

Regional Climate Perspective

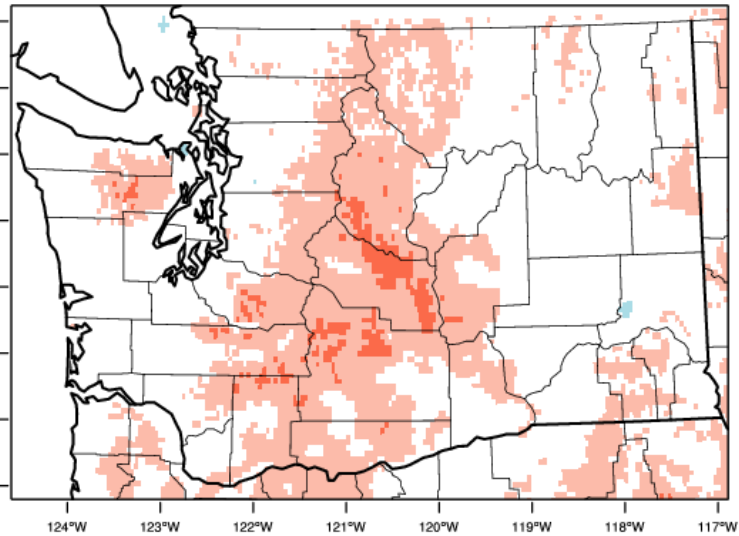
Nick Bond & Karin Bumbaco
Office of the Washington State Climatologist
Joint Institute for the Study of Atmosphere and Ocean
University of Washington
10 August 2018

2018 Water Year

Temperature

Washington - Mean Temperature

October-July 2018 Departure from 1981-2010 Normal

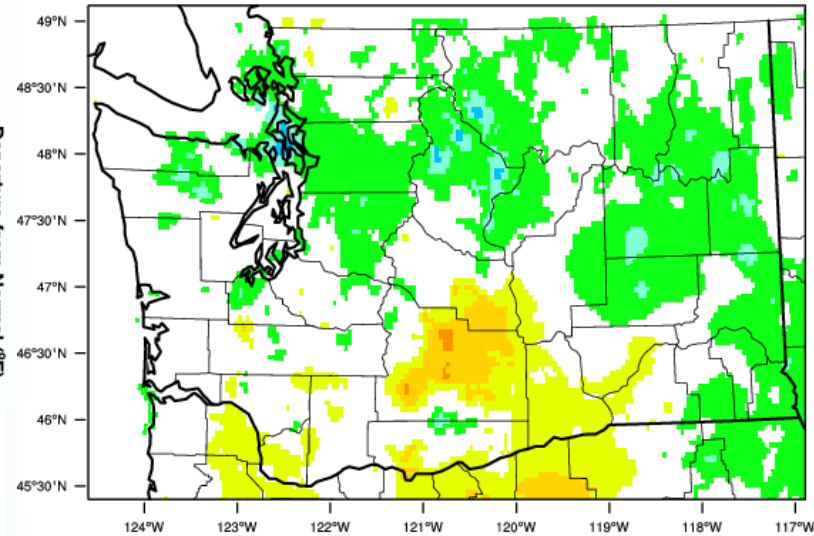


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 7 AUG 2018

Precipitation

Washington - Precipitation

October-July 2018 Percent of 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 7 AUG 2018

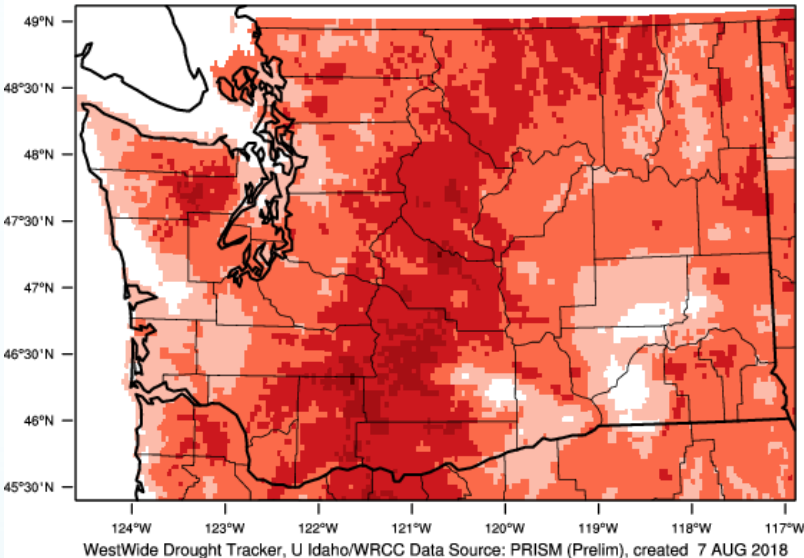
- Temperatures near-normal to above normal
 - Averaged statewide, Oct-July: 0.8°F above 1981-2010 normal
- Mixed bag throughout WA with tendency for above normal
 - Averaged statewide, Oct-July: 2.59" above 1981-2010 normal

May-July Conditions

Temperature

Washington - Mean Temperature

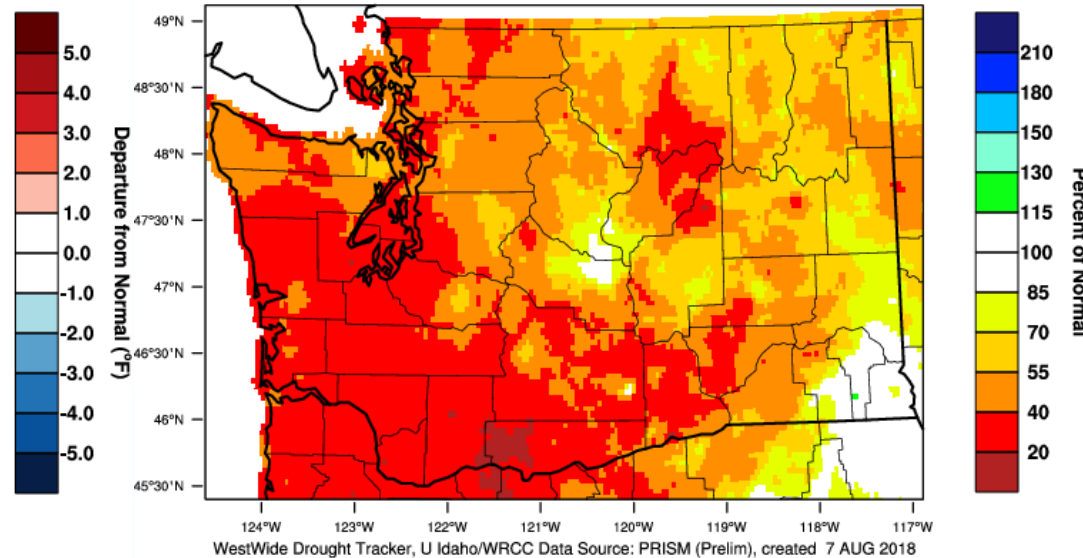
May-July 2018 Departure from 1981-2010 Normal



