

# NOAA Climate Science & Services

## Monthly Climate Update

Peering back at June ...  
looking ahead through September



Deke Arndt

Chief, Climate Monitoring Branch, NOAA's National Climatic Data Center

Anthony Artusa

Seasonal Forecaster, NOAA's Climate Prediction Center

Ed O'Lenic

Chief, Operations Branch, NOAA's Climate Prediction Center

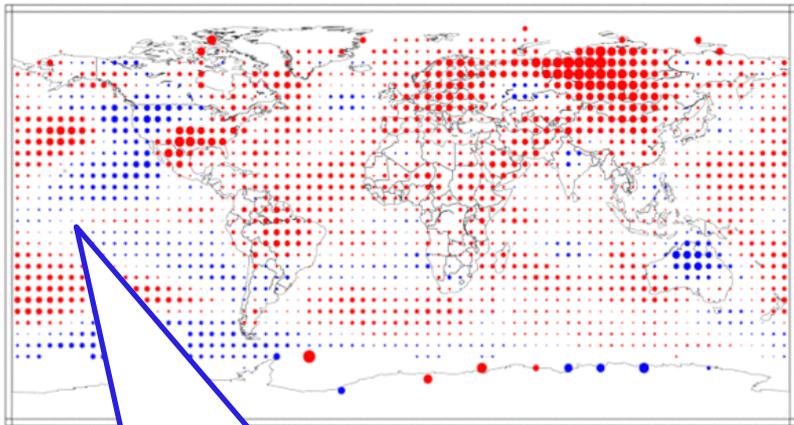


# Global Climate Highlights

**7<sup>th</sup> Warmest June and  
11<sup>th</sup> Warmest year-to-date on record**

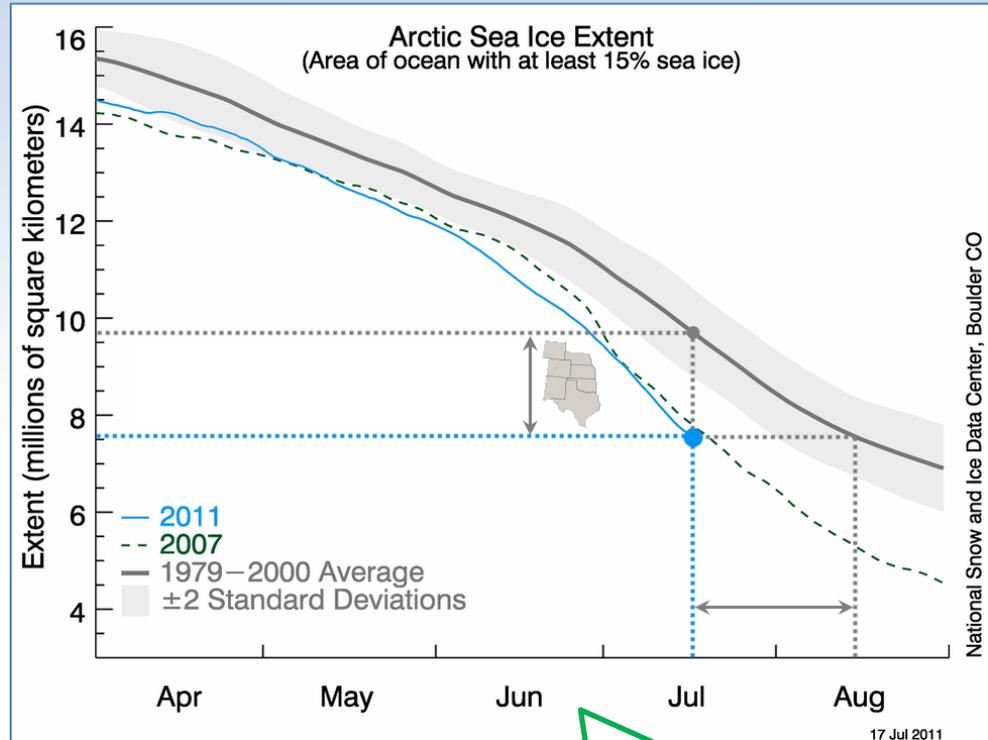
## Temperature Anomalies June 2011

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



### ENSO

- ENSO-neutral conditions were present in June.



