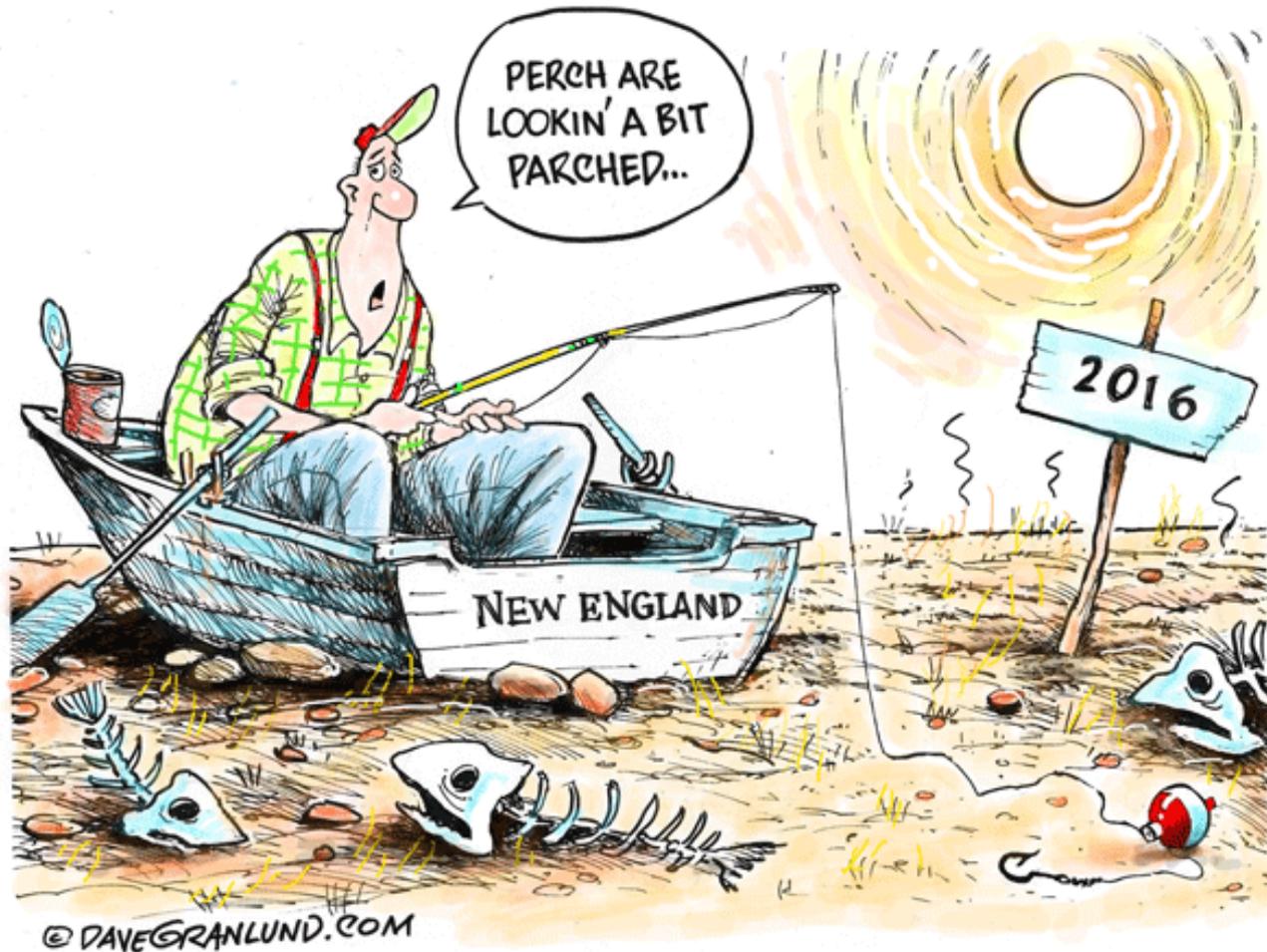


Northeast Drought Outlook Forum

Brad Rippey, USDA Meteorologist, Washington, D.C.
Climate and Drought Outlook



University of Massachusetts at Boston
Boston, Massachusetts, October 11, 2016

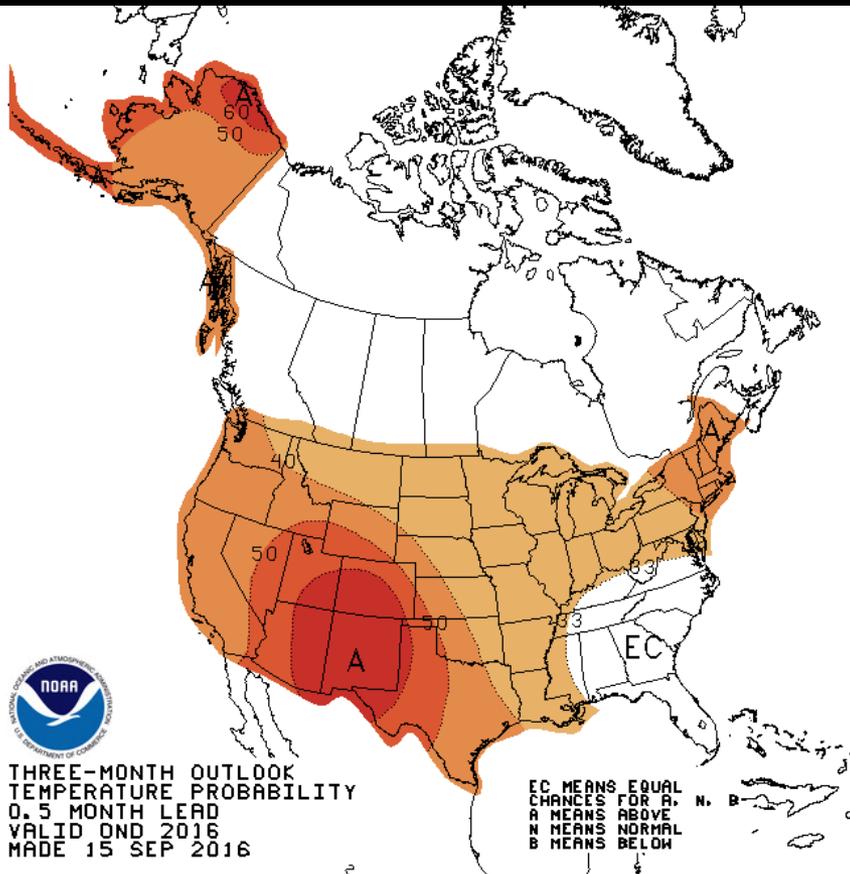
What to Expect in Coming Months

- Possibility of a weak La Niña during the 2016-17 cold season; therefore, winter & spring forecasts have a La Niña “flavor.”
- General warmth, compared to 1981-2010 base period, should continue during the warm season—typical following El Niño.
- However, there is low forecast confidence due to ENSO uncertainties and the possibility that another climate driver—such as North Atlantic blocking—could govern.

