

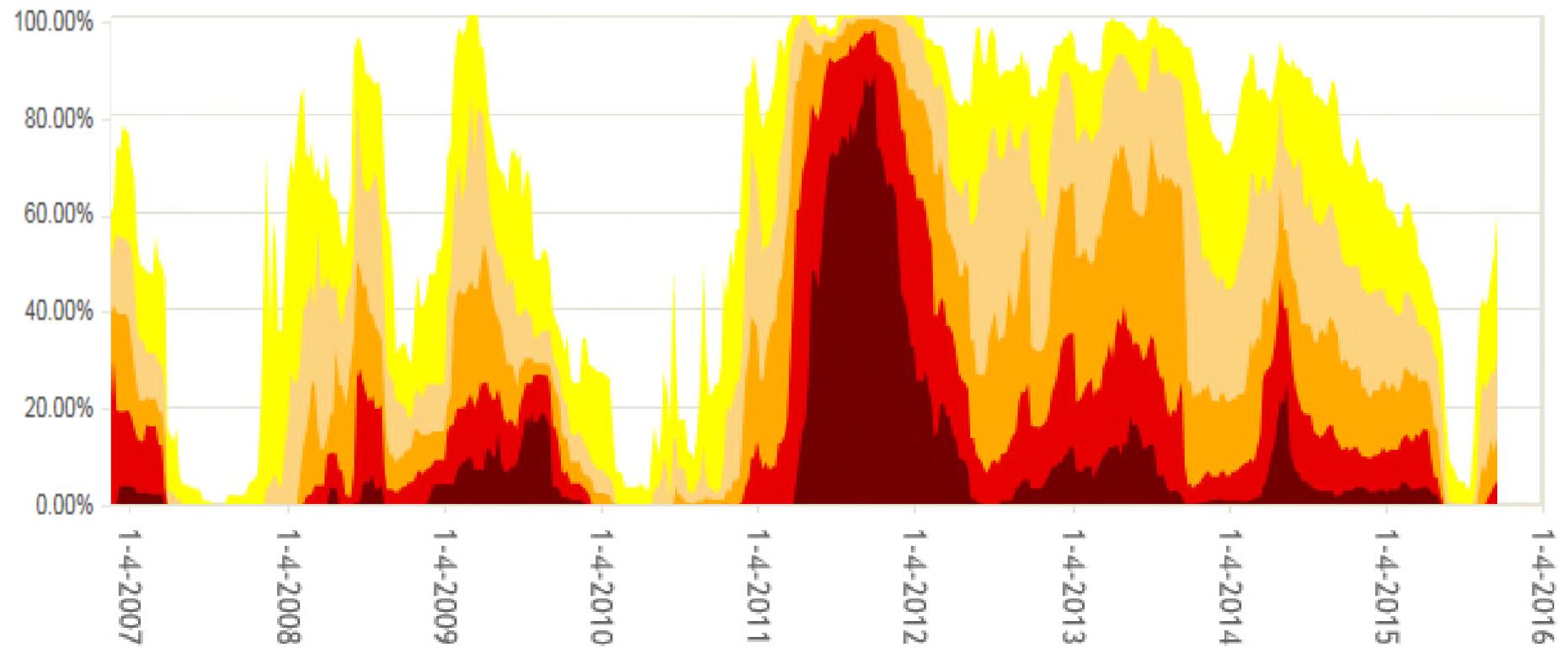
EL NINO UPDATE; FALL AND WINTER WEATHER OUTLOOK