Precipitation

Washington - Precipitation

May-July 2018 Percent of 1981-2010 Normal



- Temperatures above normal statewide
 - Averaged statewide, 4th warmest May-July (2015 is #1)
 - 2.8°F above 1981-2010 normal (2015: +5.1°F)
- Below normal precipitation statewide
 - Averaged statewide, 6th driest May-July (2015 is #4)
 - 2.88" below 1981-2010 normal (2015: -3.14")

May-July Precipitation

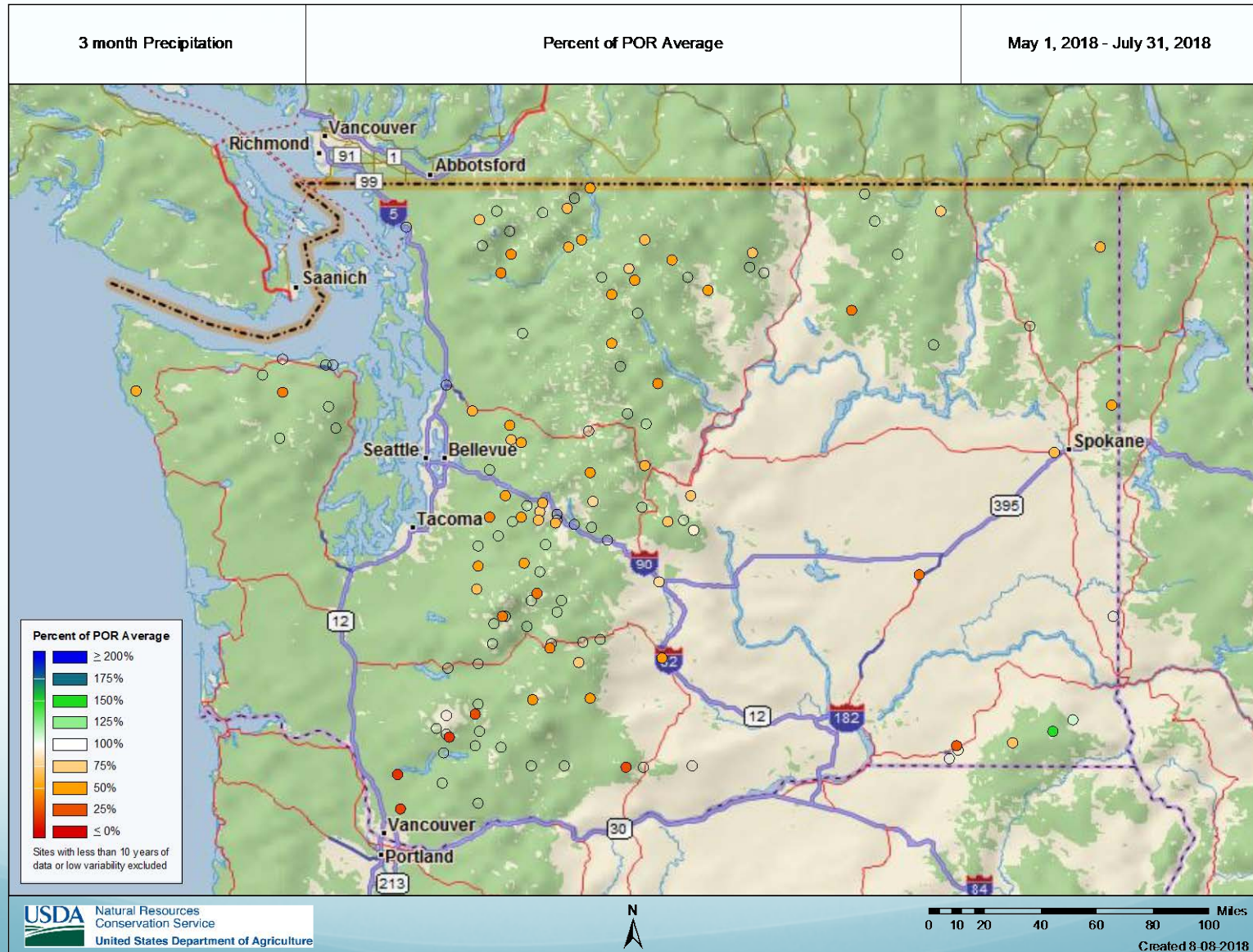
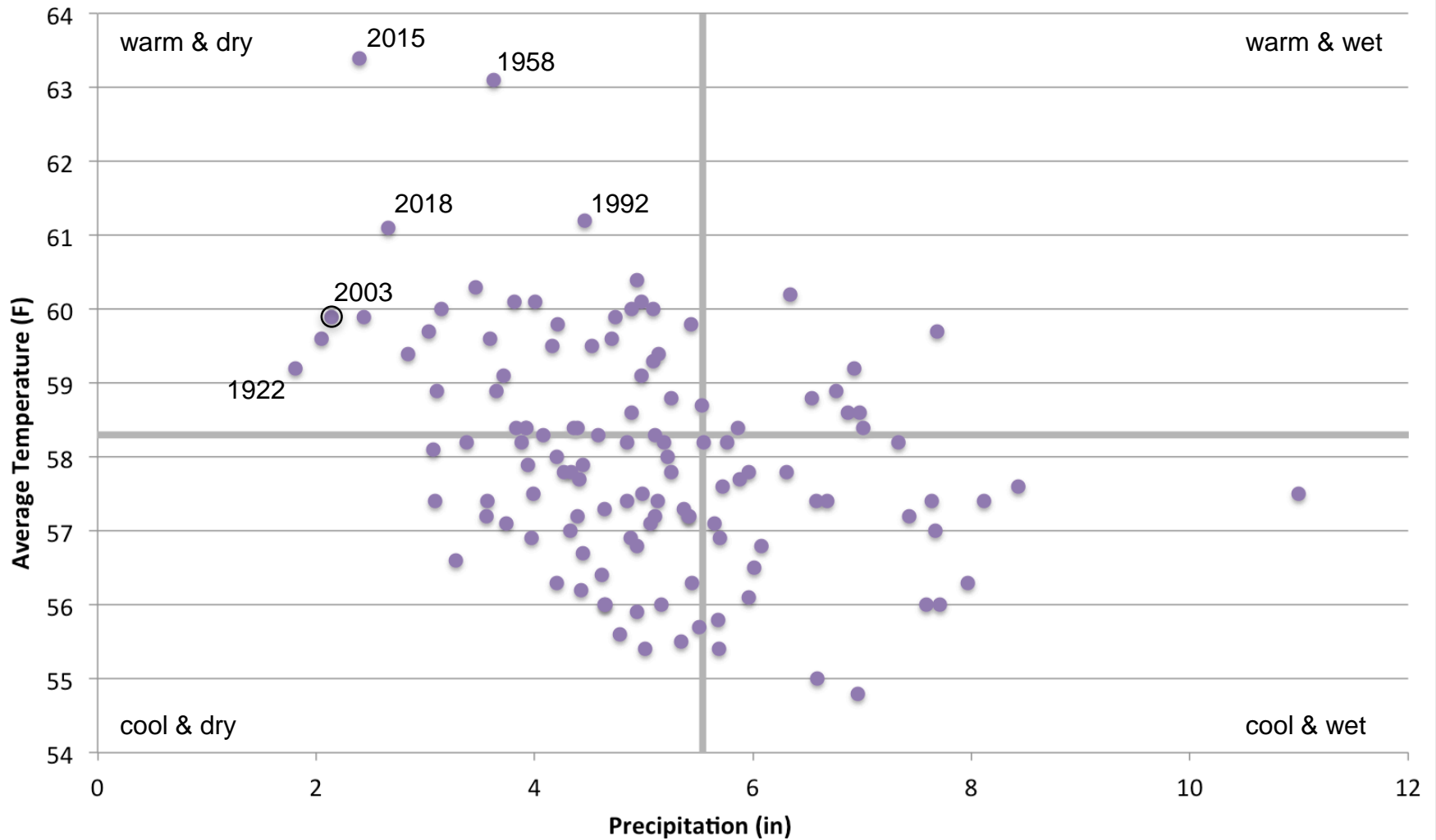


