Recent ENSO conditions

D.-Y. Lee and K. Ashok

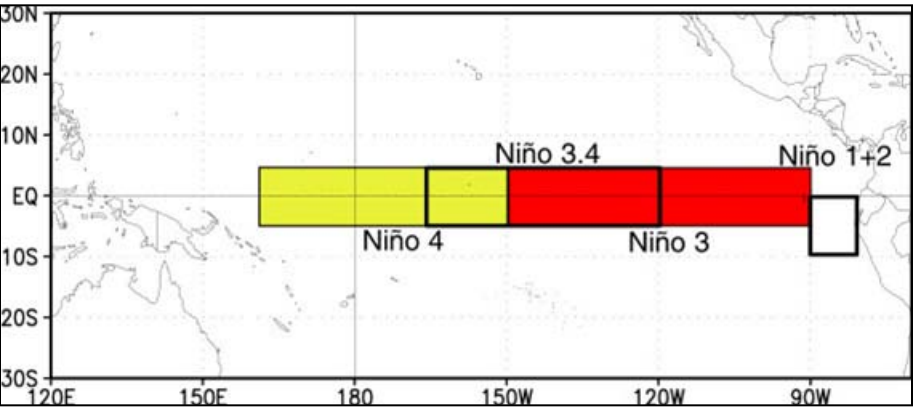
APEC Climate Center

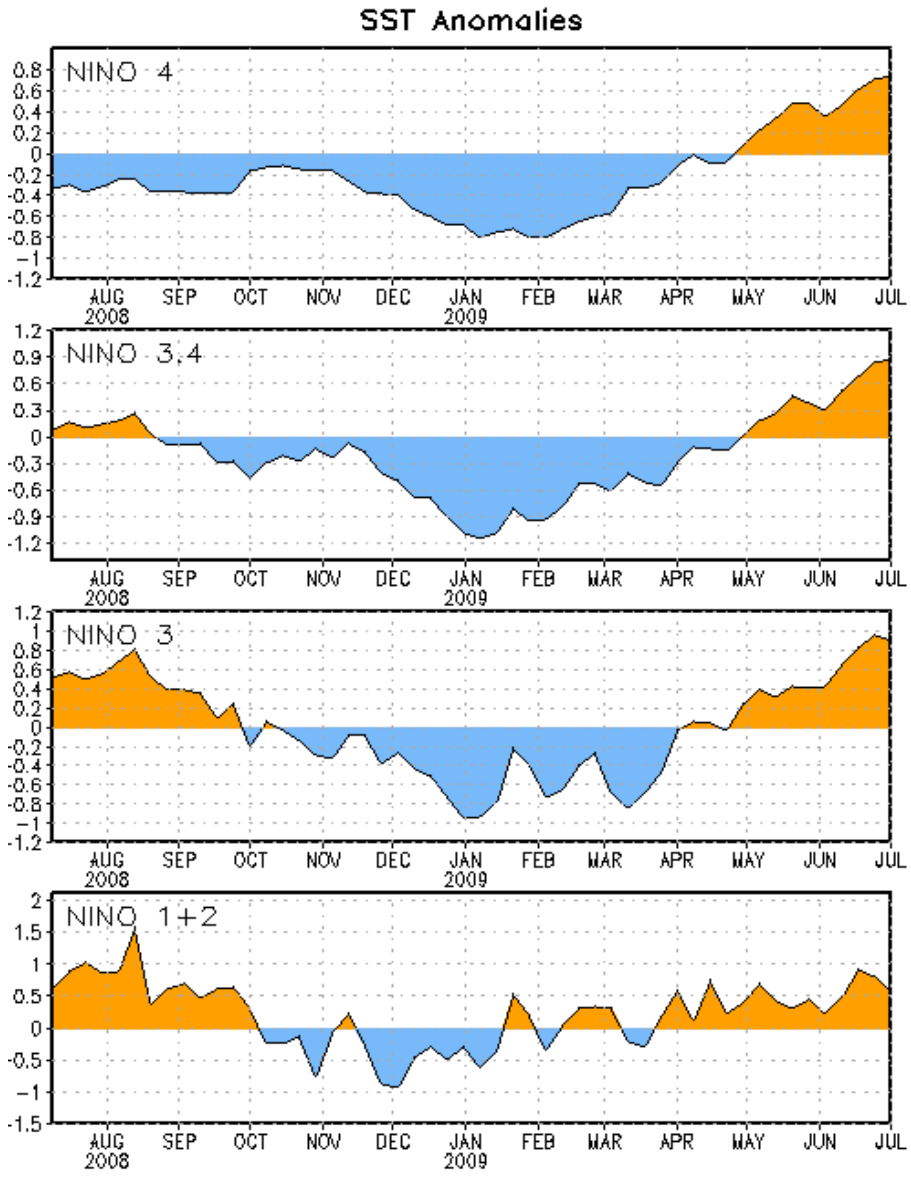
Niño Region SST Departures (ºC) Recent Evolution

