## **NOAA Climate Outlooks**

Seasonal Precipitation Outlook El Nino, and a look towards the next 2-6 weeks



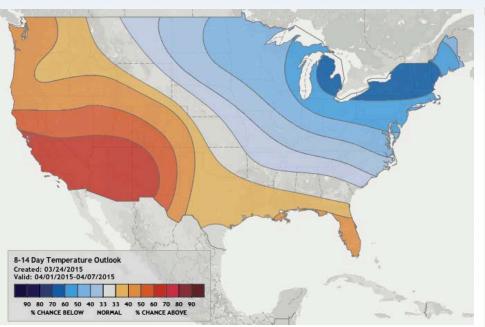
## Dr. Dan Collins

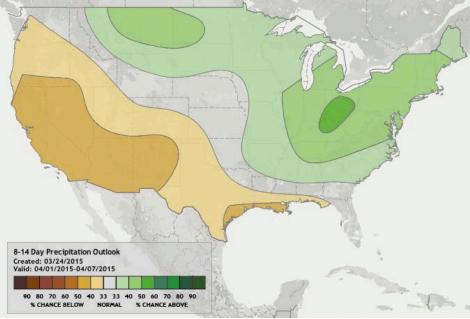
Meteorologist and Forecaster NOAA's Climate Prediction Center

# Forecast out to two weeks (April 1st through April 7th)

Probability of temperature to be significantly above (red shading) or below (blue shading) average

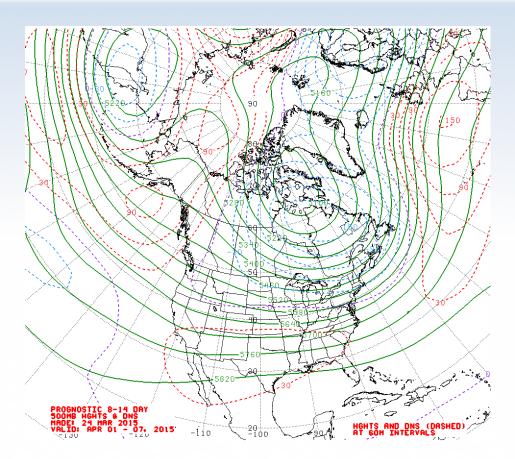
Probability of precipitation to be significantly above (green shading) or below (brown shading) average







# Forecast Atmospheric Circulation out two weeks (1st week in April)

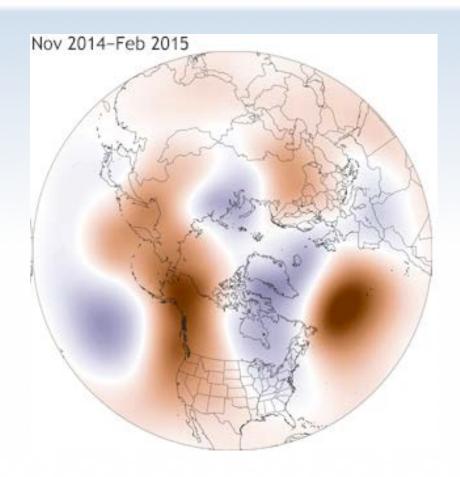


### Atmospheric Circulation

- Continuing ridge of high atmospheric pressure over North Pacific
- Mean trough over northeastern U.S. with Arctic air flowing into Northeast
- Ridge of high pressure over
  Atlantic associated with
  positive North Atlantic
  Oscillation (NAO



## **Observed Atmospheric Circulation**

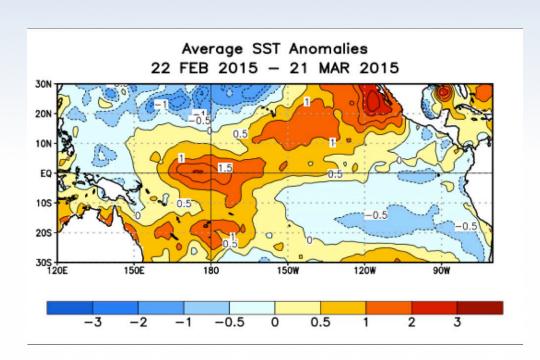


### Atmospheric Circulation

- Persistent mean ridge of high atmospheric pressure over North Pacific
- Mean trough over eastern
  U.S. with Arctic air flowing south
- Ridge of high pressure over Atlantic associated with positive North Atlantic Oscillation (NAO
- Average circulation pattern forecast to continue into spring
- Variable but recurring circulation pattern in model forecasts related to Pacific sea surface temperatures



## Observed Sea Surface Temperatures



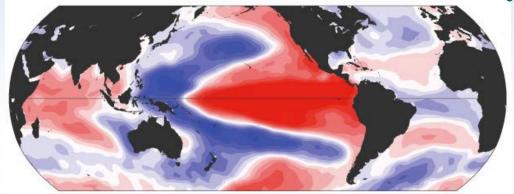
### El Niño Advisory

- Positive sea surface temperature (SST) anomalies present across the central Pacific
- Near-to-below average SST is observed in the eastern Pacific.
- Above average SST along the west coast of North America continues.
- Peak warming to the west of classical El Niño pattern

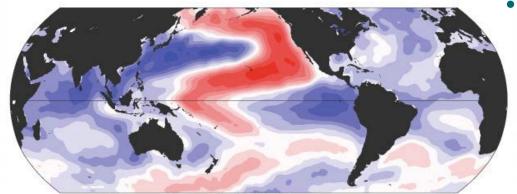


## North Pacific Sea Surface Temperatures

#### Sea surface temperature anomaly patterns



Classic ENSO signal



North Pacific Mode

NOAA Climate.gov

## El Nino – Southern Oscillation

 Positive sea surface temperature (SST) anomalies across the eastern Pacific extending to South American coast