Figure provided by Scott Pattee, NRCS

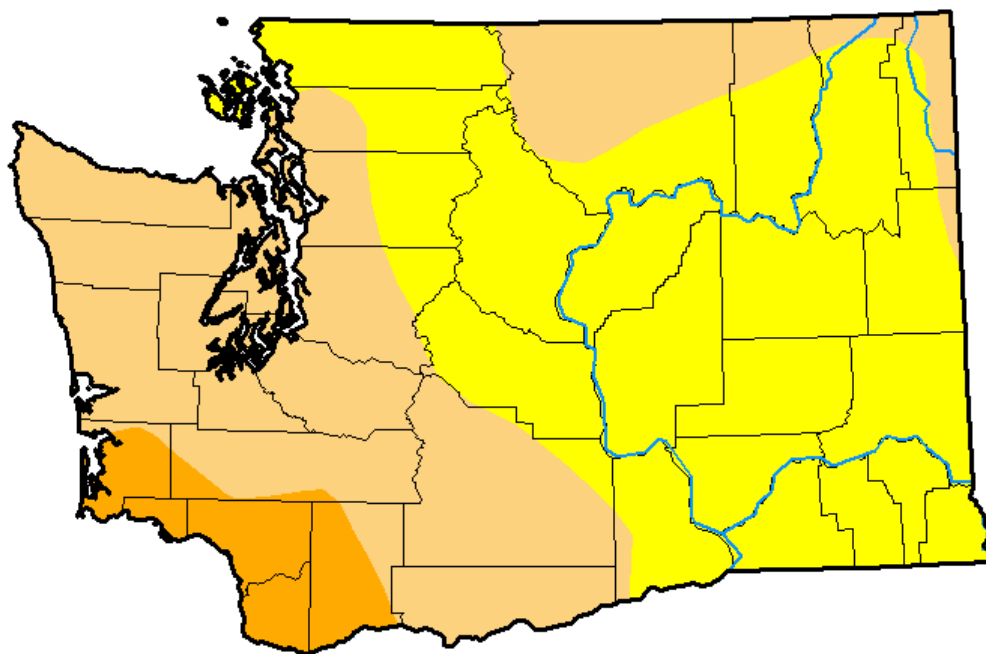
Statewide May-July Precipitation vs. Temperature



US Drought Monitor

U.S. Drought Monitor **Washington**

August 7, 2018
(Released Thursday, Aug. 9, 2018)
Valid 8 a.m. EDT



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:

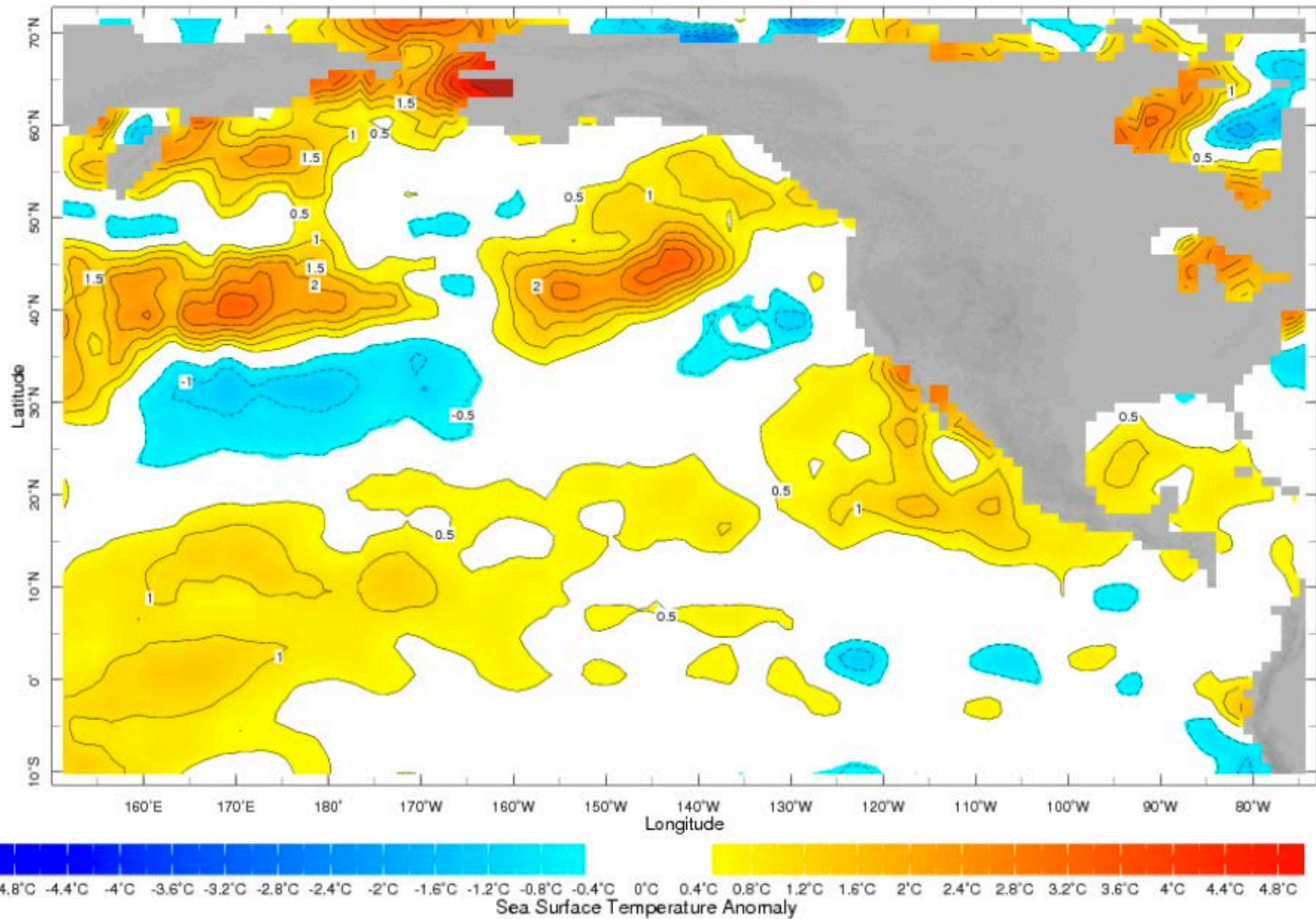
Richard Tinker
CPC/NOAA/NWS/NCEP



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

Recent North Pacific SST Anomalies

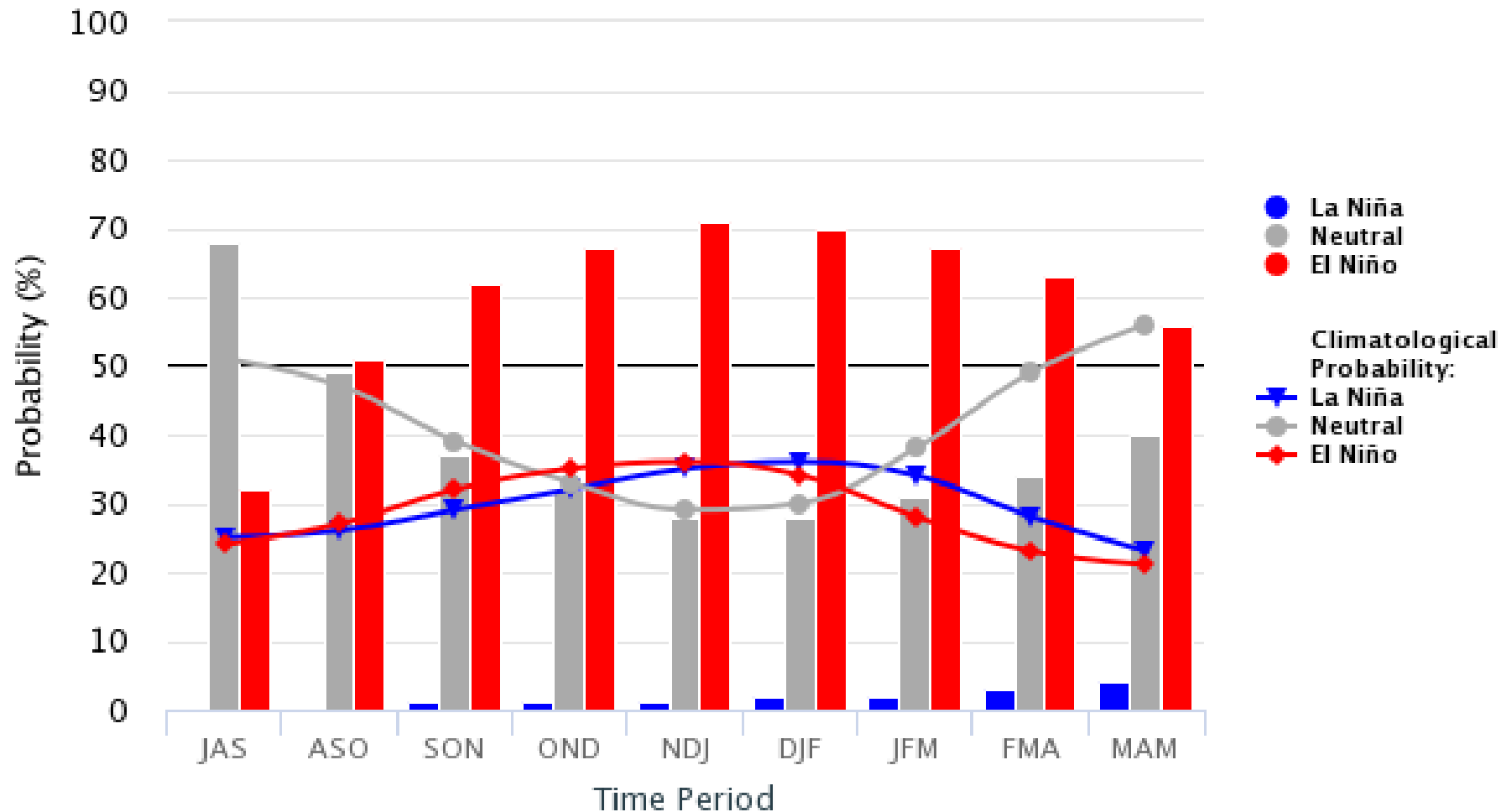
1 Aug 2018



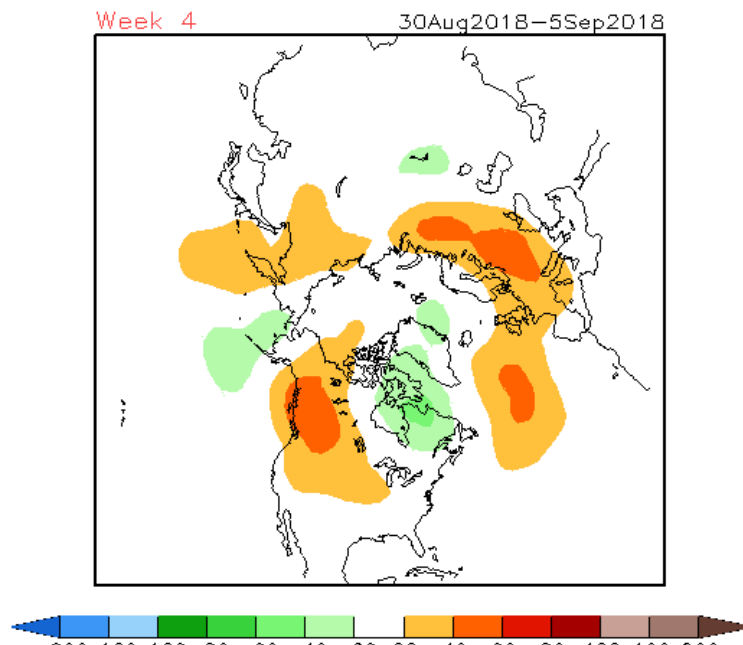
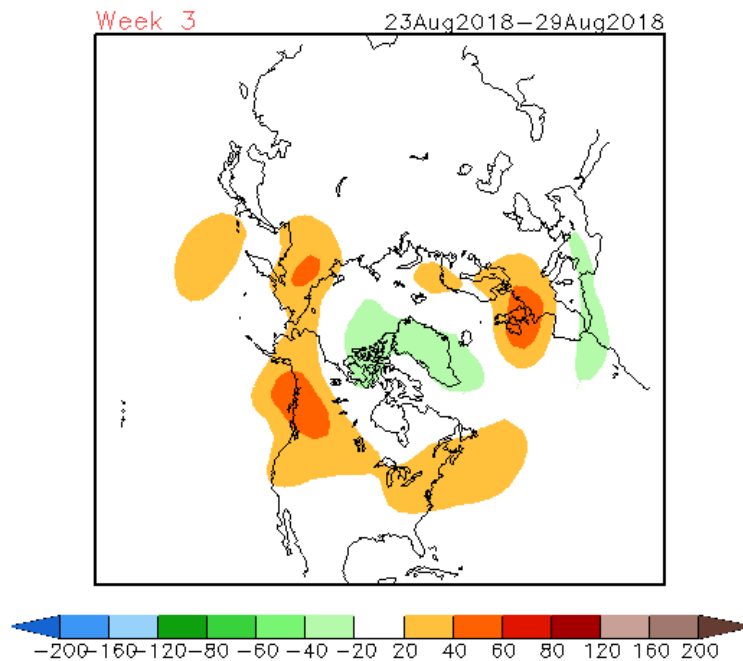
Early-Aug CPC/IRI Official Probabilistic ENSO Forecasts