Commercial Water Conservation Technical Workshop

Bob Rose

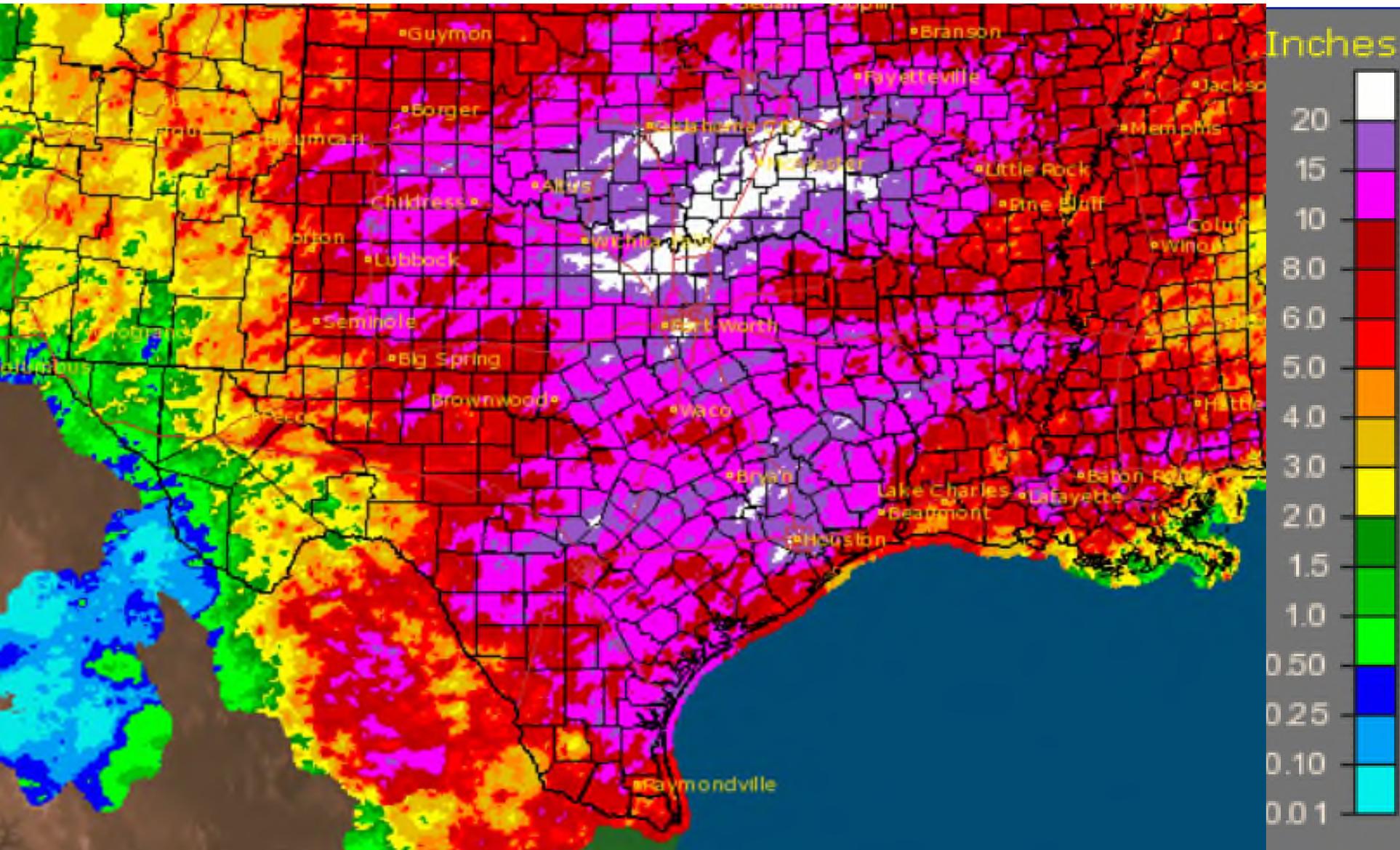
September 25, 2015

Texas Drought Time Series

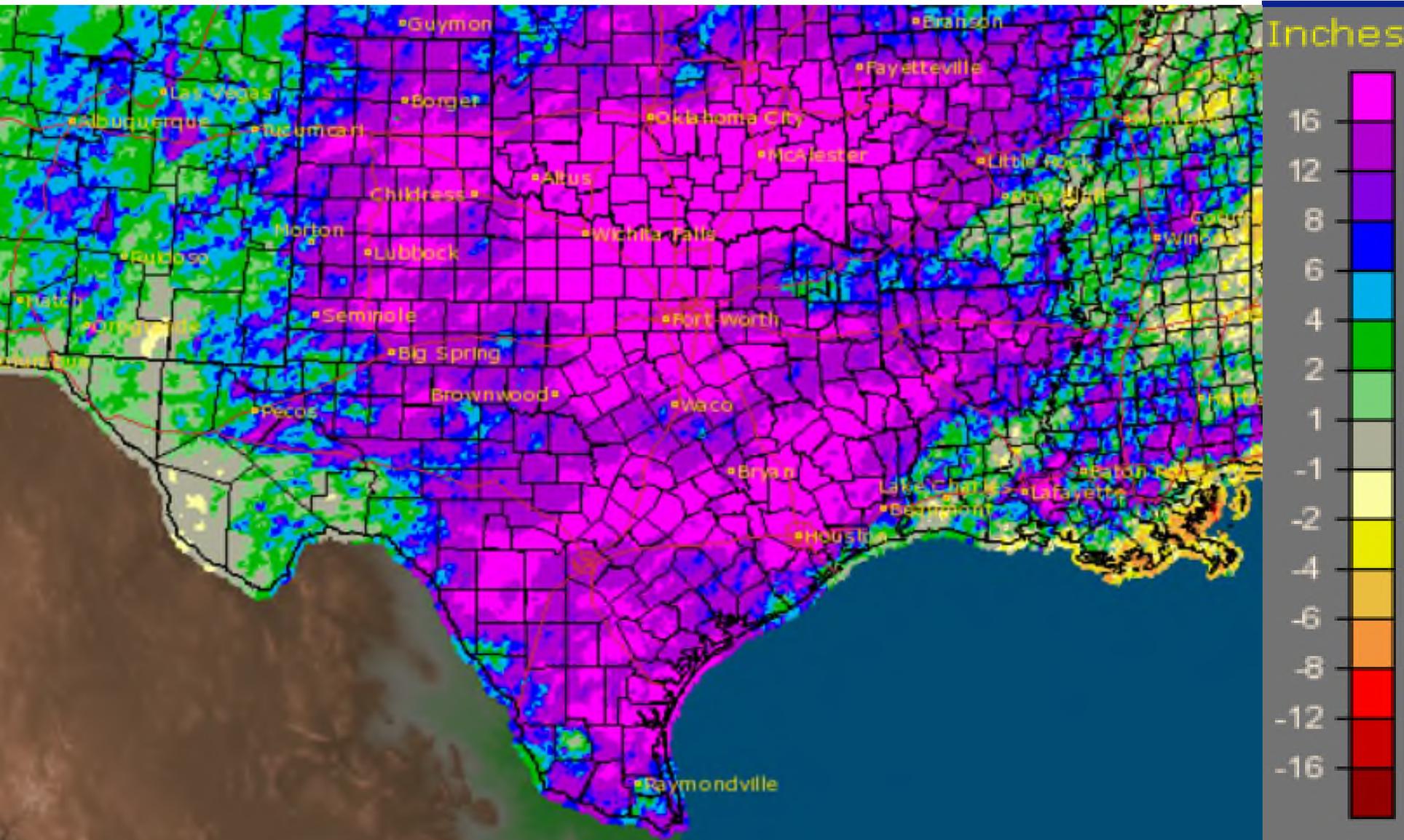


- D0-D4
- D1-D4
- D2-D4
- D3-D4
- D4

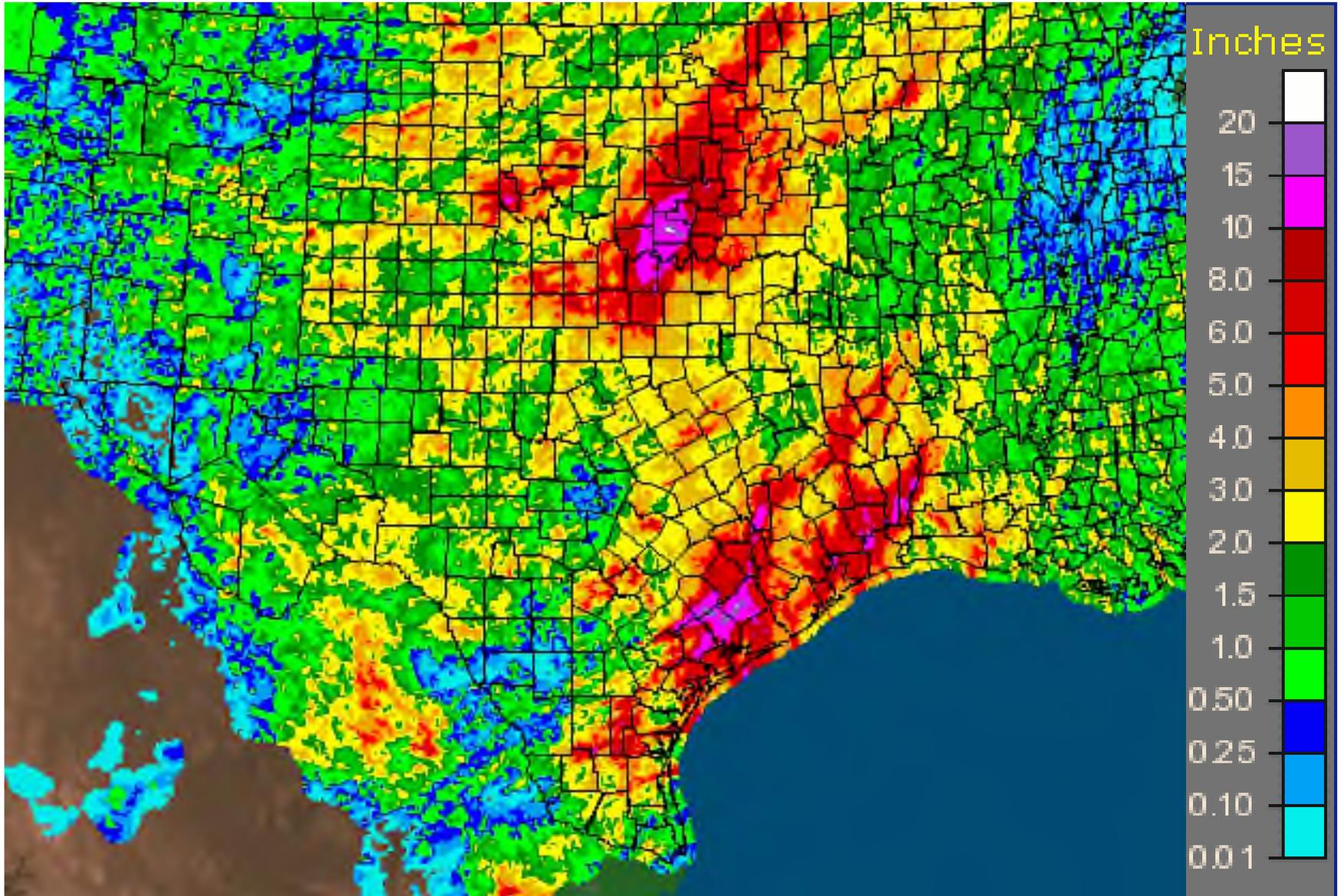
May Record Rainfall



May Rainfall Departure from Normal



June Rainfall





SIZZLING

July/August

ISOLATED T-STORMS



AMARILLO

LITTLE ROCK



MASSIVE



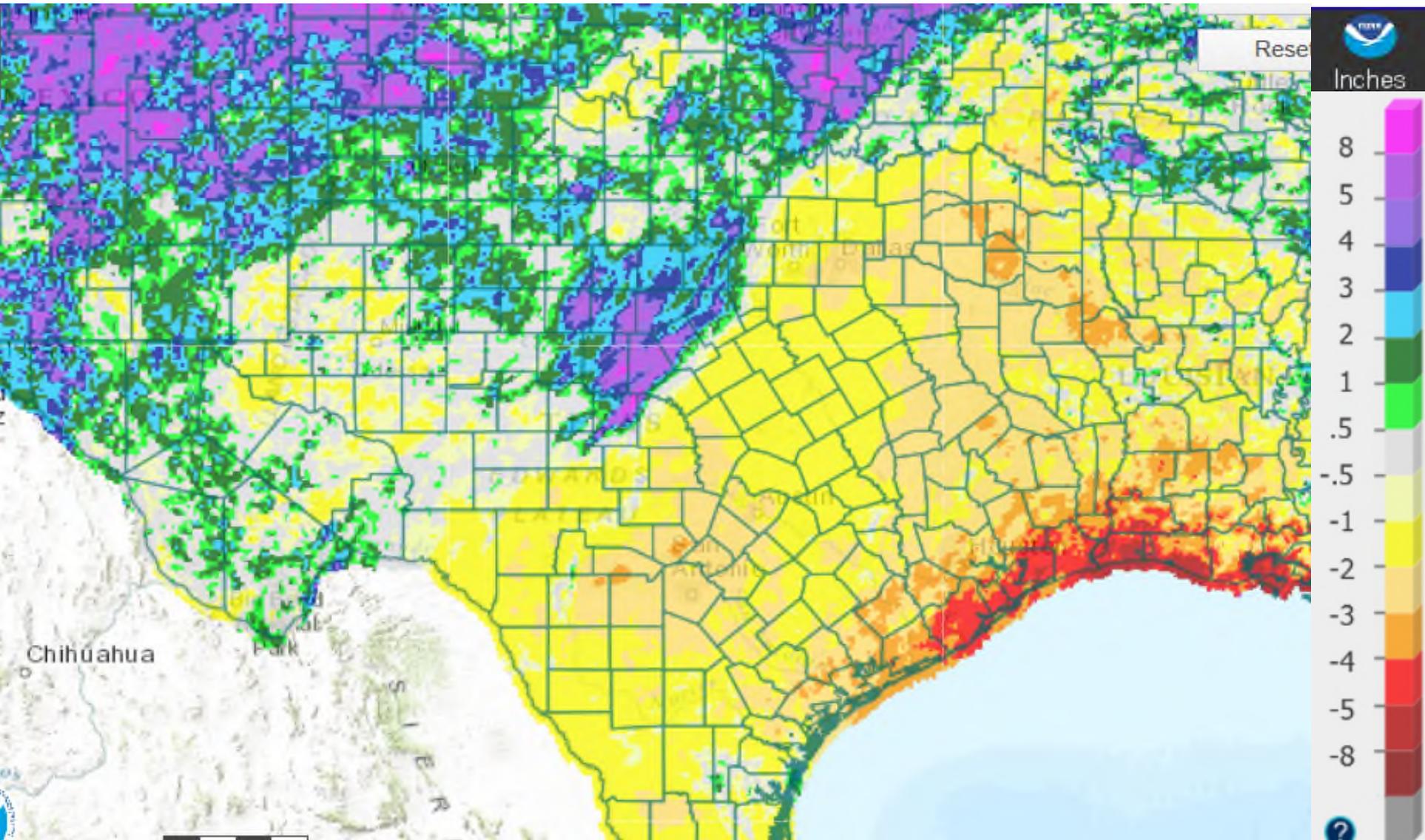
EL PASO

HOT & DRY

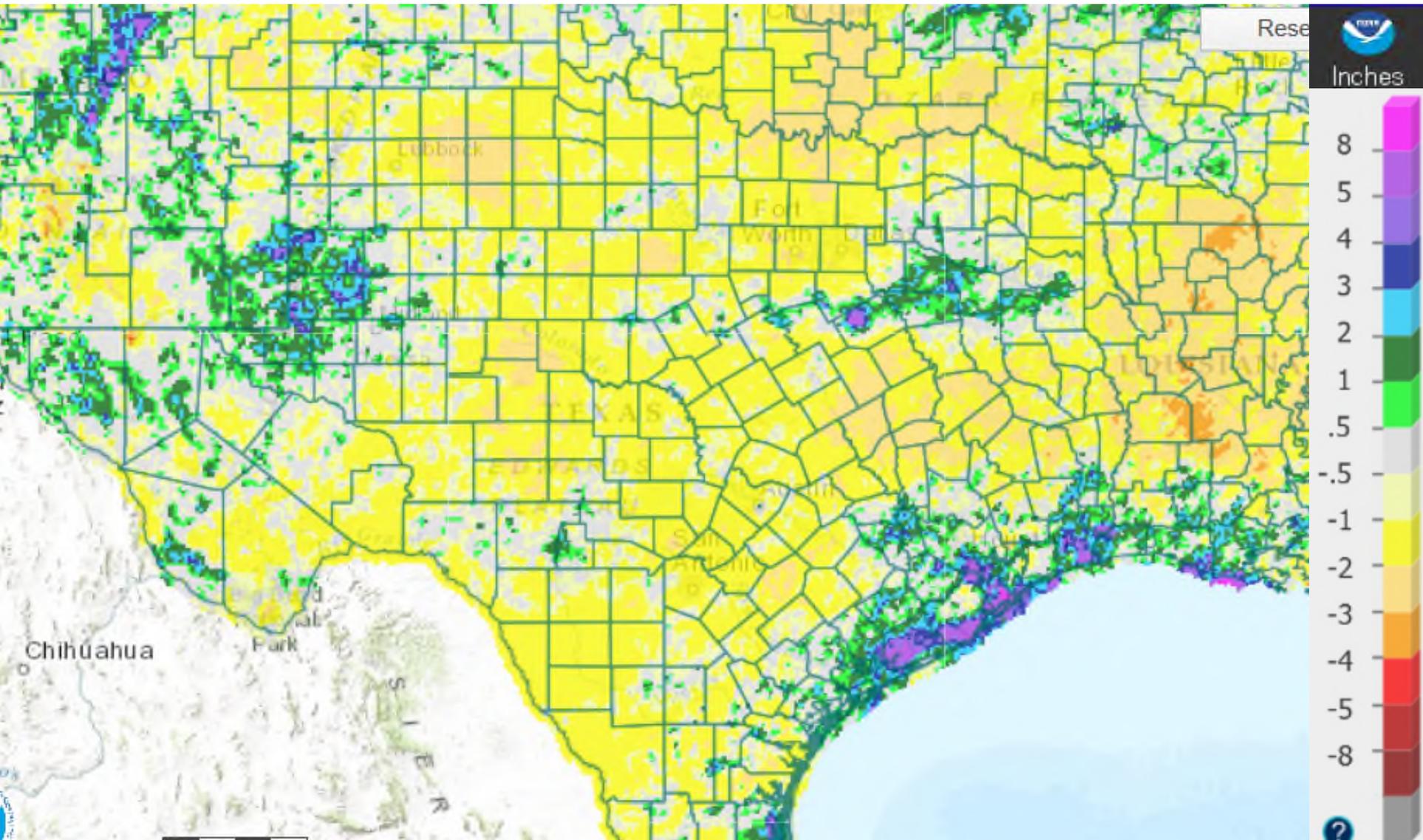


HOUSTON

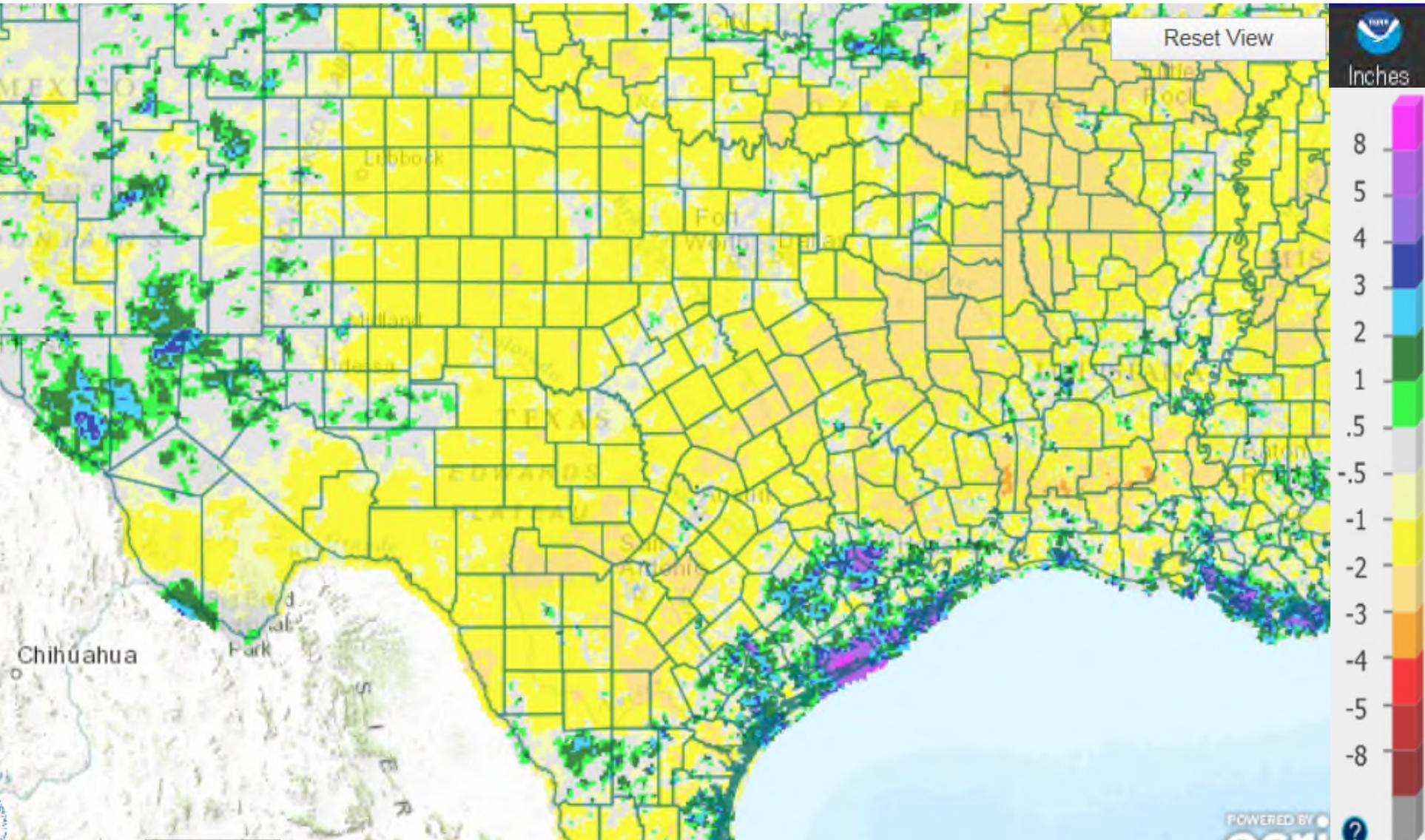
July Rainfall Departure from Normal



August Rainfall Departure from Normal



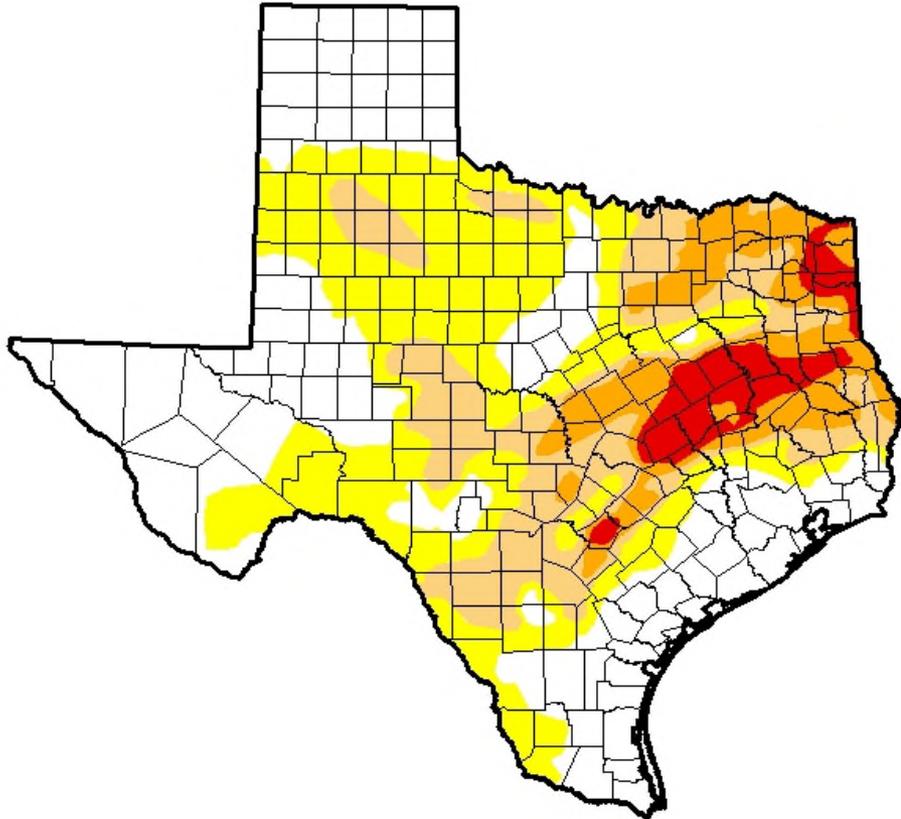
September Rainfall Departure from Normal



U.S. Drought Monitor

Texas

September 22, 2015
 (Released Thursday, Sep. 24, 2015)
 Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	40.27	59.73	30.40	14.04	4.72	0.00
Last Week <i>9/15/2015</i>	48.77	51.23	26.71	10.46	3.92	0.00
3 Months Ago <i>6/23/2015</i>	95.37	4.63	0.25	0.00	0.00	0.00
