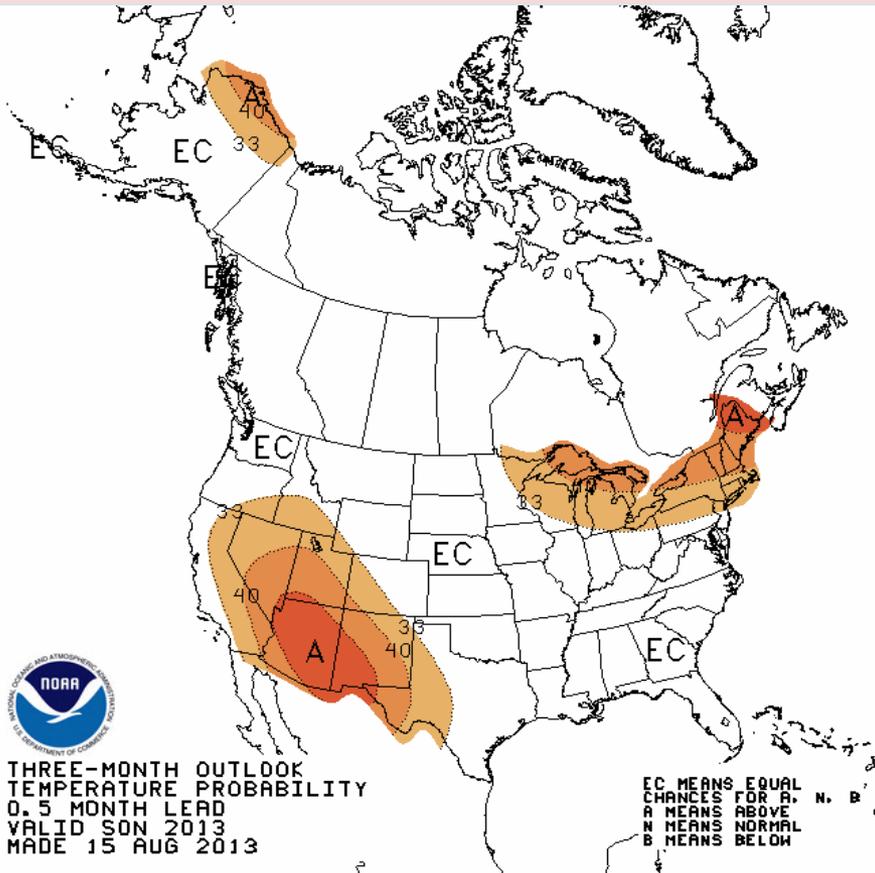


September Total Precipitation Probability

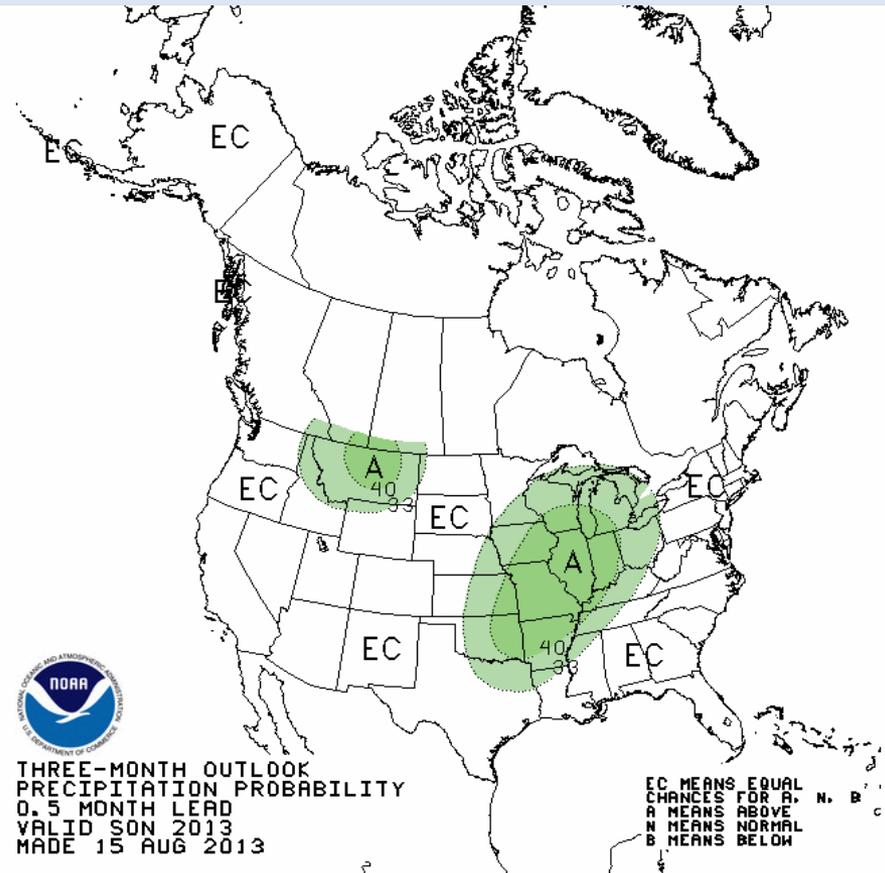


Seasonal Forecast (Sep-Oct-Nov)