### Arctic Sea Ice:

- June average sea ice extent was the 2<sup>nd</sup> smallest on record, according to the National Snow & Ice Data Center. Image shows July 17 update

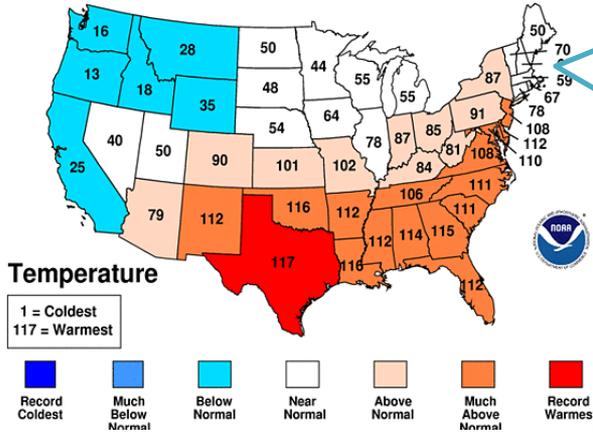
National Snow and Ice Data Center, Boulder CO

17 Jul 2011

# June 2011 at a Glance

## June 2011 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



## June: Above Normal National Temperature

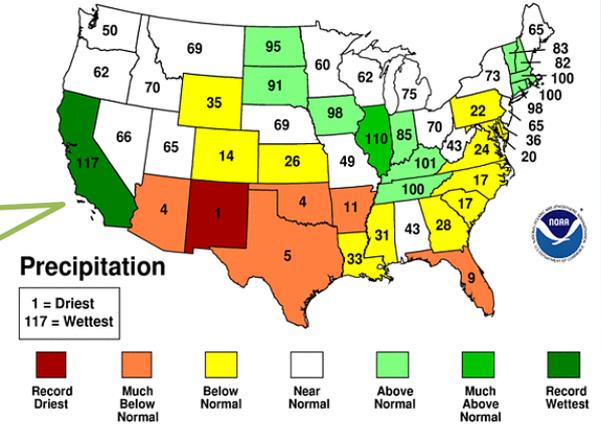
- 26th warmest (of 117 years)
- 1.4 F warmer than the 20<sup>th</sup> century average

## June: Below Normal National Precipitation

- Record dry June in New Mexico – record wet in California.

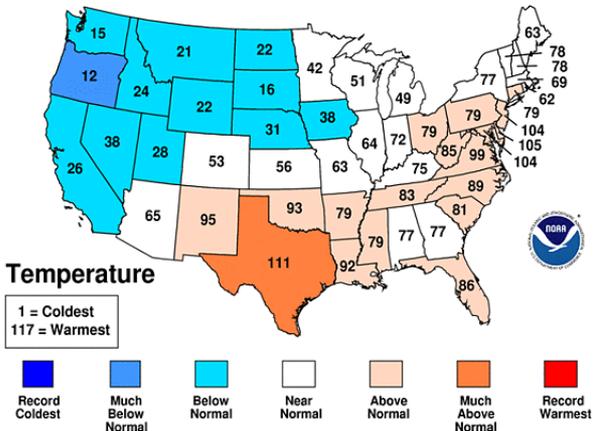
## June 2011 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



