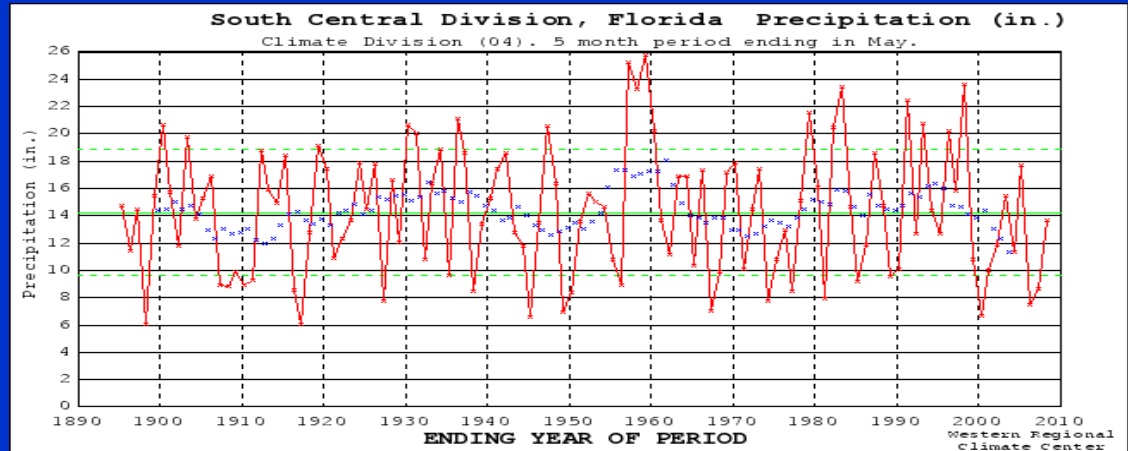


Weekly Climate Update January 6th 2009

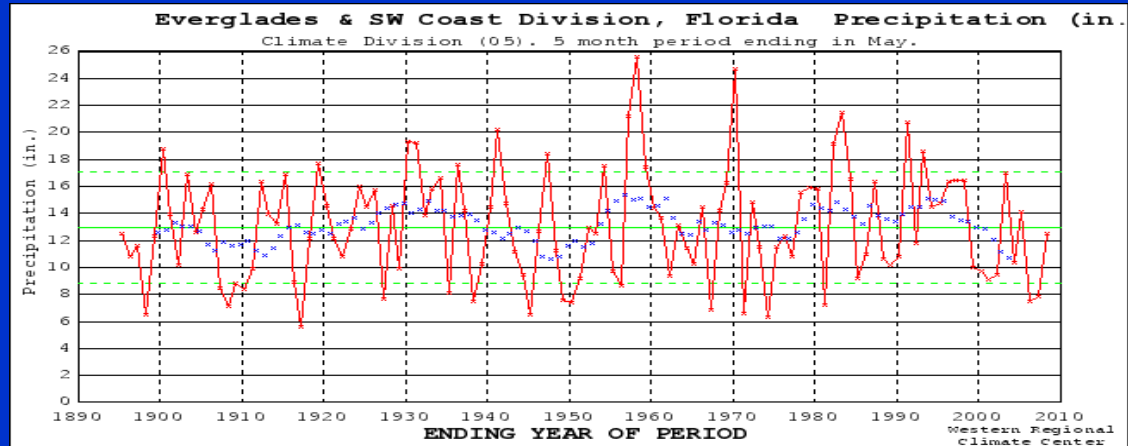
- A tremendous area of cooler than normal sea surface temperatures along the central and eastern equatorial Pacific extending northward to higher latitudes along the west coast of North America are a result of a strengthening La Nina event and the cold phase of the Pacific Decadal Oscillation. These anomalies are indicative of an increase chance of below normal rainfall during the ongoing dry season months.
- Increases in the negative subsurface temperature anomalies in the equatorial Pacific Ocean are a sign of La Nina conditions should persist. The latest IRI and CFS models simulate increased chances of drier than normal conditions for this upcoming dry season.
- The Official climate outlook calls for an increased probability of below normal rainfall for the remainder of January through mid- April.
- The Position Analysis in slide 13 - 17 illustrate projected water levels for Lake Okeechobee and Water the Conservation Areas

Decadal
January-May
Rainfall
following
PDO
very closely
(blue dotted line)