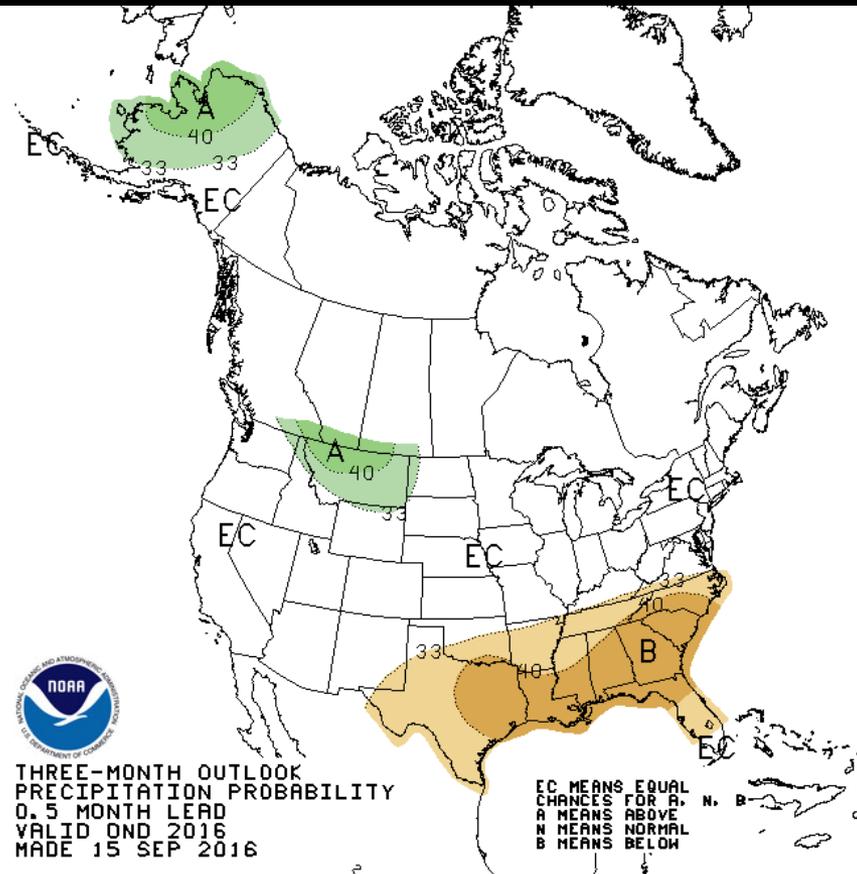
NWS Outlook

October – December 2016

Issued September 15



Temperature

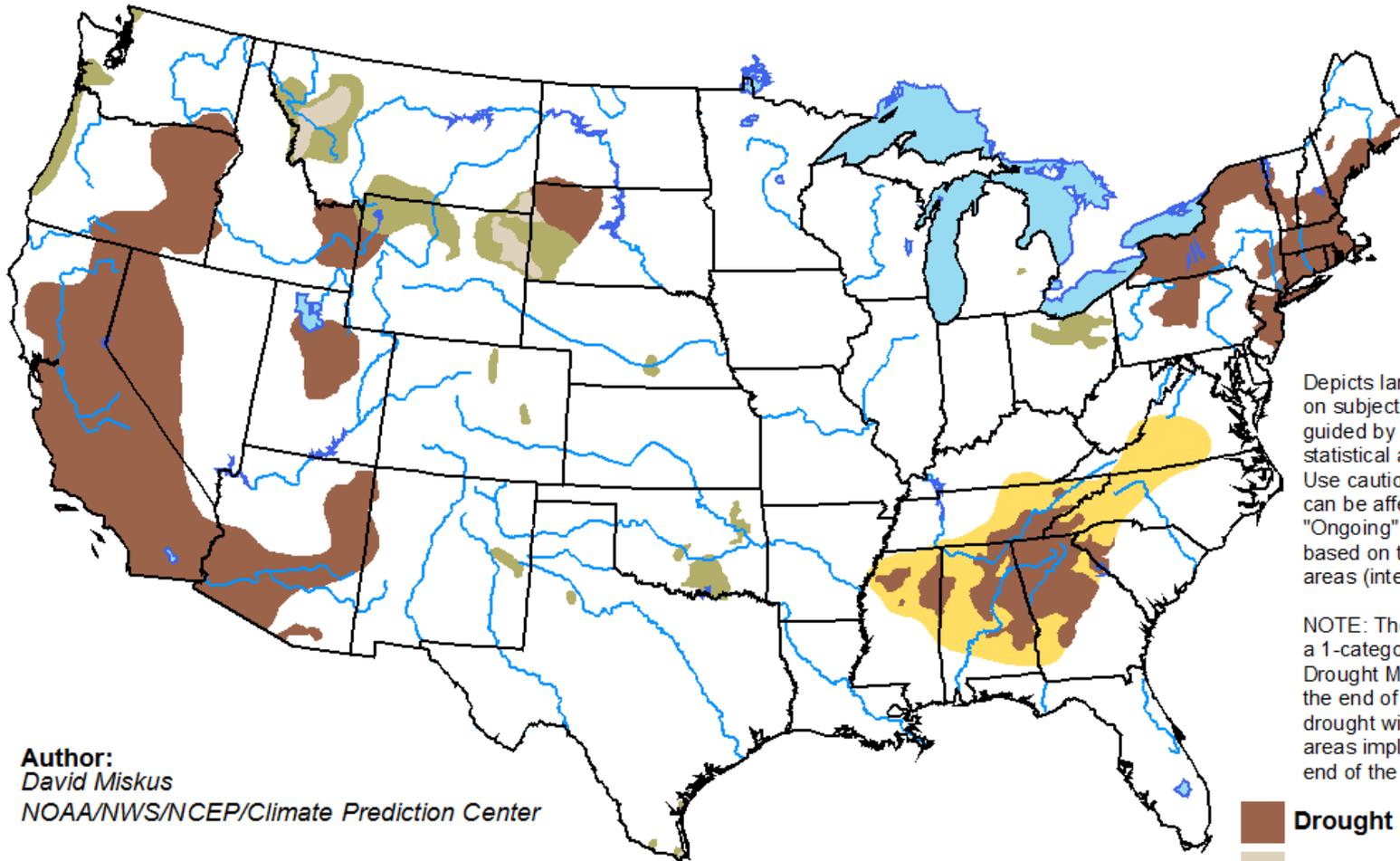


Precipitation

U.S. Seasonal Drought Outlook valid for September 15 - December 31, 2016

Drought Tendency During the Valid Period

Released September 15, 2016

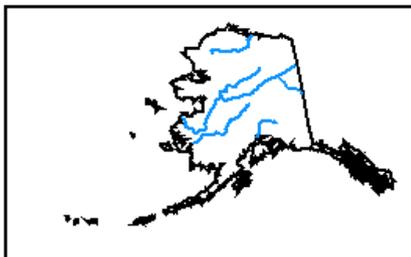


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to 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).