Start of Calendar Year <i>1/23/2014</i>	34.37	65.63	44.68	25.73	11.70	3.17
Start of Water Year <i>9/30/2014</i>	28.92	71.08	48.95	29.54	11.26	2.69
One Year Ago <i>9/23/2014</i>	24.37	75.63	52.18	28.54	11.39	1.79

Intensity:

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

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

Author:

Eric Luebehusen
 U.S. Department of Agriculture



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



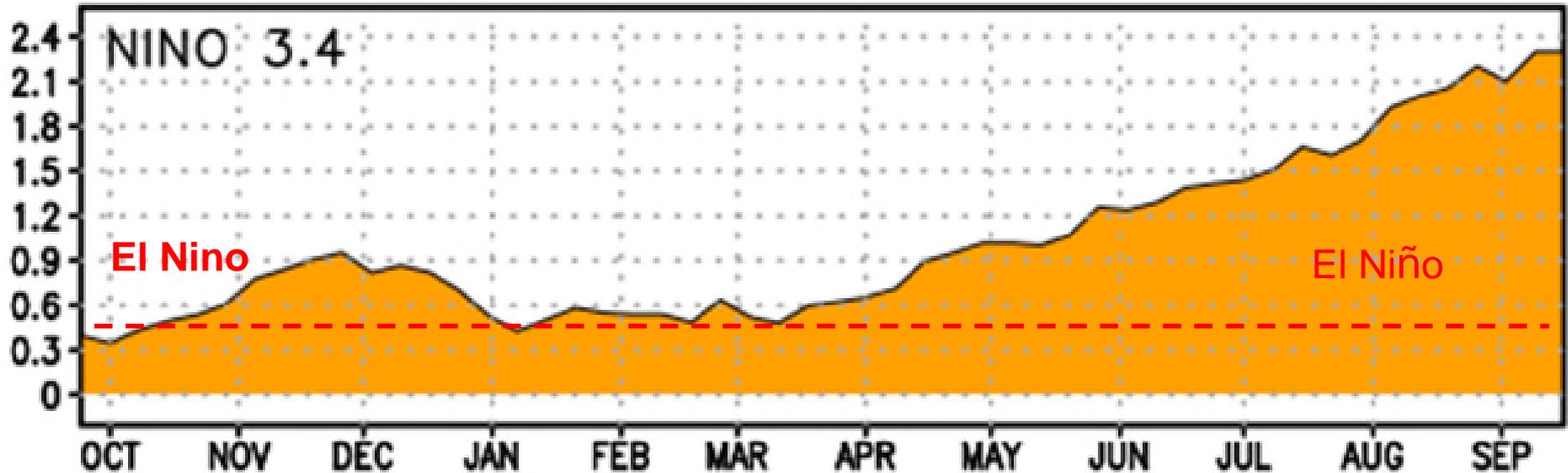
Cape Ann Images

A photograph of a road winding through a forest. The sky is bright blue with scattered white clouds. A large, prominent cloud formation in the upper center of the frame is shaped like a dinosaur, specifically a T-Rex, with its head turned to the right. The sun is visible in the upper right corner, creating a lens flare effect. In the foreground, a road with a guardrail curves to the right, with several cars driving away. The trees on either side of the road are dark green.