### North Pacific Mode

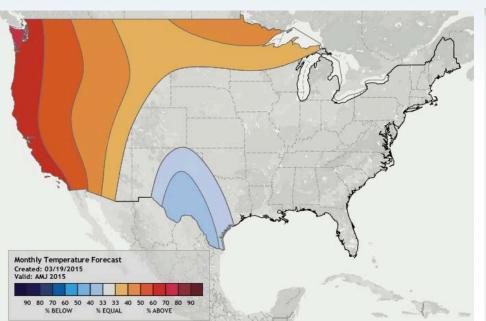
 Positive sea surface temperature (SST) anomalies across the central Pacific extending along North American coast into North Pacific

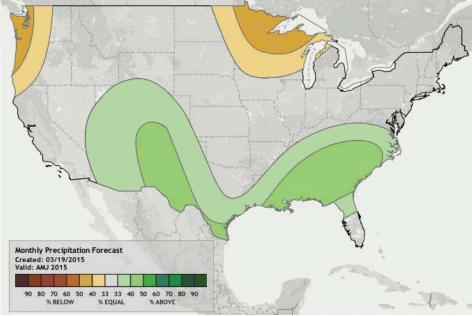


# Spring Precipitation Outlook (April through June 2015)

Probability of temperature to be significantly above (red shading) or below (blue shading) average

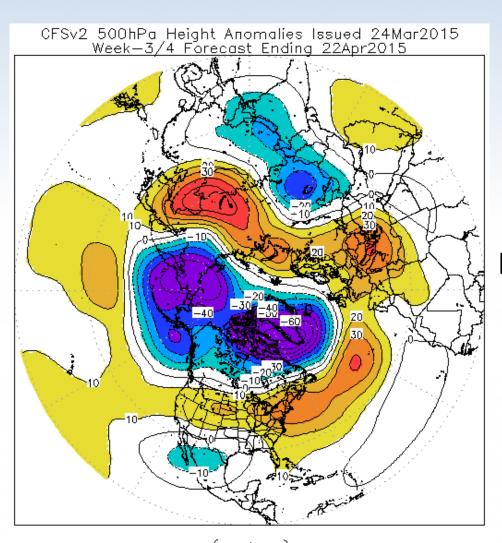
Probability of precipitation to be significantly above (green shading) or below (brown shading) average



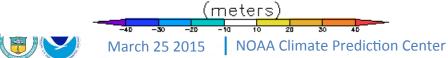




# Climate Model Forecasts for two to four weeks out (through April 22)



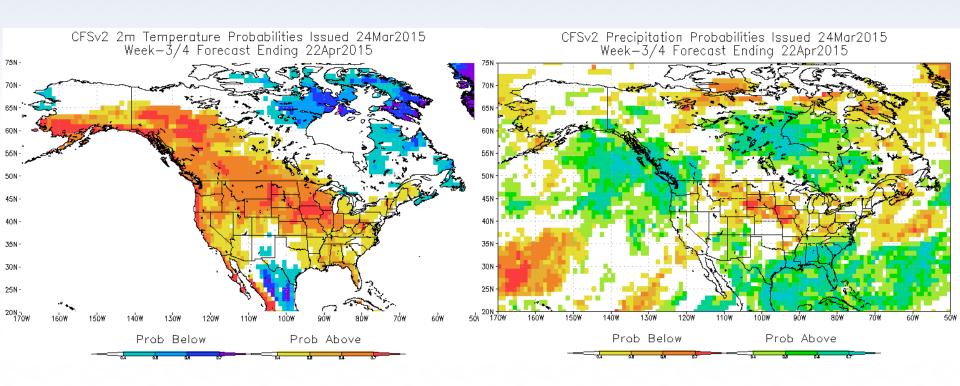
NOAA Climate Forecast System



# Climate Model Forecasts for two to four weeks out (through April 22)

Probability of temperature to be significantly above (red shading) or below (blue shading) average

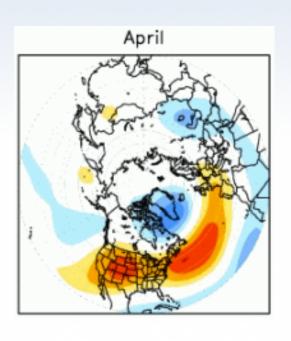
Probability of precipitation to be significantly above (green shading) or below (brown shading) average



### **NOAA Climate Forecast System**



## North Atlantic Oscillation (NAO)



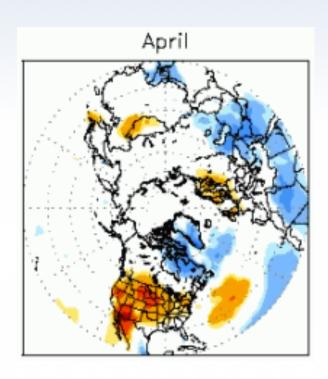
Positive Phase of NAO for April corresponds to model forecasts

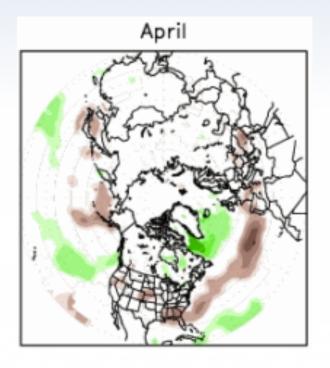


## North Atlantic Oscillation (NAO)

Correlation of temperature to NAO index

Correlation of precipitation to NAO index





# Thank you

