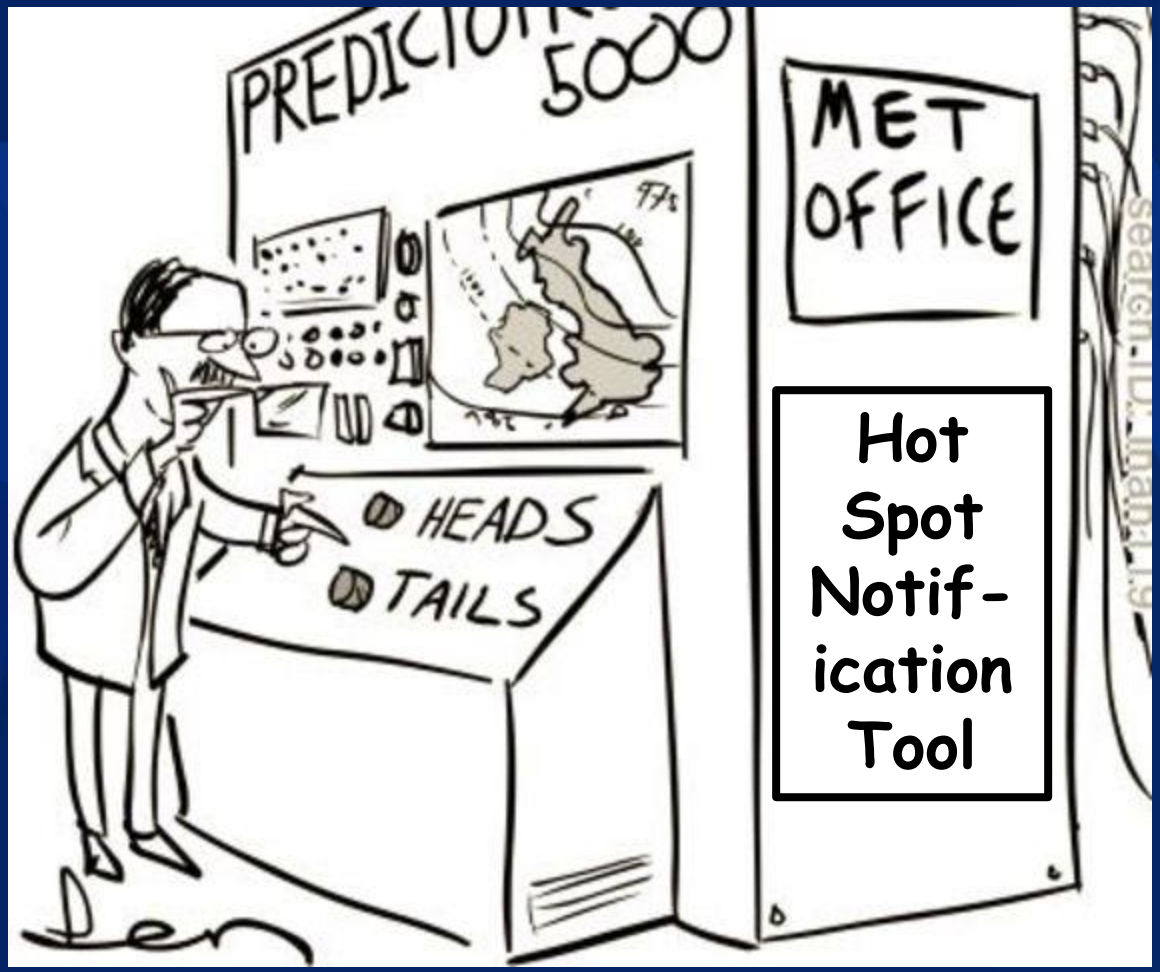
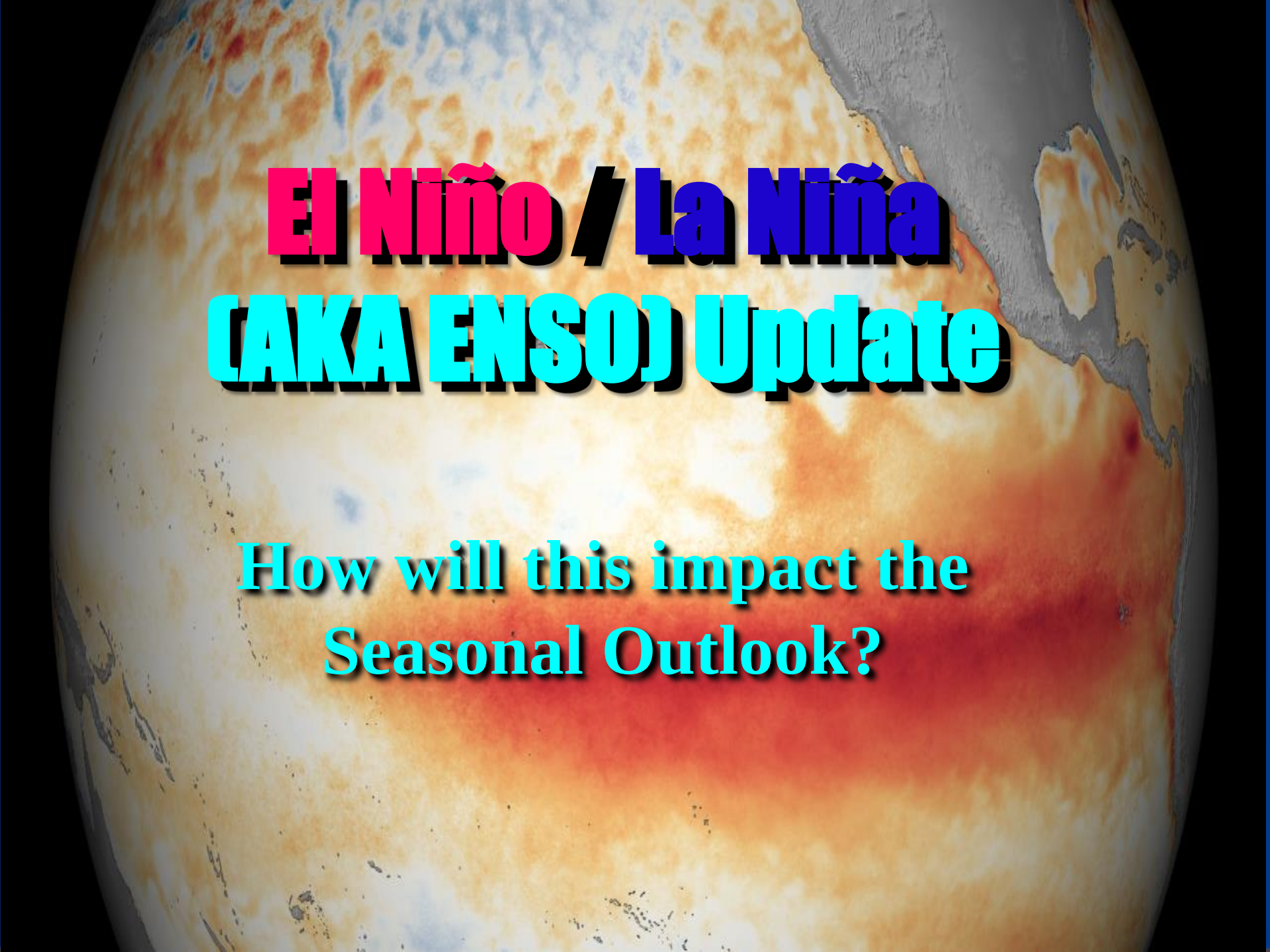
Fire Season Outlook & NWS Amarillo Updates

Mike Gittinger & Ken Schneider
Warning Coordination Meteorologist / Senior Forecaster
National Weather Service Amarillo, TX

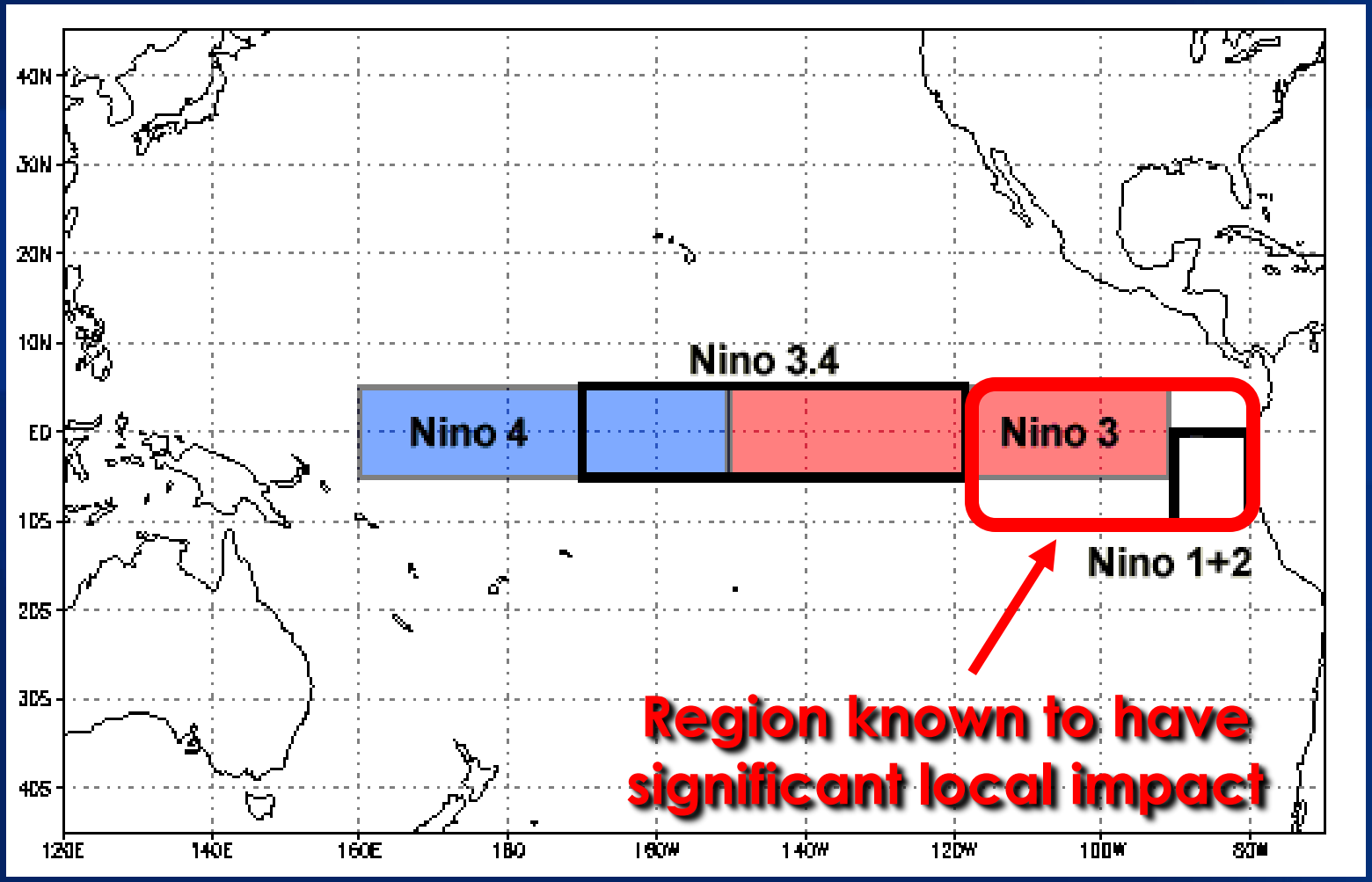
Just Do We Predict Weather?




El Niño / La Niña
(AKA ENSO) Update
How will this impact the
Seasonal Outlook?