Author:
David Miskus
NOAA/NWS/NCEP/Climate Prediction Center

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

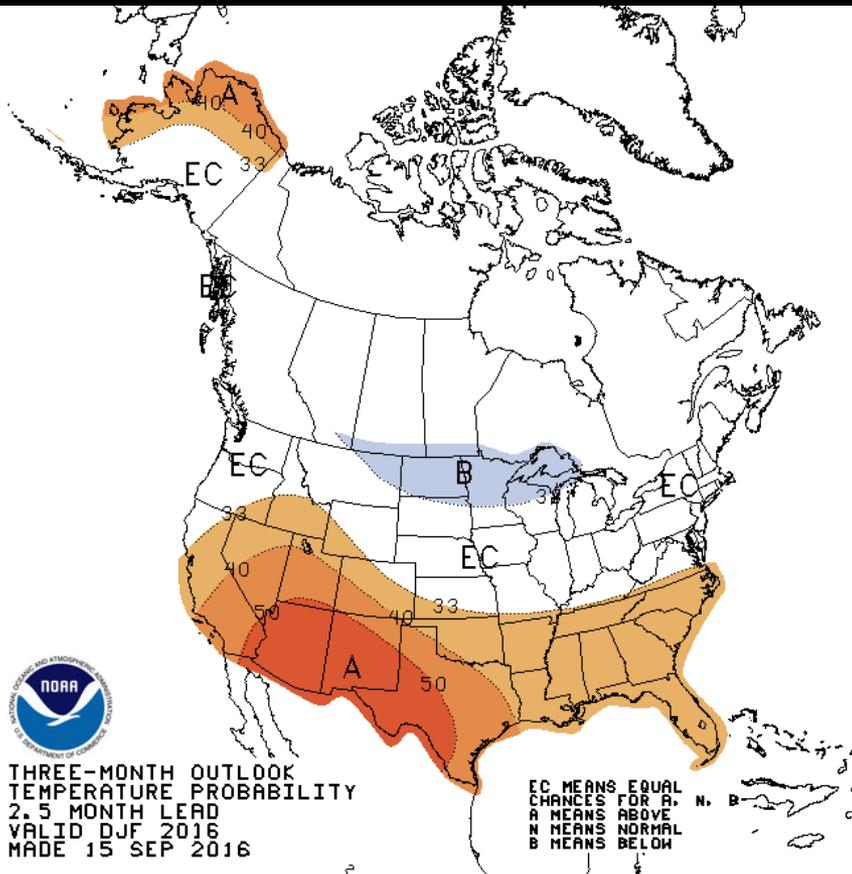


<http://go.usa.gov/3eZ73>