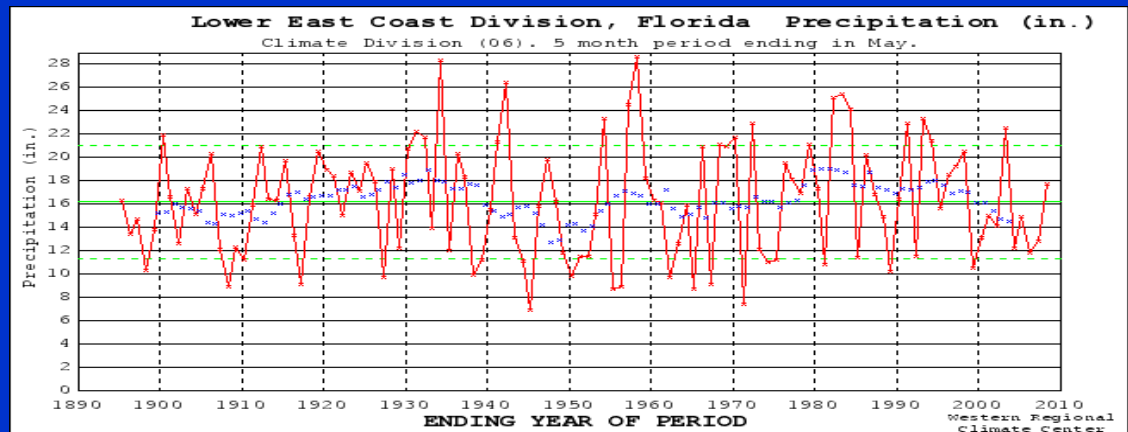
CD4



CD5

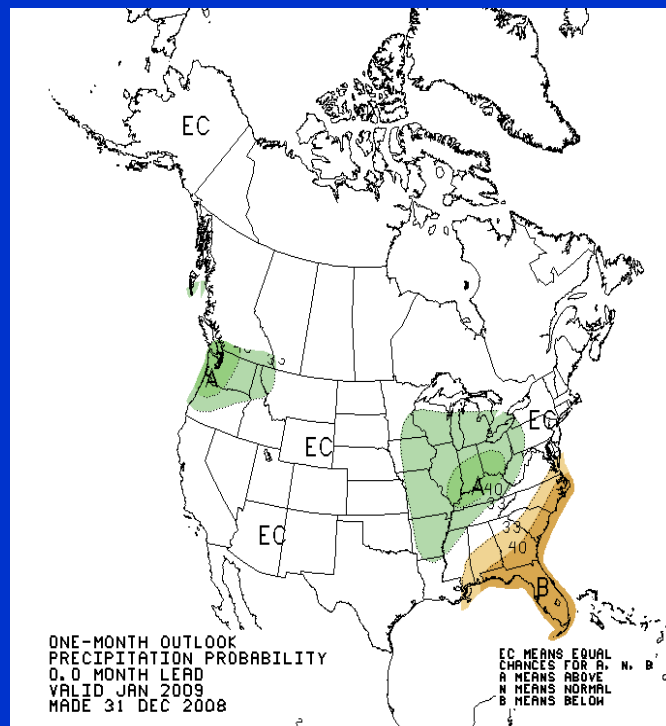


CD6

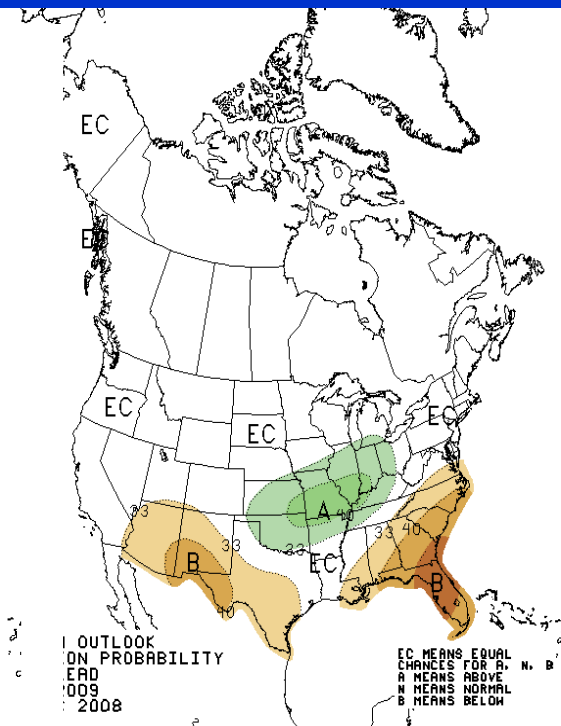


Official CPC Seasonal Rainfall Outlook

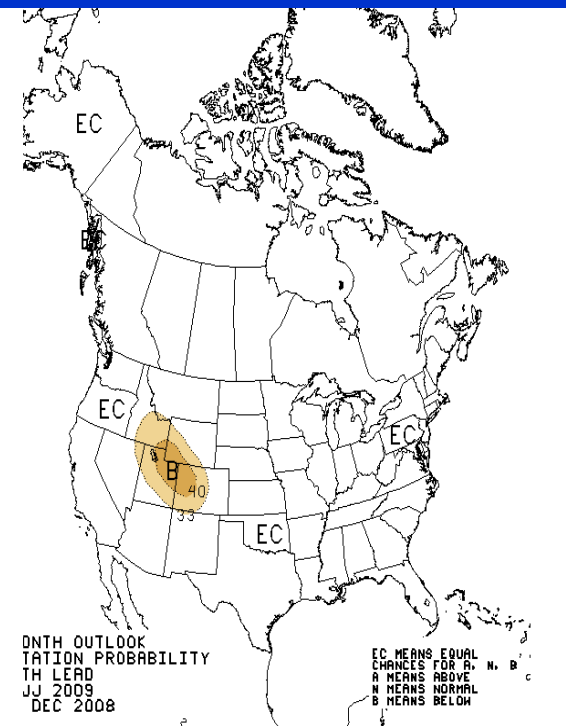
January



February-April

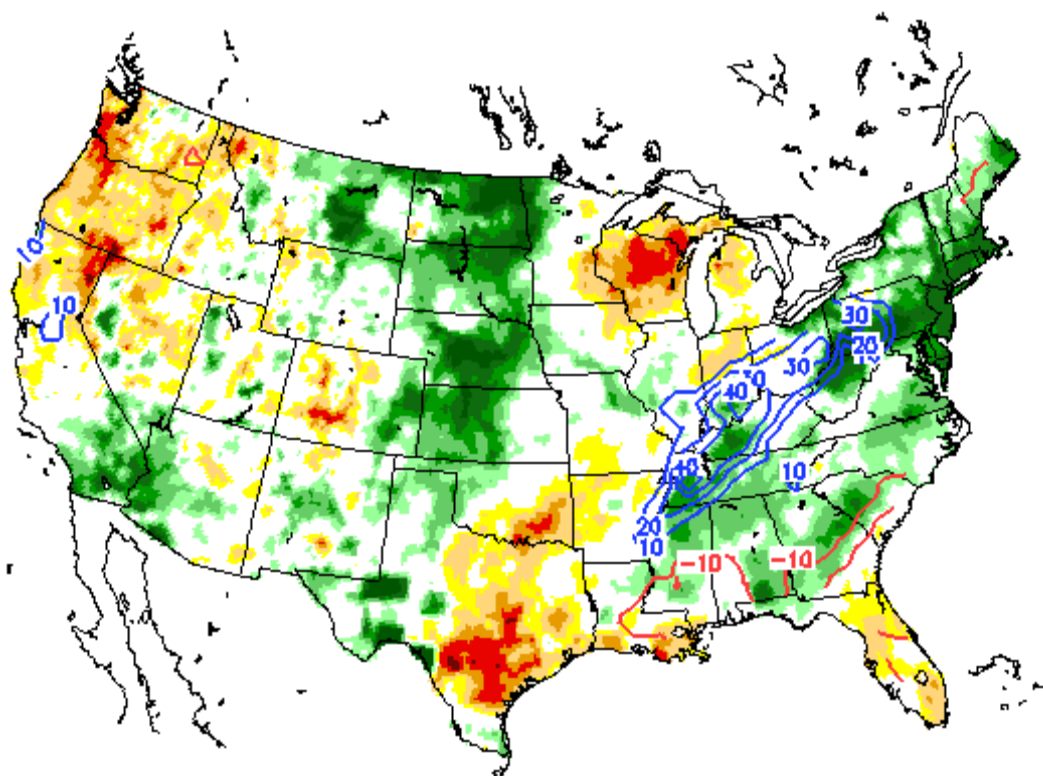


May-July



Current Soil Moisture Percentiles

Total Column Soil Moisture Percentiles on 20081225
(wrt samples within a 49-day window in 1951-2004)



Contours show the changes in quantiles in the last 7 days.



Seasonal Drought Outlook

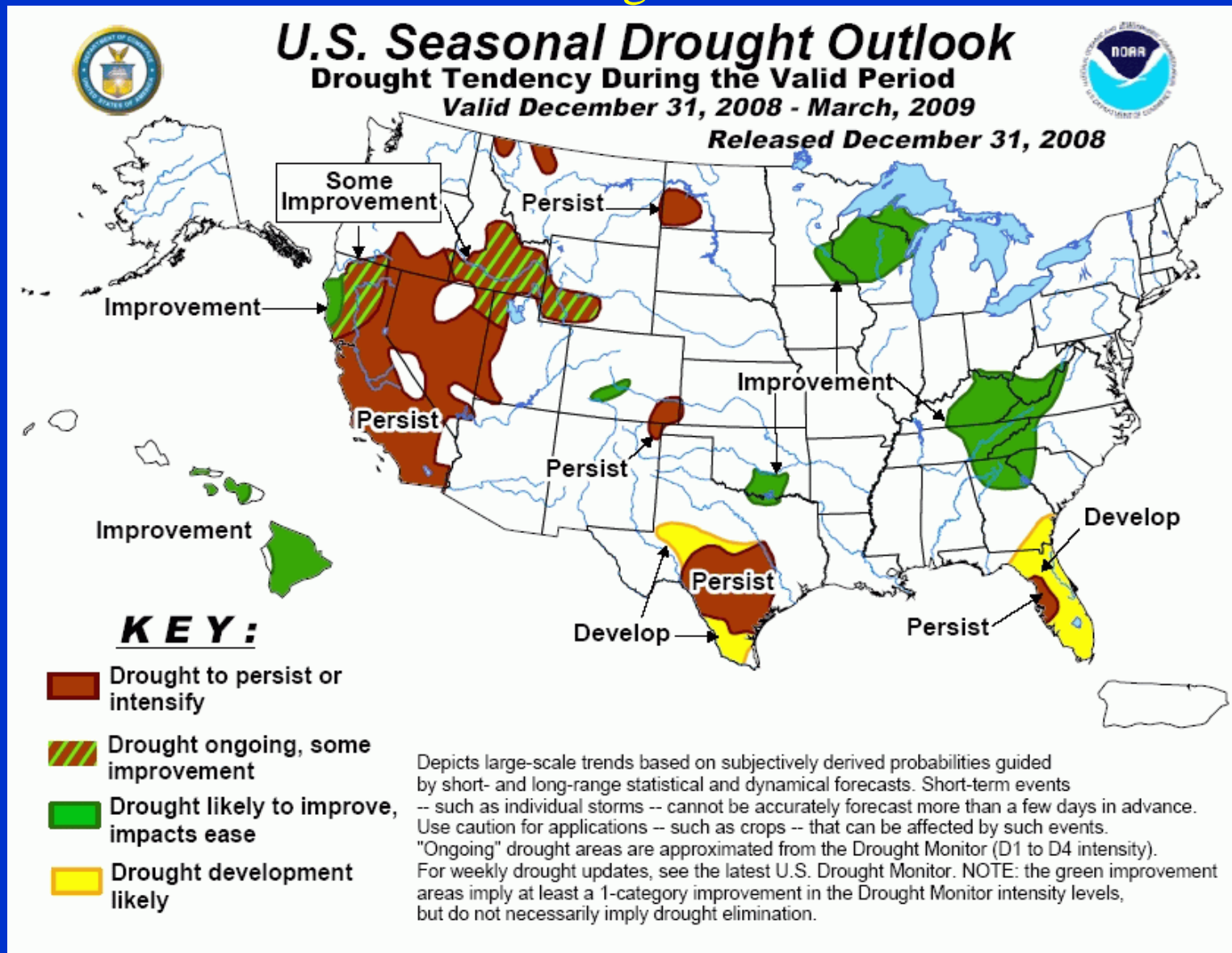
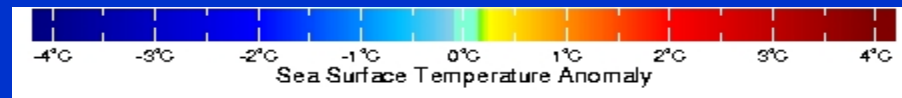
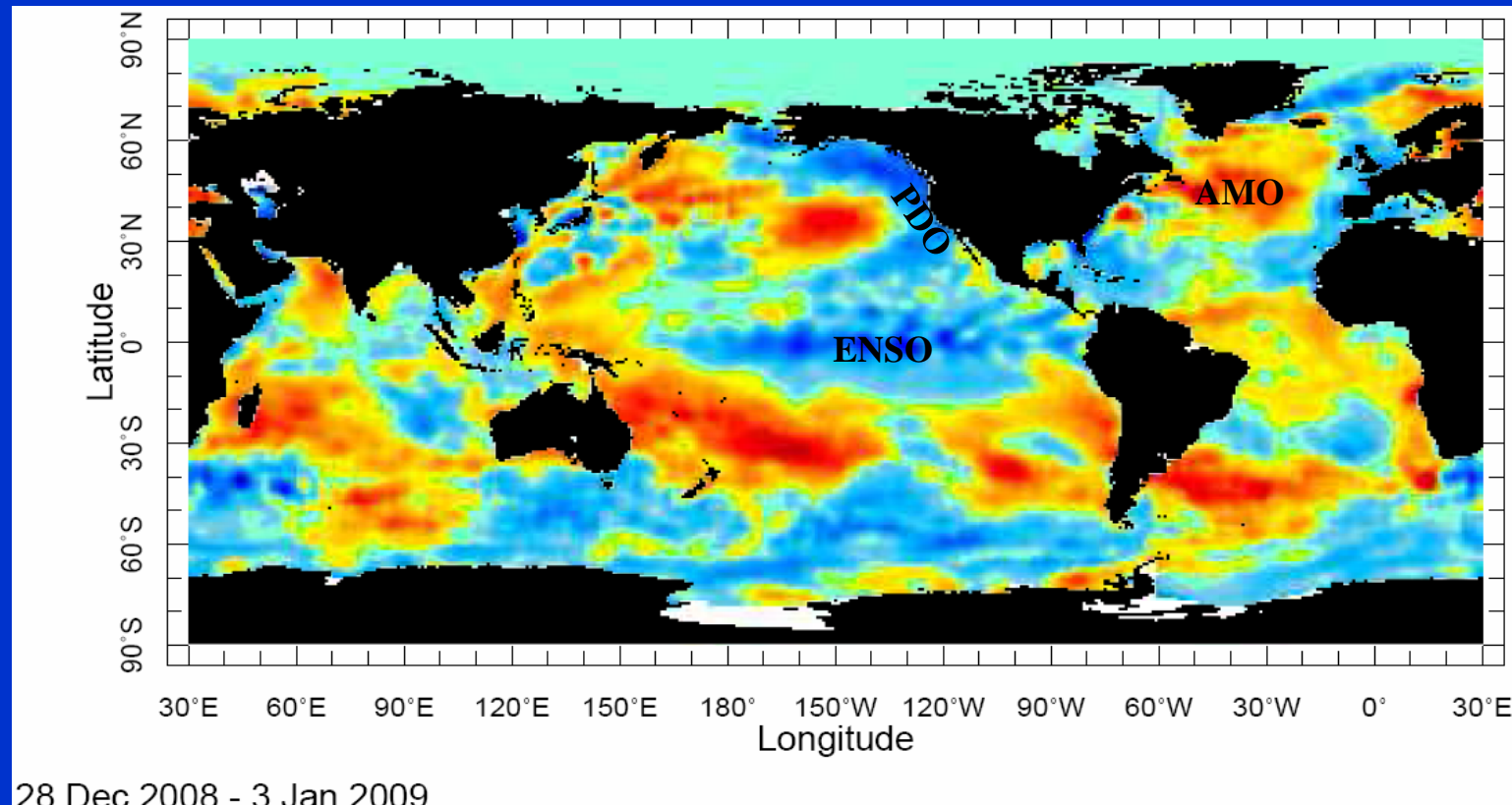


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Latest Weekly Sea Surface Temperature Anomaly