## January-June 2011 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA

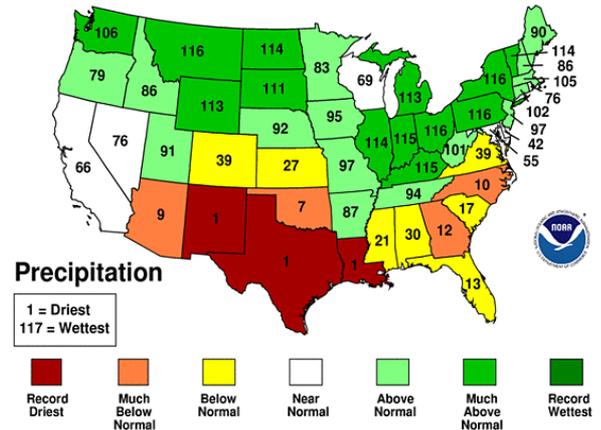


## Year-to-Date: Nationally, near-normal precipitation and temperature

- However, large precipitation variability across the U.S.

## January-June 2011 Statewide Ranks

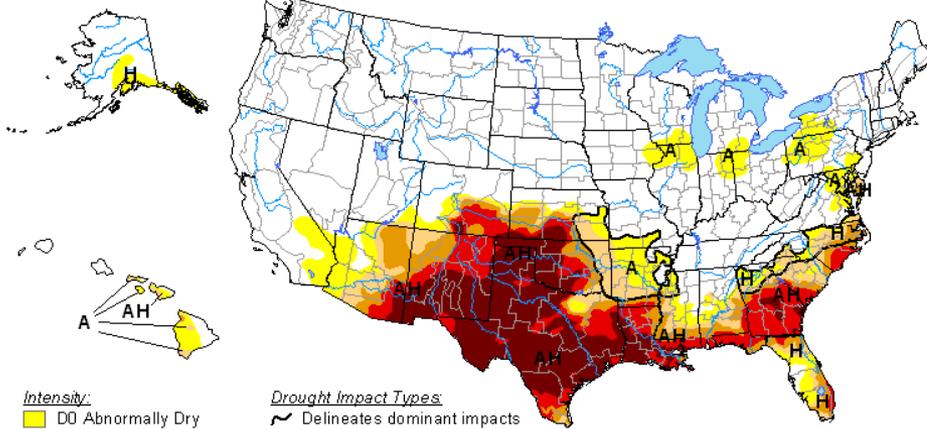
National Climatic Data Center/NESDIS/NOAA



# Drought Intensifies

## U.S. Drought Monitor

July 19, 2010  
Valid 8 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
  - A = Agricultural (crops, pastures, grasslands)
  - H = Hydrological (water)

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

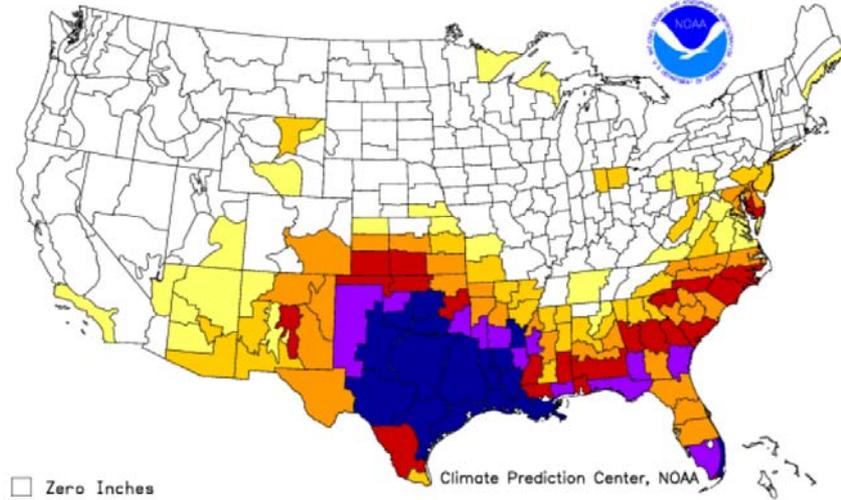
<http://drought.unl.edu/dm>



Released Thursday, July 21, 2010

Author: Matthew Rosencrans, NOAA/NWS/NCEP/CPC

Additional Precip. Needed (in.) to Bring PDI to -0.5  
Weekly Value for Period Ending JUL 16, 2011  
Long Term Palmer Drought Severity Index (PDI)