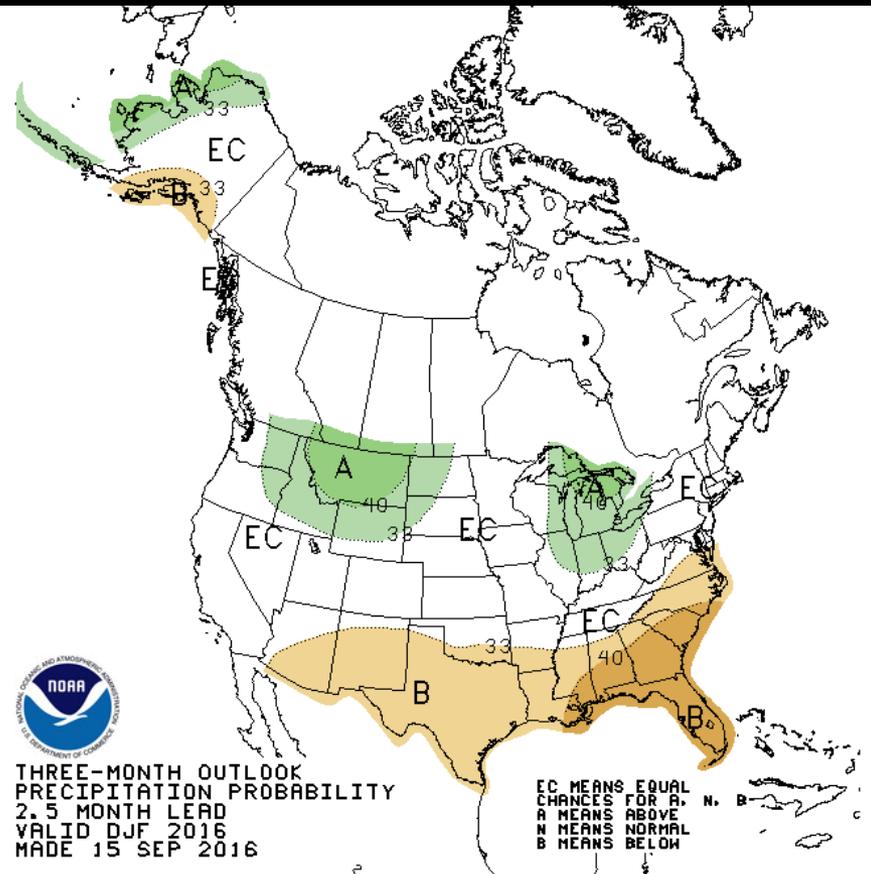
NWS Winter Outlook

December 2016 – February 2017

Issued September 15

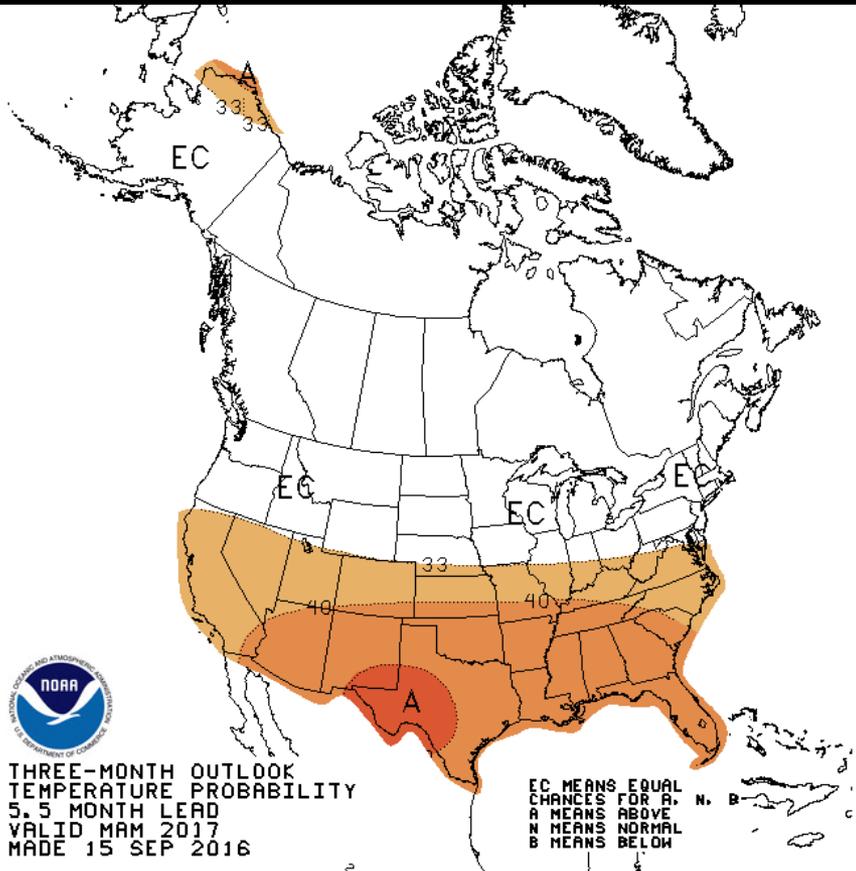


Temperature

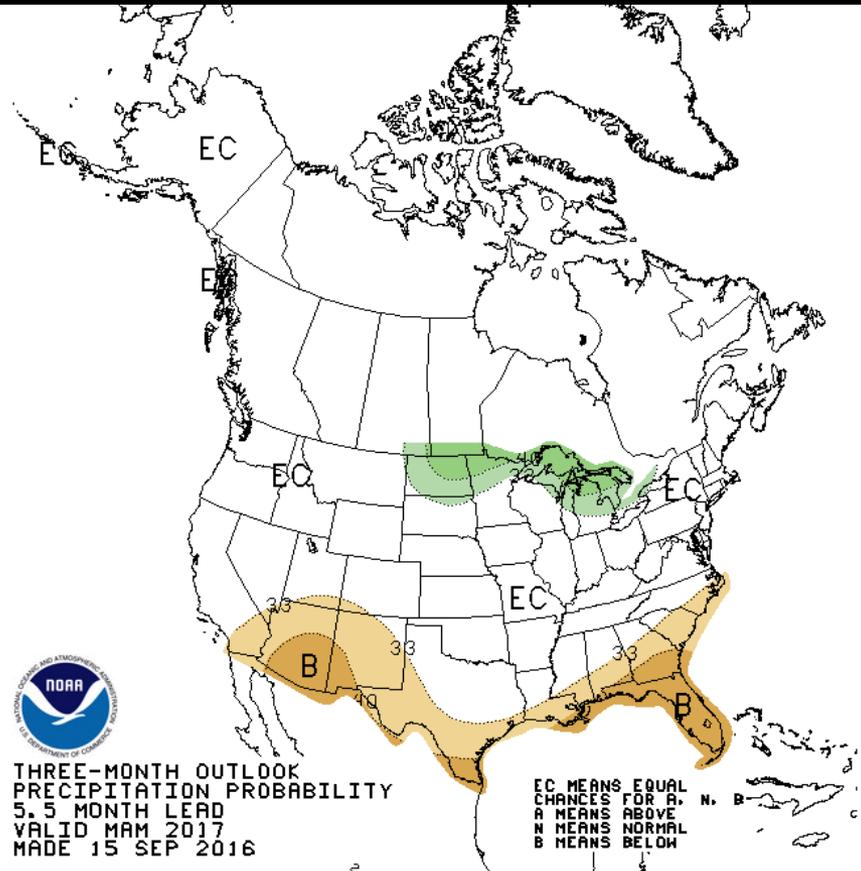