The Return of El Niño

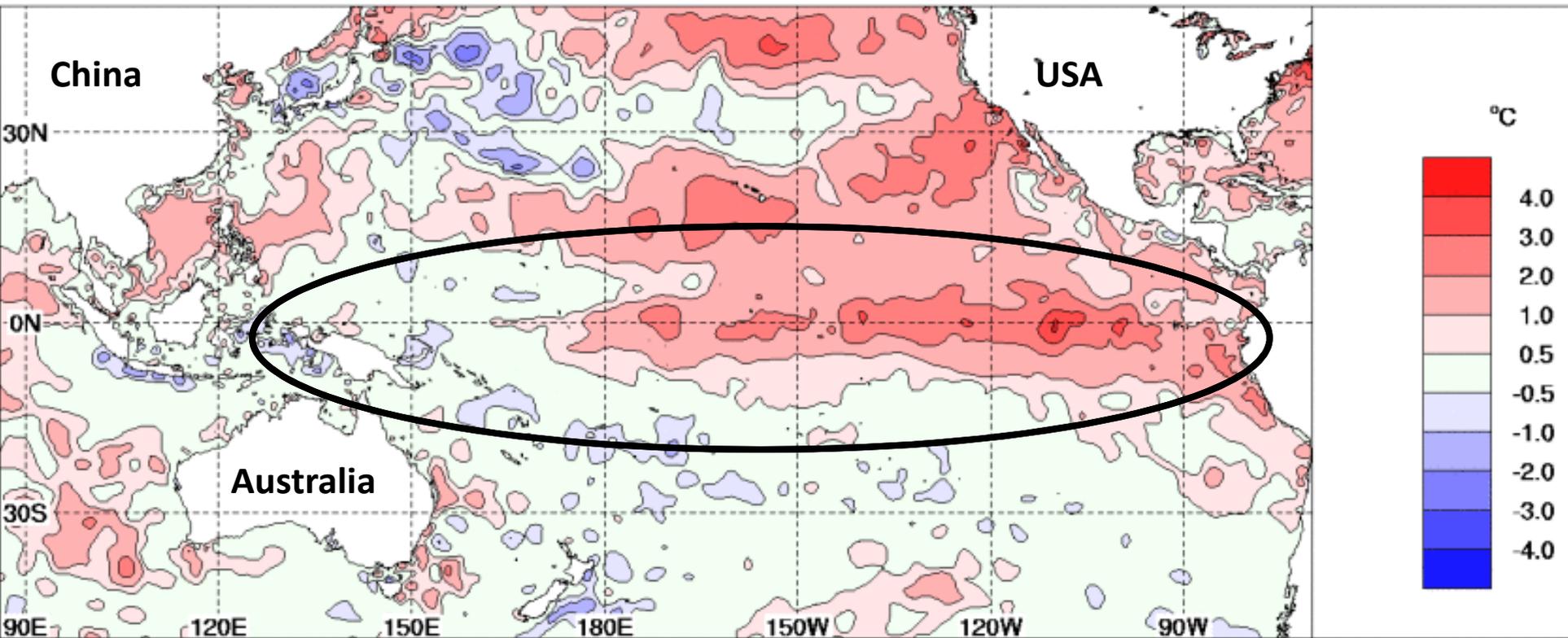
Cape Ann Images

Sea Surface Temperature Timetable

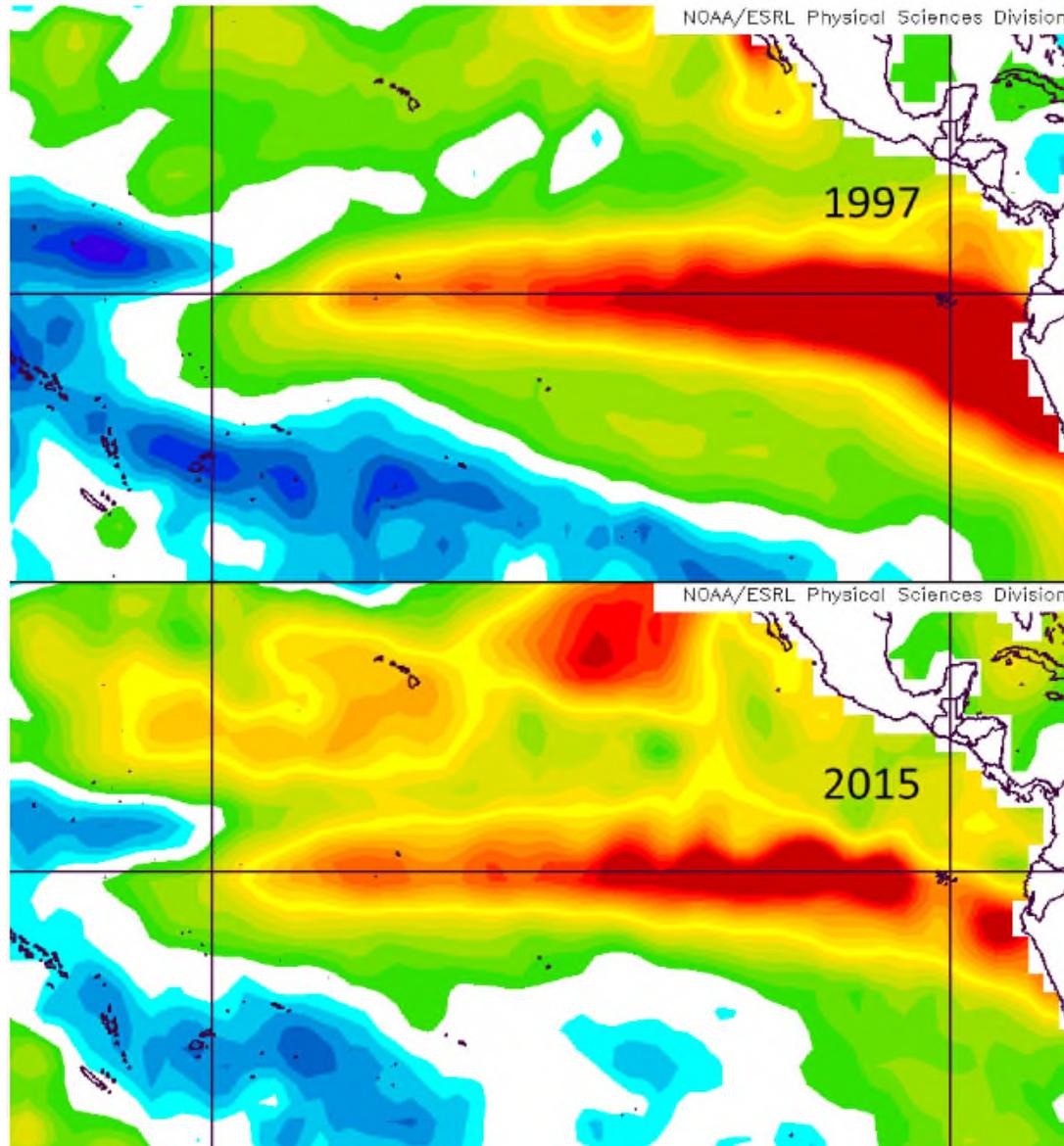


A Strong El Niño in Place; Still Growing Stronger

SSTA 1.0X1.0 NMOC OCEAN ANOMALIES (C) 20150907 20150913

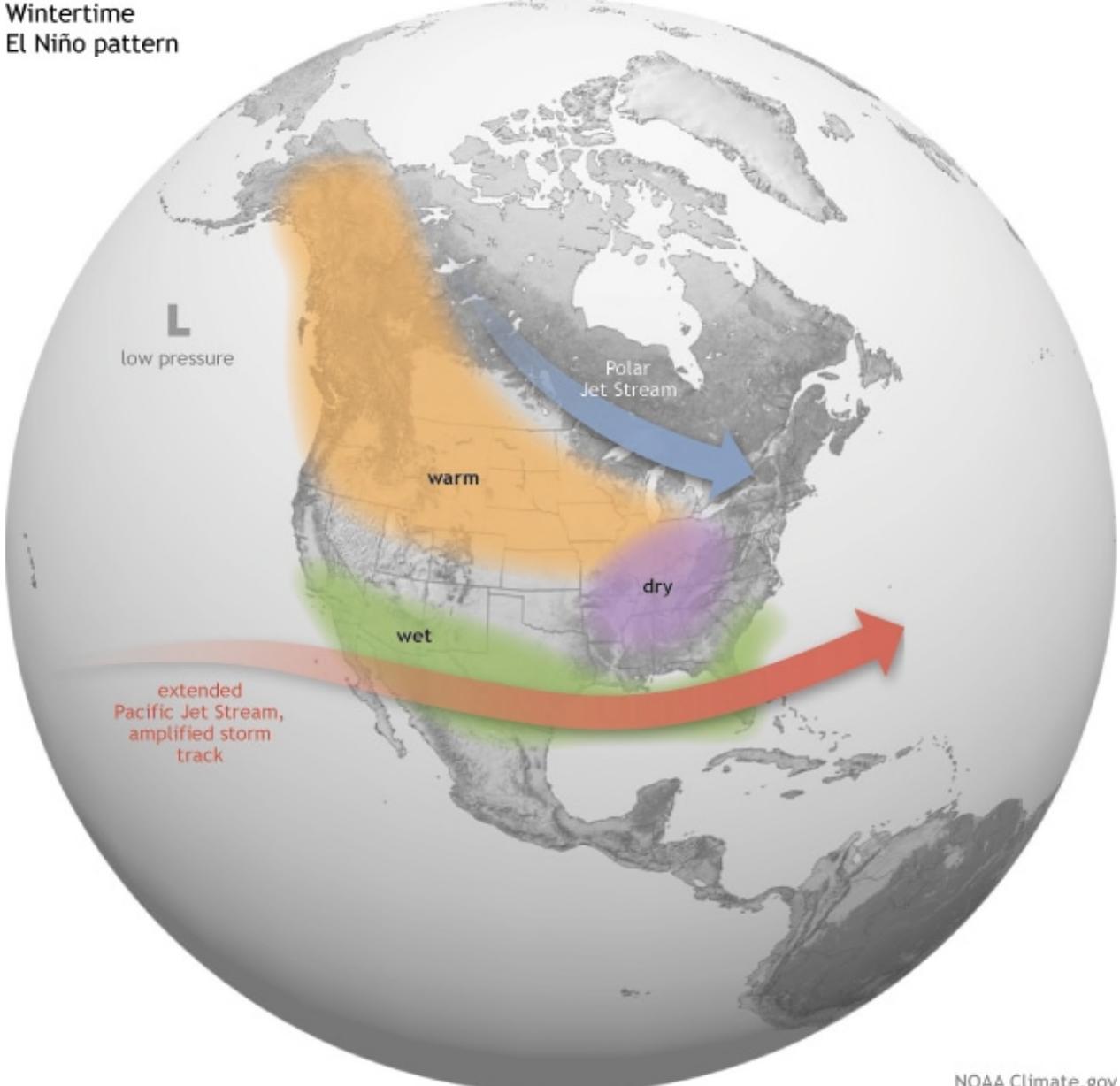


Comparison of Sep. 1997 and 2015 El Niños

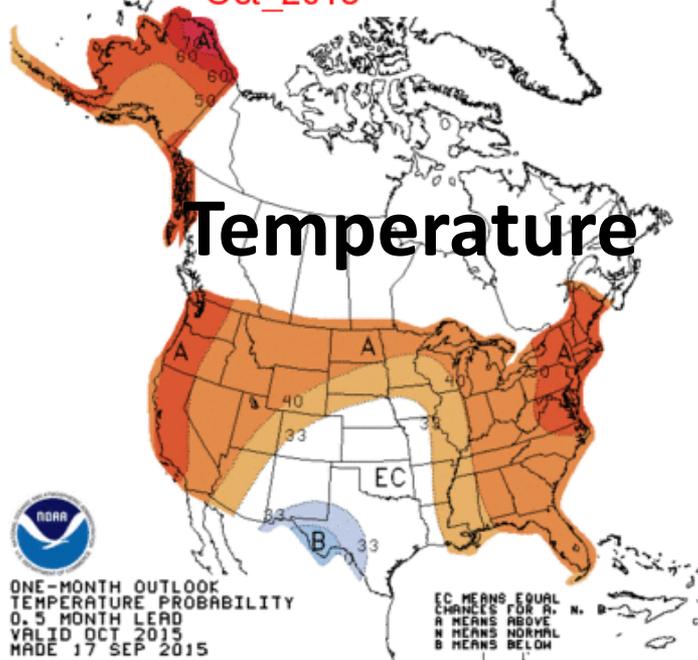


Typical Effects of El Niño