ENSO state based on NINO3.4 SST Anomaly

Neutral ENSO: -0.5°C to 0.5°C



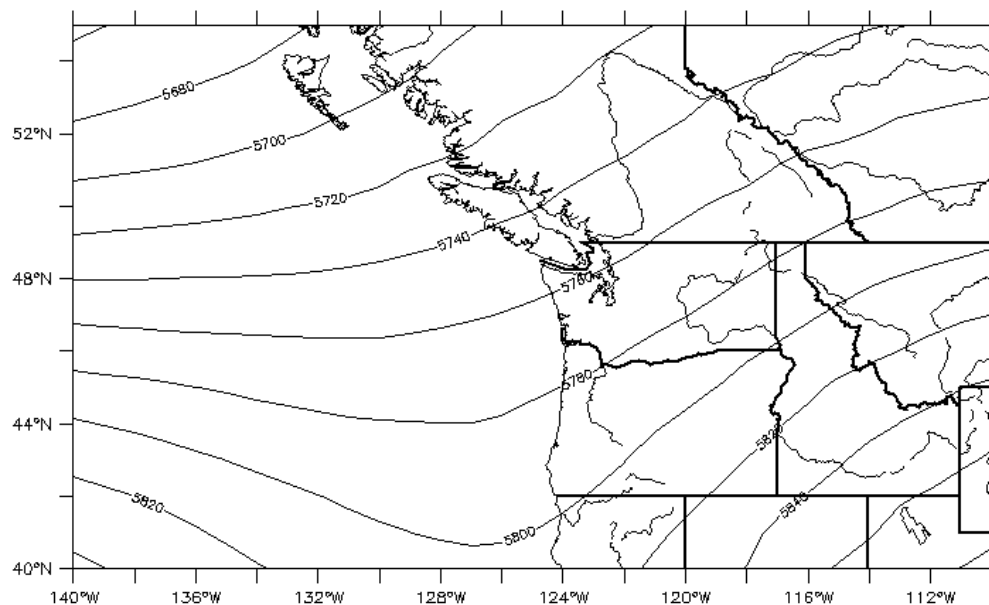
CFSv2 Weeks 3 & 4 500 hPa Z Anomalies (m)
16 Member Ensemble Mean Forecast from 08Aug2018



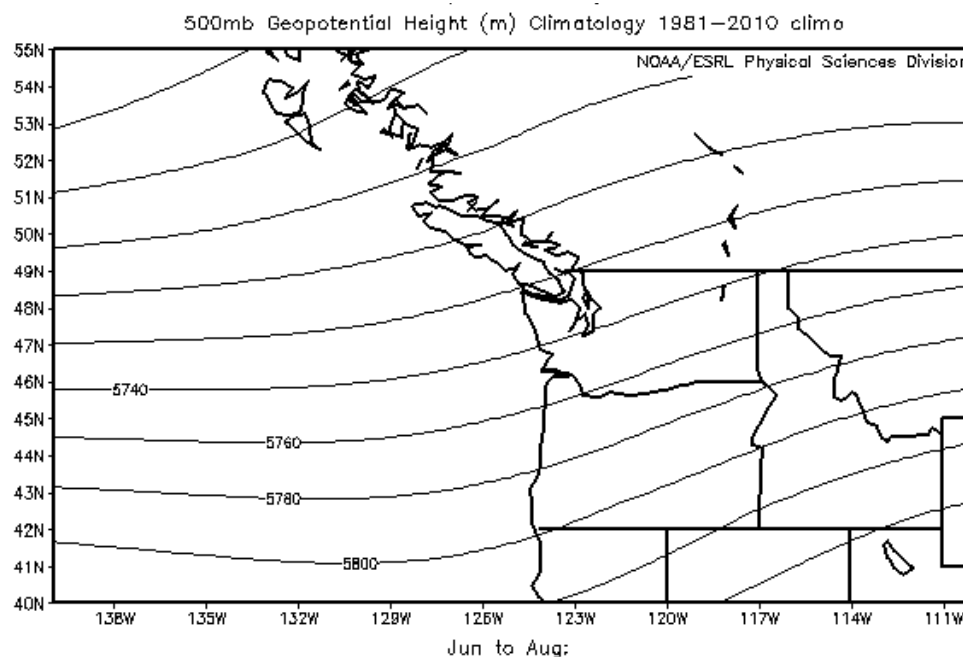
Latest Set of Week 3-4
Forecasts from CFSv2

Anomalously high
500 hPa Z over BC
extending into NW
US: Mostly warmer
than normal for WA
State, with a poor
prospect for rain
west of the Cascades