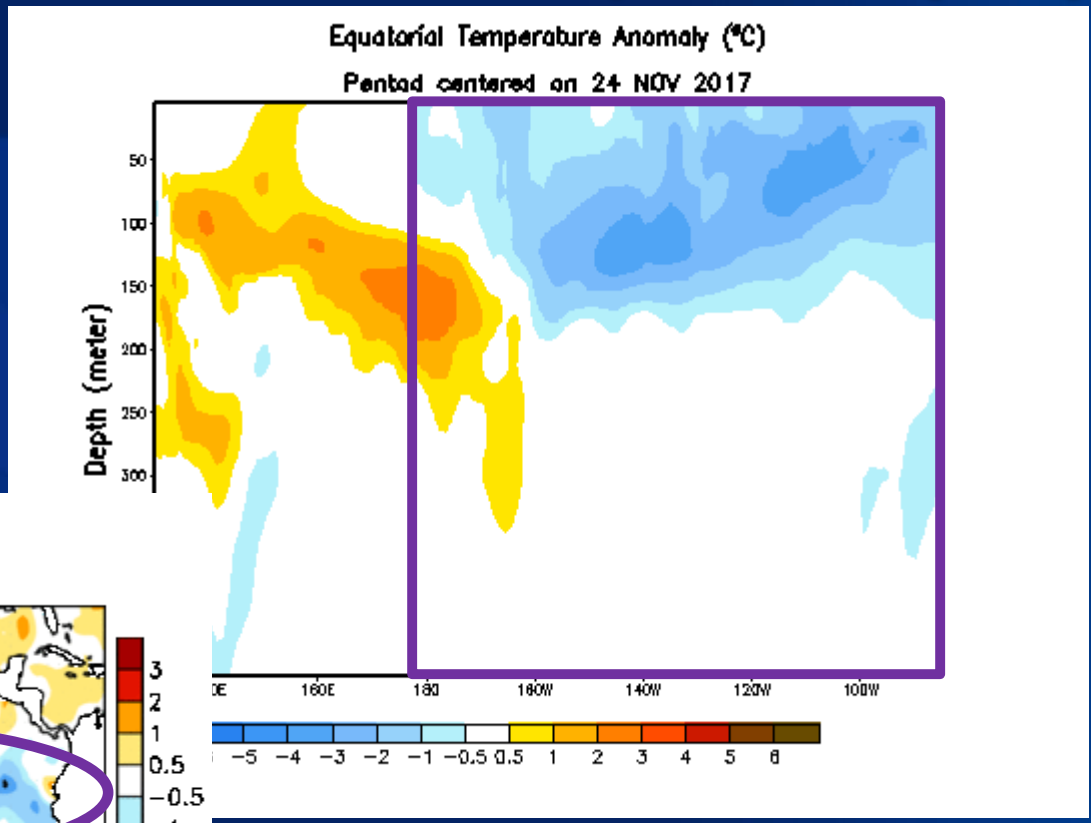
How is it Measured?

Nino 3.4 Typically Reference for Strength of the Event

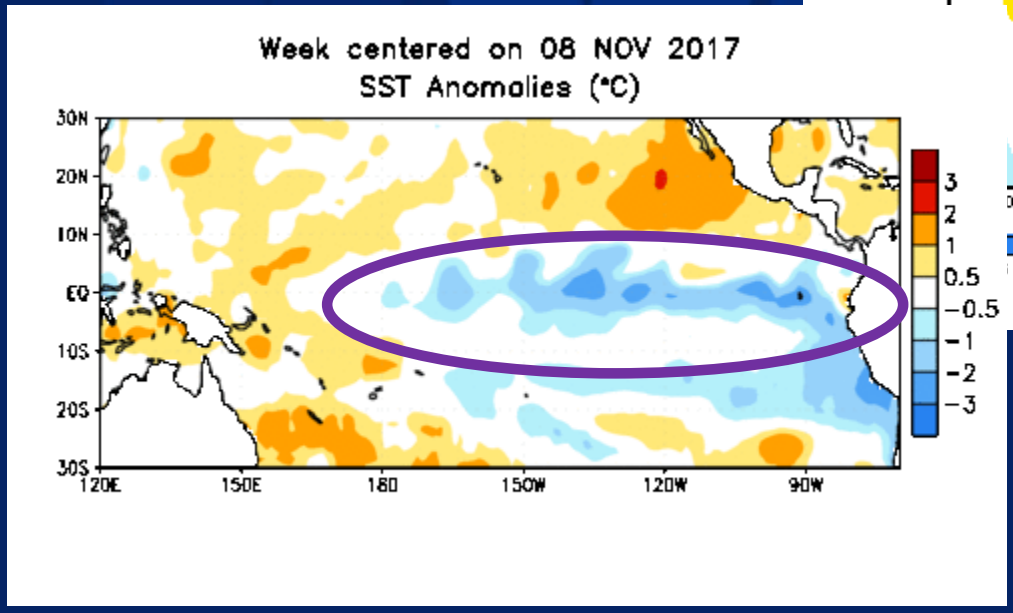


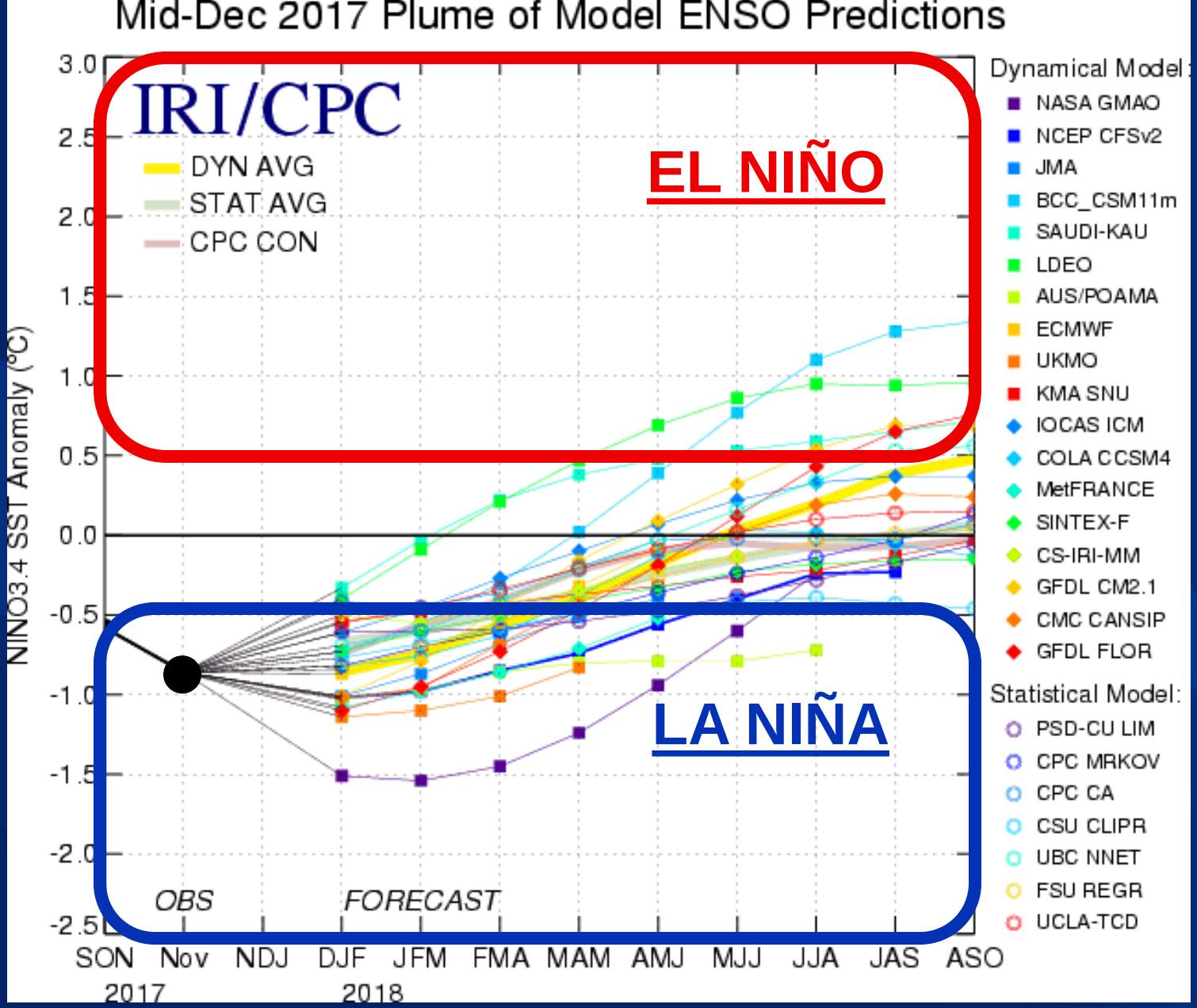
Recent SST Trends

Sea Surface Temperatures (SSTs)

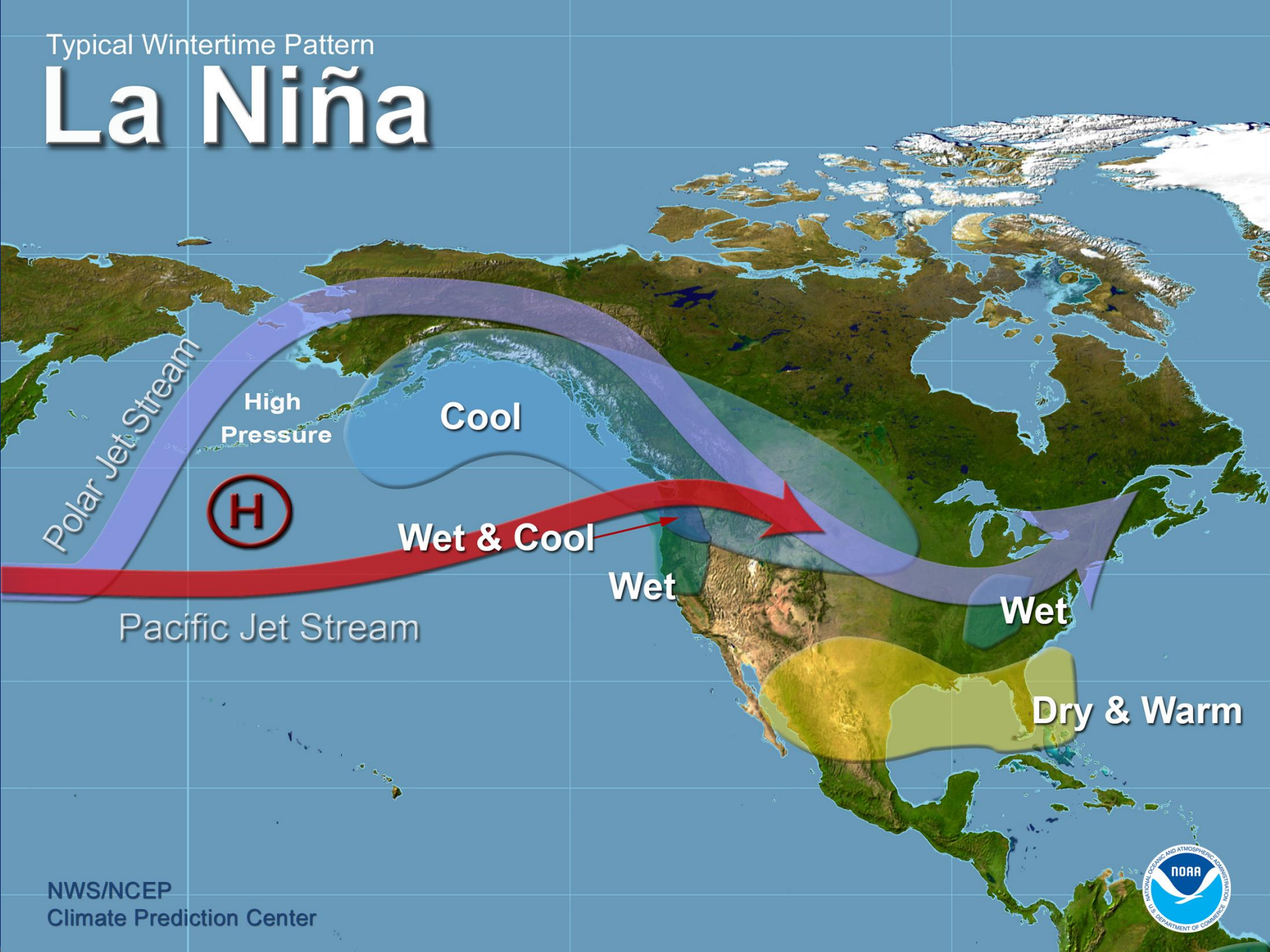


SST Anomalies



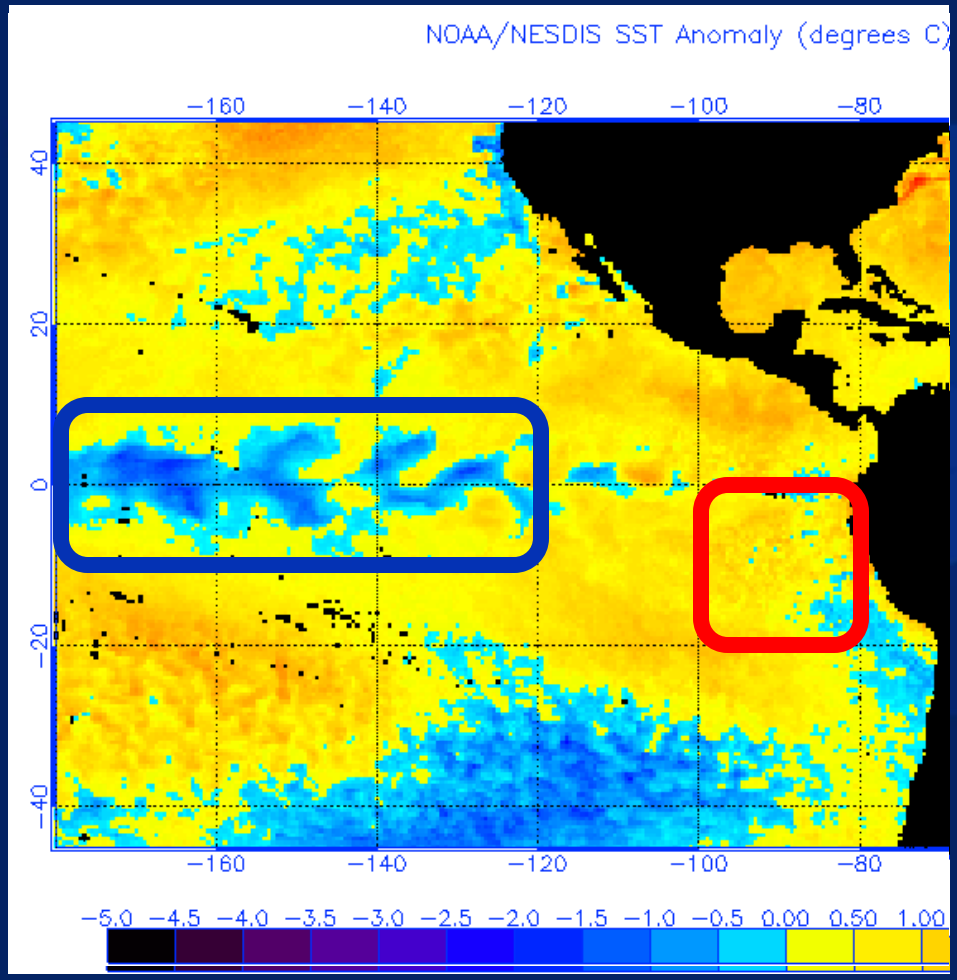


- ENSO is measured in 3 month averages
- 3 consecutive three month averages +- 0.5 required to declare an event