International Research Institute



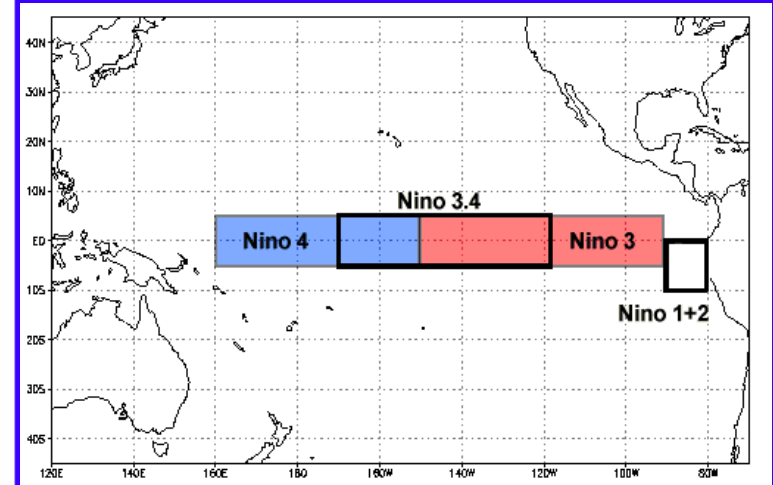
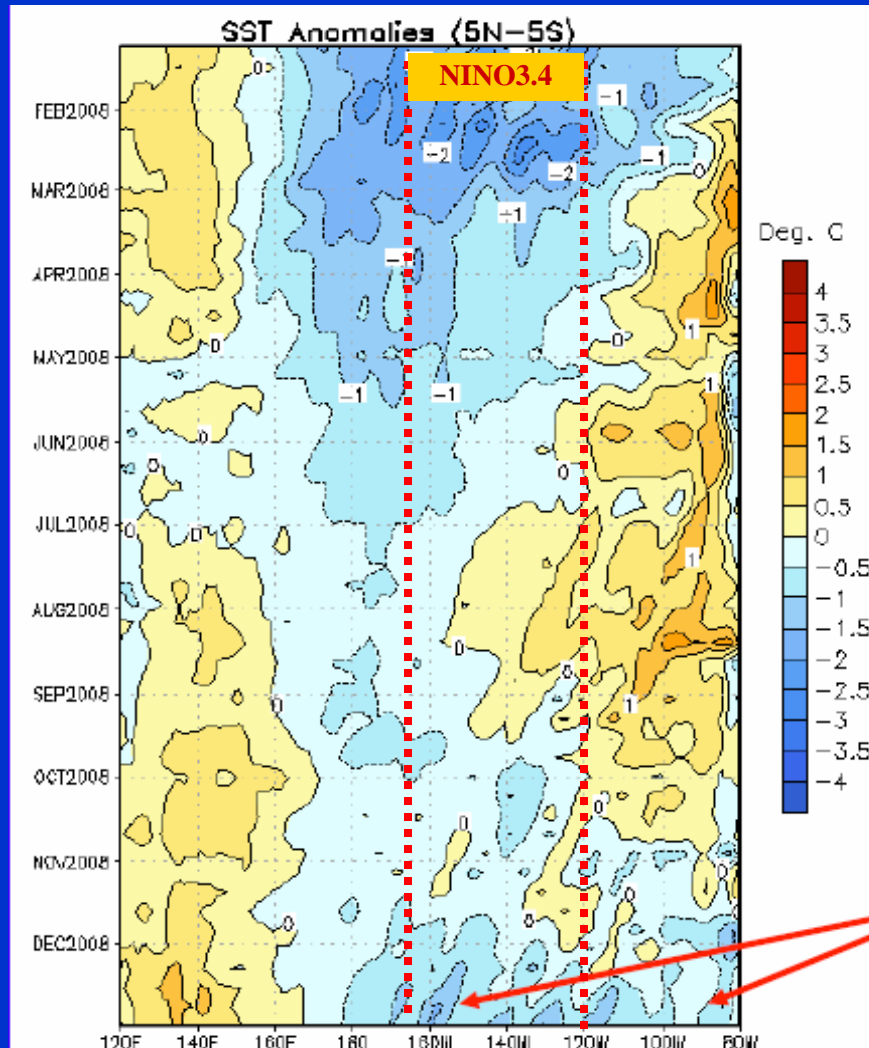
Large area of cooler than normal sea surface temperatures in the equatorial Pacific extending northward to higher latitudes along the west coast of North America are a result of a developing La Nina conditions and the cold phase of the Pacific Decadal Oscillation.

Recent Evolution of Equatorial Pacific SST Departures (°C)

Climate Prediction Center

El Nino-Southern Oscillation Weekly Update

Jan.
Apr.
Time
↓
Sep.
Dec.



Since October 2008, negative sea surface temperature anomalies have strengthened in portions of the central and eastern equatorial Pacific Ocean.

Longitude

Recent Evolution of Niño Region SST Departures (°C)

Climate Prediction Center
El Niño-Southern Oscillation Weekly Update

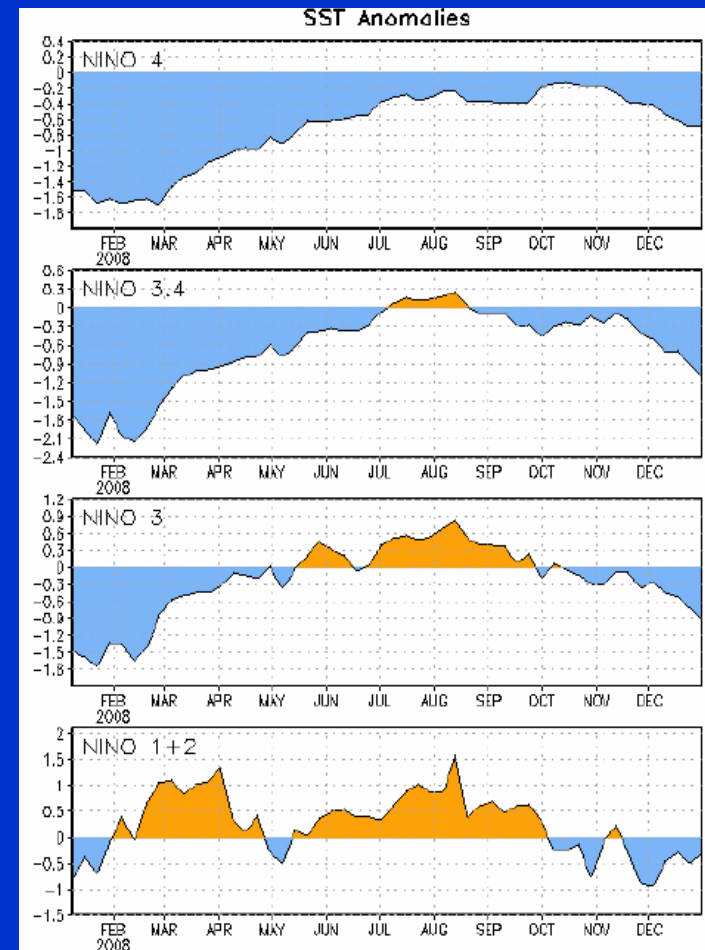
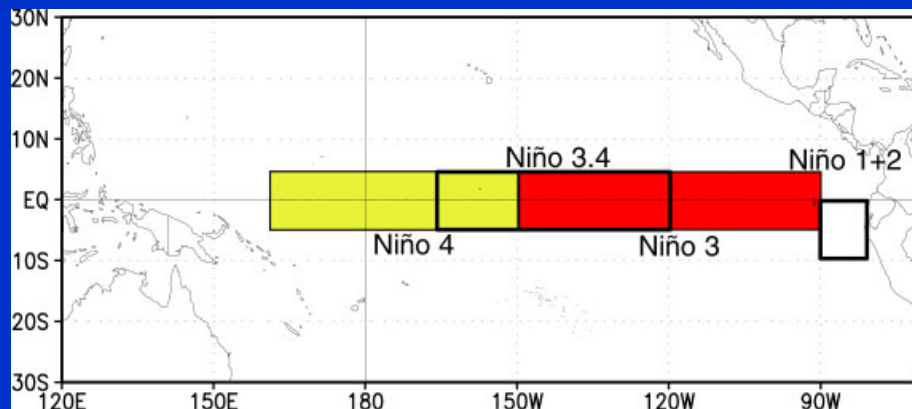
The latest weekly SST departures are:

Niño 4 -0.7°C

Niño 3.4 -1.1°C

Niño 3 -0.9°C

Niño 1+2 -0.3°C



Equatorial Pacific Subsurface Temperature Anomalies

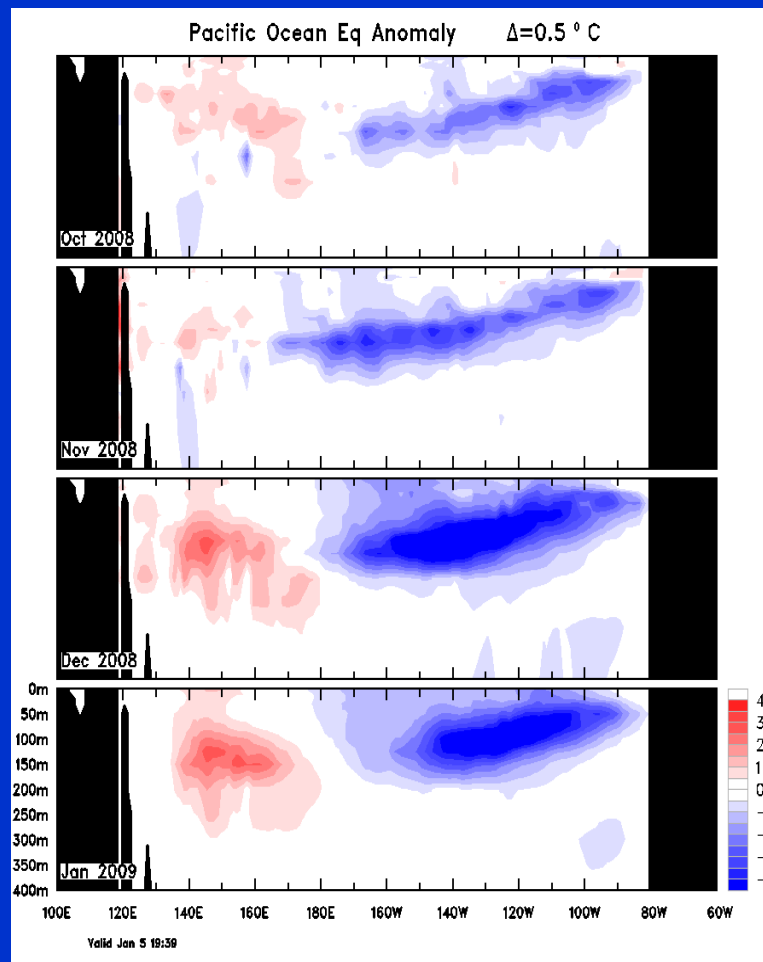
2008-2009

October

November

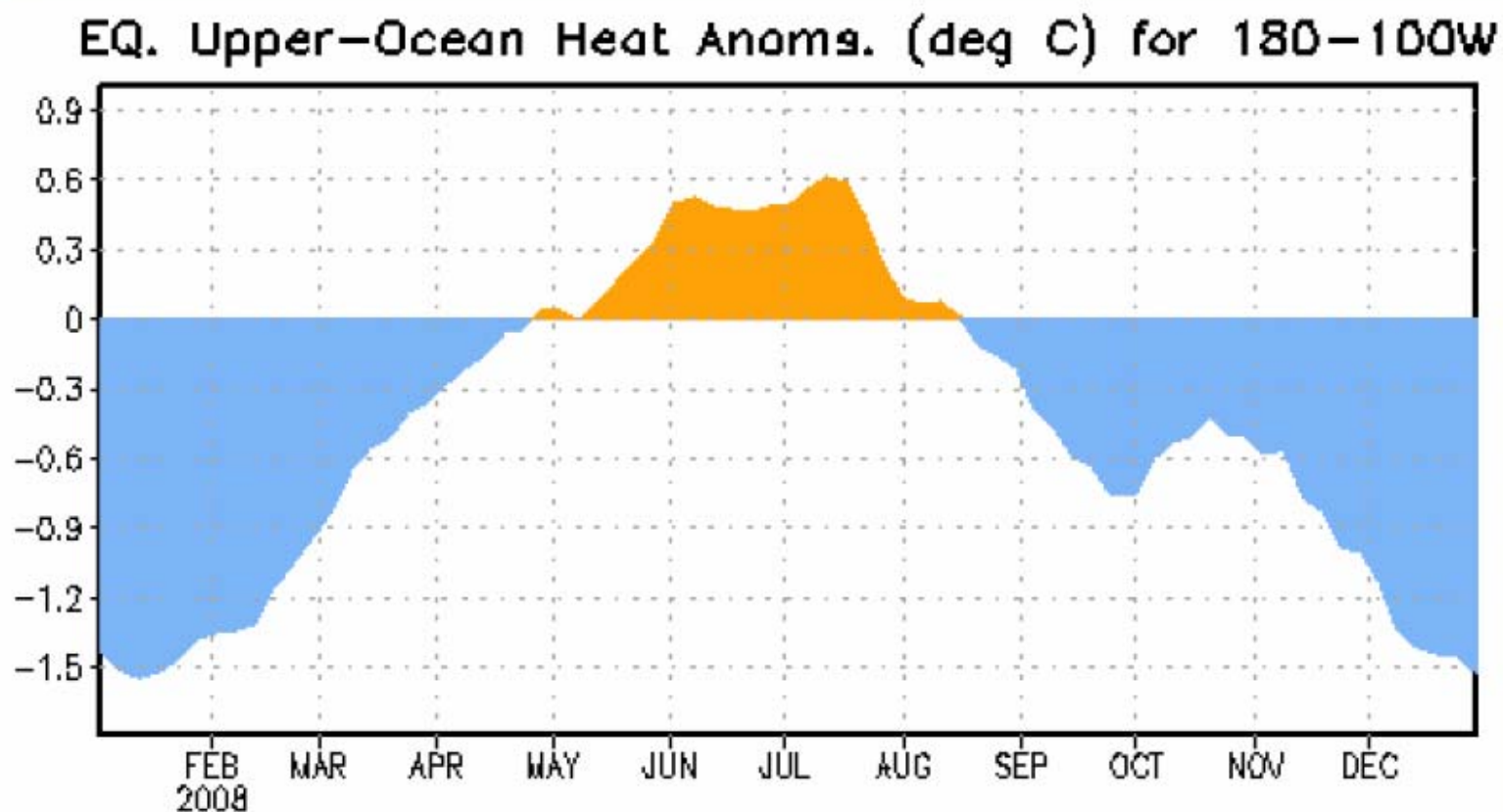
December

January





Central & Eastern Pacific Upper-Ocean (0-300 m) Weekly Heat Content Anomalies



The upper ocean heat content was below-average across the eastern half of the equatorial Pacific Ocean between January 2007 and April 2008 and again since mid-August 2008. The negative heat content anomalies have strengthened since mid-October 2008.

Equatorial Pacific SST Forecast- NCEP Climate Forecast System

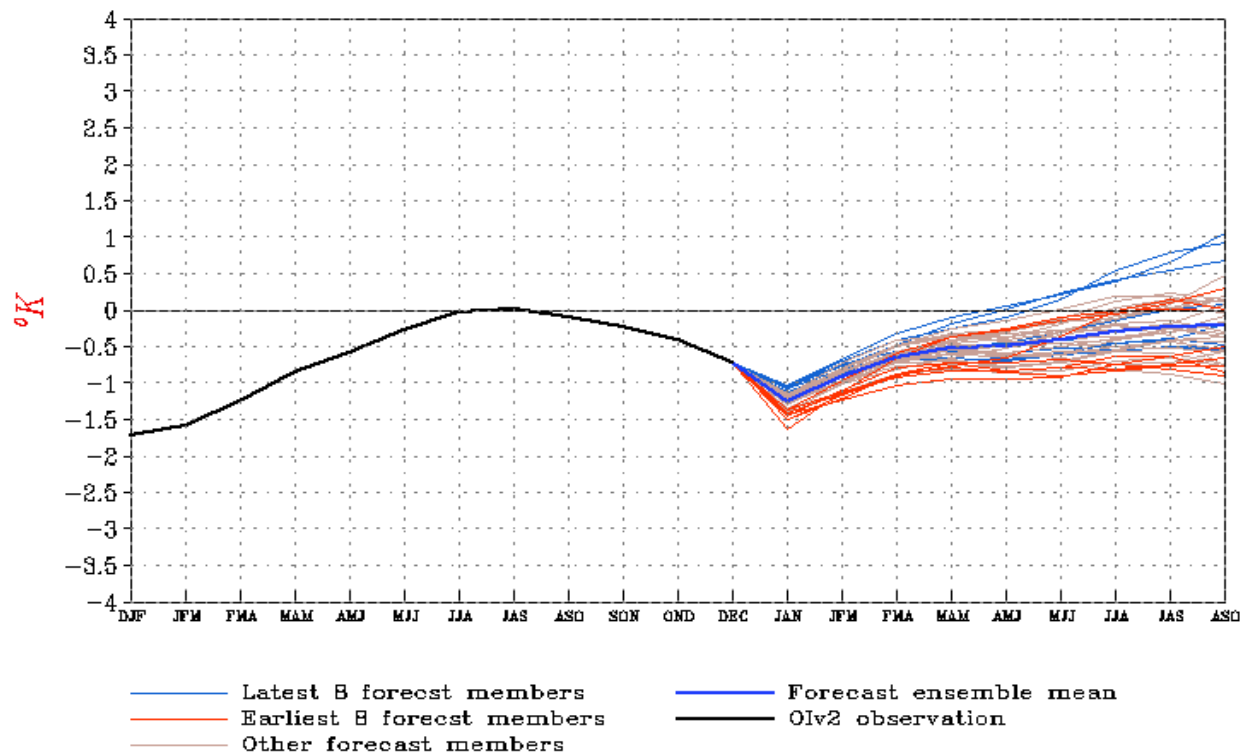
Issued January 6th 2009



NWS/NCEP

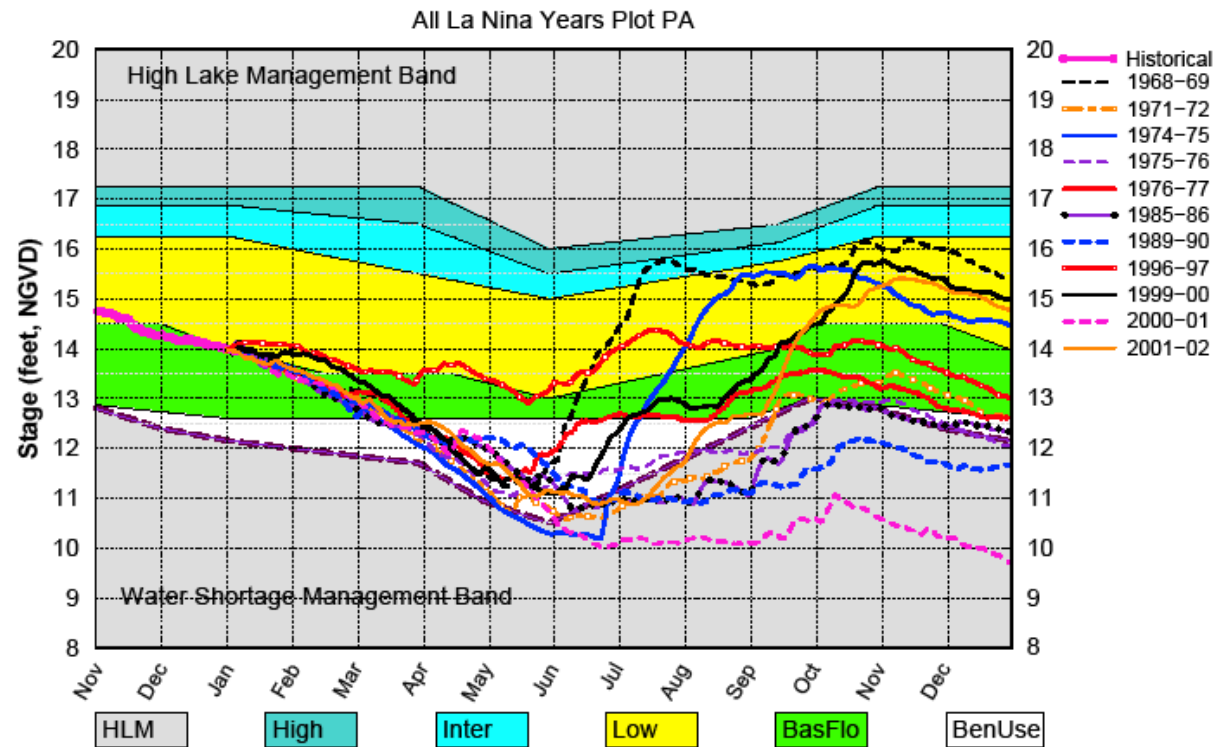
Last update: Tue Jan 6 2009
Initial conditions: 26Dec2008-04Jan2009