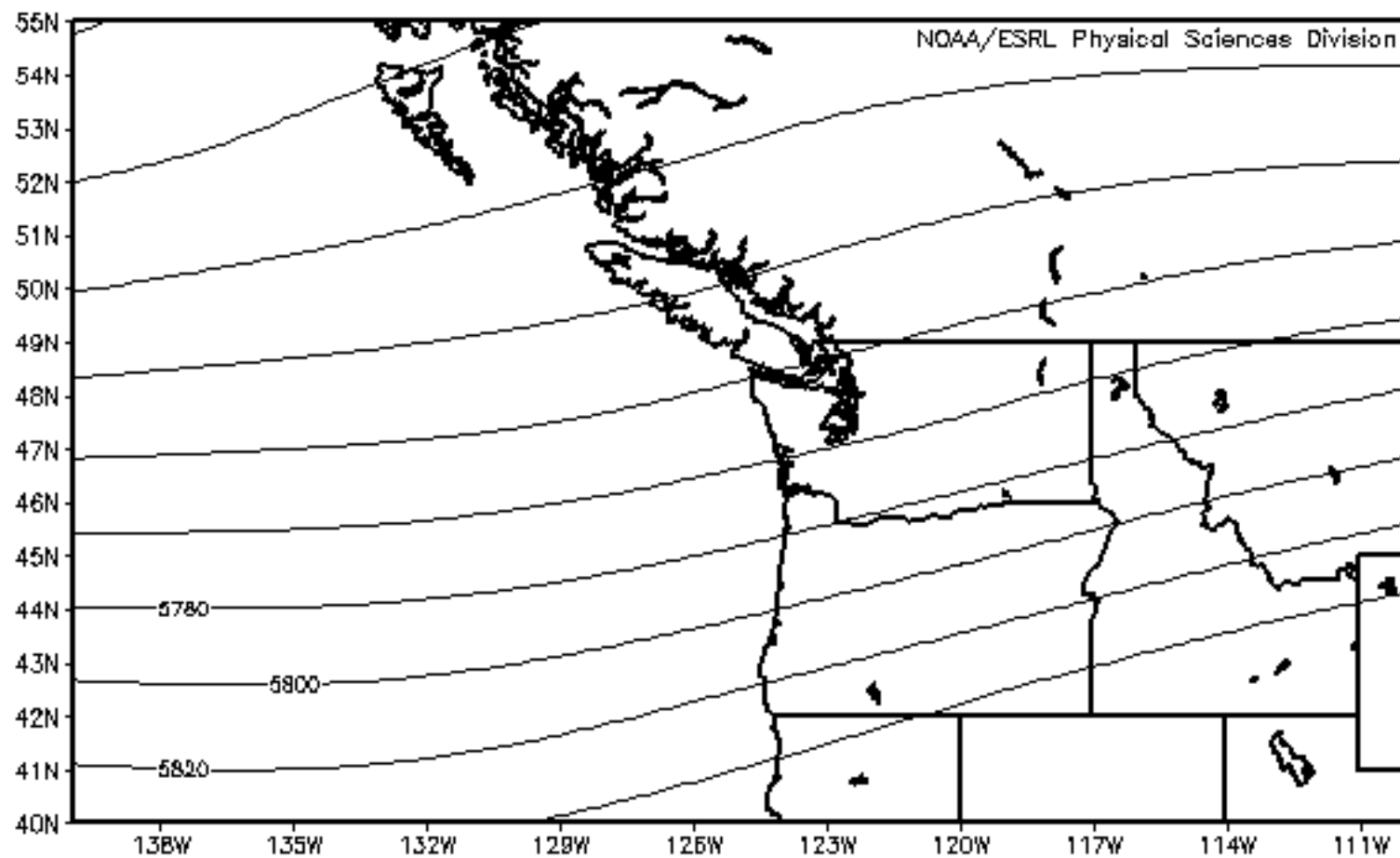
500 hPa Geopotential Heights (Z)