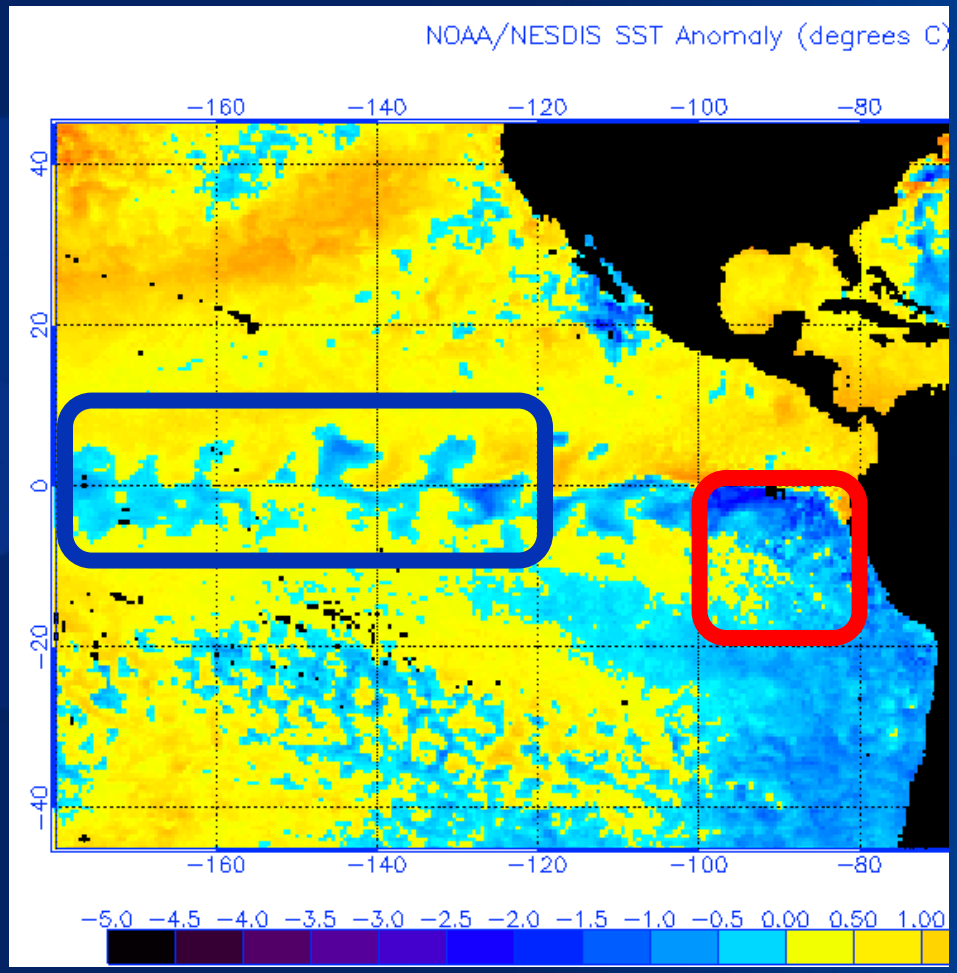

Typical Wintertime Pattern
La Niña
Polar Jet Stream
High Pressure
H
Cool
Wet & Cool
Wet
Wet
Dry & Warm
Pacific Jet Stream
NWS/NCEP
Climate Prediction Center
NOAA
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Comparison

Why 2016-17 La Niña so Much Less Impact than 17-18?



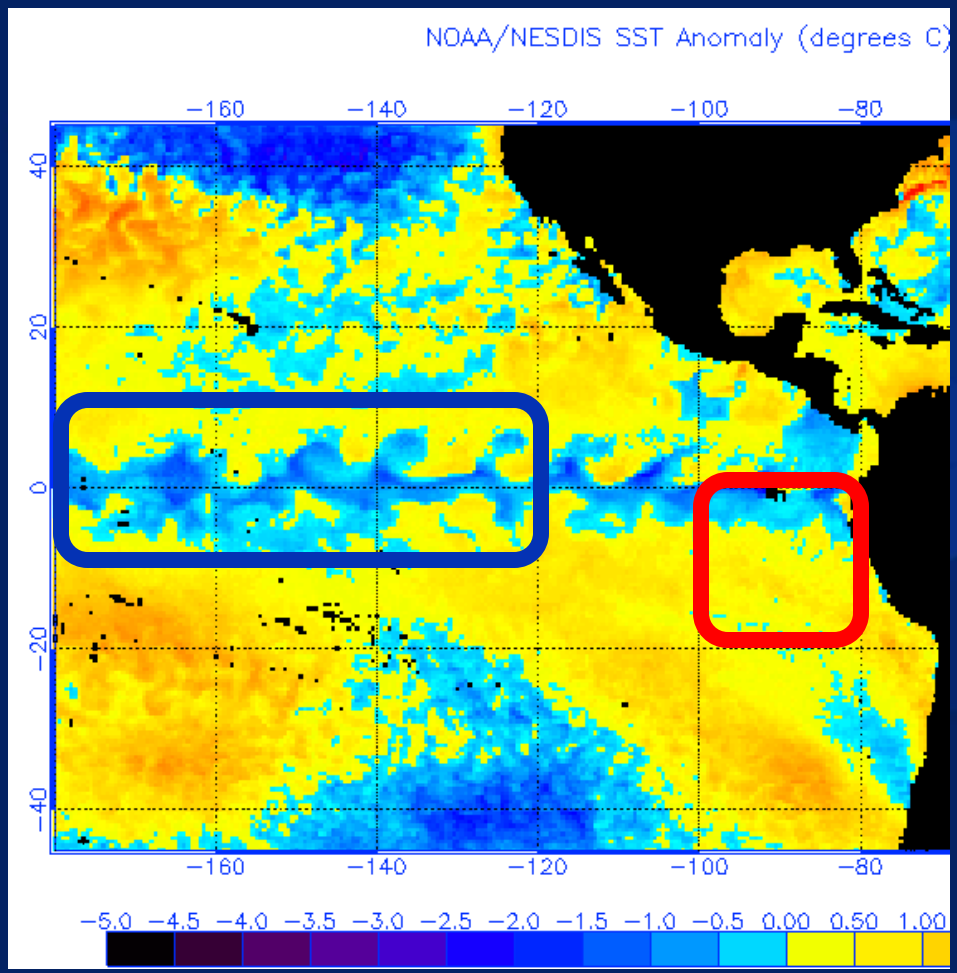
Oct 3, 2016



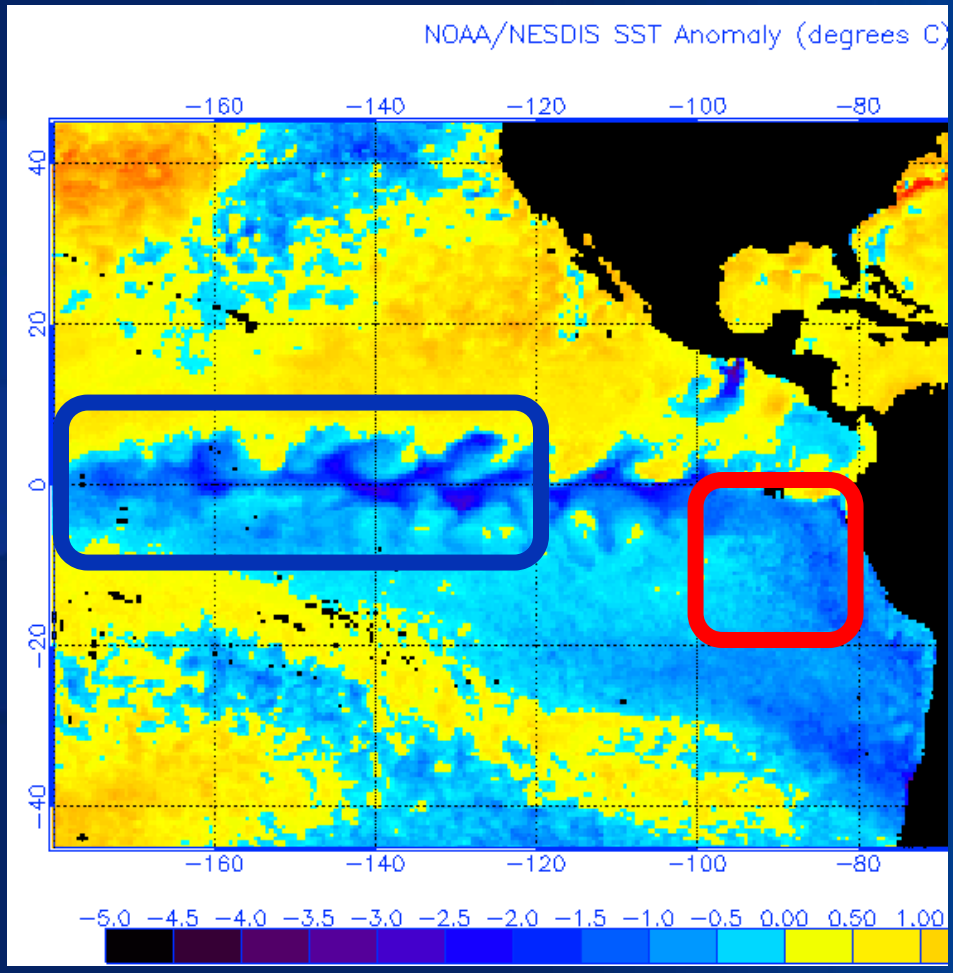
Oct 2, 2017

Comparison

Why 2016-17 La Niña so Much Less Impact than 17-18?