PDF correction: Forecast *Nino3.4* SST anomalies from CFS



January 1st Position Analysis for La Nina Years

Lake Okeechobee SFWMM January 2009 Position Analysis



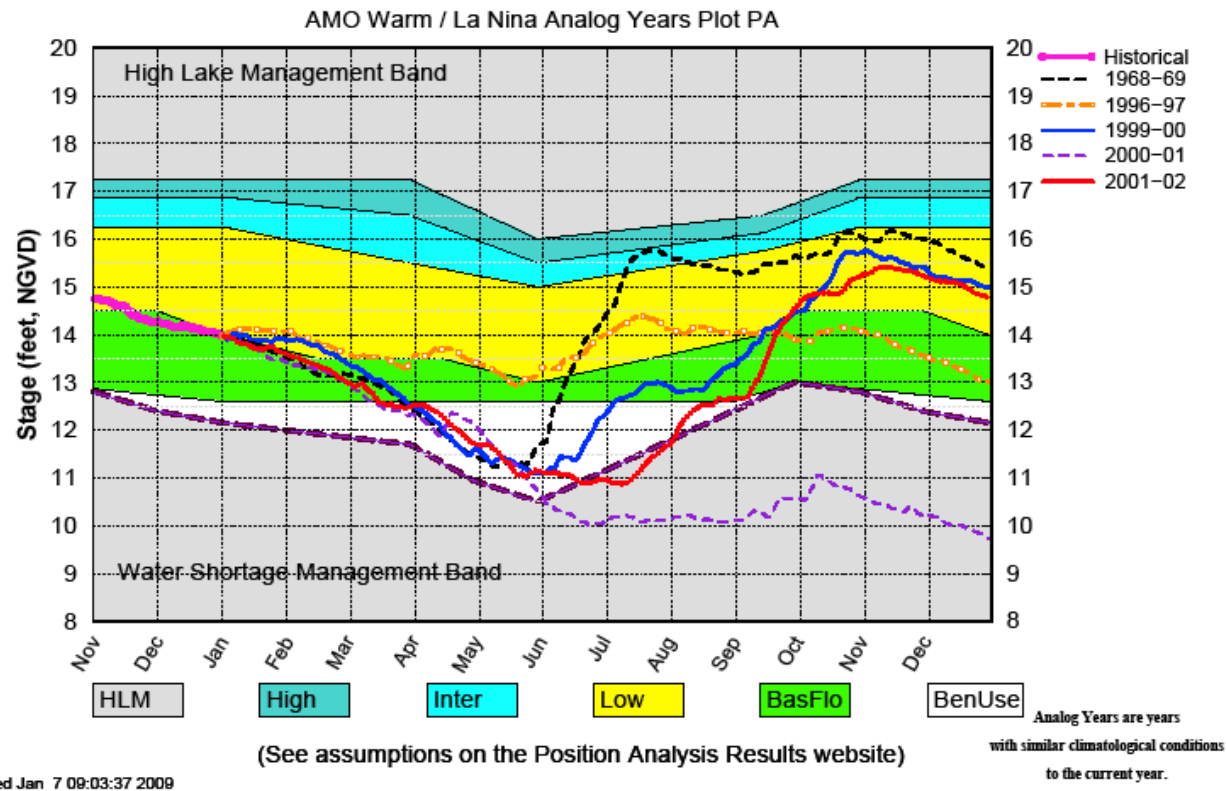
(See assumptions on the Position Analysis Results website)

Wed Jan 7 09:03:36 2009

January 1st Position Analysis

La Nina /AMO Warm sub sampling

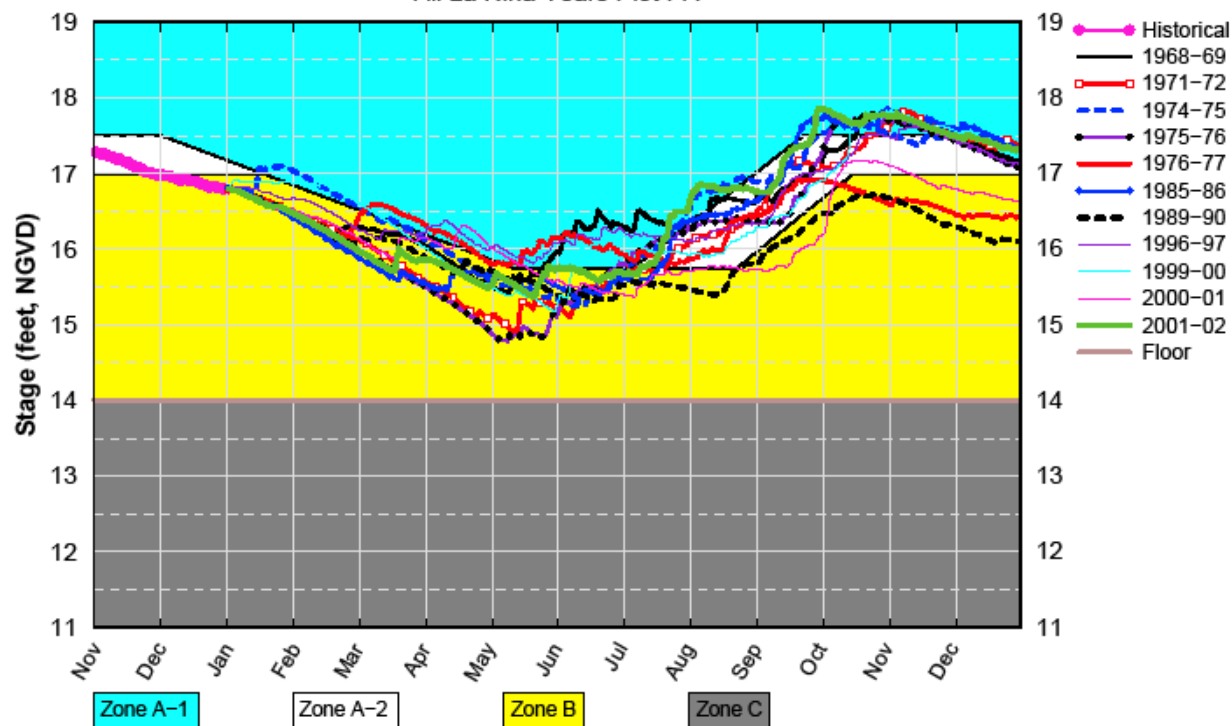
Lake Okeechobee SFWMM January 2009 Position Analysis



January 1st Position Analysis for La Nina Years

WCA1 SFWMM January 2009 Position Analysis

All La Nina Years Plot PA



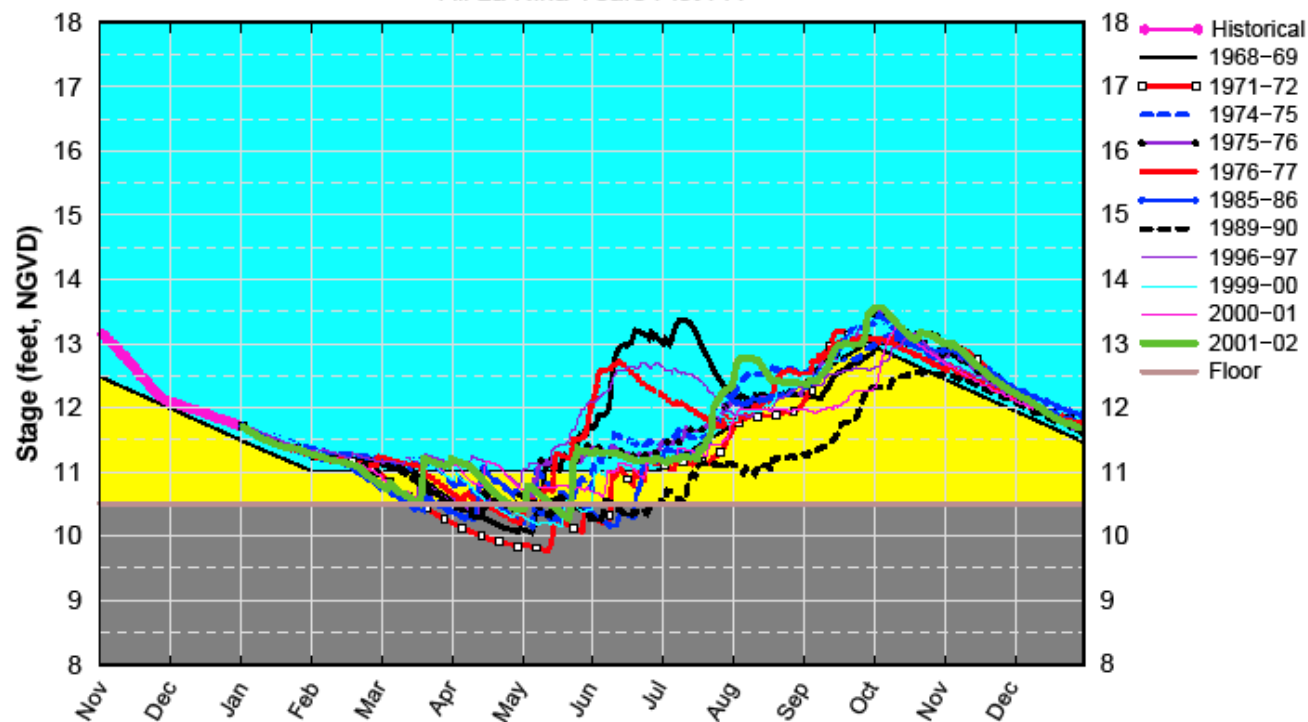
(See assumptions on the Position Analysis Results website)

Wed Jan 7 09:03:40 2009

January 1st Position Analysis for La Nina Years

WCA2A SFWMM January 2009 Position Analysis

All La Nina Years Plot PA

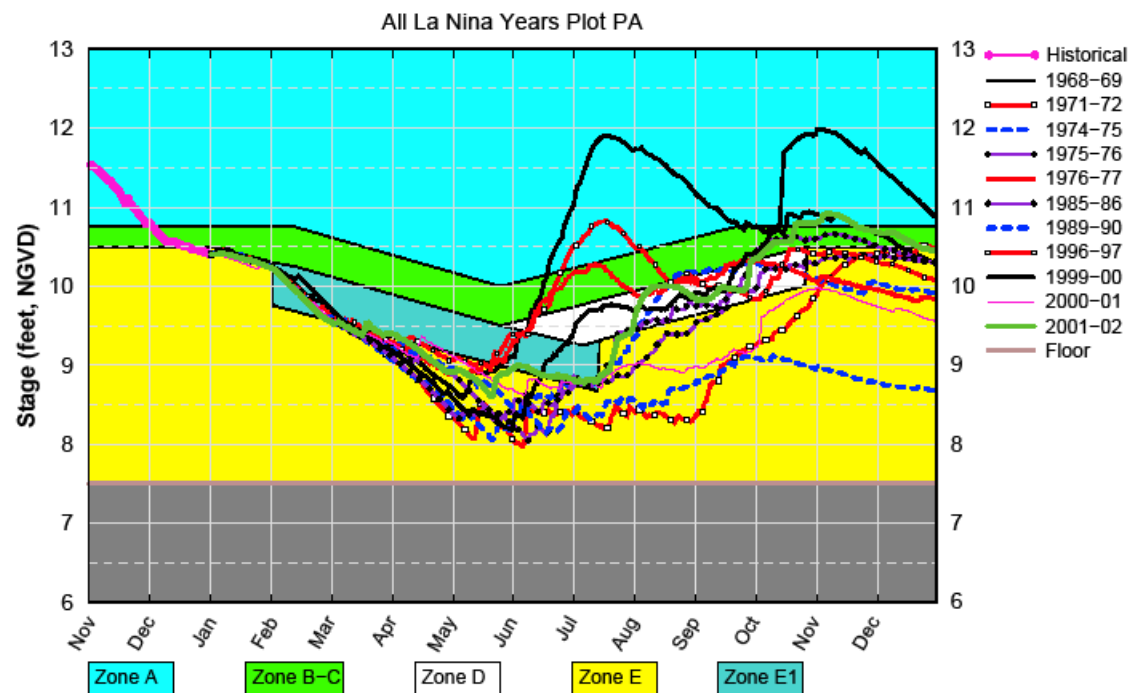


(See assumptions on the Position Analysis Results website)