Precipitation

NWS Spring Outlook March – May 2017 Issued September 15

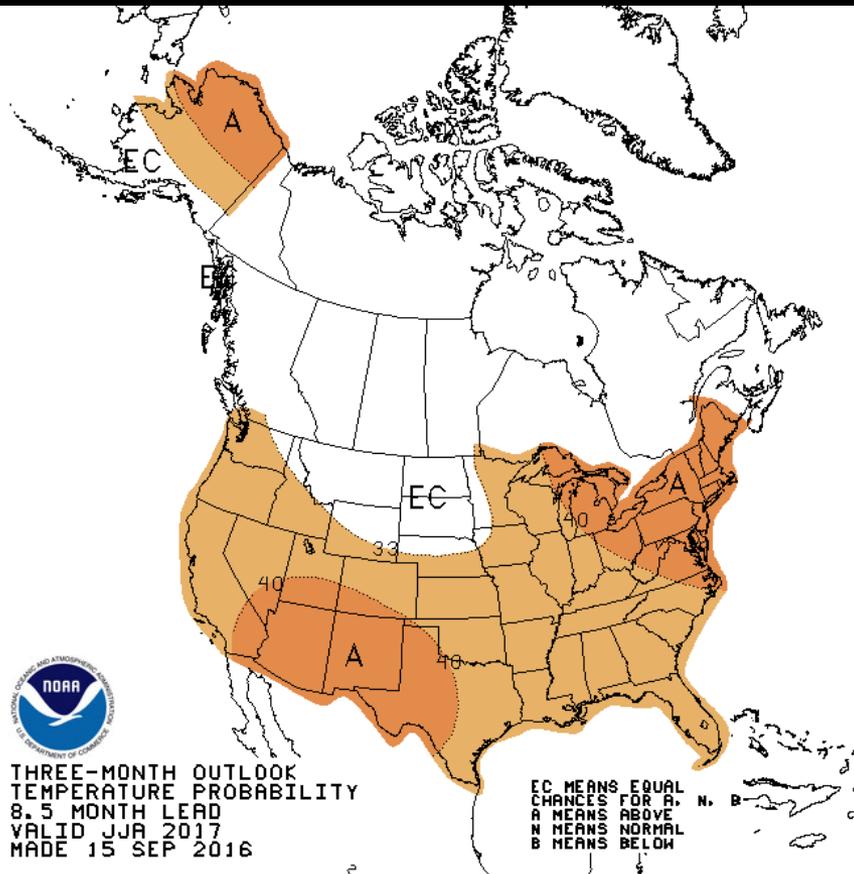


Temperature

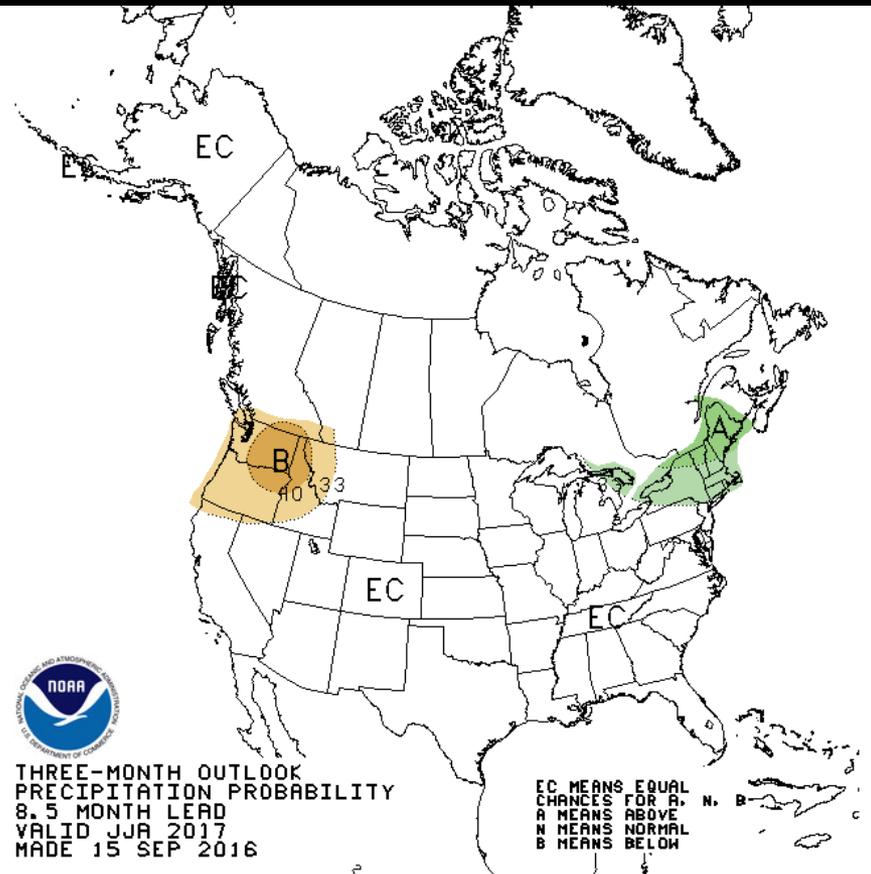


Precipitation