Dec 5, 2016



Dec 4, 2017

Comparison

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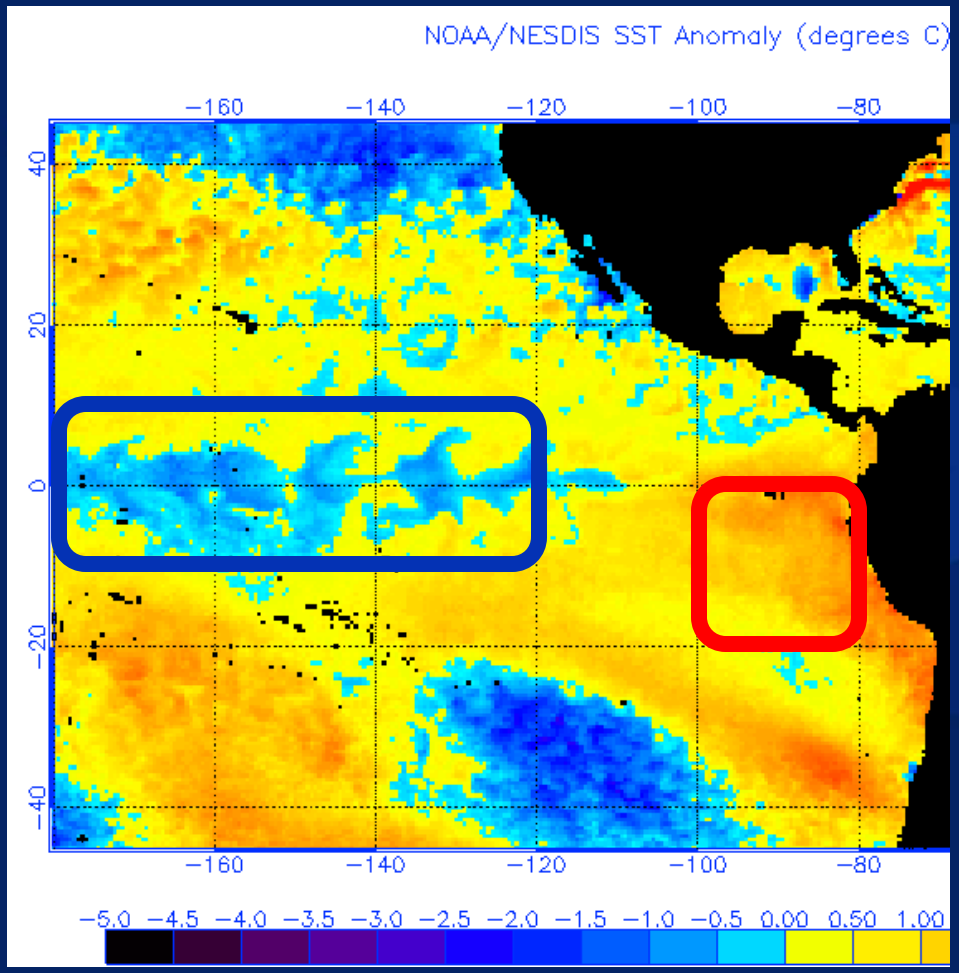
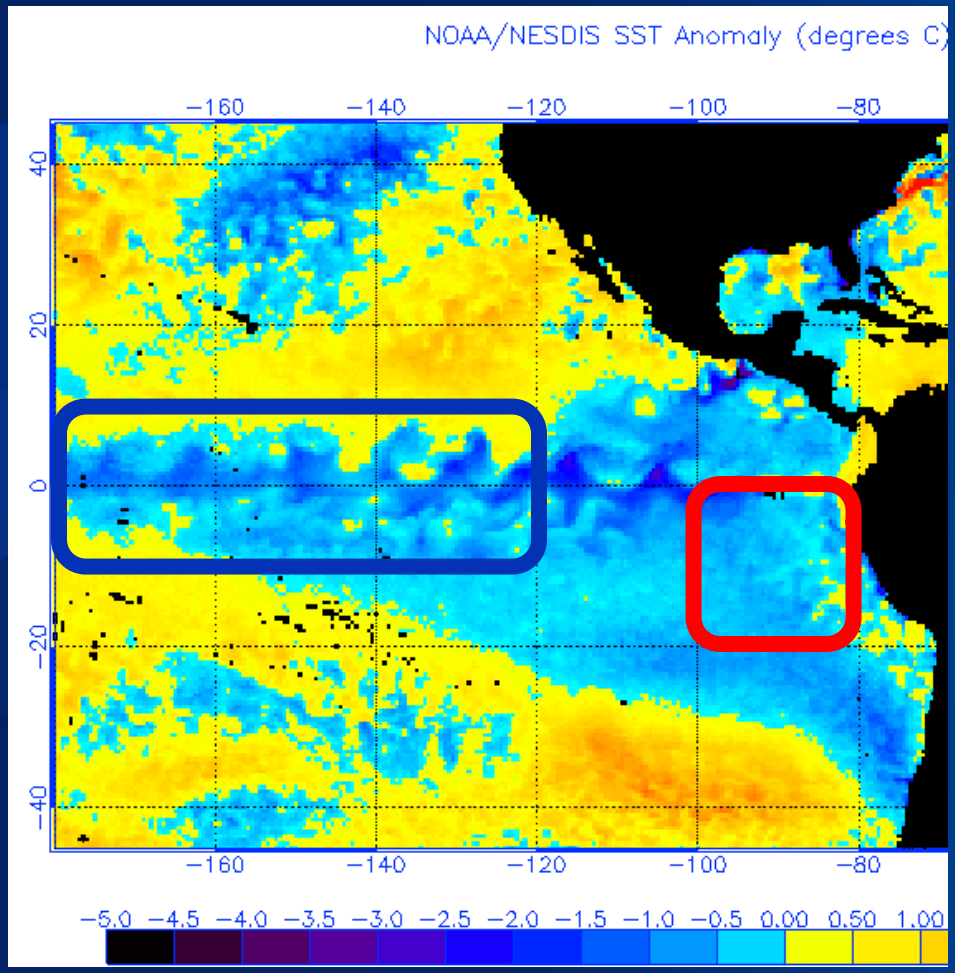
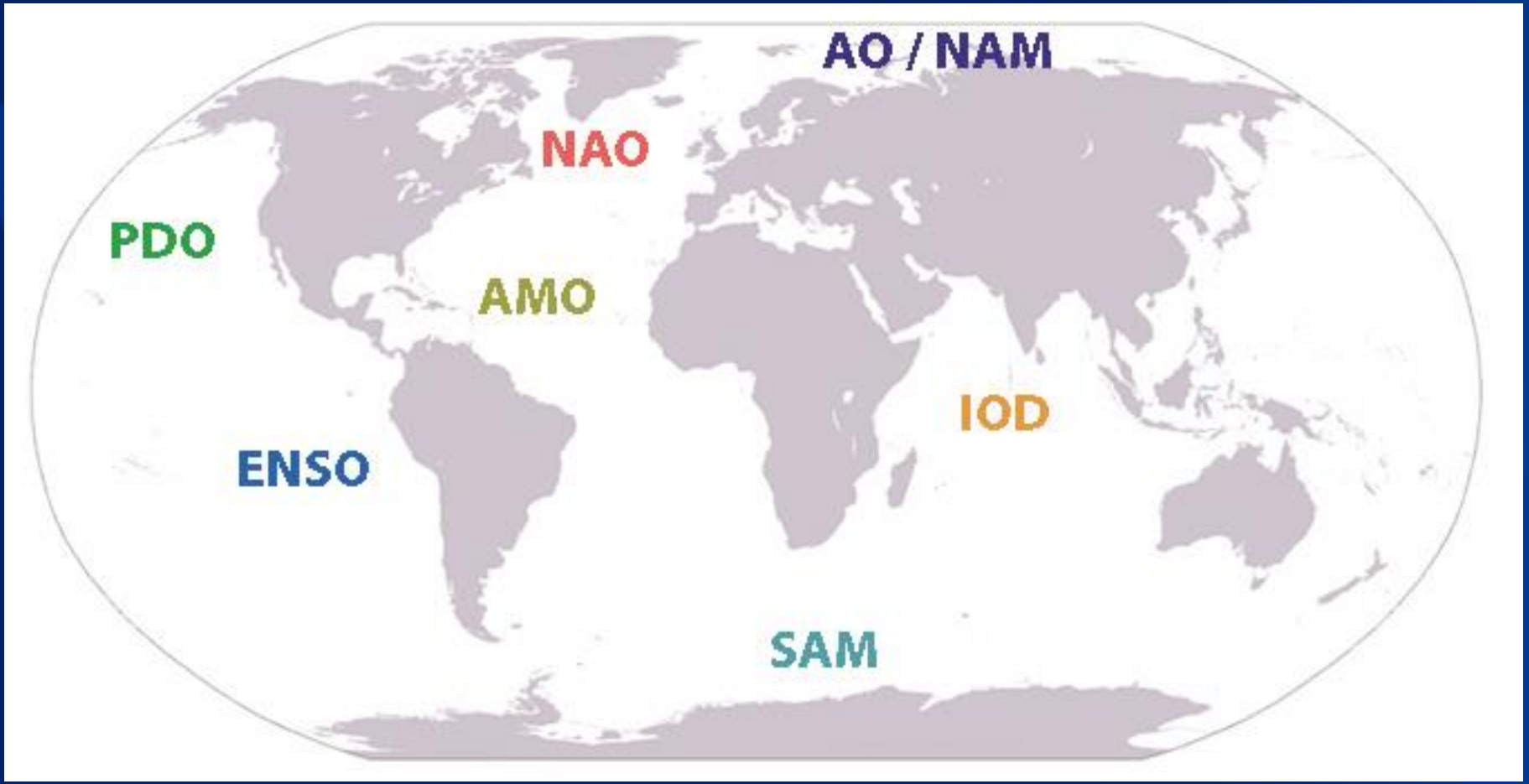