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WCA3A January 1st Position for La Nina Years

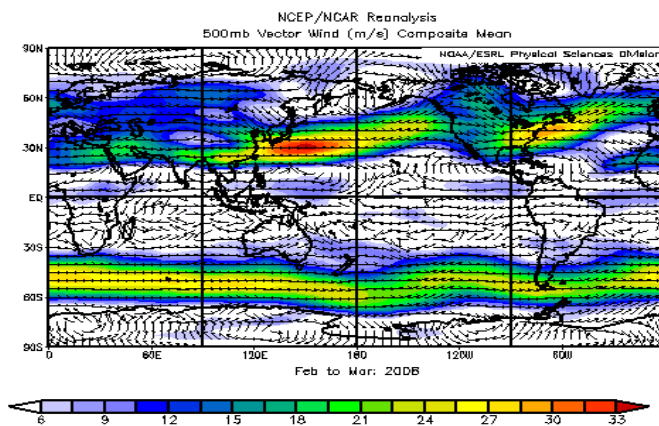
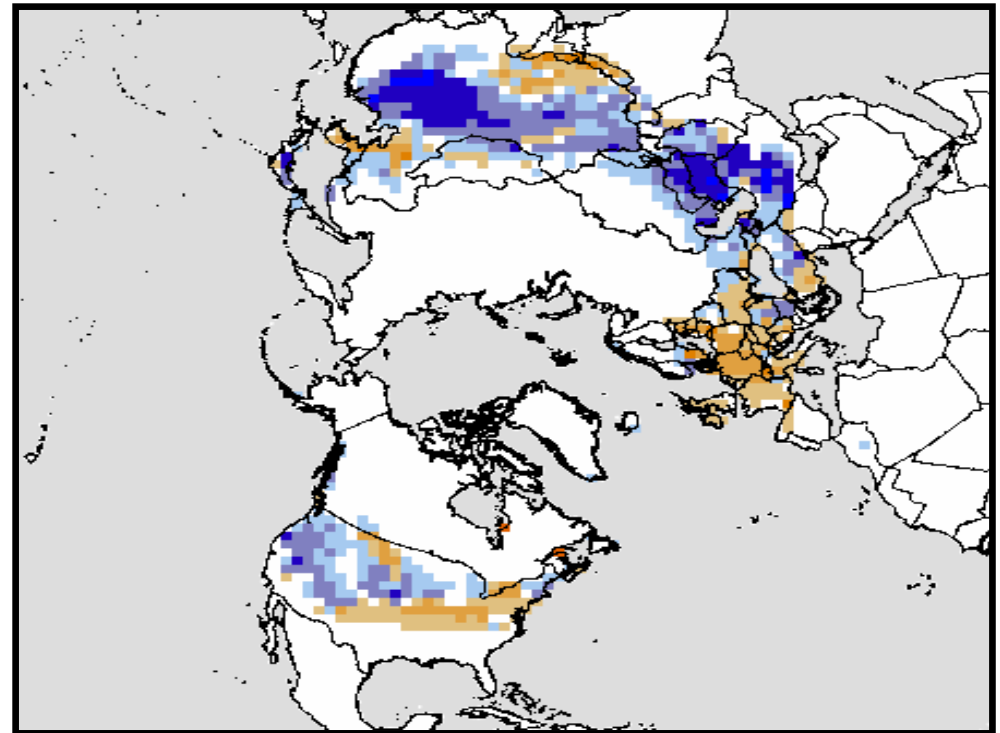
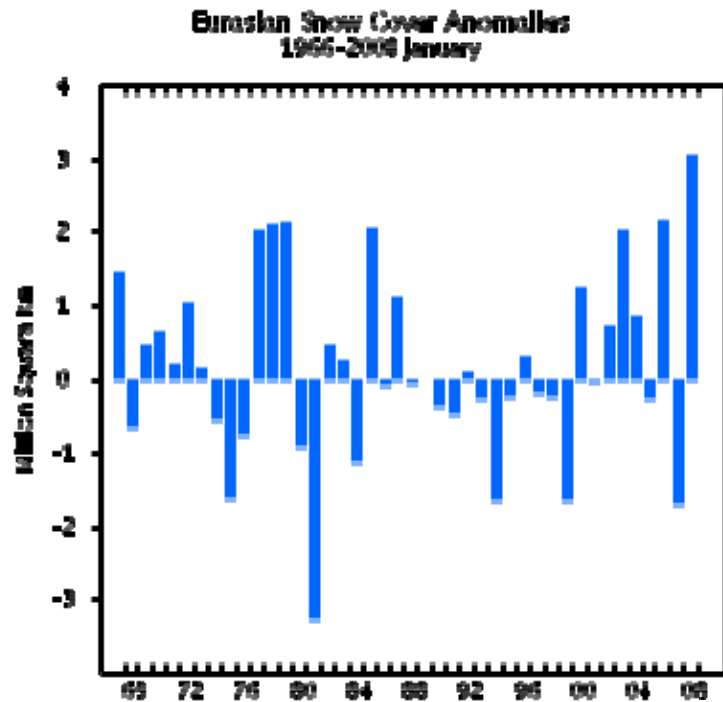
WCA3A SFWMM January 2009 Position Analysis



(See assumptions on the Position Analysis Results website)

Wed Jan 7 09:03:46 2009

January 2008 Eurasian Record Snow depths and late winter- early spring 2008 District RF



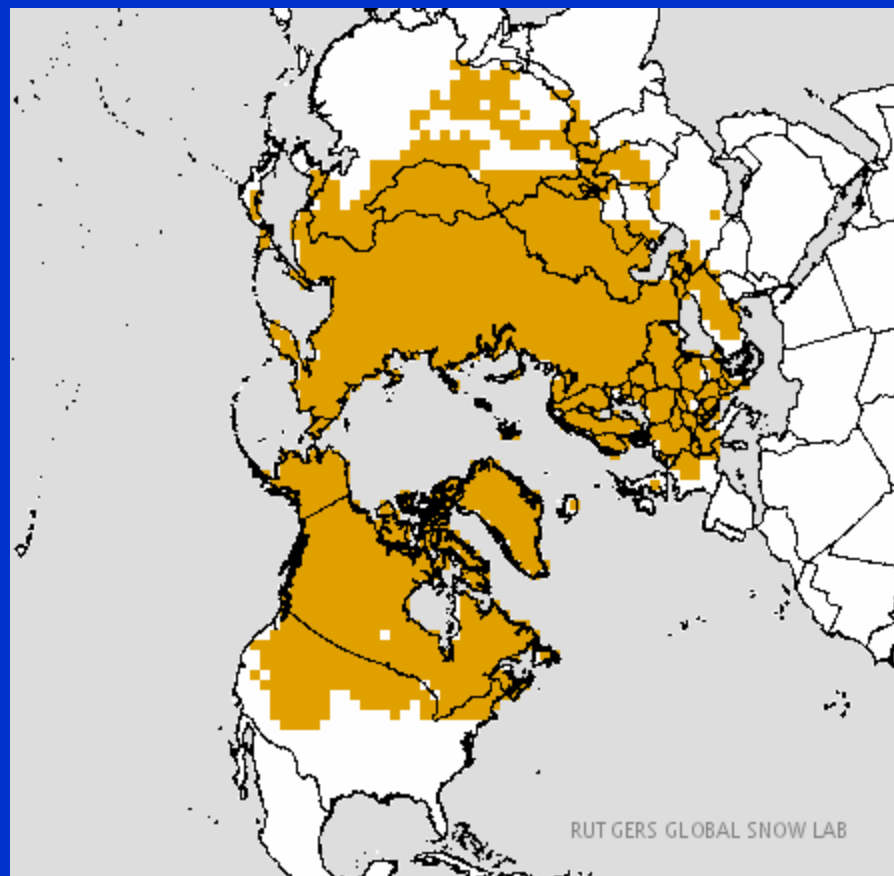
Normally during La Nina Events the jet stream is pushed north of Florida. However in 2008 for the period after January tremendous snow anomaly

References

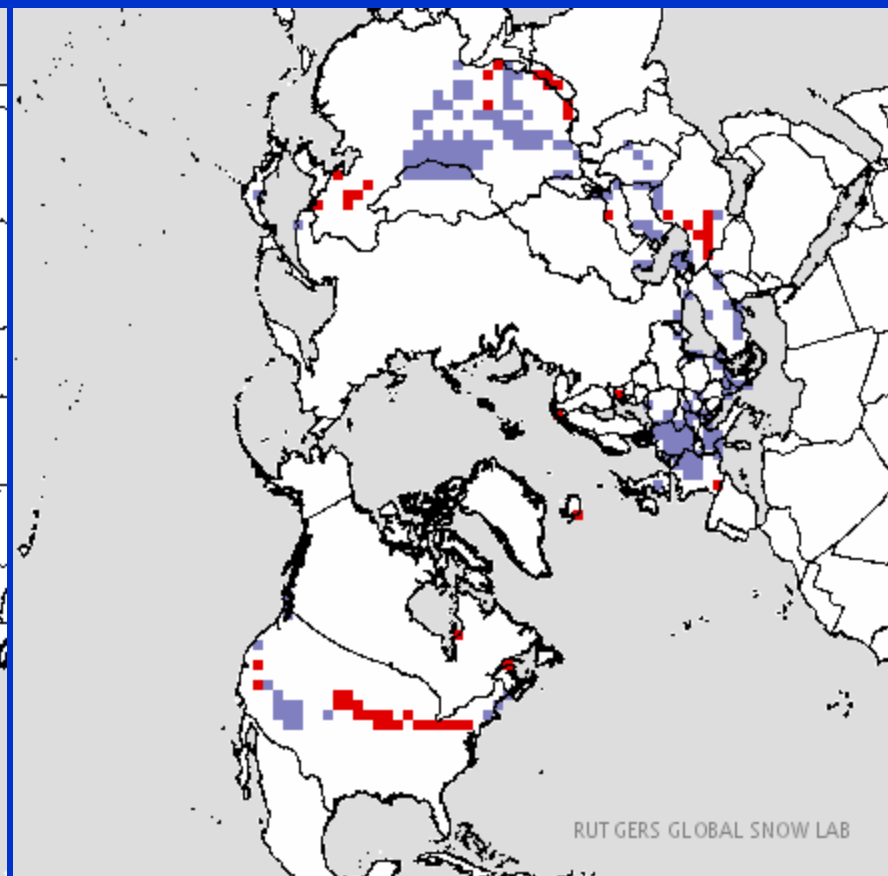
<http://ams.allenpress.com/archive/1520-0442/15/3/pdf/i1520-0442-15-3-306.pdf>

http://sciencepolicy.colorado.edu/admin/publication_files/resource-314-2000.25.pdf