NWS Summer Outlook June – August 2017 Issued September 15



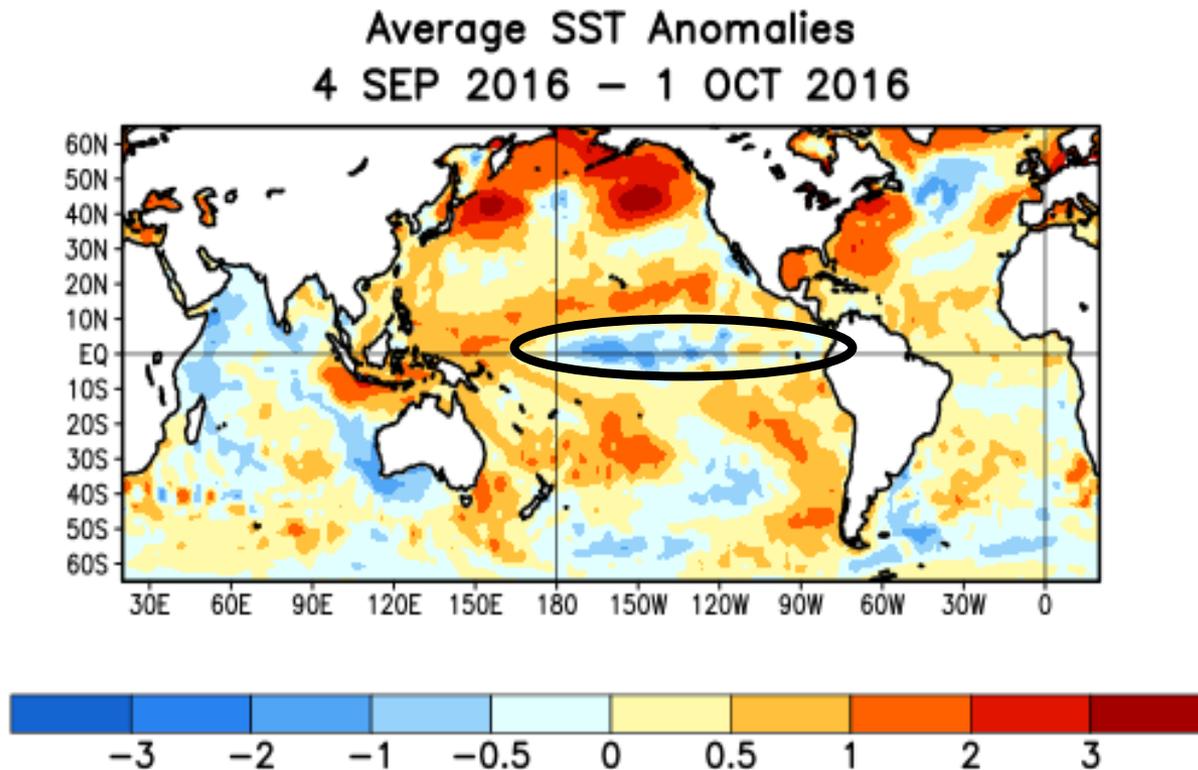
Temperature



Precipitation

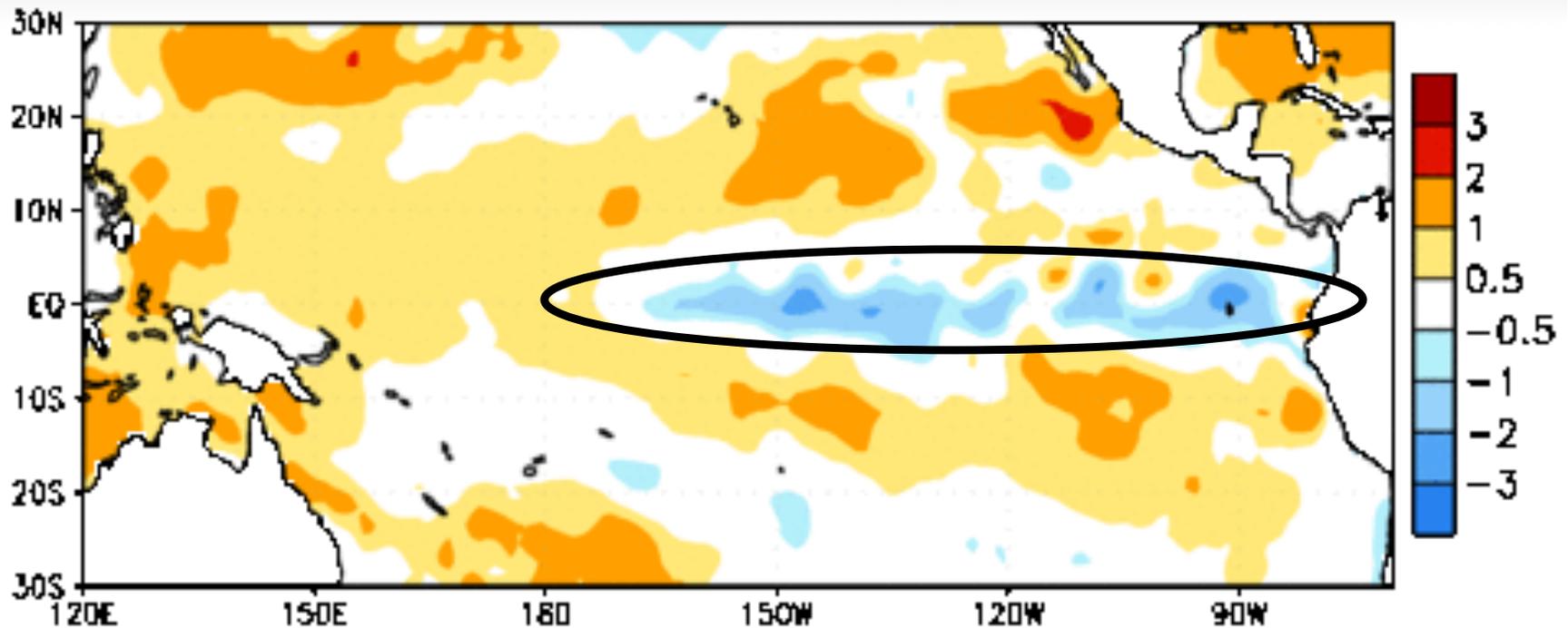
Global SST Departures (°C) During the Last Four Weeks