Jan 30, 2017



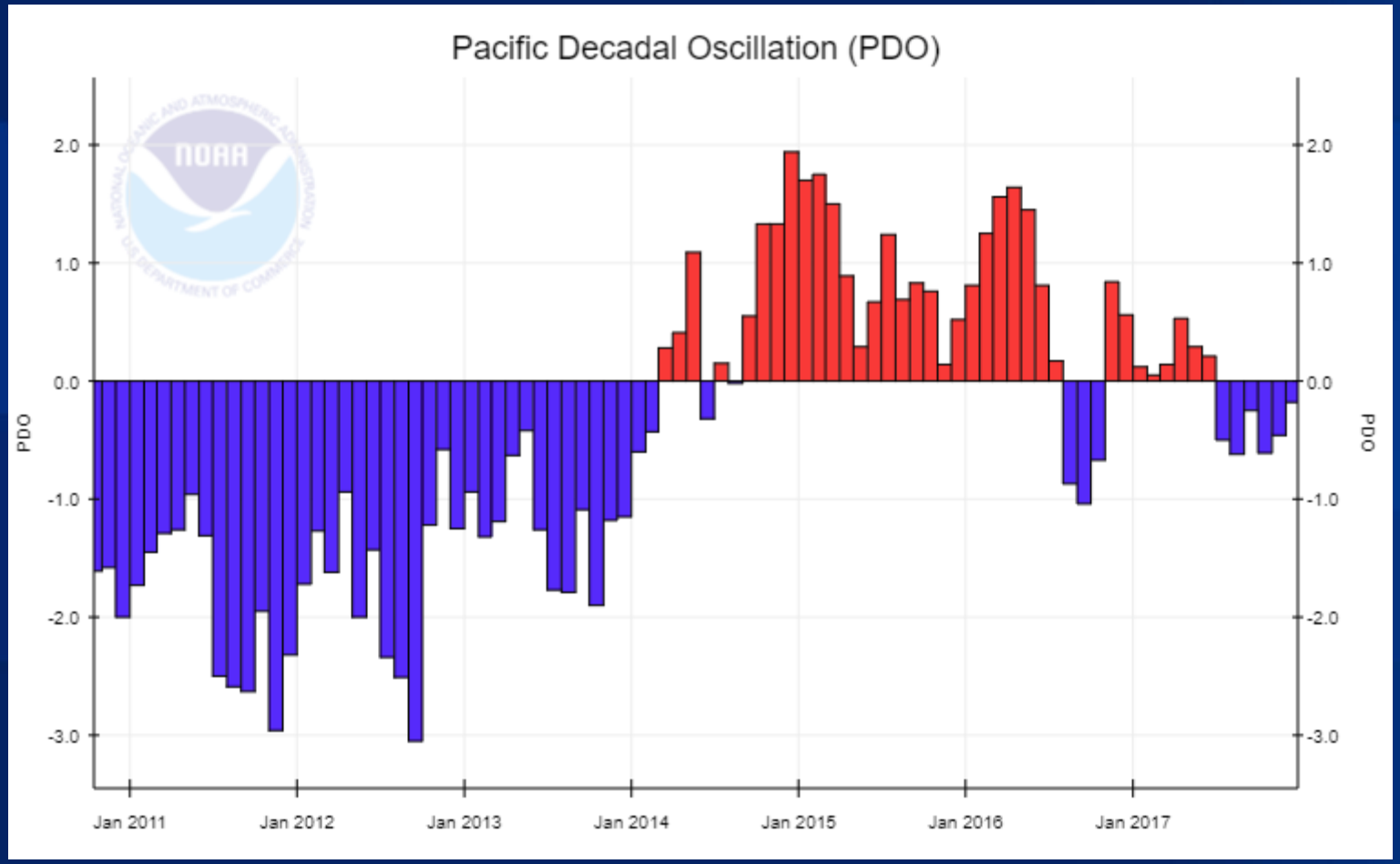
Jan 25, 2018

Other Important Oscillations



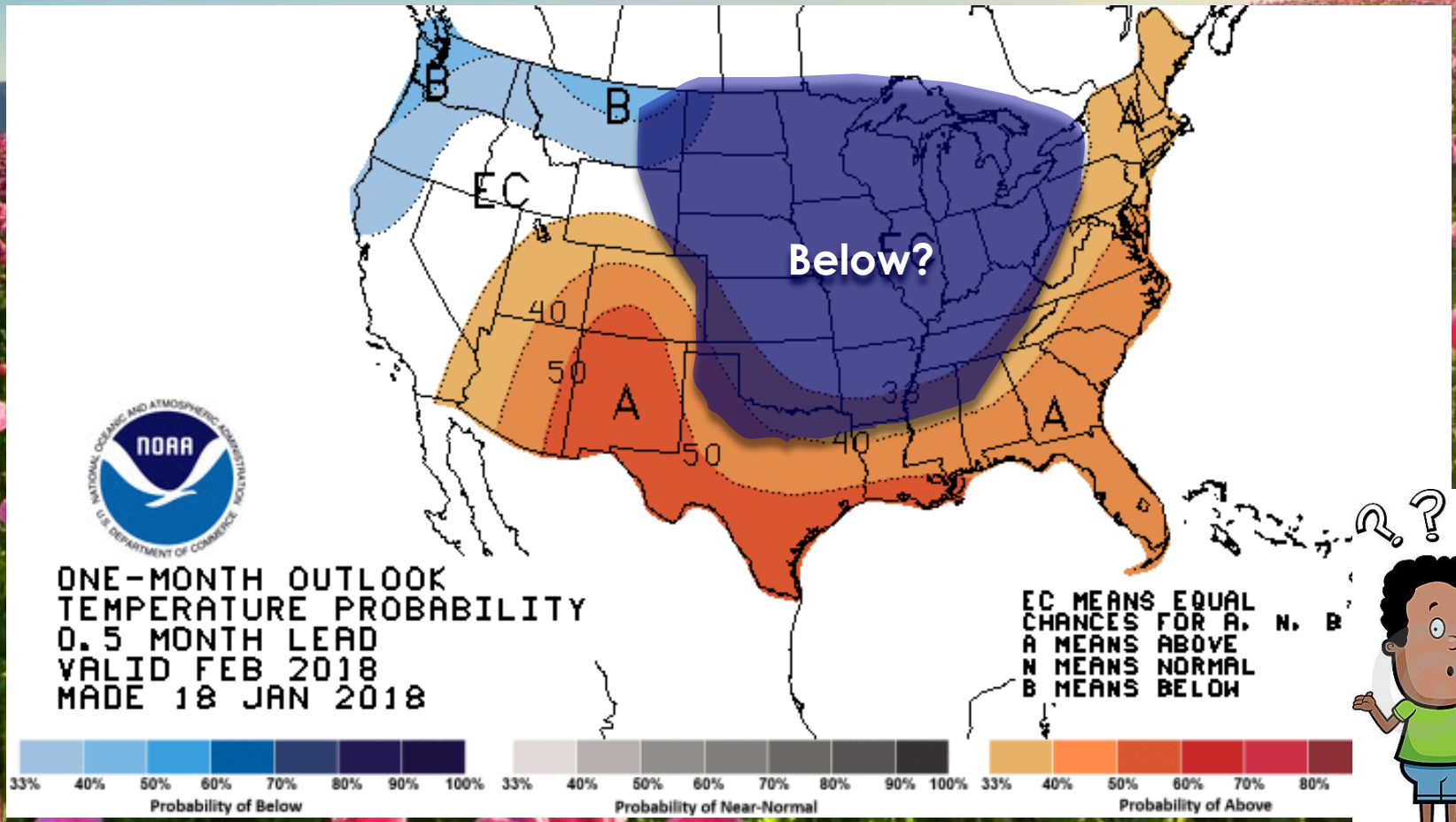
Pacific Decal Oscillation (PDO)