2009 Northern Hemisphere Daily Snow Cover



Daily Snow Cover - January 5, 2009 (Day 5)

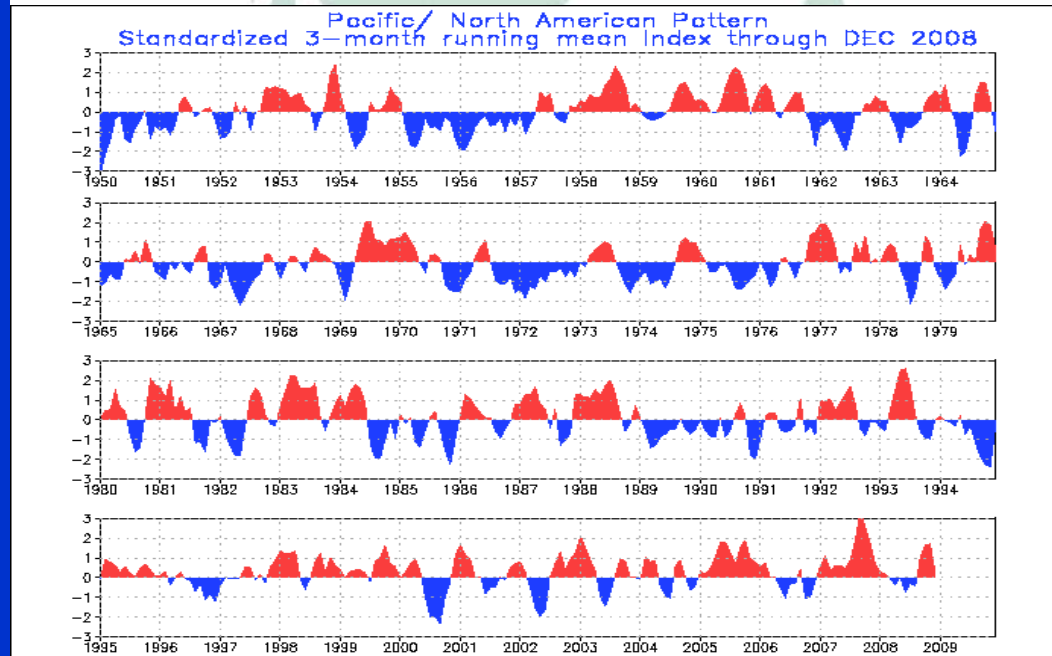
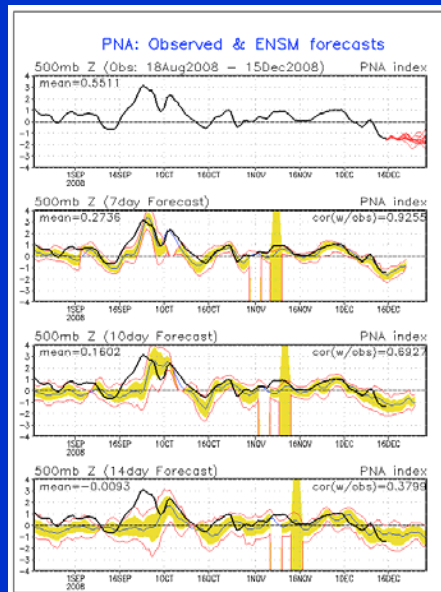


Daily Snow Cover Anomaly - January 5, 2009 (Day 5)

The Eurasian snow depths are currently slightly above normal. If this winter has more normal snowfall it can be expected with greater certainty there will be below normal rainfall in south Florida. As of this year global snow cover can be monitored on a daily basis at the following: <http://climate.rutgers.edu/snowcover/>

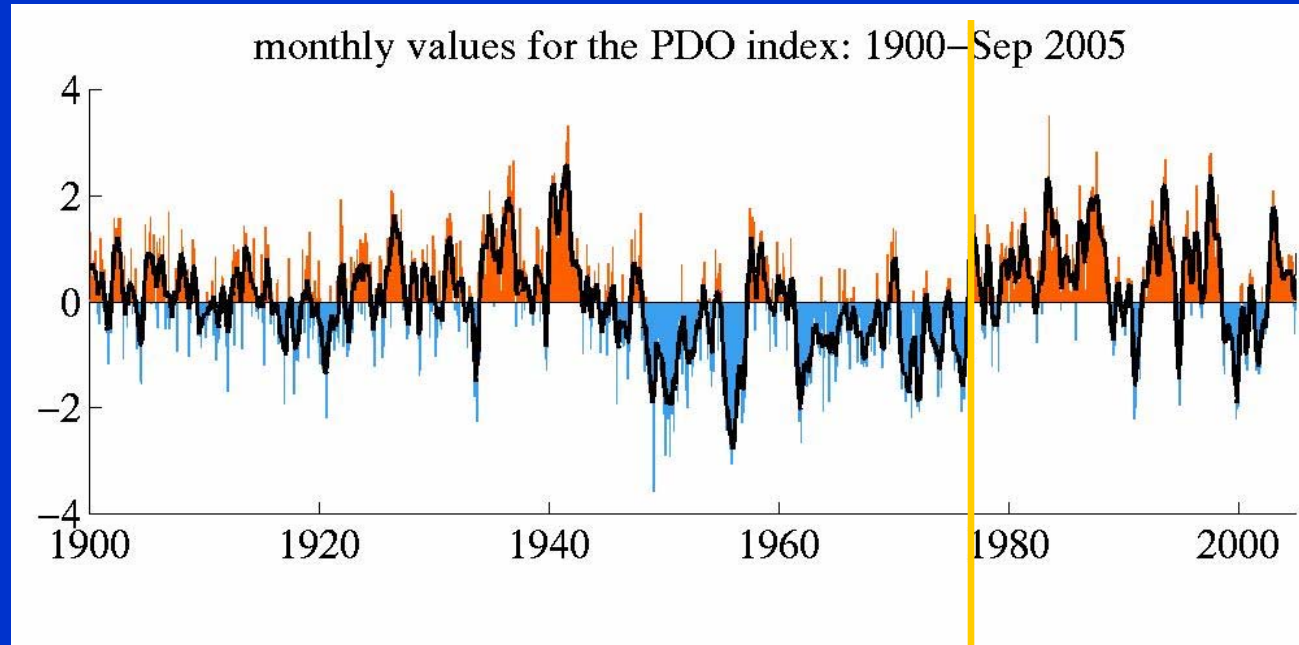
Backup Slides with additional support material

Pacific – North American Index



Currently
transitioning
to cold phase of
PDO

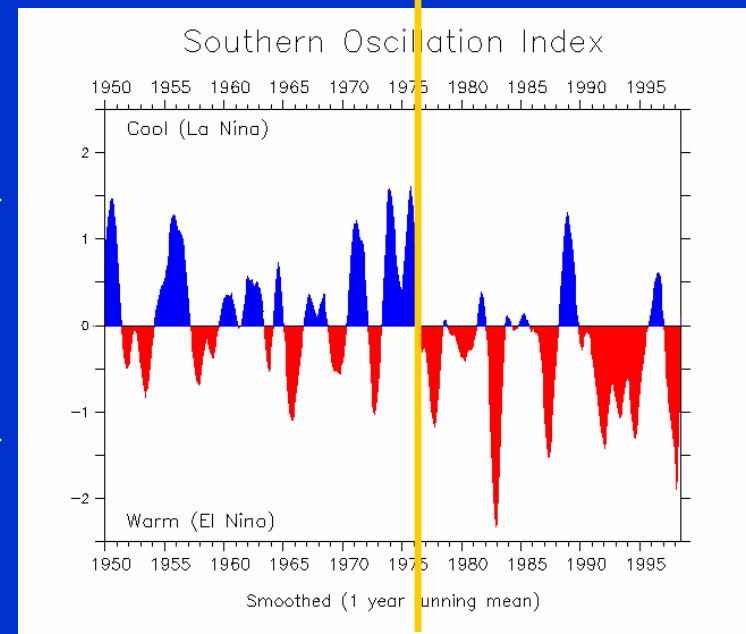
PDO



ENSO

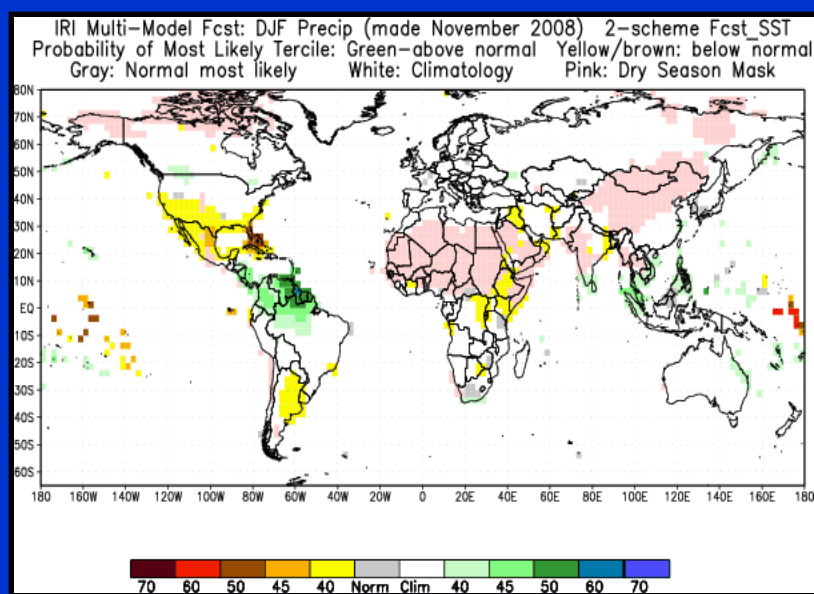
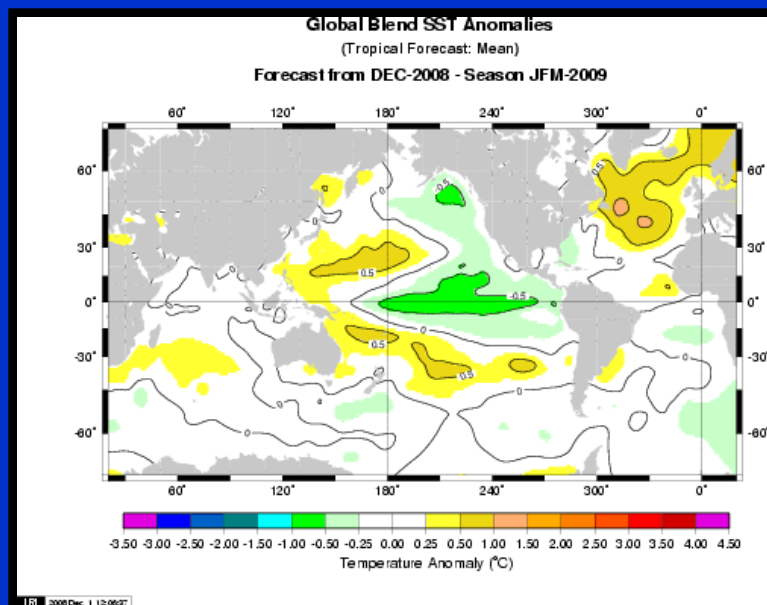
La Nina predominates when
PDO is in negative phase →