During the last four weeks, equatorial SSTs were above average near the Maritime Continent and the eastern Atlantic. Equatorial SSTs were near or below average across the central and east-central Pacific Ocean and the Indian Ocean.



SST Anomalies (°C) During the Last Twelve Weeks

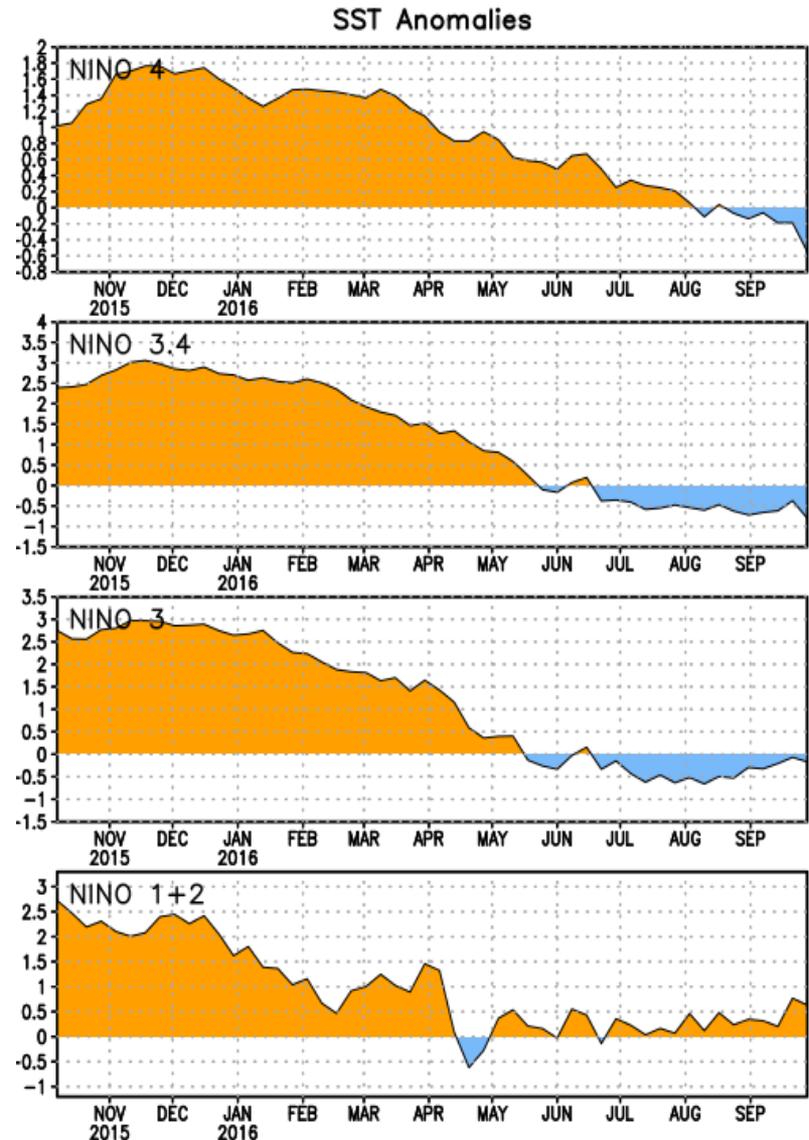
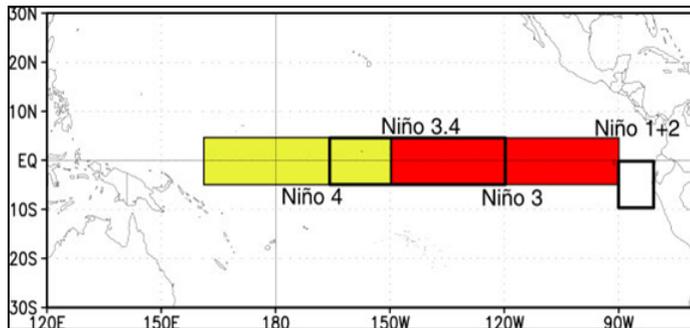
Week centered on 13 JUL 2016
SST Anomalies (°C)



Niño Region SST Departures (°C) Recent Evolution

The latest weekly SST departures are:

Niño 4	-0.5°C
Niño 3.4	-0.8°C
Niño 3	-0.2°C
Niño 1+2	0.6°C



Historical El Niño and La Niña Episodes Based on the ONI computed using ERSST.v4

Recent Pacific warm (red) and cold (blue) periods based on a threshold of +/- 0.5 °C for the Oceanic Niño Index (ONI) [3 month running mean of ERSST.v4 SST anomalies in the Niño 3.4 region (5N-5S, 120-170W)]. For historical purposes, periods of below and above normal SSTs are colored in blue and red when the threshold is met for a minimum of 5 consecutive over-lapping seasons.