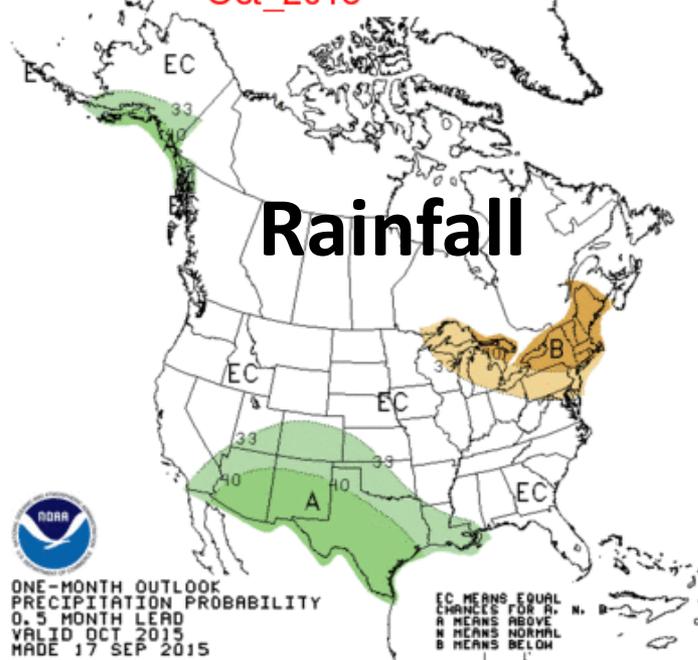
Wintertime
El Niño pattern



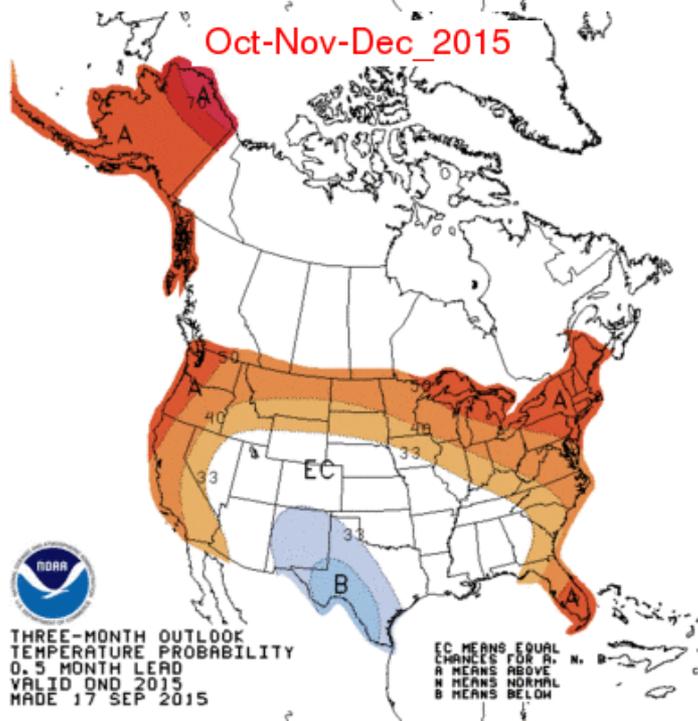
Oct_2015



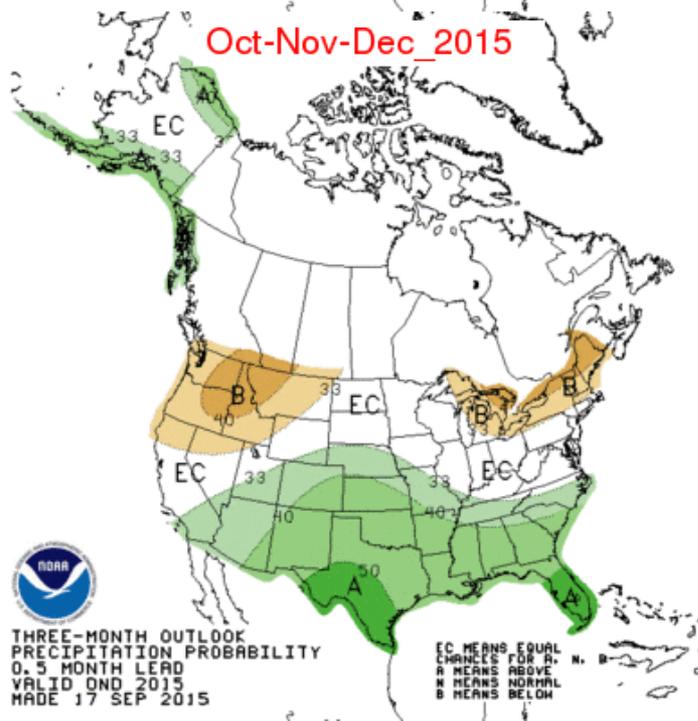
Oct_2015



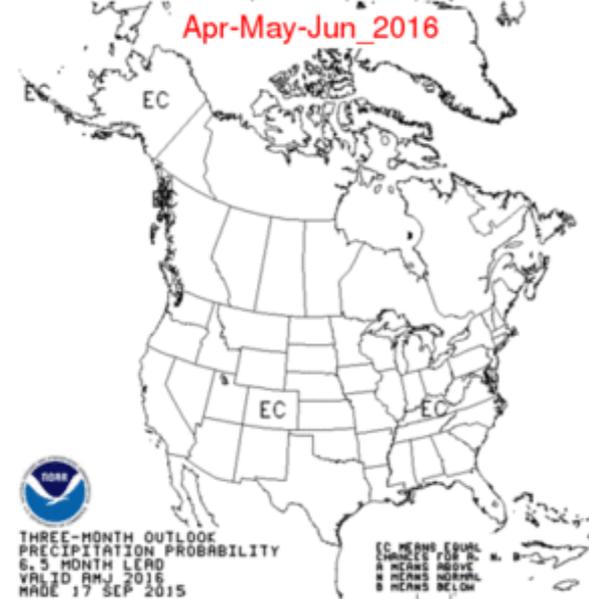
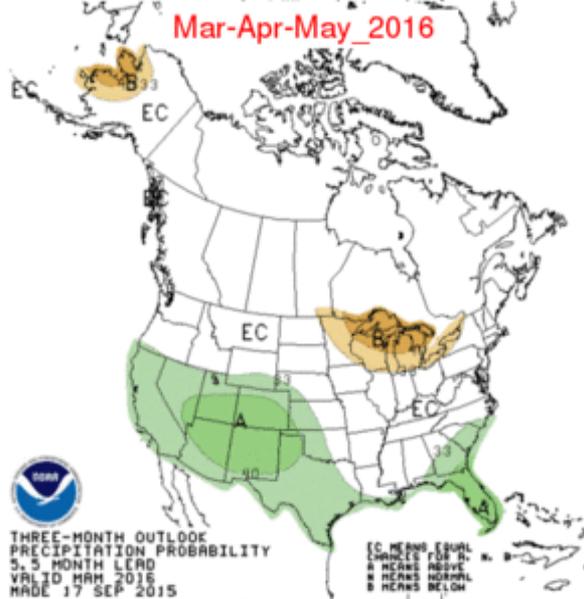
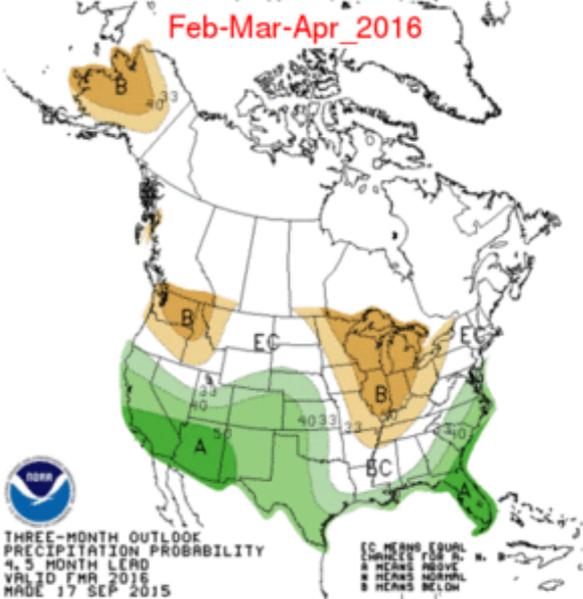
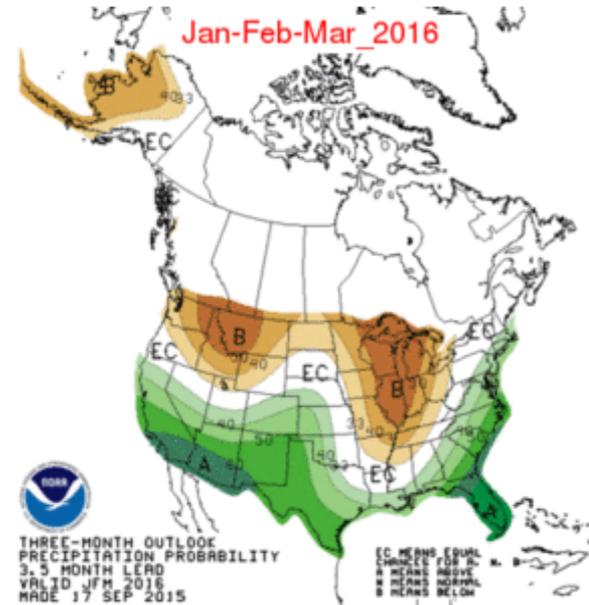
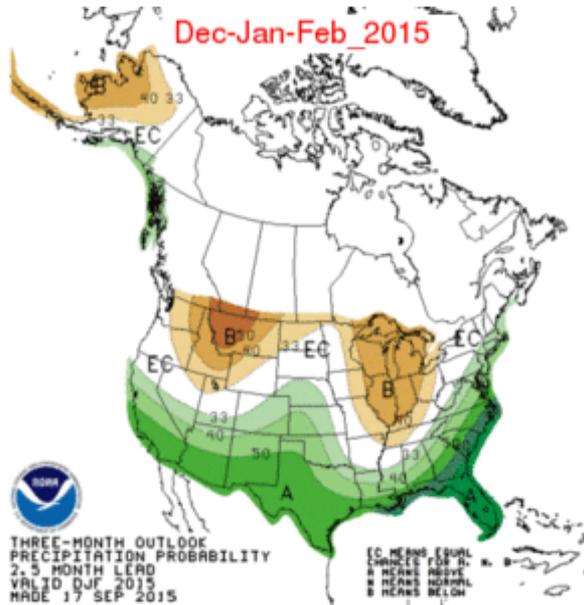
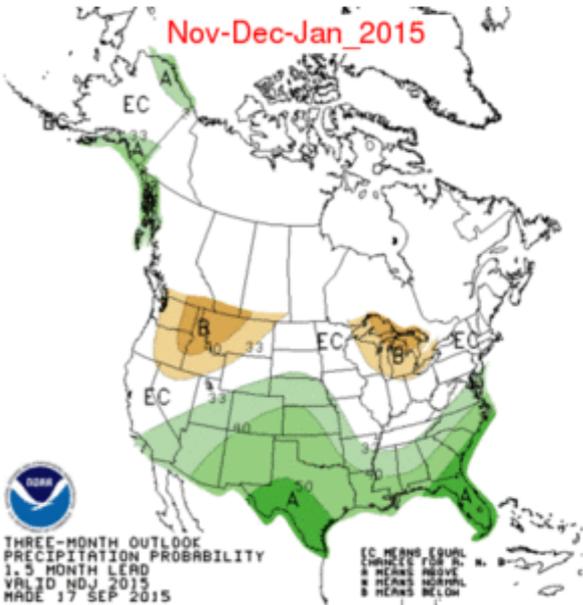
Oct-Nov-Dec_2015