From NOAA

The latest weekly SST departures are:

Niño 4	**0.7ºC**
Niño 3.4	**0.9ºC**
Niño 3	**0.9ºC**
Niño 1+2	**0.6ºC**

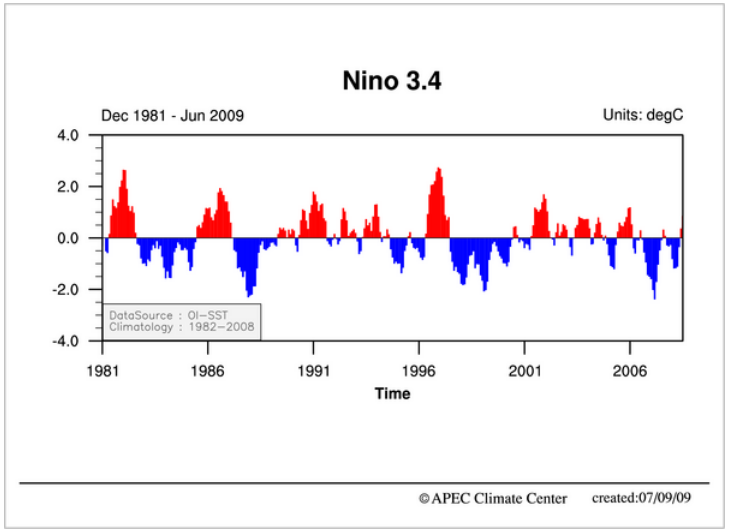


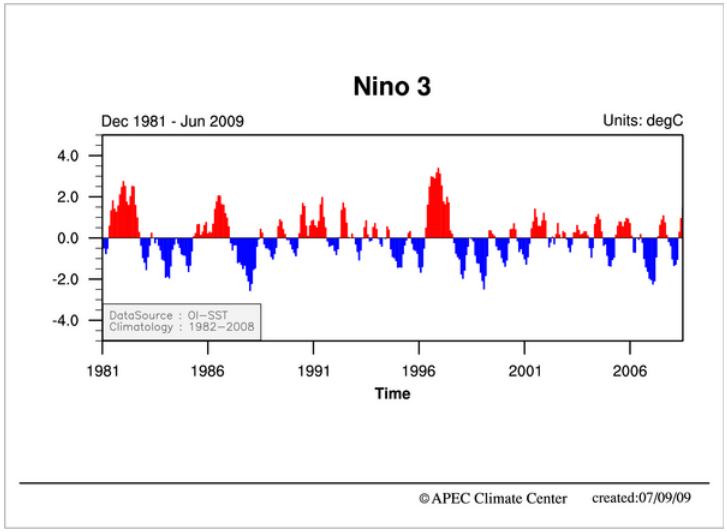


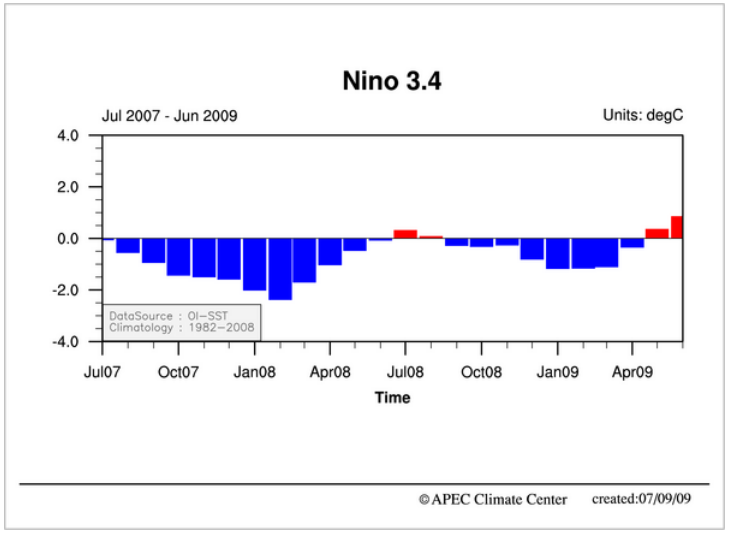
http://www.cpc.noaa.gov/products/analysis_monitoring/lanina/