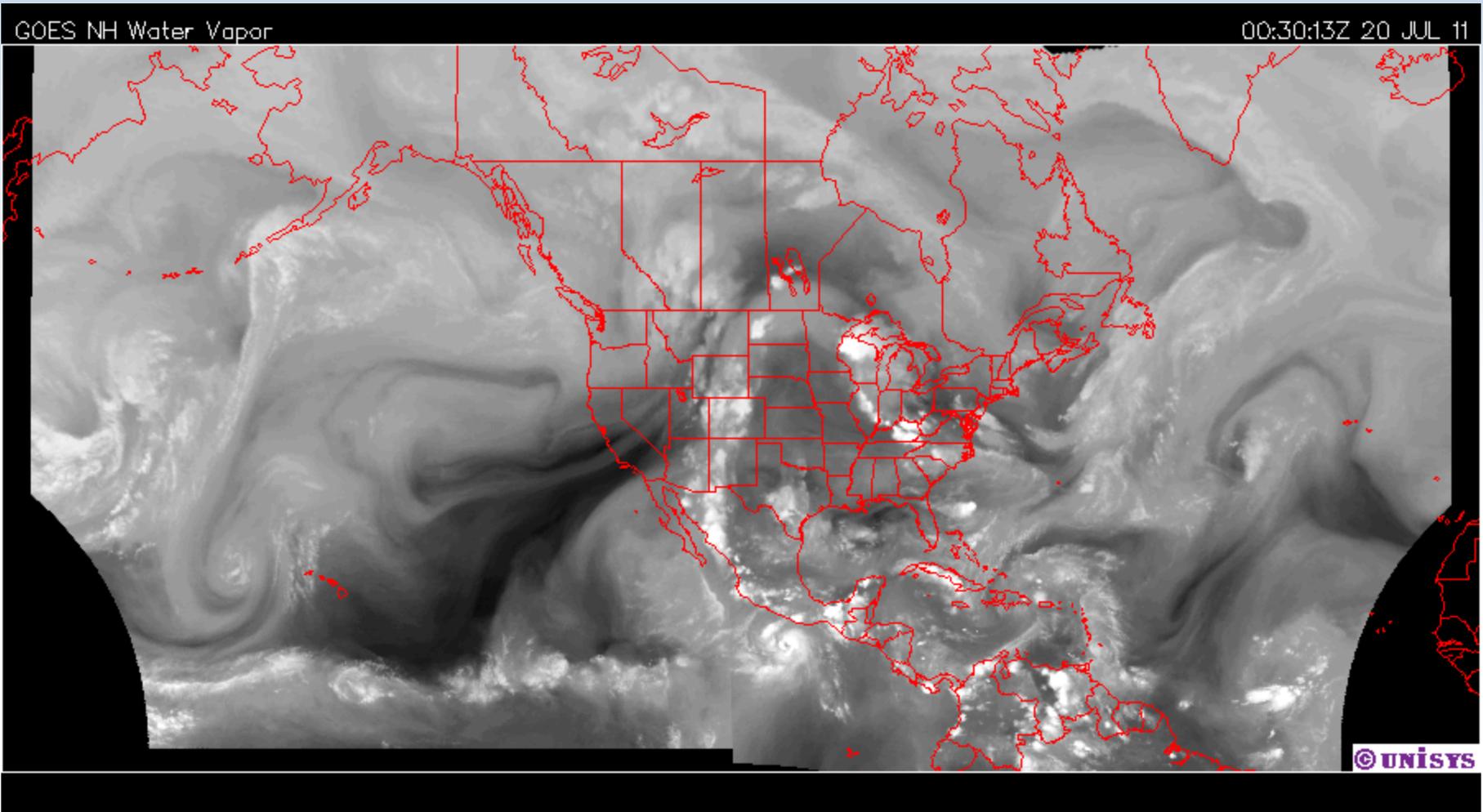
- Zero Inches
- Trace to 3 Inches
- 3 to 6 Inches
- 6 to 9 Inches