CFS Forecast
for June-Aug
from
1 May 2018



Climatological
Mean

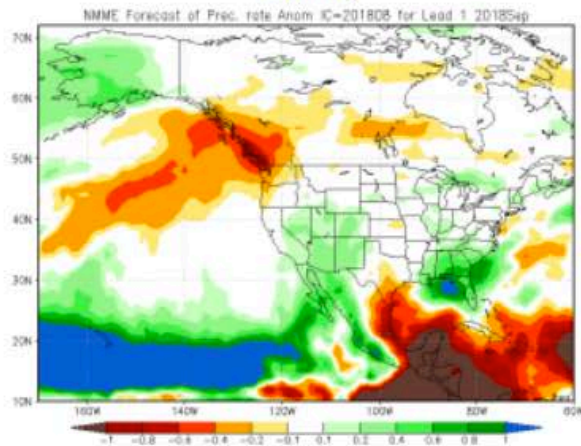


500mb Geopotential Height (m) Composite Mean
6/1/18 to 8/7/18

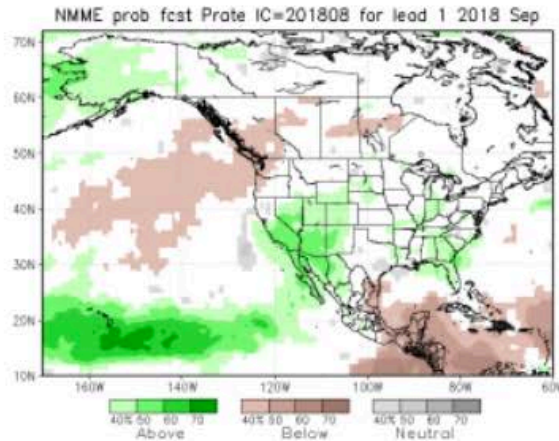
NCEP/NCAR Reanalysis

Climate Model Projections for Sep 2018 Precipitation

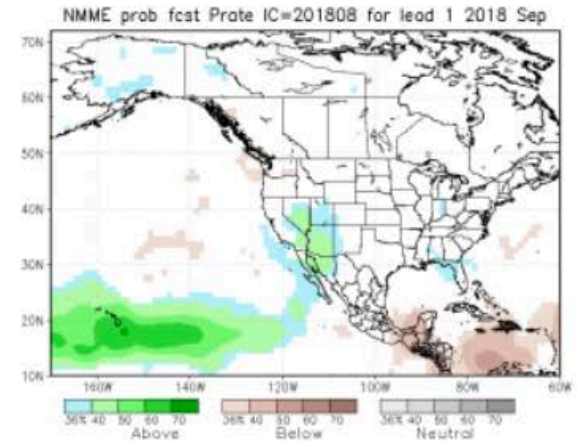
NMME



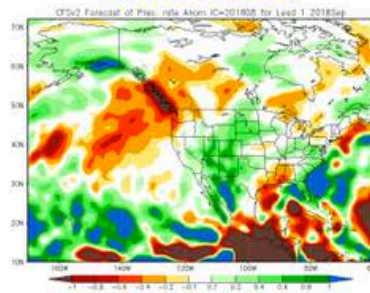
Prob fcst



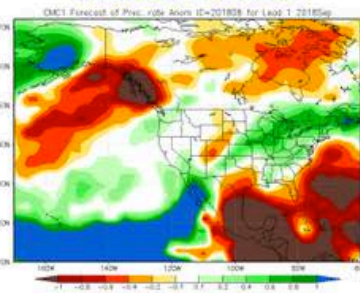
PAC calib. prob fcst



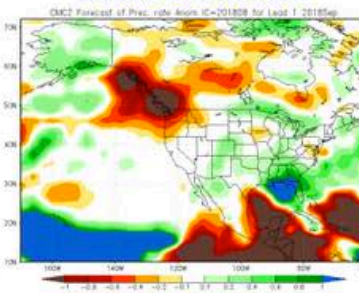
NCEP CFSv2



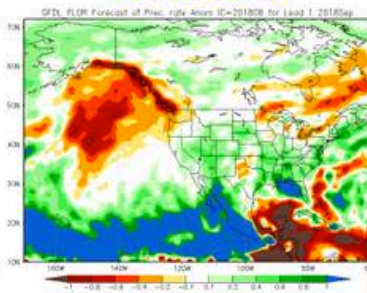
CMC1 CanCM3



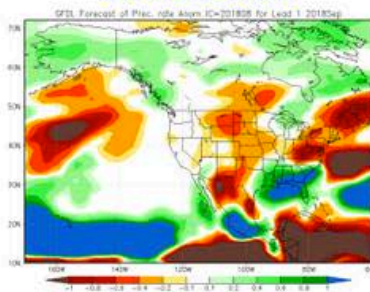
CMC2 CanCM4



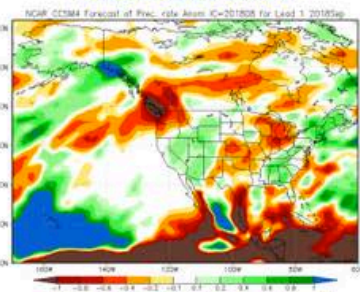
GFDL FLOR



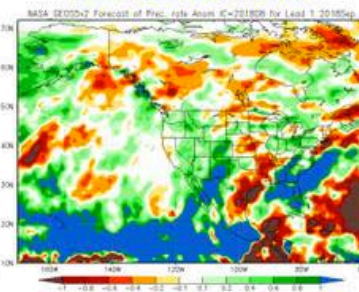
GFDL CM2.1



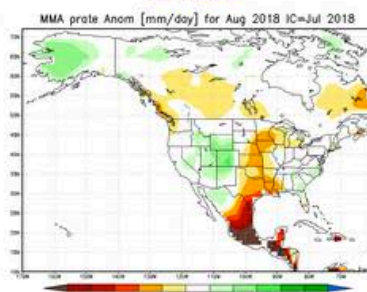
NCAR CCSM4



NASA GEOS5v2



IMME



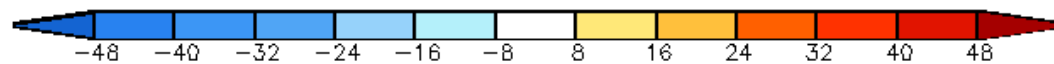
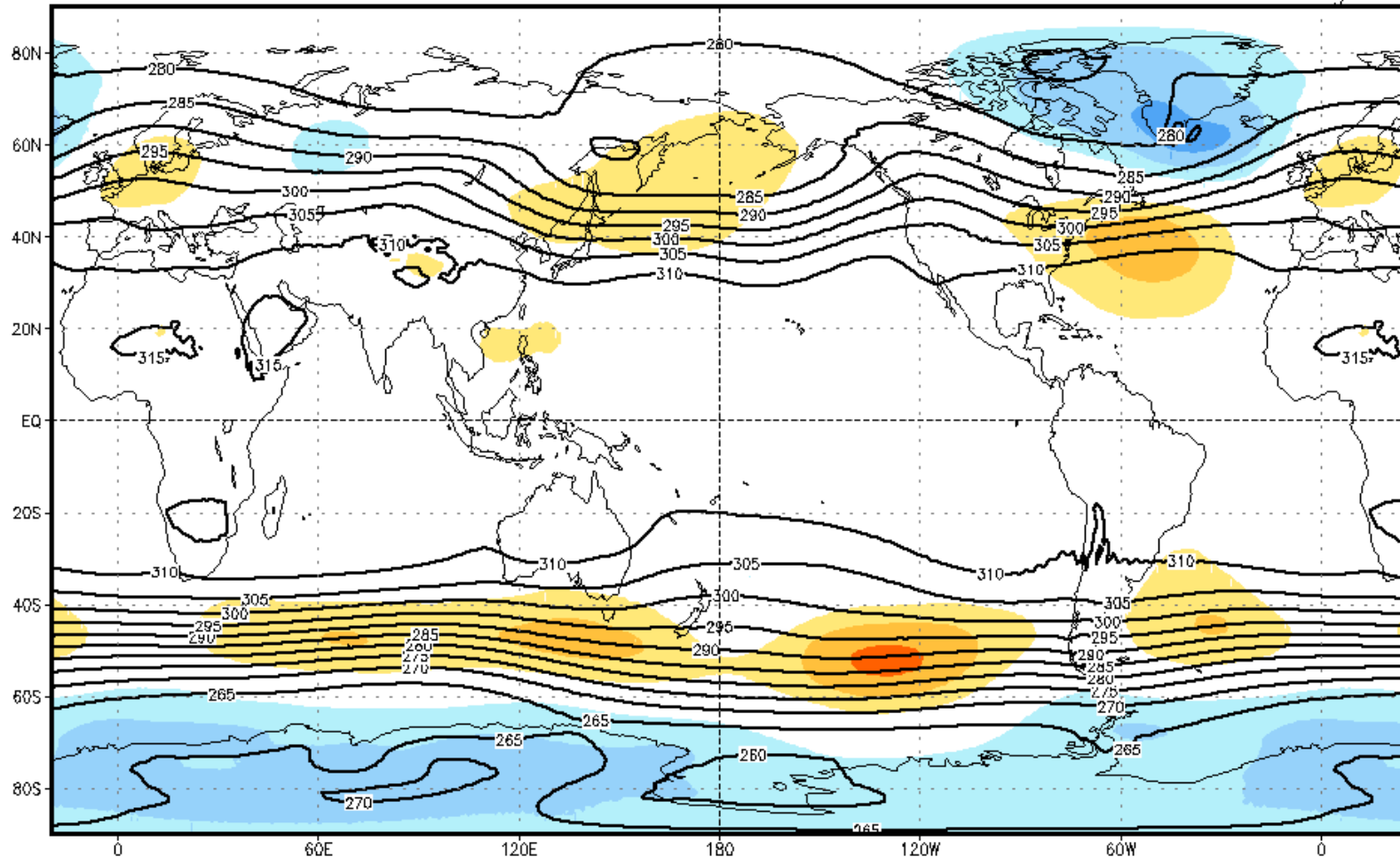


CFSv2 seasonal z700 anomalies (m; shaded) and total (dm; contours)