Sep-Oct-Nov Average Temperature Probability

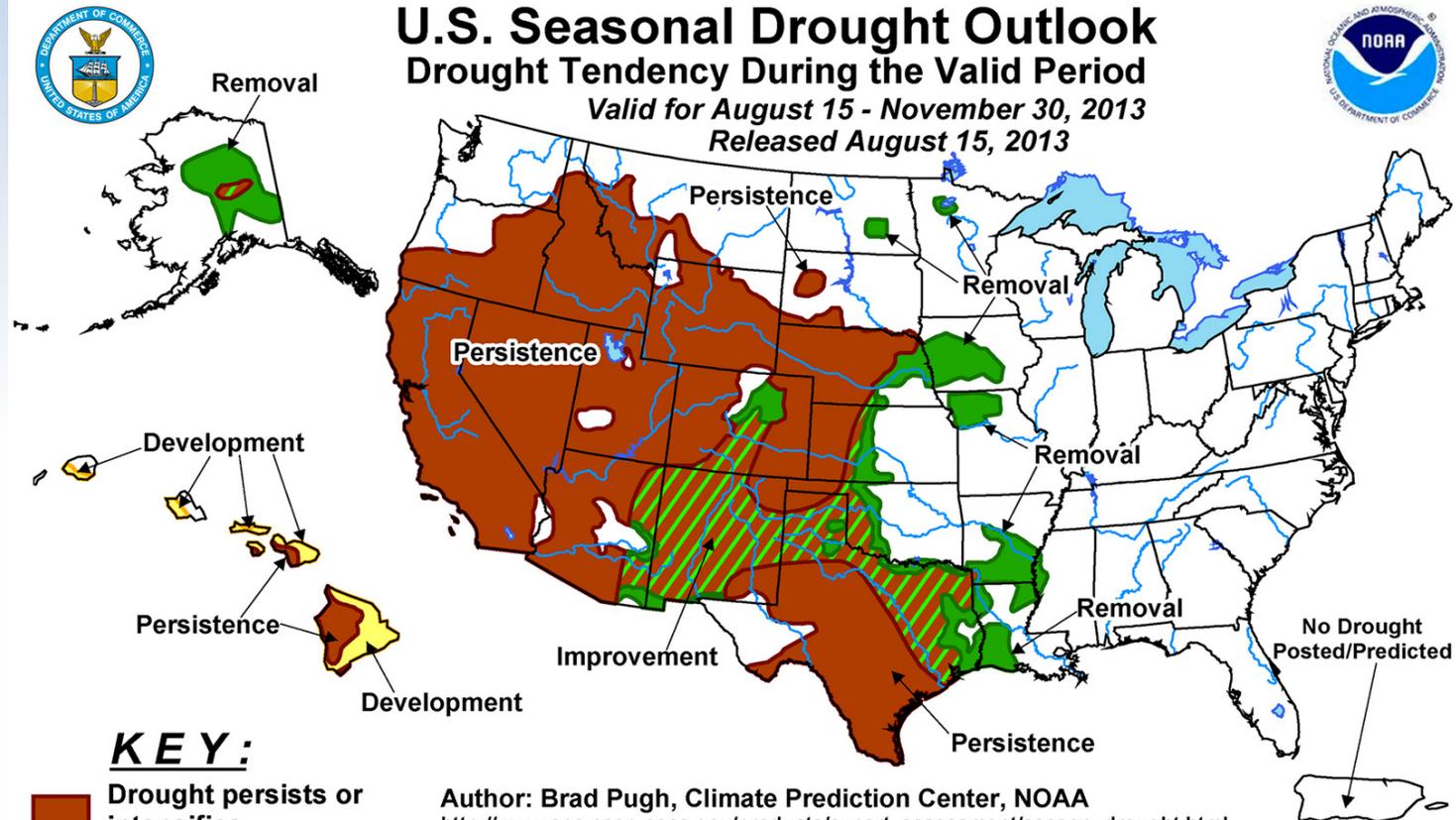


Sep-Oct-Nov Total Precipitation Probability



U.S. Drought Outlook

3-month forecast



KEY:

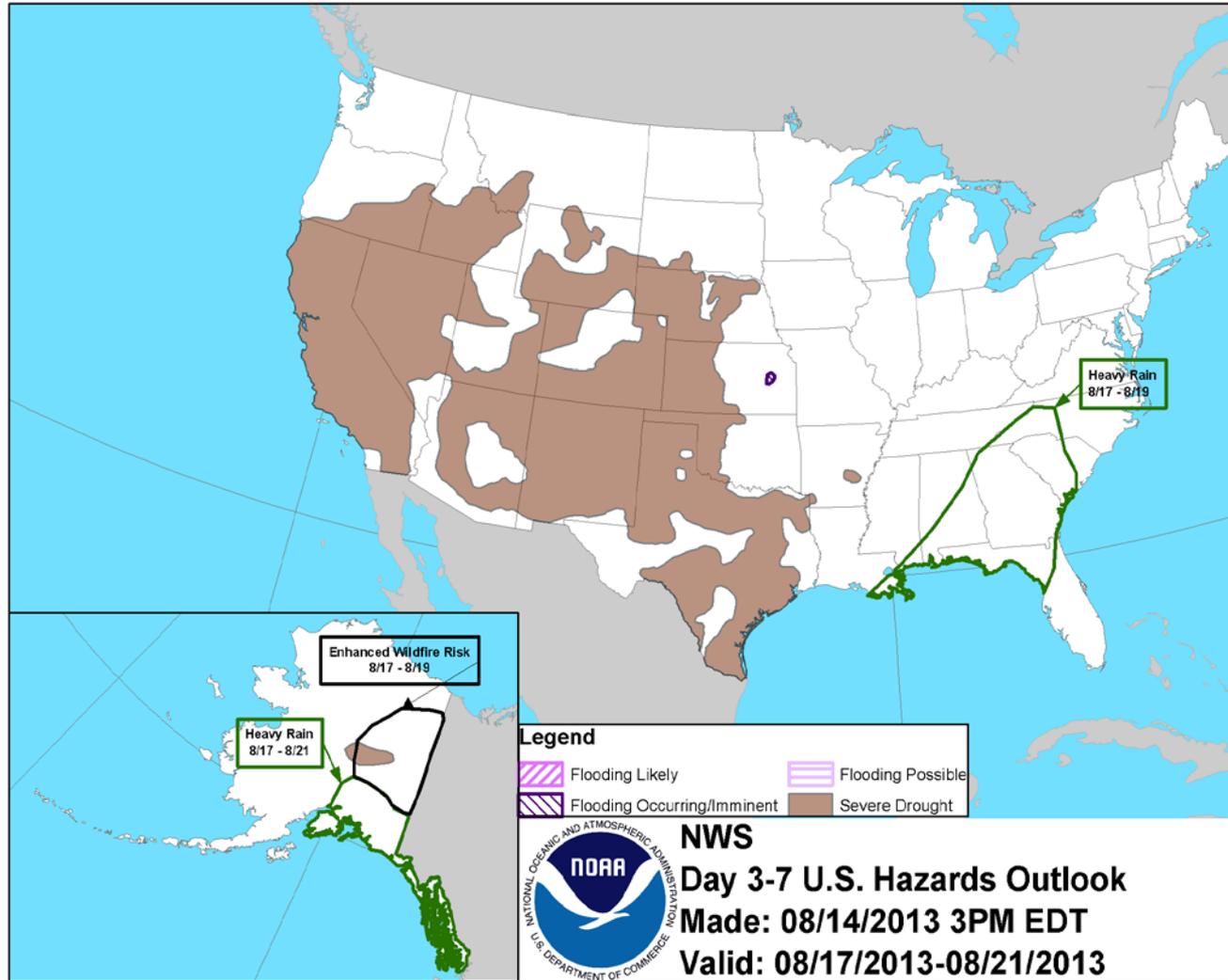
-  Drought persists or intensifies
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely

Author: Brad Pugh, 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

Nat'l Weather Service Alaska Region: <http://www.arh.noaa.gov/>

Alaska Climate & Weather Highlights tool:
https://accap.uaf.edu/?q=tools/climate_highlights

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

Climate Portal: www.climate.gov

Media Contacts:

- Katy.Vincent@noaa.gov, 828-257-3136 (NOAA/NCDC)