Climate Prediction Center, NOAA

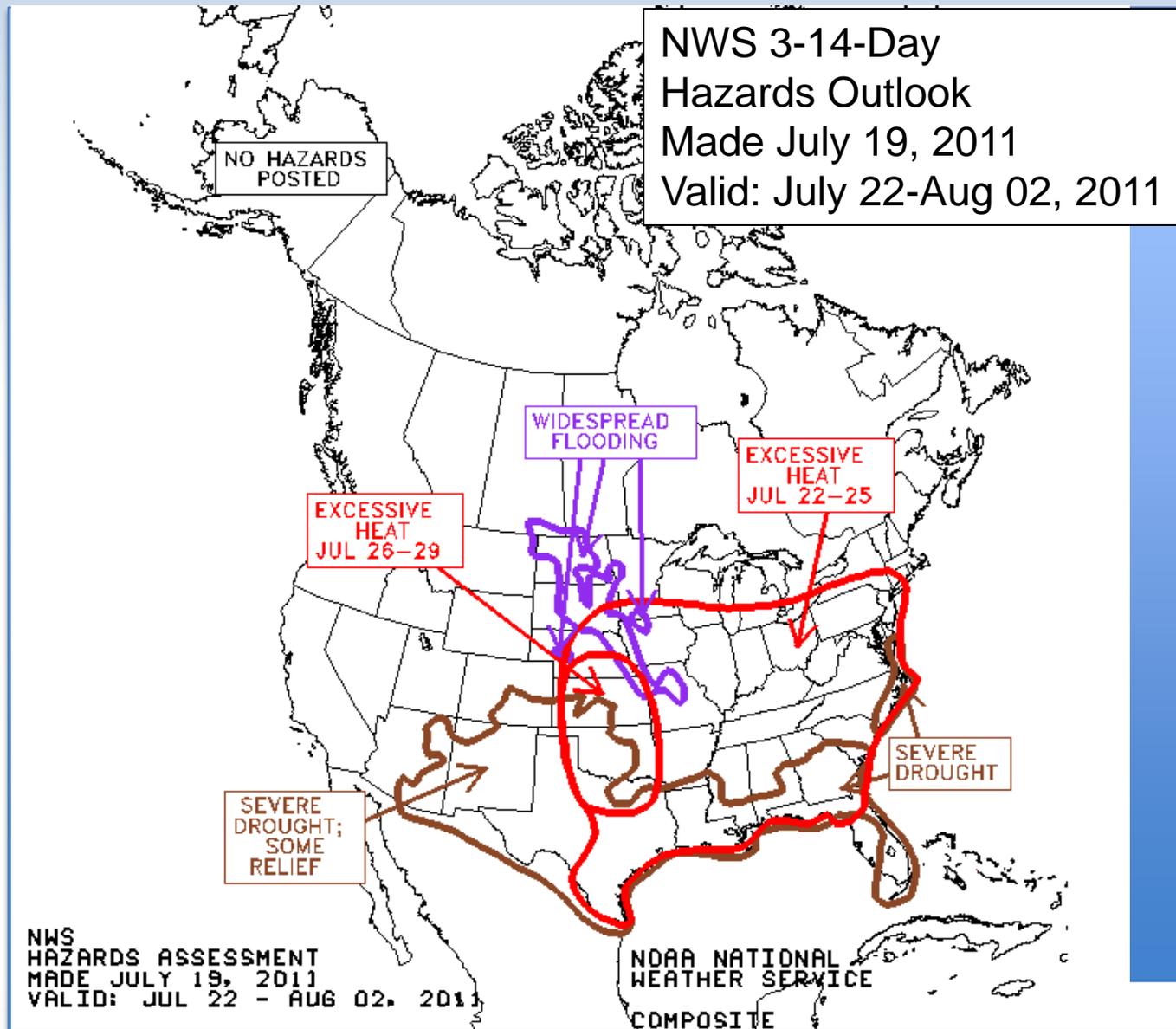
- 9 to 12 Inches
- 12 to 15 Inches
- Over 15 Inches