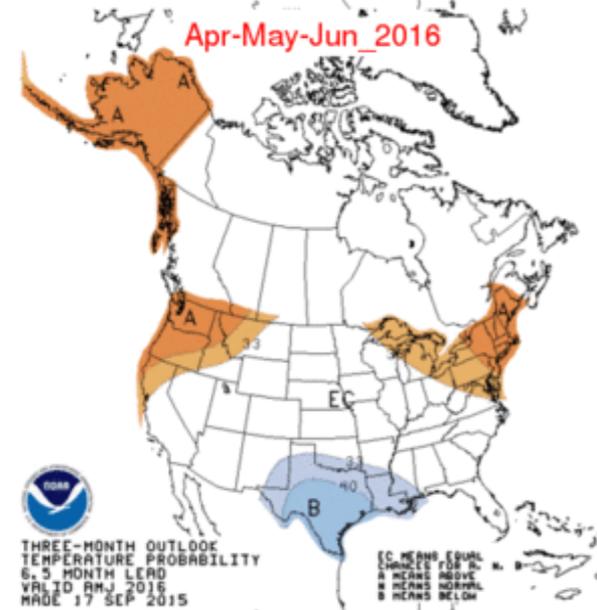
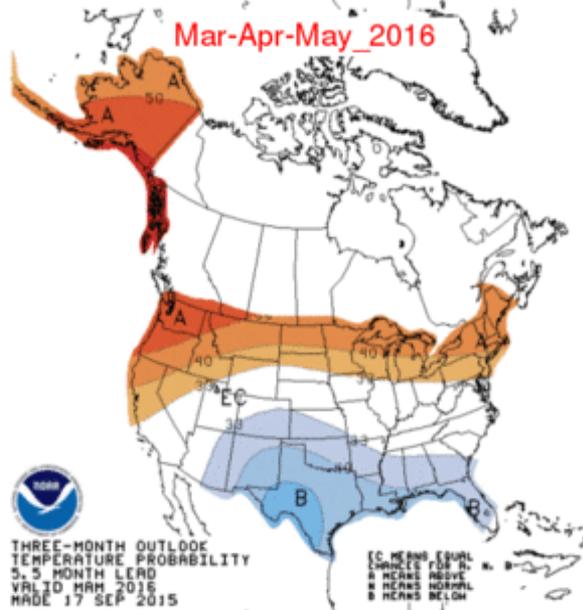
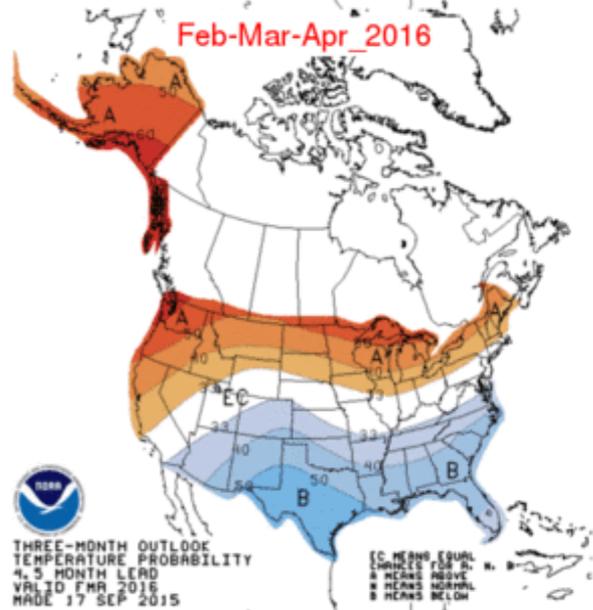
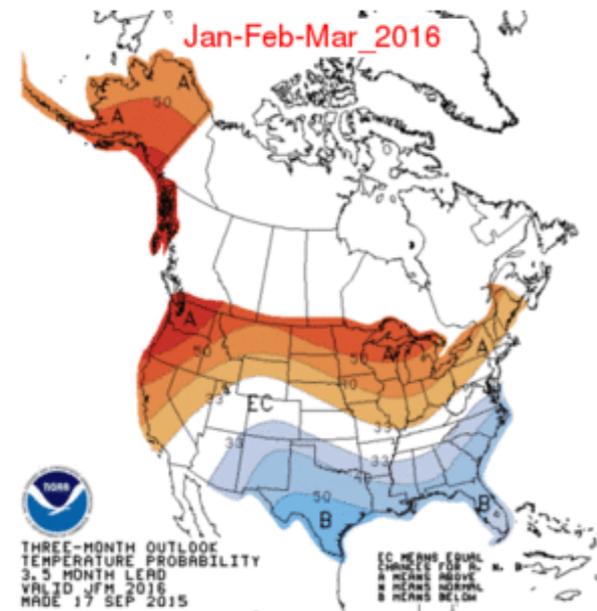
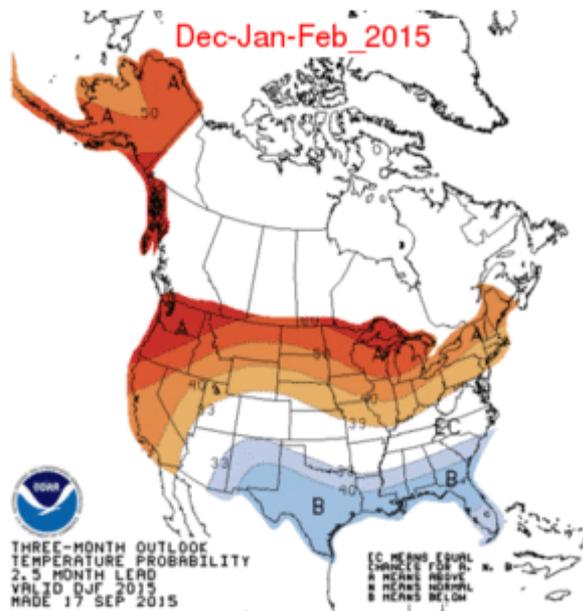
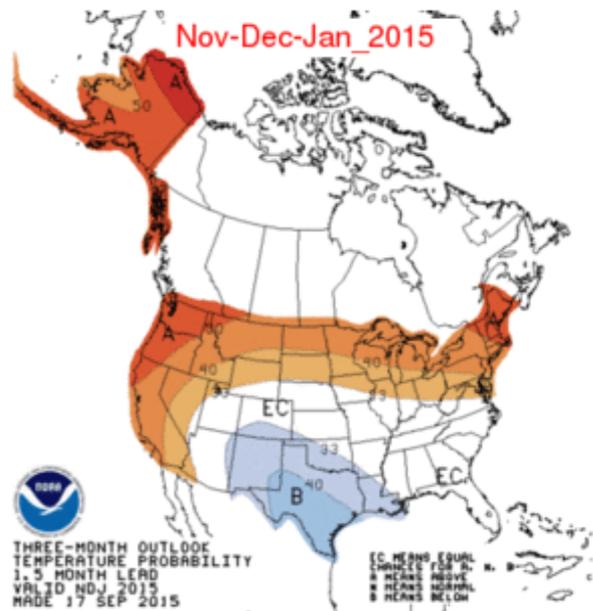
Oct-Nov-Dec_2015