El Nino predominates when
PDO is in positive phase →

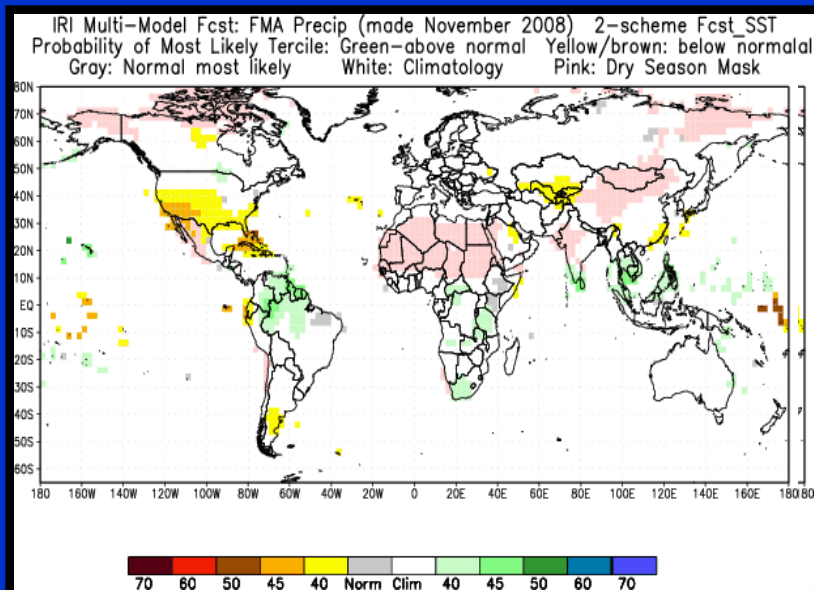
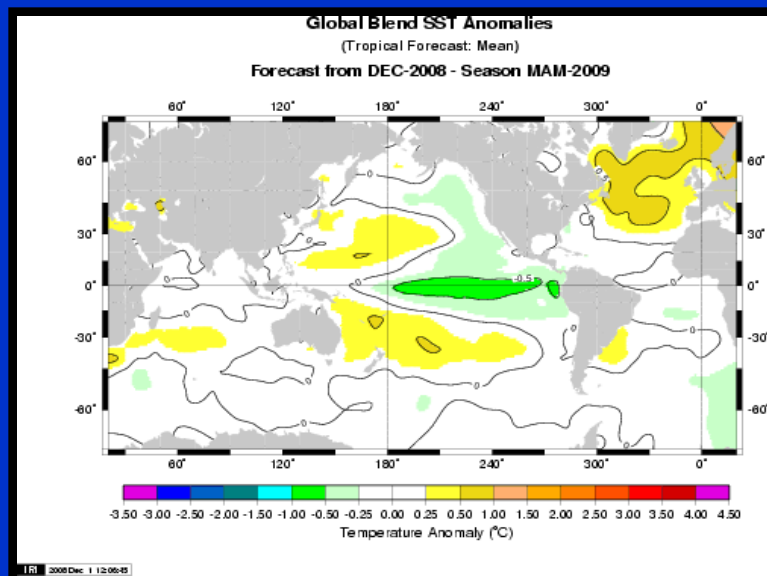


IRI Multi-Model Probability Forecasts 2008-2009

JFM



FMA

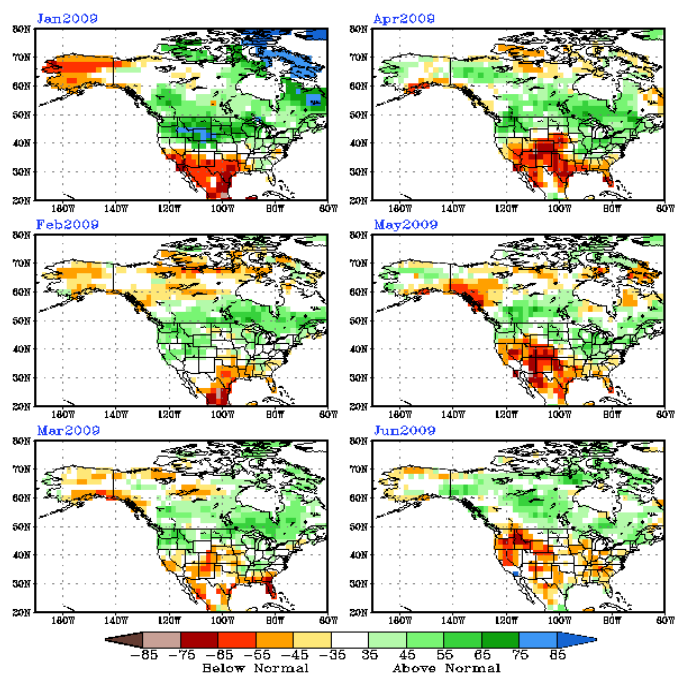




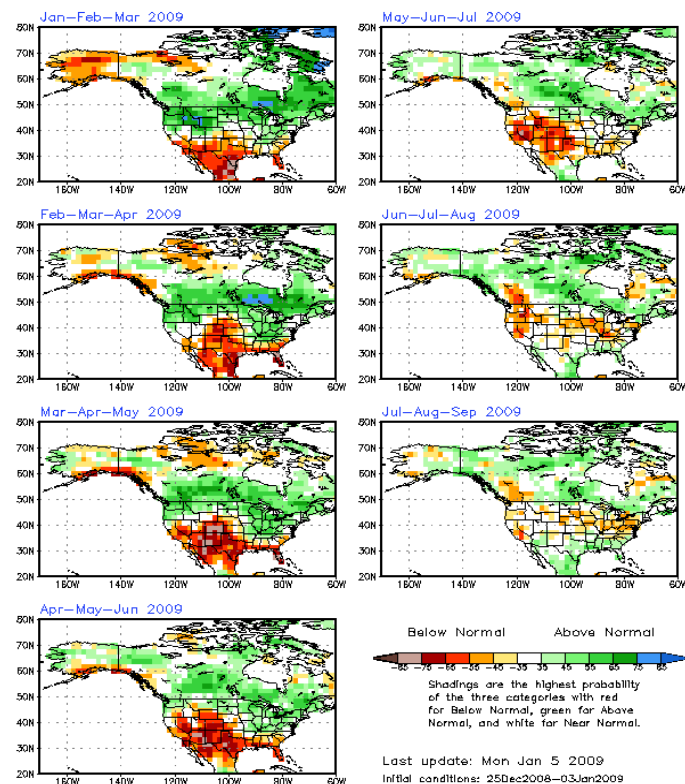
NWS/NCEP

Last update: Mon Jan 5 2009
Initial conditions: 25Dec2008-03Jan2009

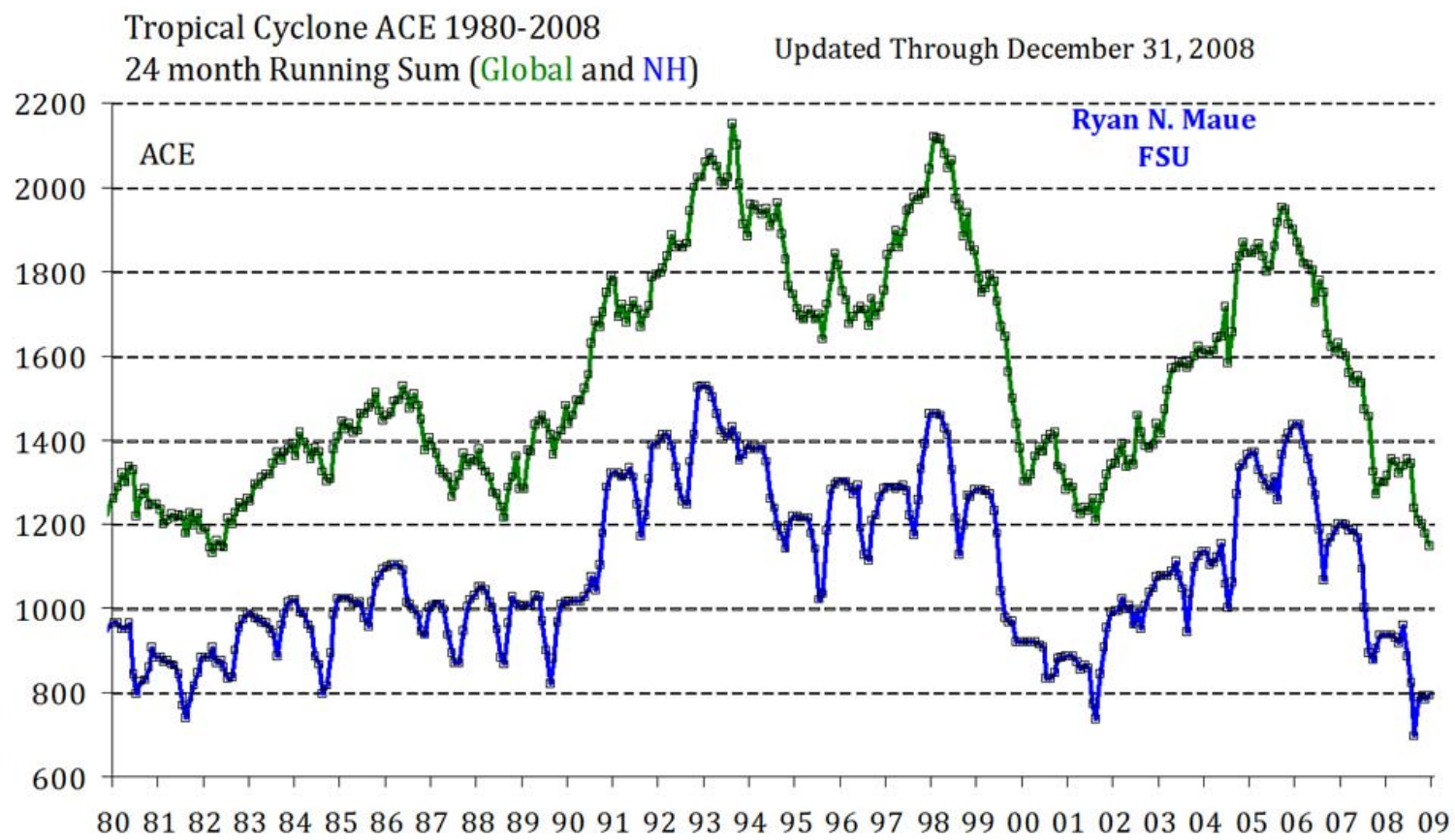
CFS monthly Prec probability forecast



CFS seasonal Prec probability forecast



NWS/NCEP



Solar Activity (aa index smoothed)