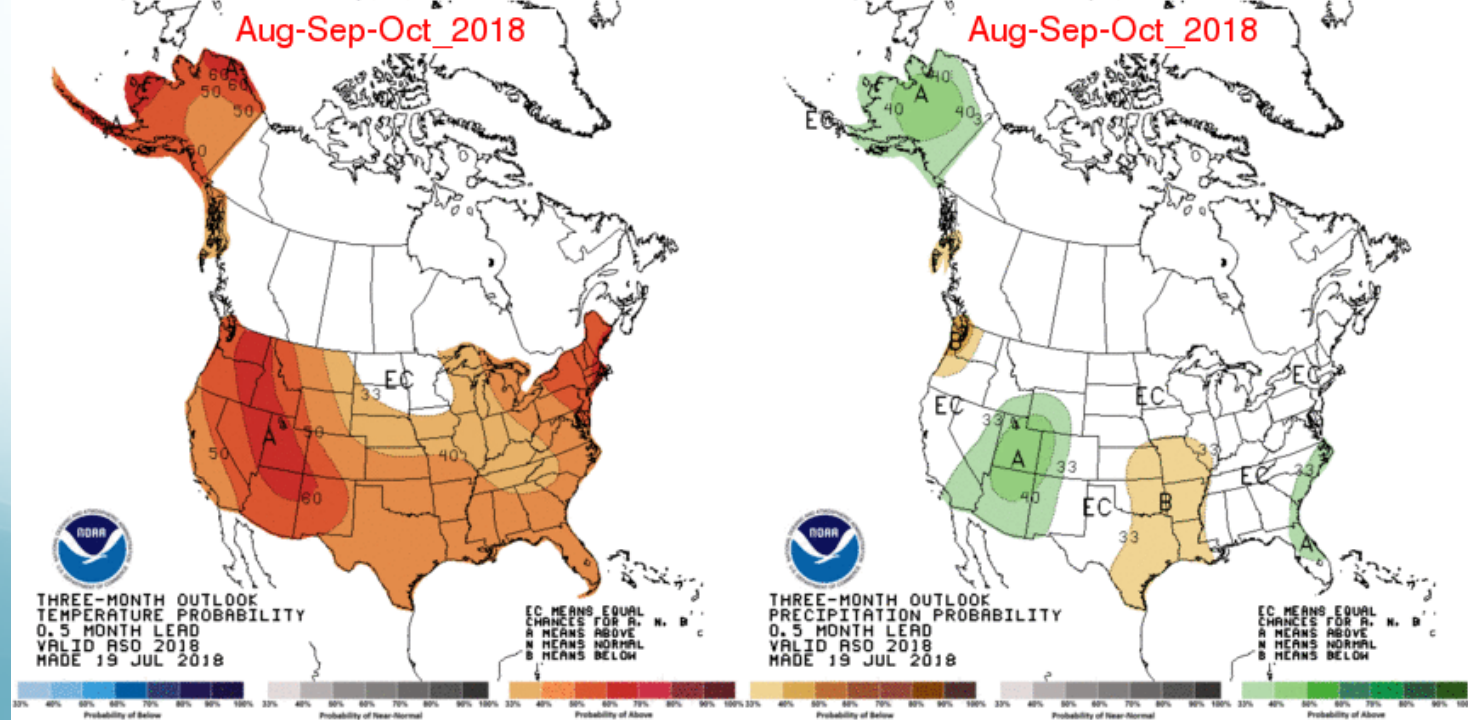
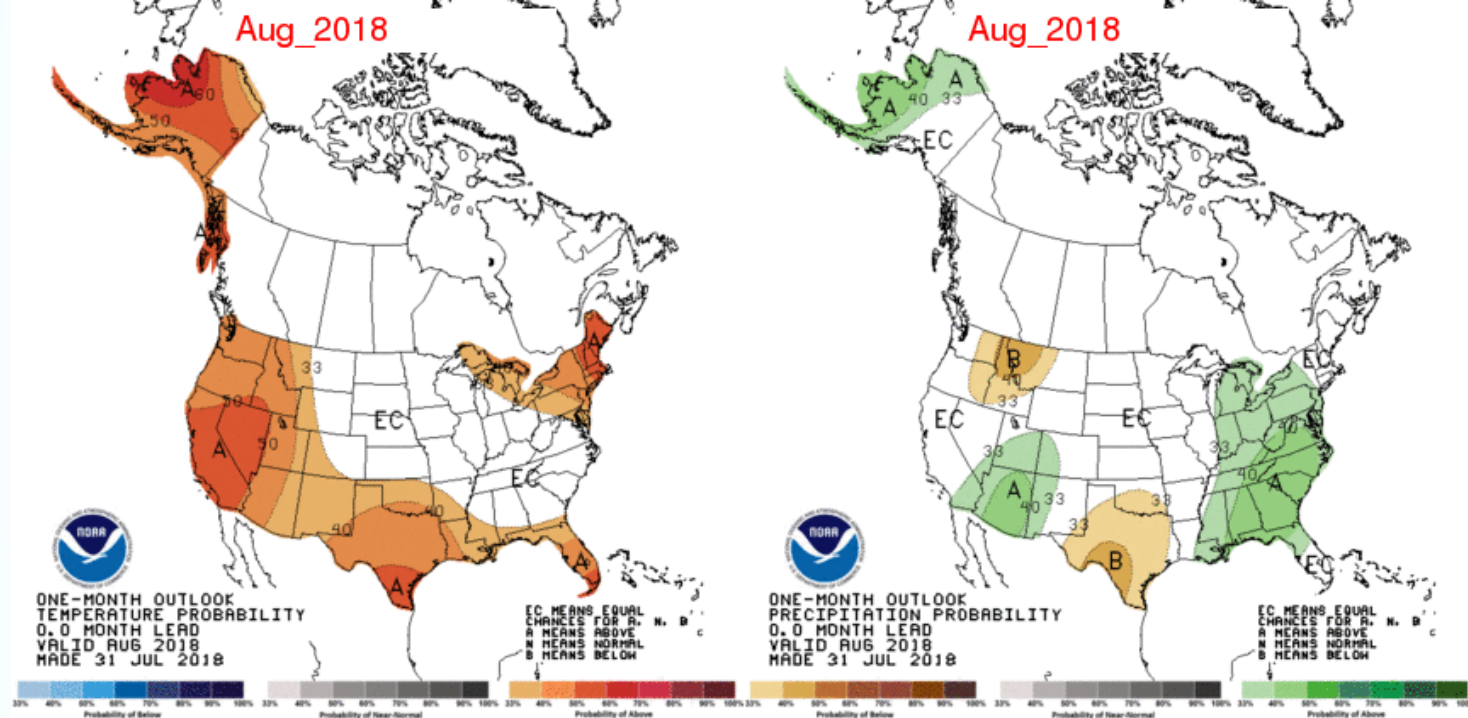
NWS/NCEP/CPC

Oct–Nov–Dec 2018

Initial conditions: 30Jul2018–8Aug2018



NOAA/CPC Forecasts



Final Remarks

- This summer has played out more or less as expected
- No sign of an early onset of fall rains
- El Niño of weak-moderate intensity is likely by fall to persist through winter; go short on tire chains
- Here's hoping my wading pool can last at least through Labor Day