Negative PDO Promotes Dry Conditions in Panhandles



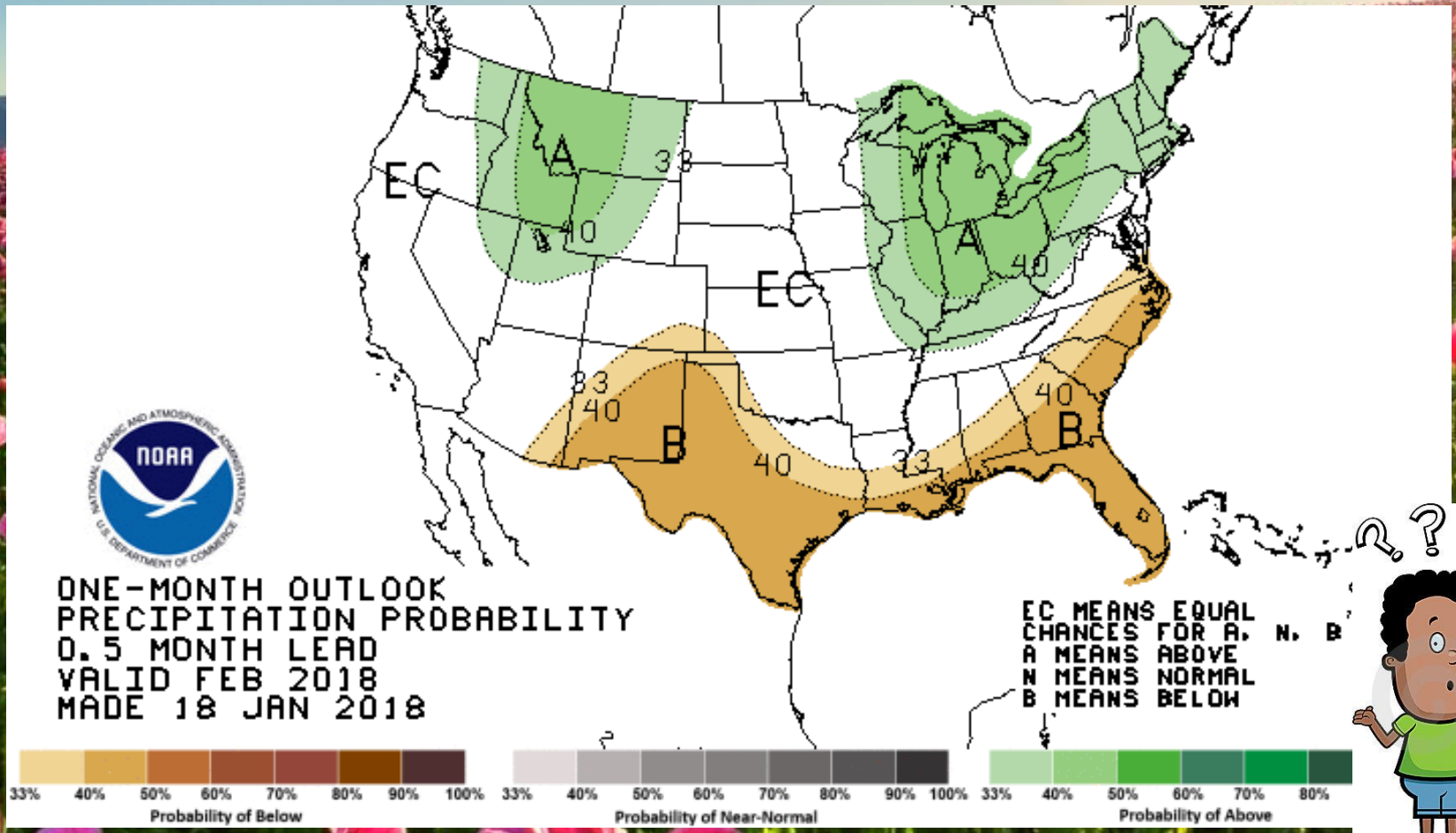
February Outlook

Temperature



February Outlook

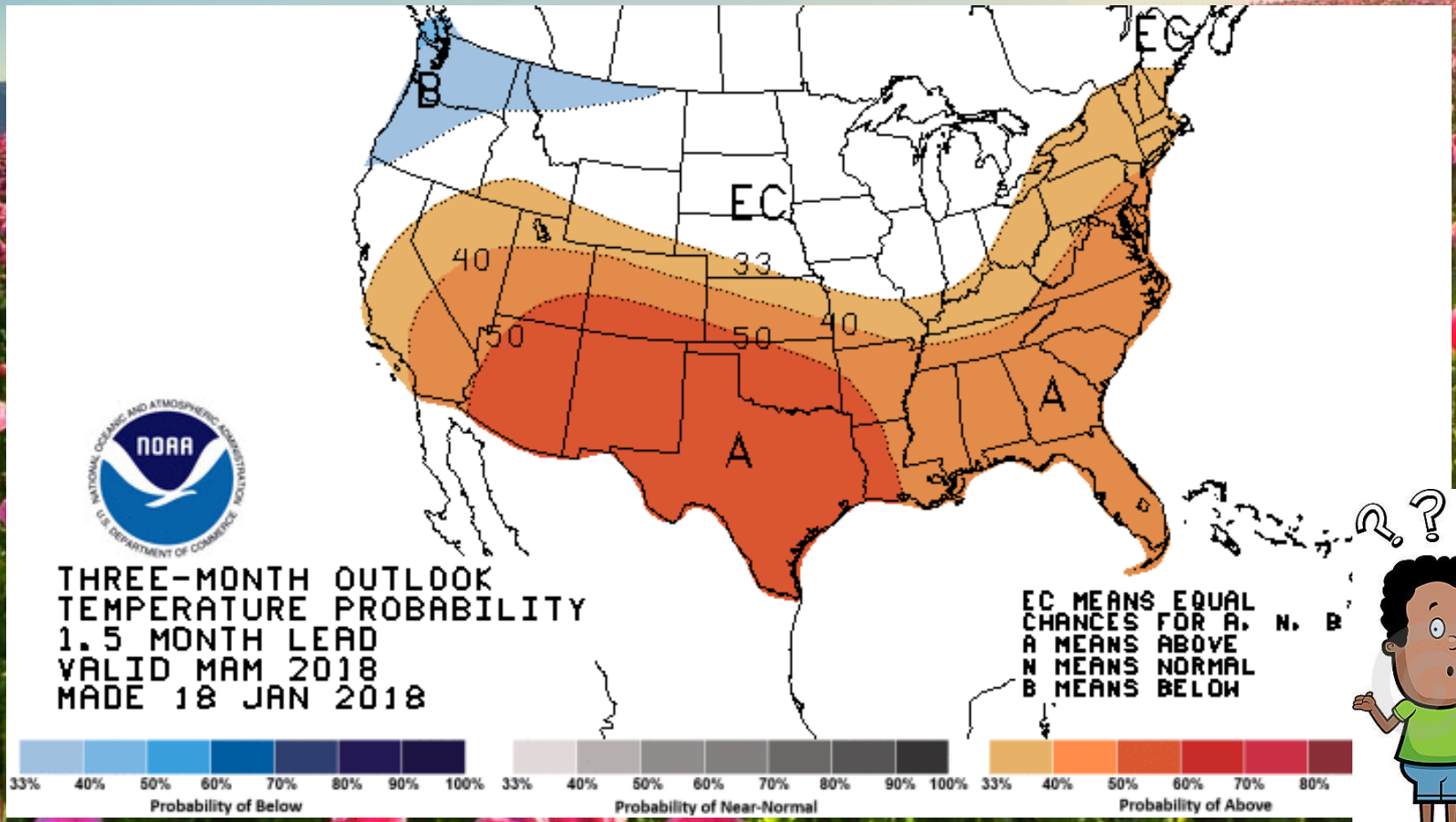
Precipitation



Spring / Early Summer Outlook

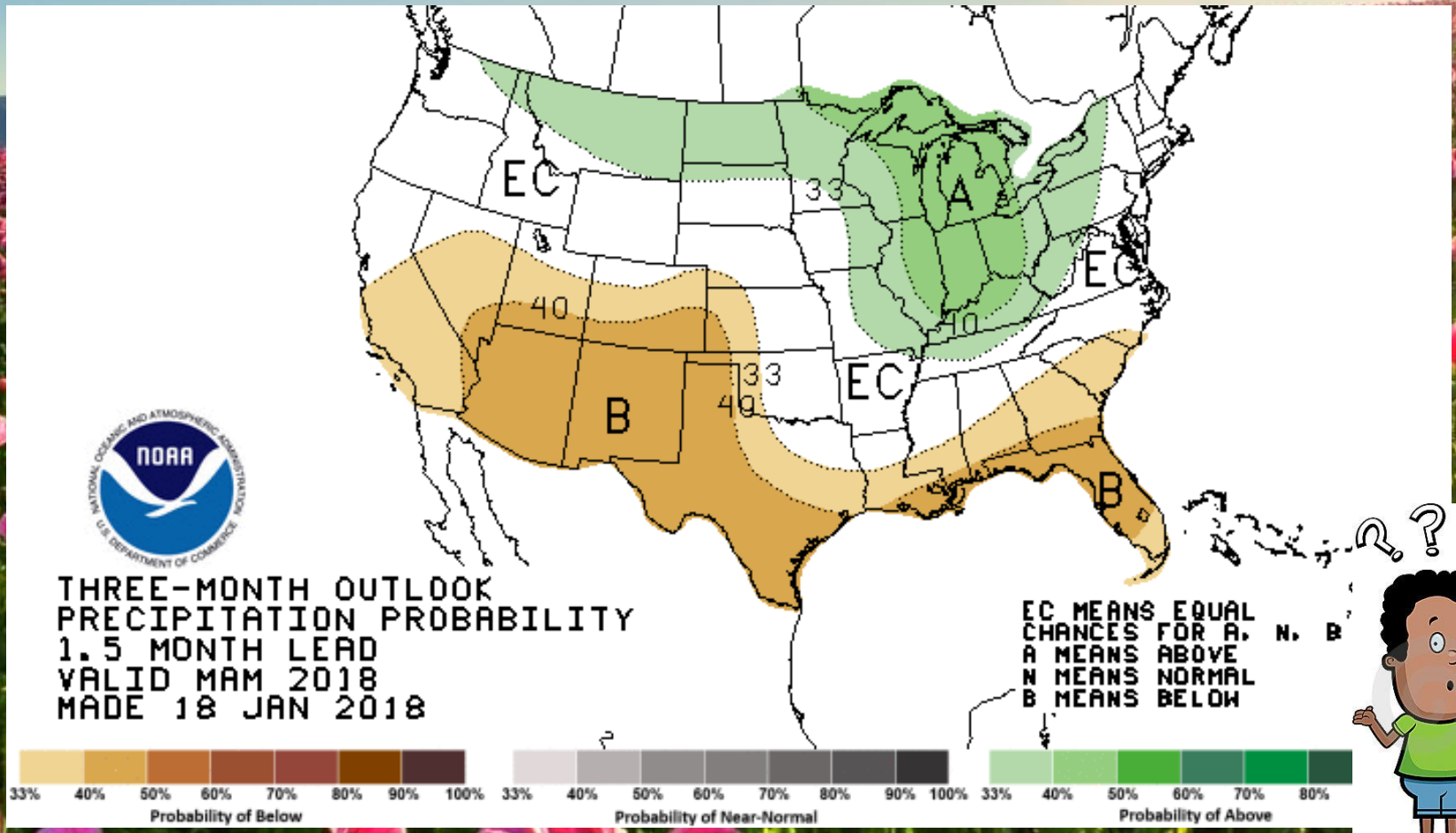
Spring Temperature Outlook

March to May



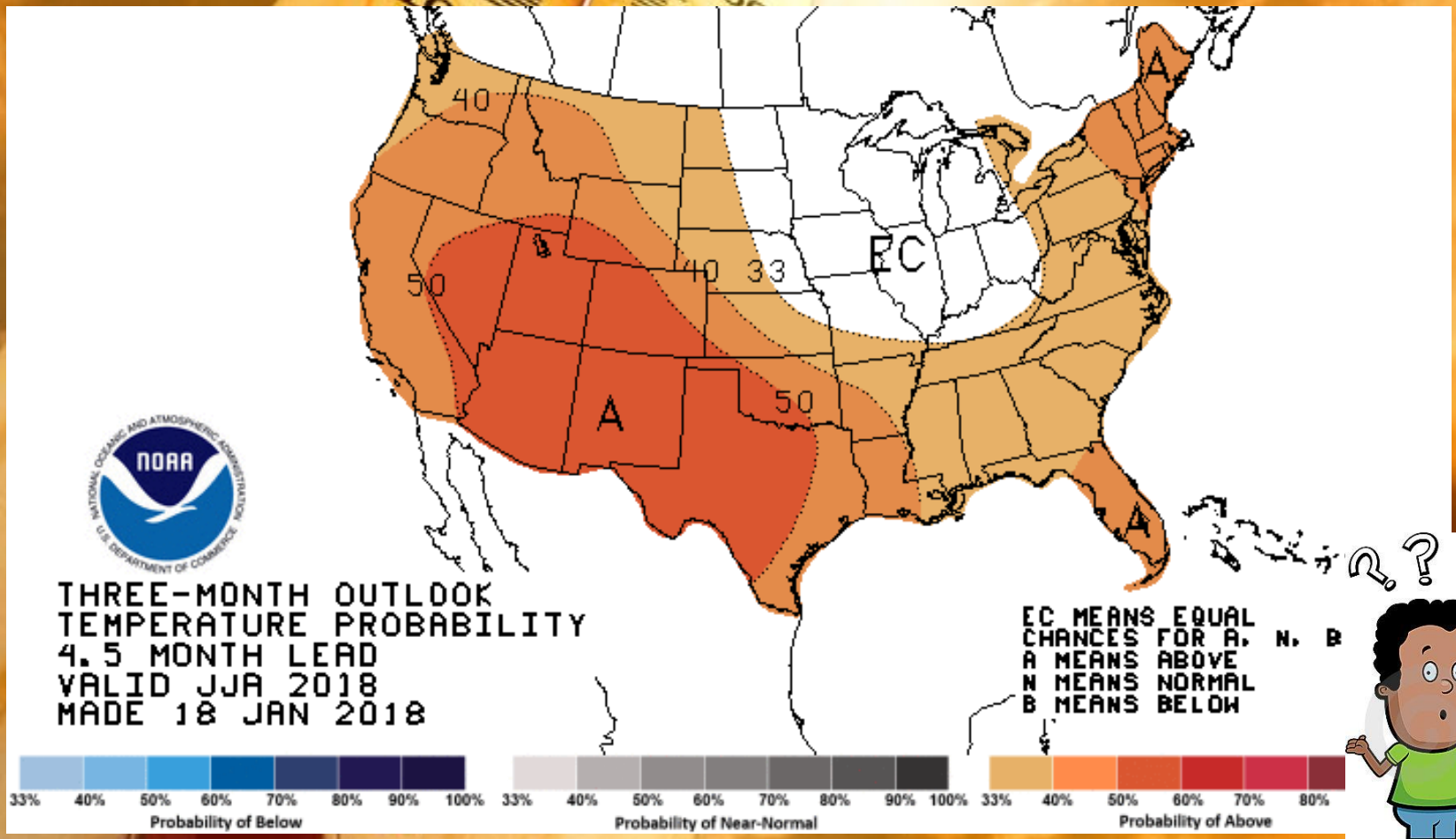
Spring Precipitation Outlook

March to May



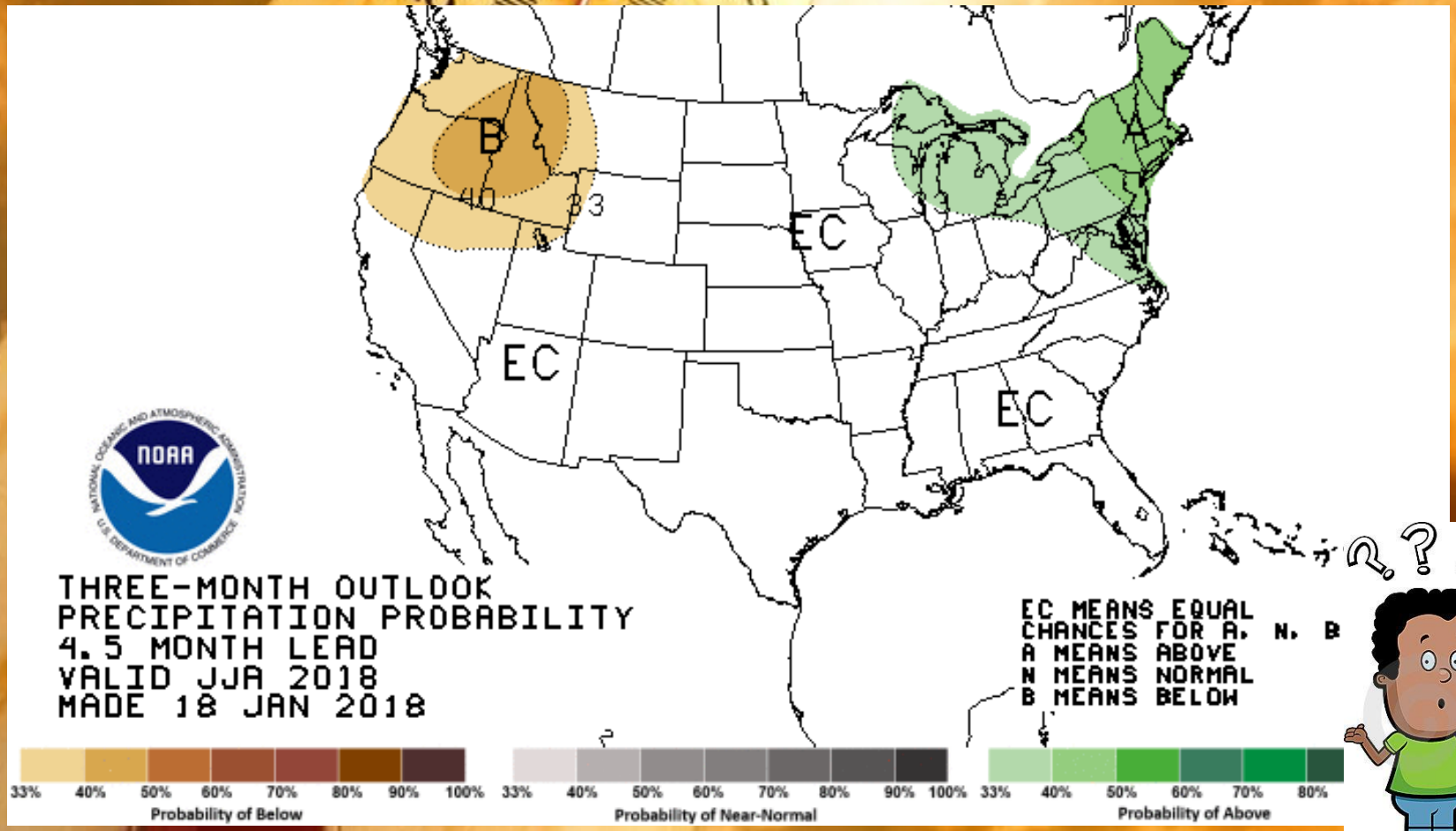
Summer Temperature Outlook

June – August



Summer Precipitation Outlook

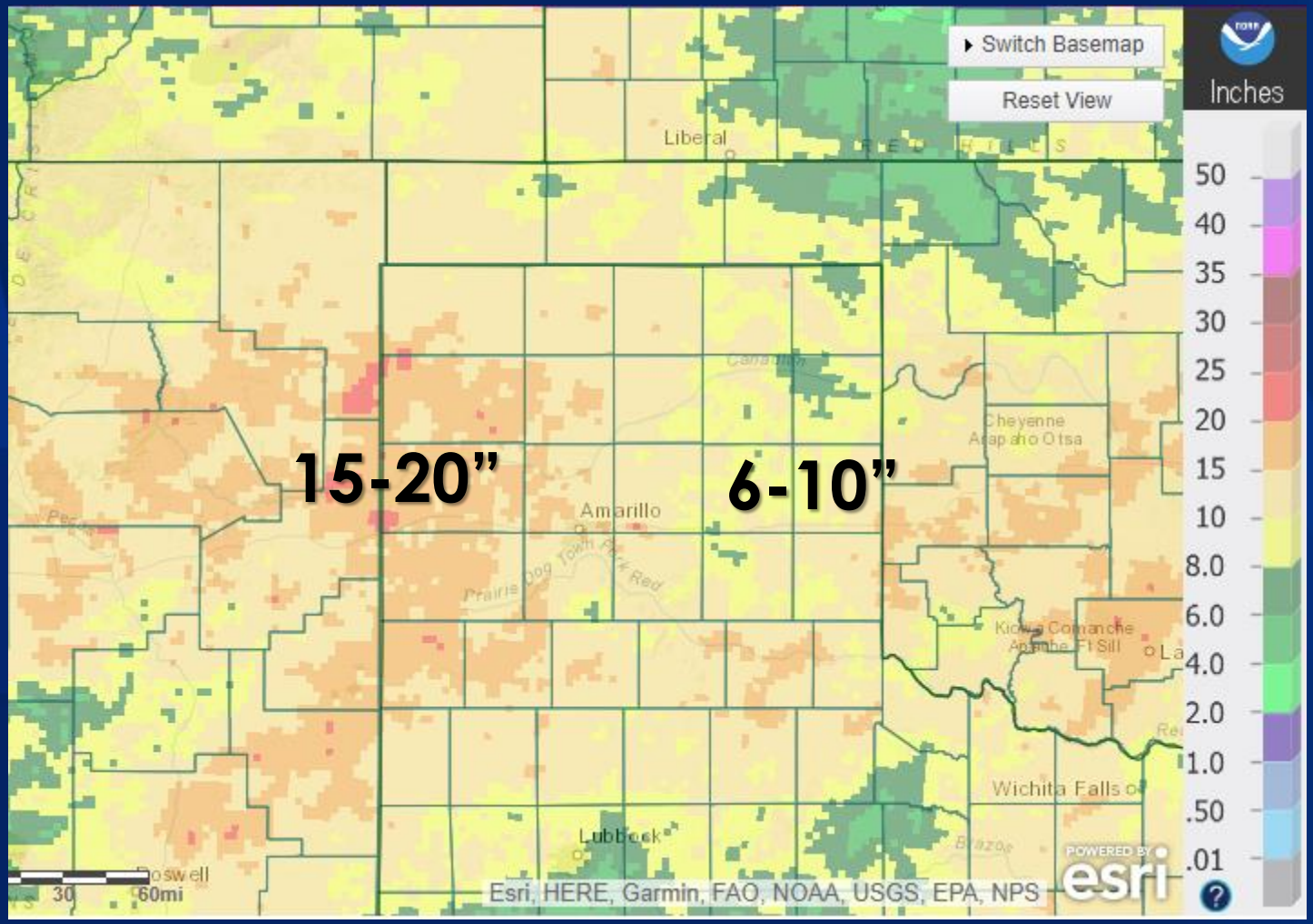
June - August



Spring Wildfires?