NWS Rainfall Outlook



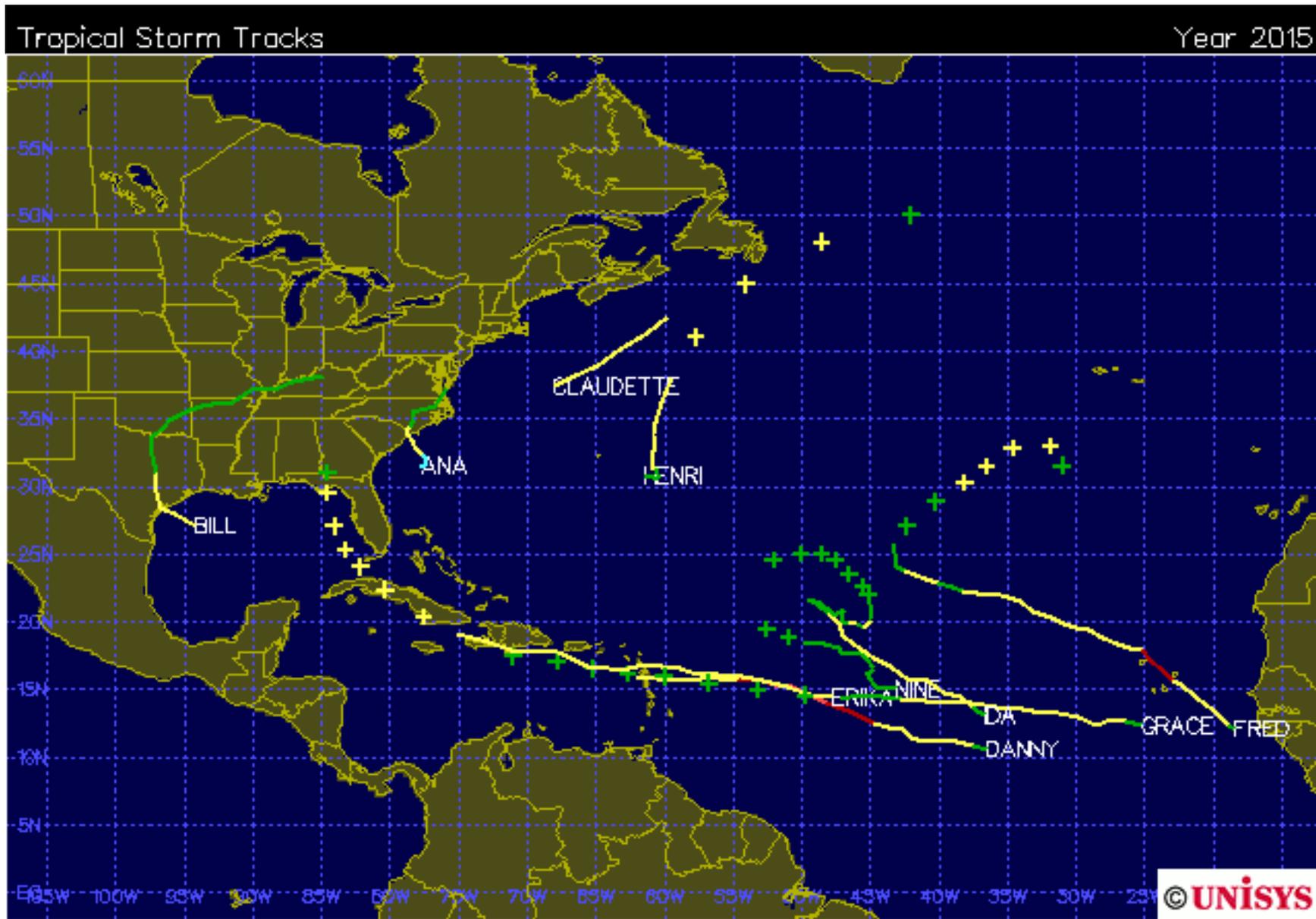
NWS Temperature Outlook



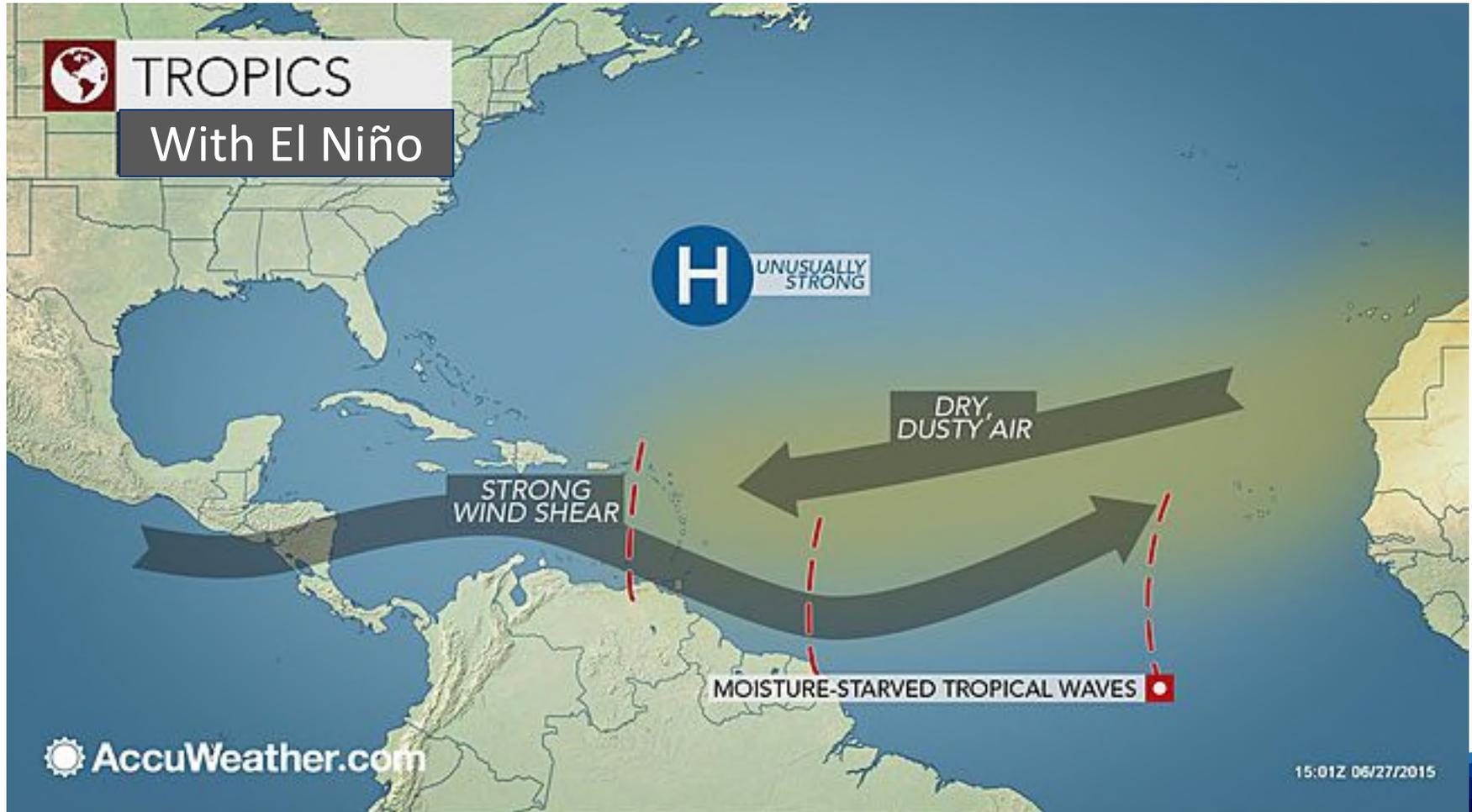
2015 Atlantic Hurricane Season Update



A Quiet Season, So Far

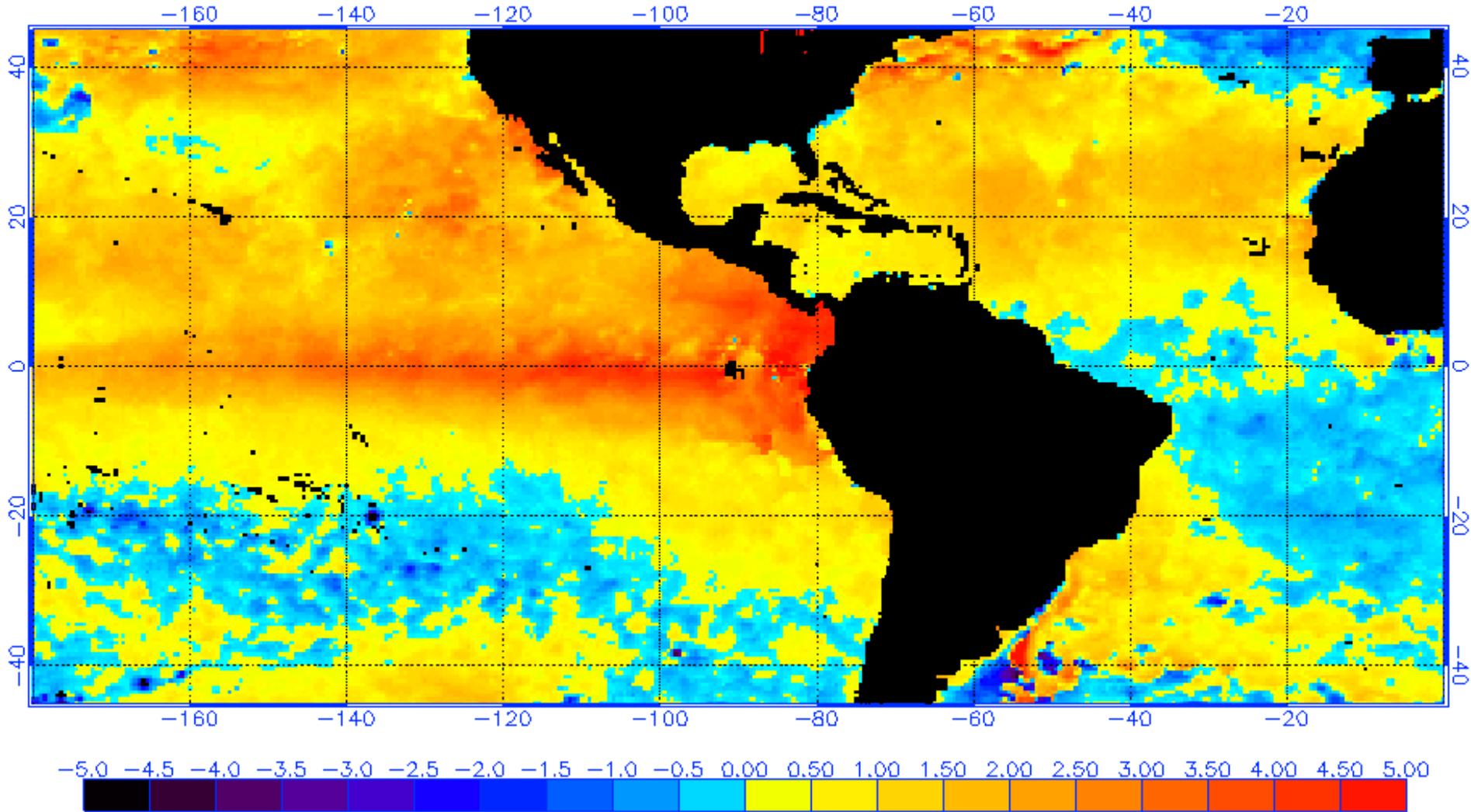


El Niño Also Influences the Tropical Atlantic



Sea Surface Temperature

NOAA/NESDIS SST Anomaly (degrees C), 9/24/2015



2015 Atlantic Hurricane Season Outlook

August 6 Update

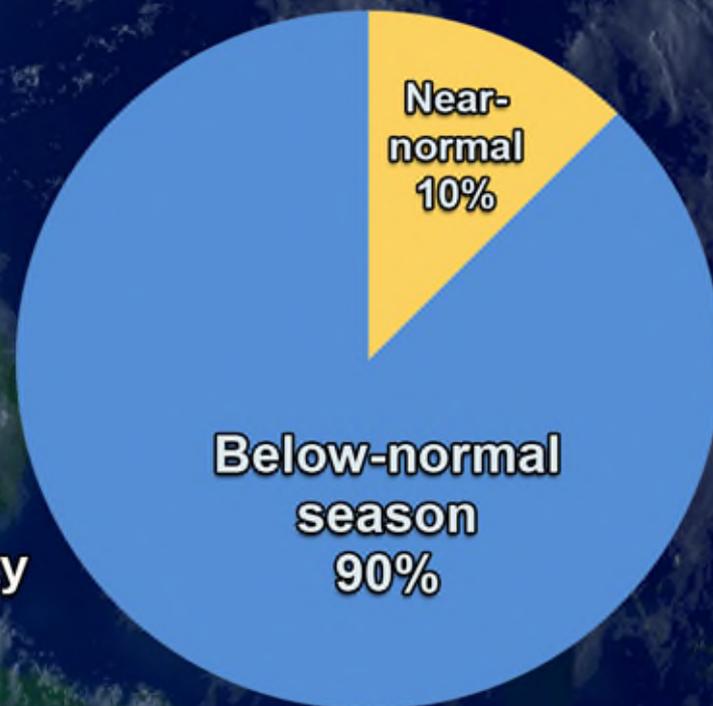
70% probability of:

Named storms 6 – 10

Hurricanes 1 – 4

Major hurricanes 0 – 1

Outlook
probability

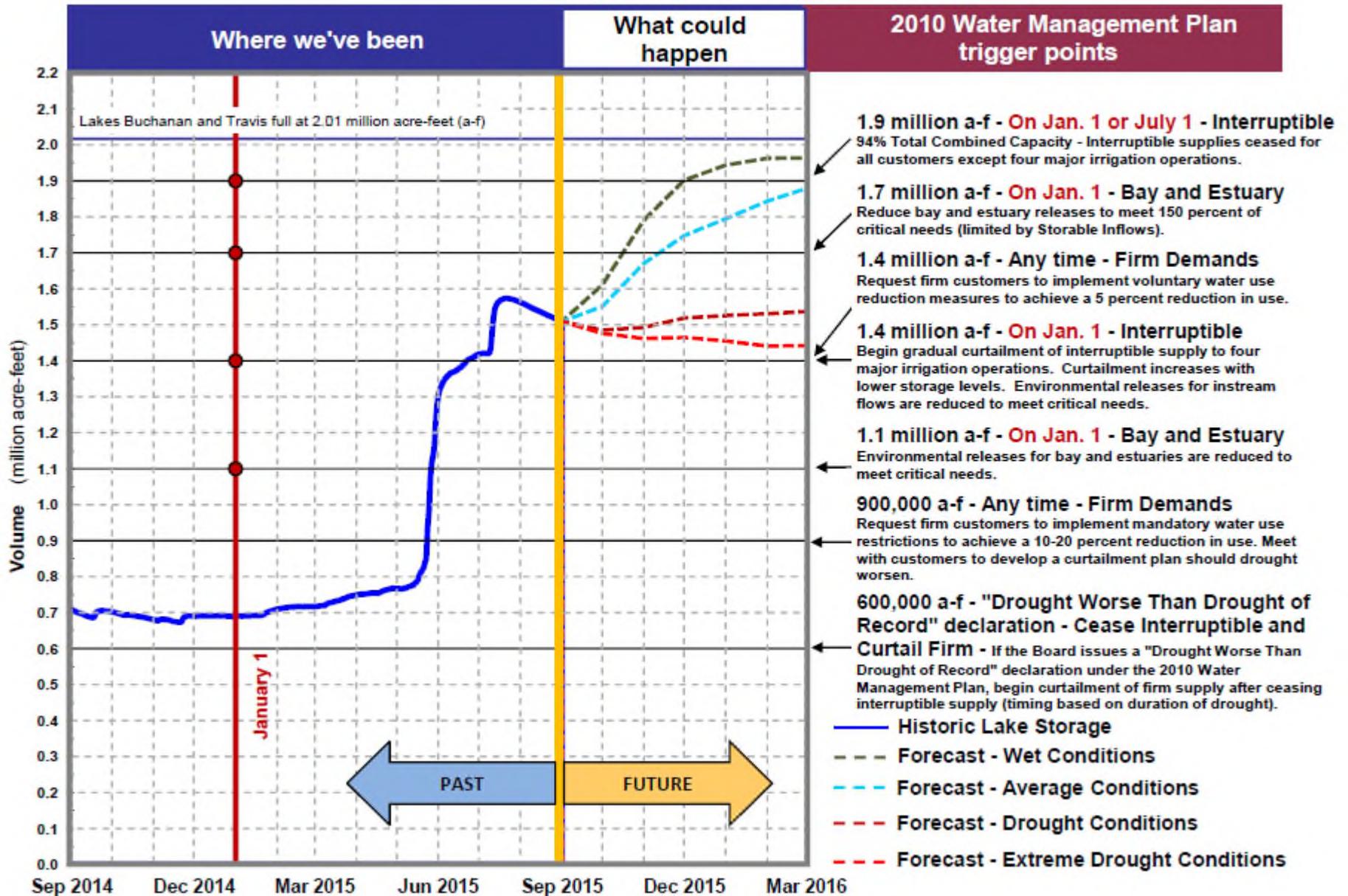


Be prepared: Visit hurricanes.gov
and follow @NWS and @NHC_Atlantic on Twitter

Highland Lakes Status

- **Combined Storage: 1.48 maf, 73% capacity.**
- **Lake Travis: 666.69 (78%)**
- **Lake Buchanan: 1005.88 (67%)**

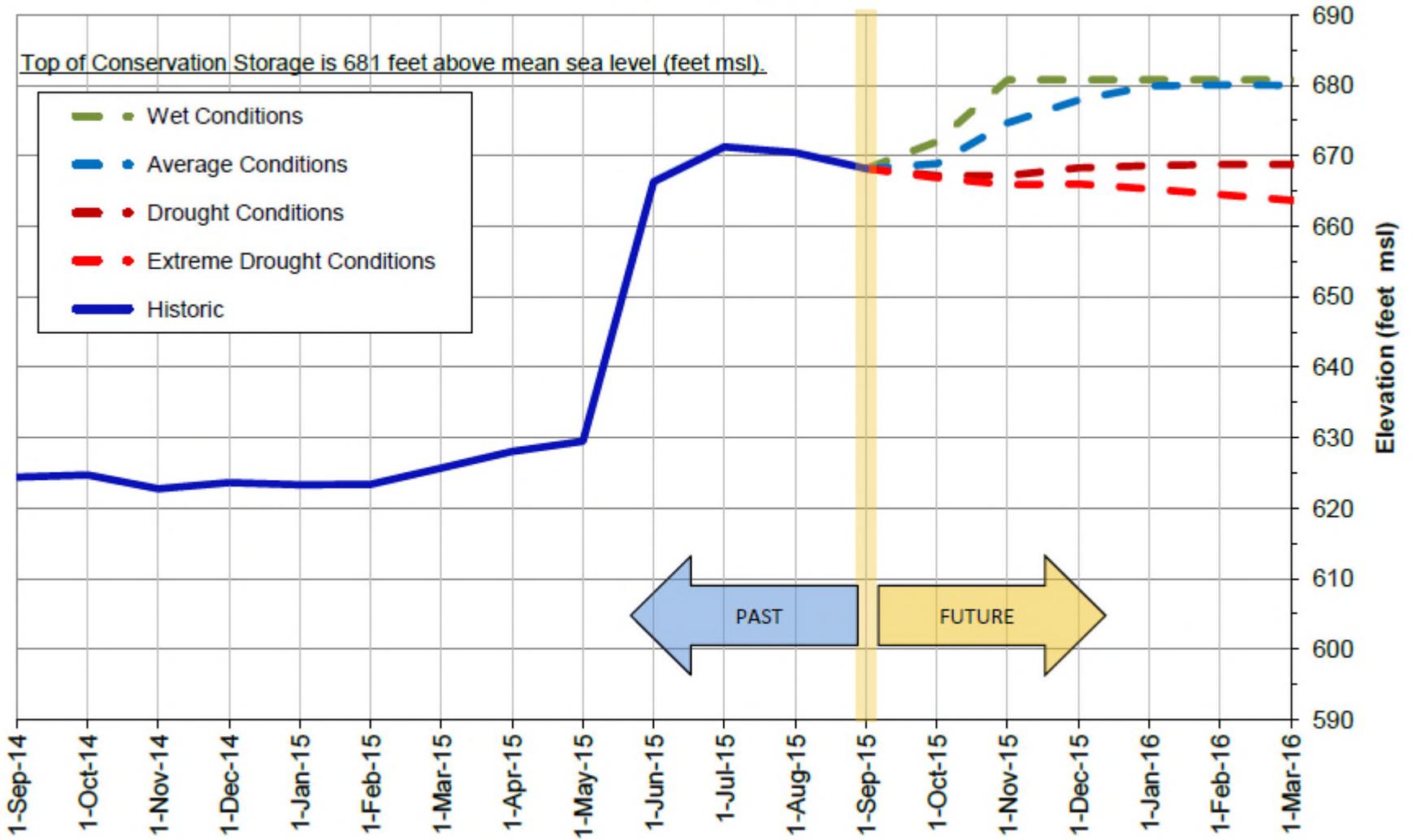
Highland Lakes Storage



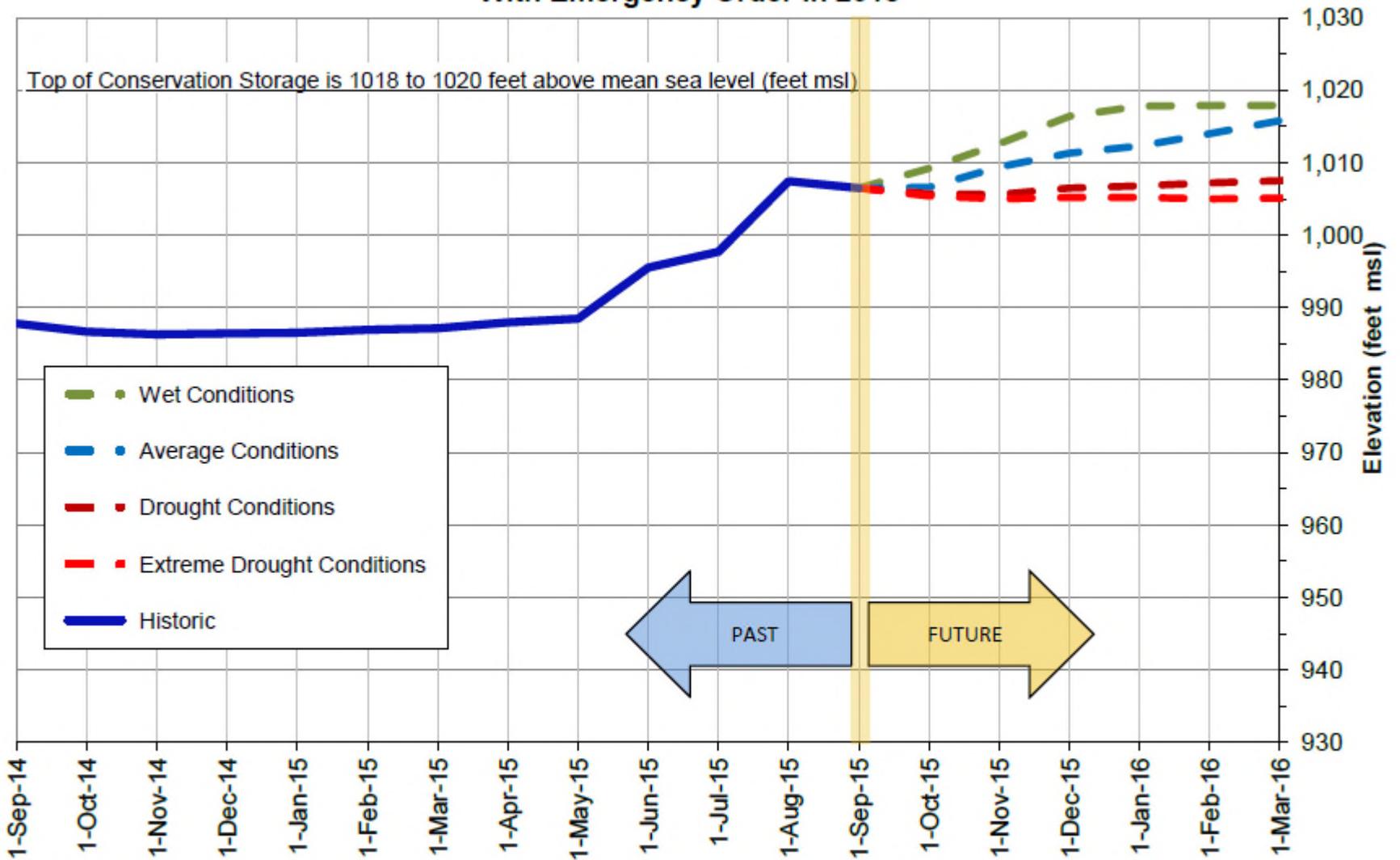
Note: One acre-foot equals 325,851 gallons.

Date: September 1, 2015

Lake Travis Level Forecast With Emergency Order in 2015



Lake Buchanan Level Forecast With Emergency Order in 2015



Questions?

Bob Rose

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