Additional Precipitation Needed (inches) to Bring Palmer Drought Index to -0.5

# Monsoon Circulation & Precipitation

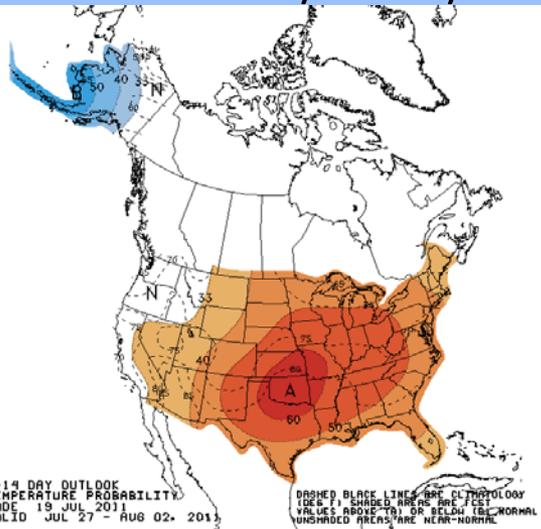


# Flooding, Drought, Extreme Heat

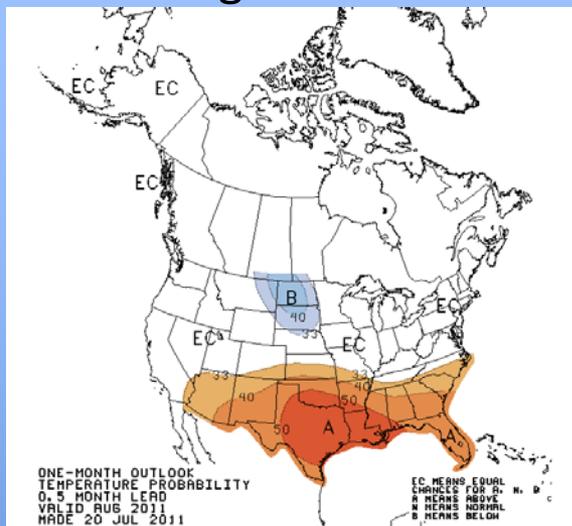


# Official Forecasts: Week 2, 1-Month, 3-Months

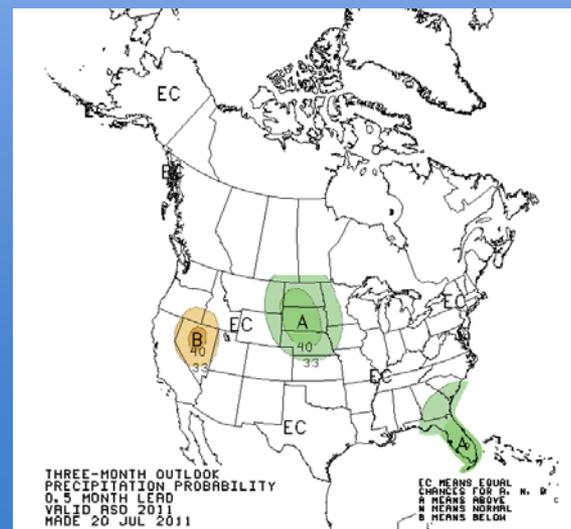
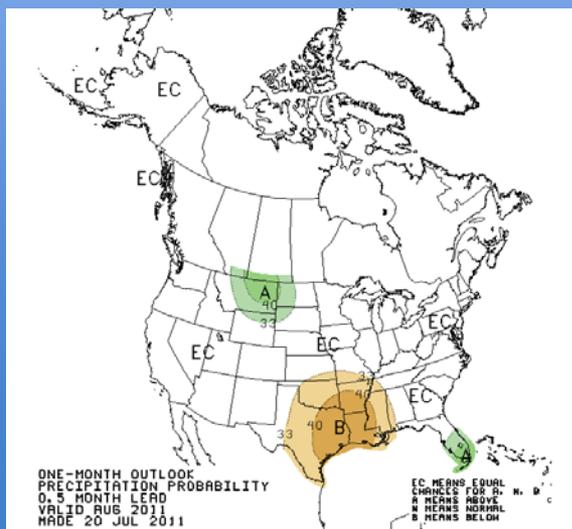
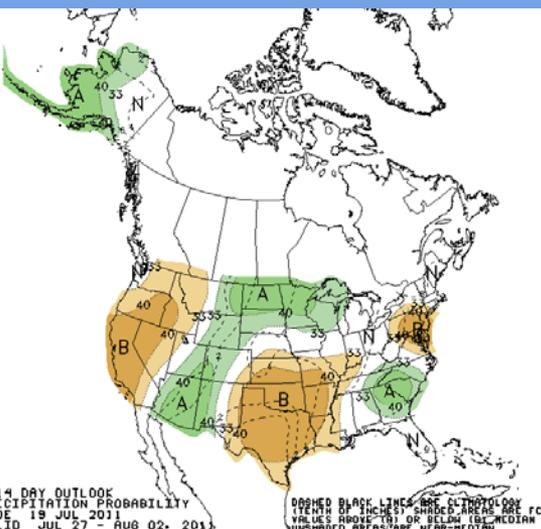
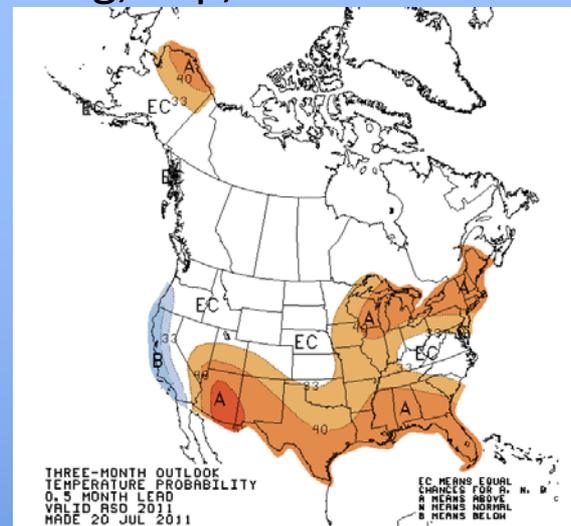
Week 2: 07/28-08/06



August 2011



Aug, Sep, Oct 2011



# For More Information



- NOAA's National Climatic Data Center: [www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)  
State of the Climate Reports (U.S. & Global): <http://www.ncdc.noaa.gov/sotc/>  
Special Spring Extremes Report: [www.ncdc.noaa.gov/special-reports/2011-spring-extremes/](http://www.ncdc.noaa.gov/special-reports/2011-spring-extremes/)
- NOAA's Climate Prediction Center: [www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)
- U.S. Drought Monitor: [www.drought.gov](http://www.drought.gov)
- Climate Portal: [www.climate.gov](http://www.climate.gov)
- PDF of this presentation:  
[http://www1.ncdc.noaa.gov/pub/data/cmb/sotc/webinars/NOAA\\_Climate\\_Webinar\\_July\\_2011.pdf](http://www1.ncdc.noaa.gov/pub/data/cmb/sotc/webinars/NOAA_Climate_Webinar_July_2011.pdf)