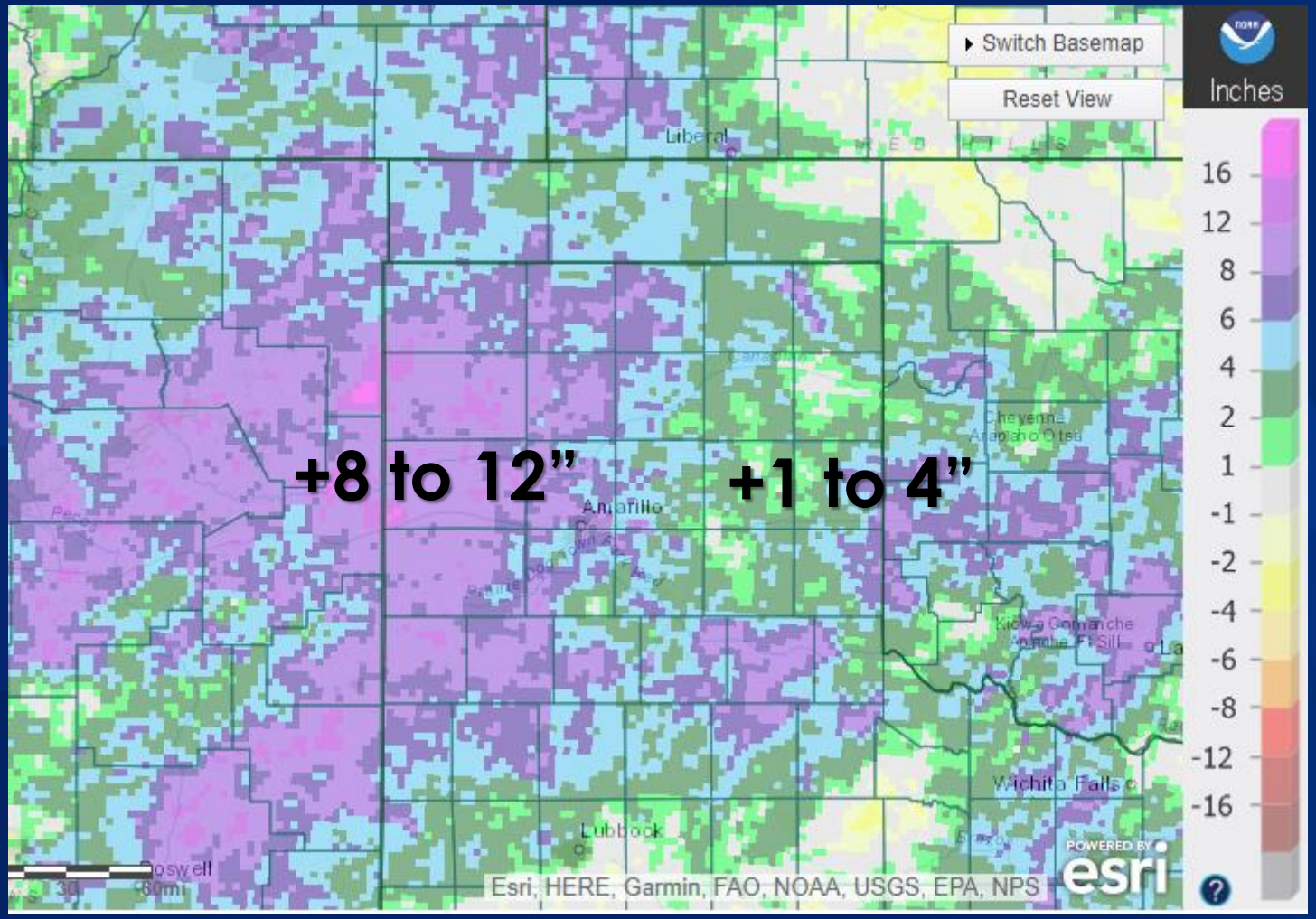
July 25 – Oct 23rd

Actual Amounts



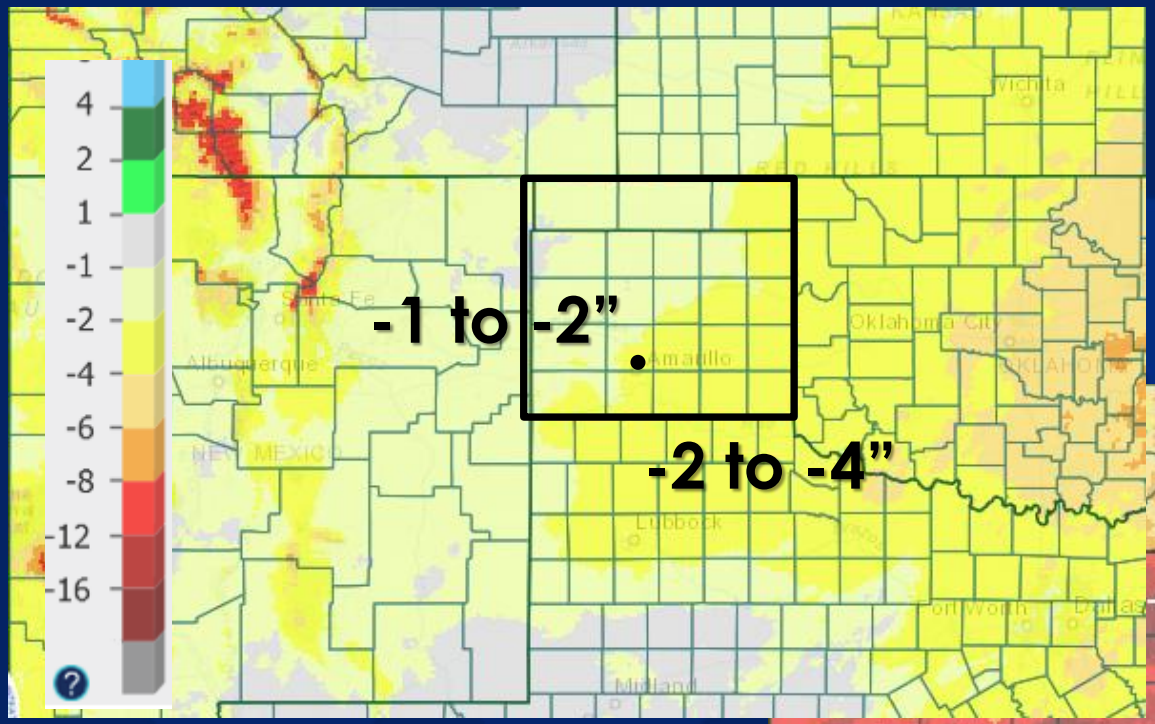
July 25 – Oct 23

Departure from Normal

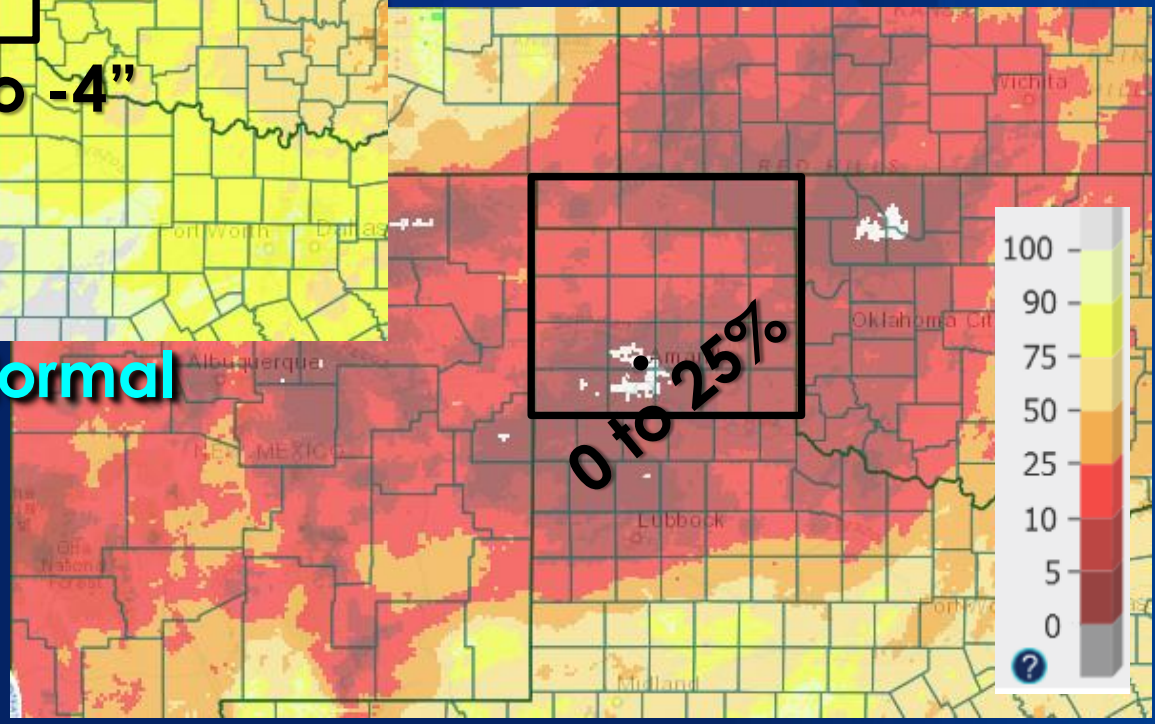


Last 90 Day Rainfall

Through 1/28/18



Departure from Normal



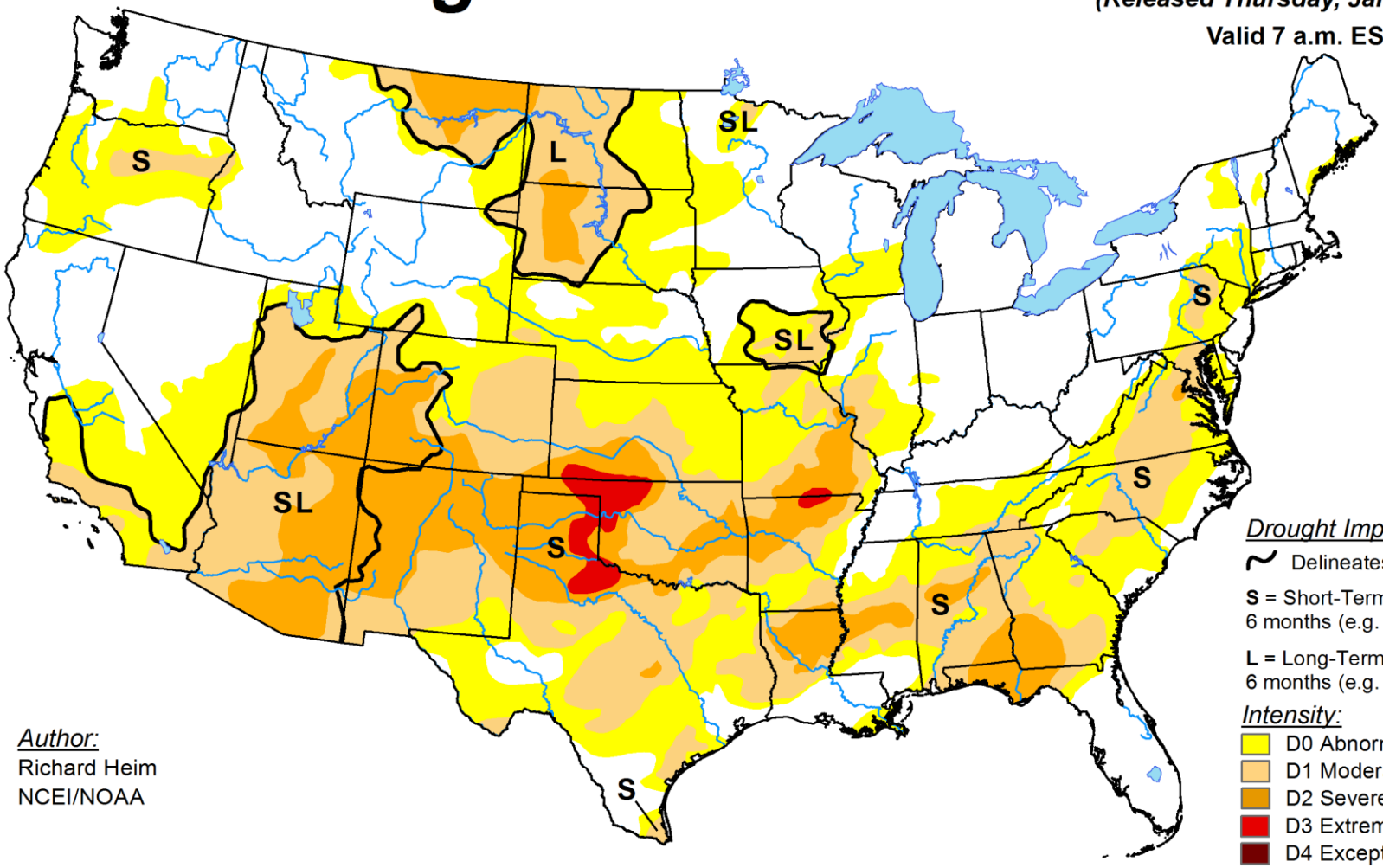
% of Normal

U.S. Drought Monitor

January 23, 2018

(Released Thursday, Jan. 25, 2018)