The ONI is one measure of the El Niño-Southern Oscillation, and other indices can confirm whether features consistent with a coupled ocean-atmosphere phenomenon accompanied these periods. The complete table going back to DJF 1950 can be found [here](#).

Year	DJF	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS	ASO	SON	OND	NDJ
2004	0.3	0.3	0.2	0.1	0.2	0.3	0.5	0.6	0.7	0.7	0.6	0.7
2005	0.7	0.6	0.5	0.5	0.3	0.2	0.0	-0.1	0.0	-0.2	-0.5	-0.7
2006	-0.7	-0.6	-0.4	-0.2	0.0	0.0	0.1	0.3	0.5	0.7	0.9	0.9
2007	0.7	0.4	0.1	-0.1	-0.2	-0.3	-0.4	-0.6	-0.9	-1.1	-1.3	-1.3
2008	-1.4	-1.3	-1.1	-0.9	-0.7	-0.5	-0.4	-0.3	-0.3	-0.4	-0.6	-0.7
2009	-0.7	-0.6	-0.4	-0.1	0.2	0.4	0.5	0.5	0.6	0.9	1.1	1.3
2010	1.3	1.2	0.9	0.5	0.0	-0.4	-0.9	-1.2	-1.4	-1.5	-1.4	-1.4
2011	-1.3	-1.0	-0.7	-0.5	-0.4	-0.3	-0.3	-0.6	-0.8	-0.9	-1.0	-0.9
2012	-0.7	-0.5	-0.4	-0.4	-0.3	-0.1	0.1	0.3	0.3	0.3	0.1	-0.2
2013	-0.4	-0.4	-0.3	-0.2	-0.2	-0.2	-0.3	-0.3	-0.2	-0.3	-0.3	-0.3
2014	-0.5	-0.5	-0.4	-0.2	-0.1	0.0	-0.1	0.0	0.1	0.4	0.5	0.6
2015	0.6	0.5	0.6	0.7	0.8	1.0	1.2	1.4	1.7	2.0	2.2	2.3
2016	2.2	2.0	1.6	1.1	0.6	0.1	-0.3					

IRI/CPC Pacific Niño

3.4 SST Model Outlook

Most multi-model averages indicate borderline ENSO-neutral/ La Niña conditions during the Northern Hemisphere fall and winter 2016-17.

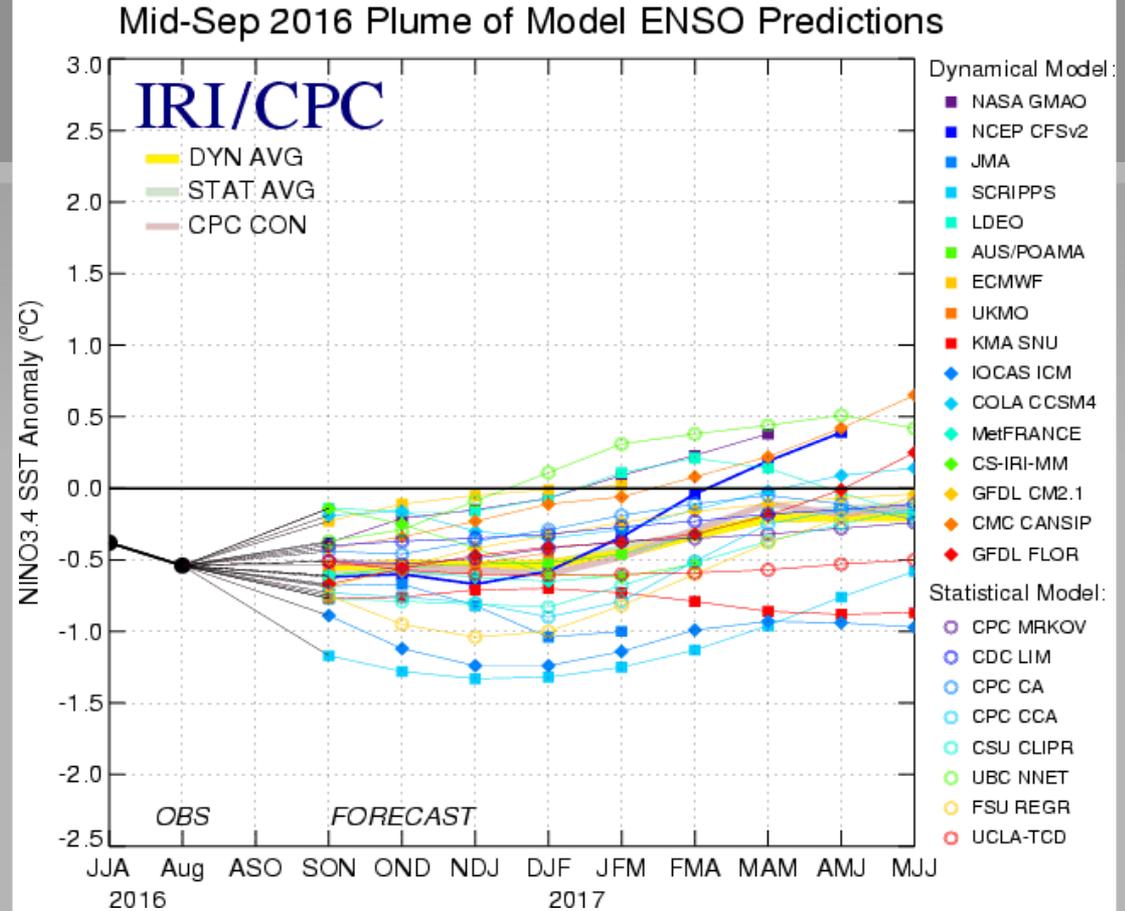


Figure provided by the International Research Institute (IRI) for Climate and Society (updated 13 September 2016).



Contact Information:

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**Photo Credit:
Brad Rippey
Gorham, NH
June 17, 2006
(no drought in
New England)**