Valid 7 a.m. EST



Author:
Richard Heim
NCEI/NOAA

Drought Impact Types:

~ Delineates dominant impacts

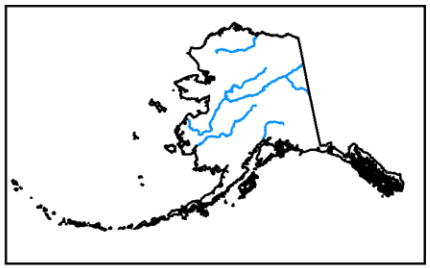
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)

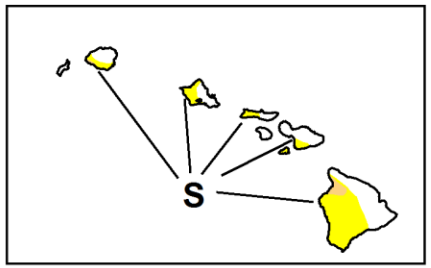
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

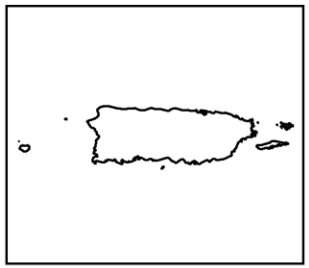
Intensity:

- 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.







http://droughtmonitor.unl.edu/

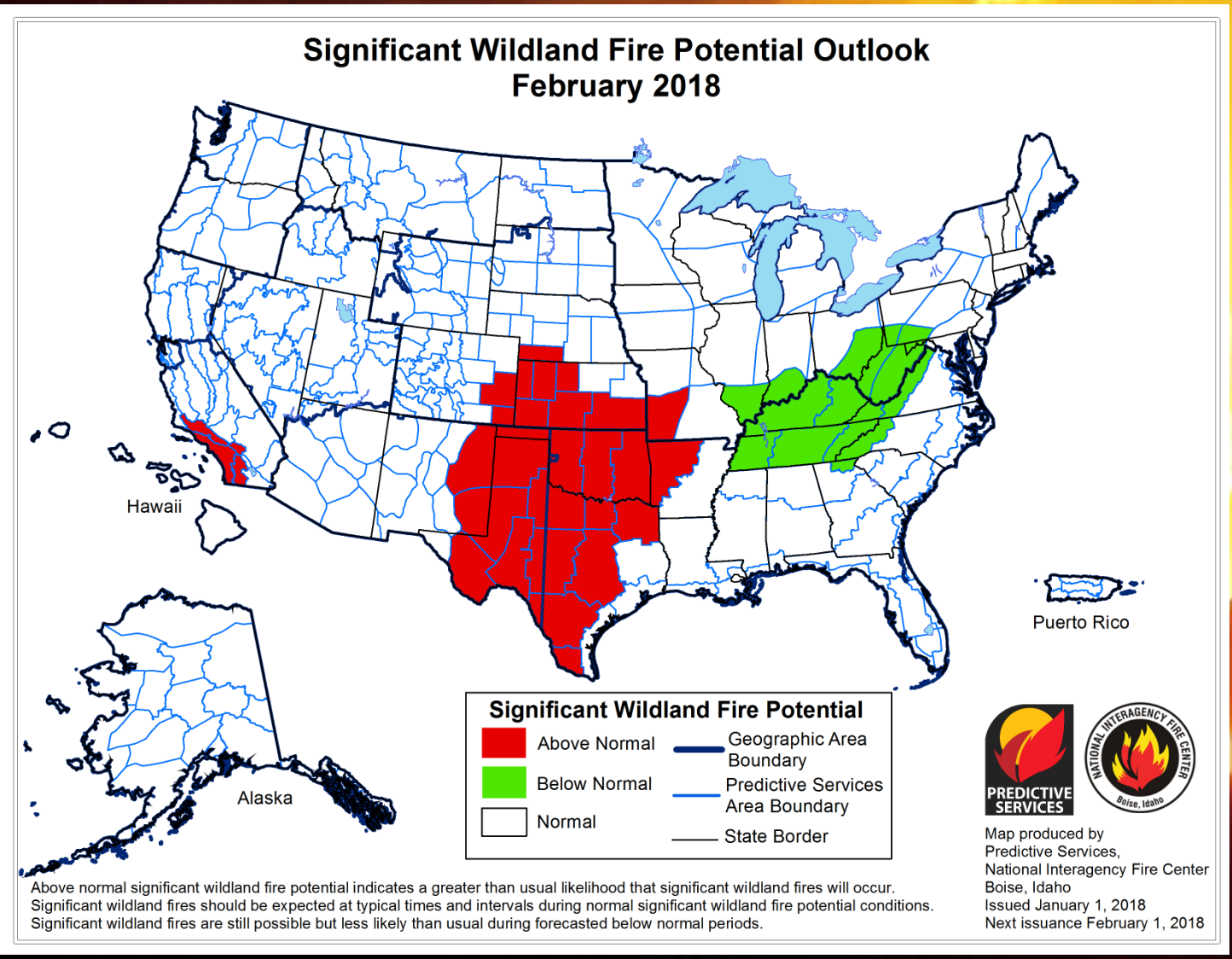
State of Fuels

Excessive late summer rains have provided significant 1-hr fuel loading

West of Amarillo on Hwy 60

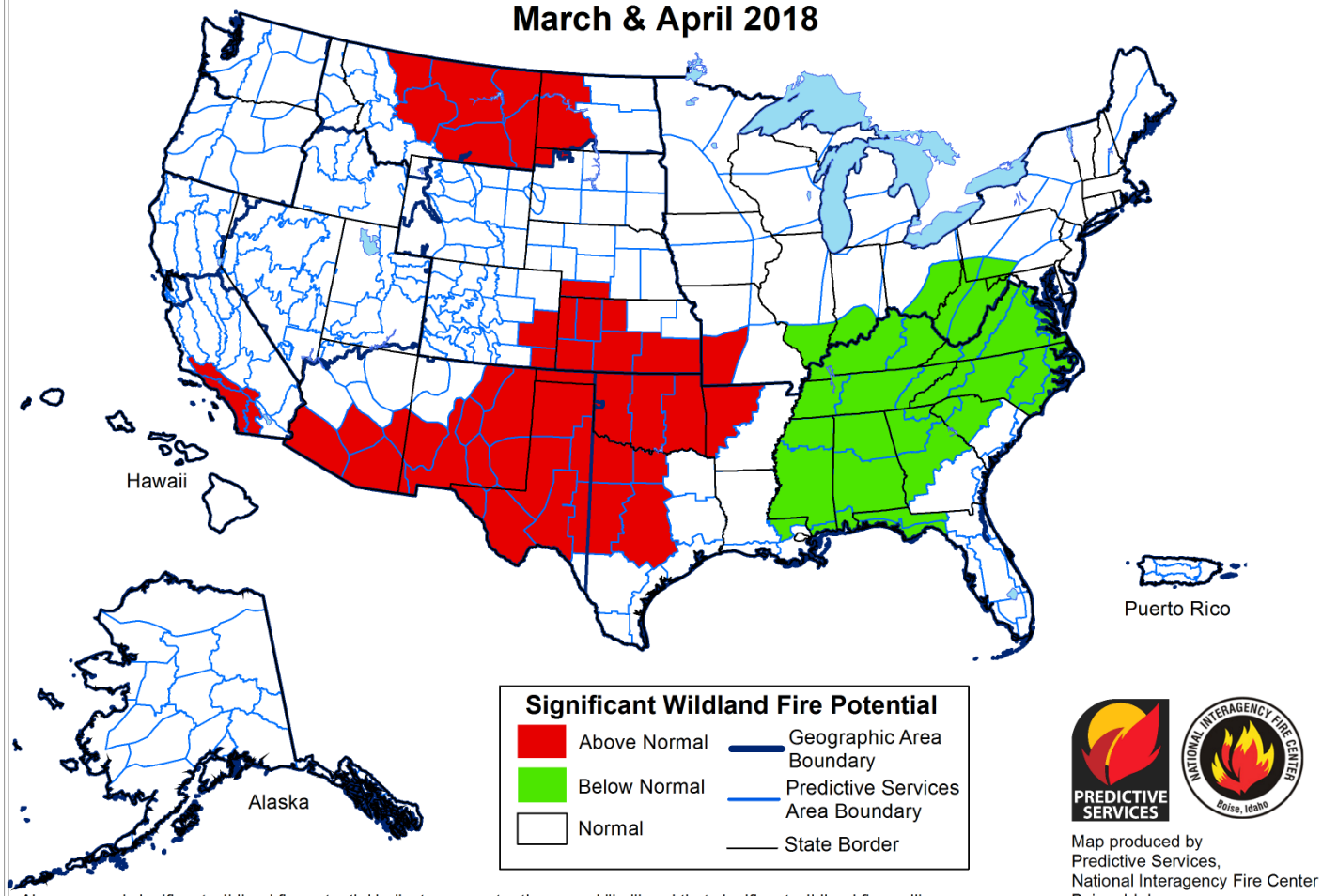
Fire Potential Outlook

Feb 2018



Fire Potential Outlook

Mar/Apr 2018

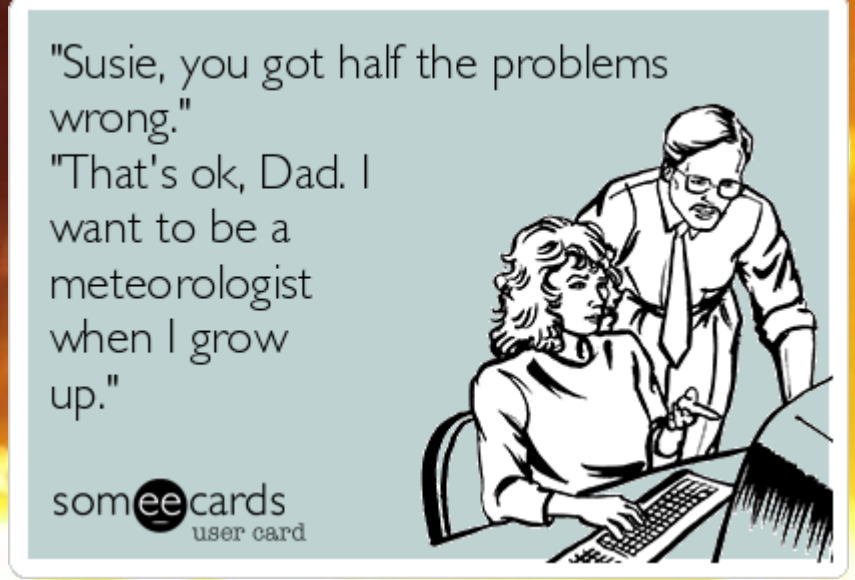


Spring/Summer 2018

"Most Likely Outcomes"

- Weak La Niña transitioning to neutral through spring
- Weather pattern response can lag ENSO changes
- La Niña weakening last in the east does not bode well for SW U.S.
- Below normal precipitation and above normal temperatures through spring
- Notable **Potential** for intense and long lived fire season
- Outbreaks are still dependent on weather patterns

QUESTIONS?



Ken Schnieder
ken.schneider@noaa.gov
Mike Gittinger
Mike.Gittinger@noaa.gov
NWS Amarillo
806-335-1121

@NWSAmarillo
www.weather.gov/amarillo