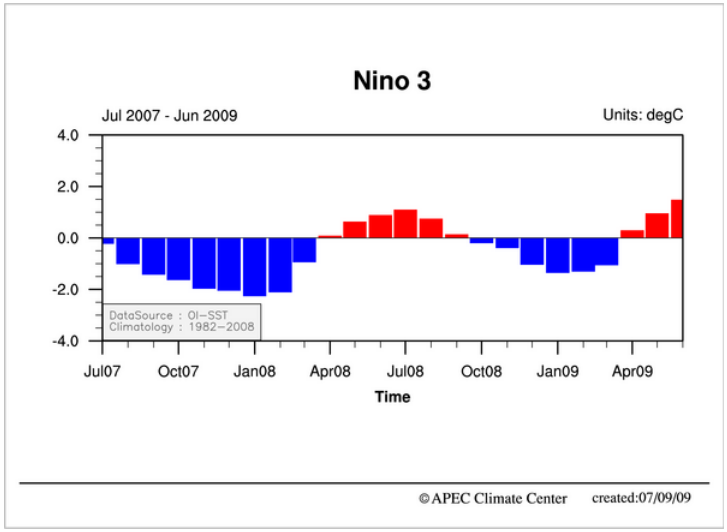
SST Departures (ºC) Recent Evolution

From APCC





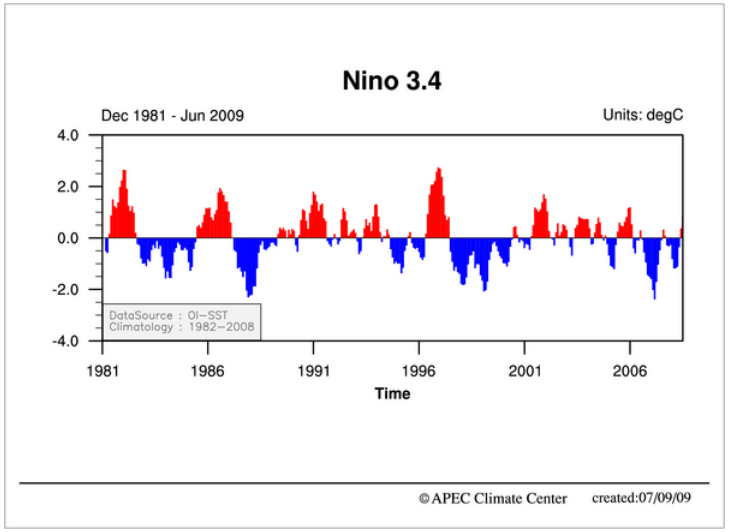


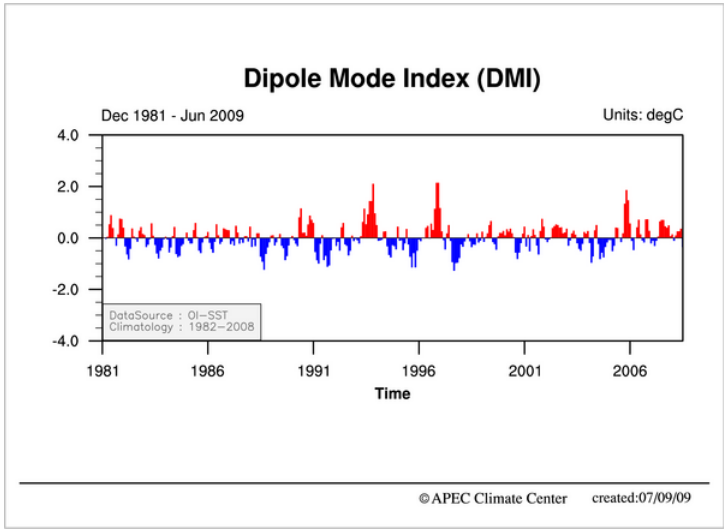


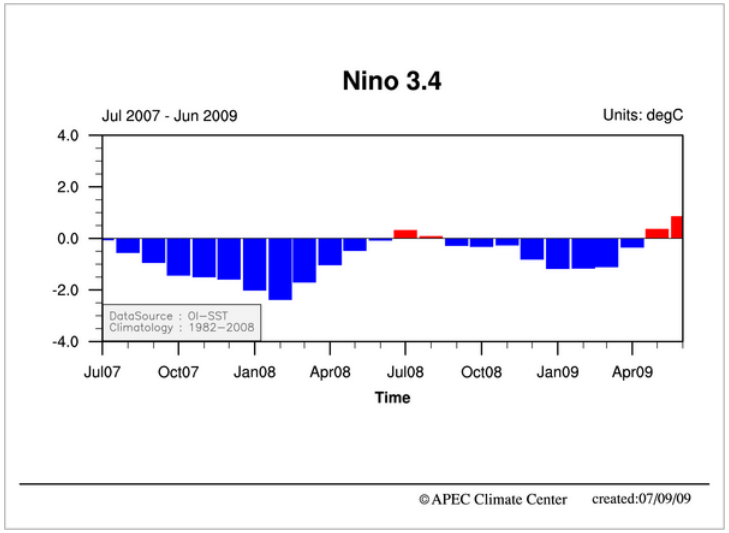
http://www.apcc21.net/climate/climate03_10.php

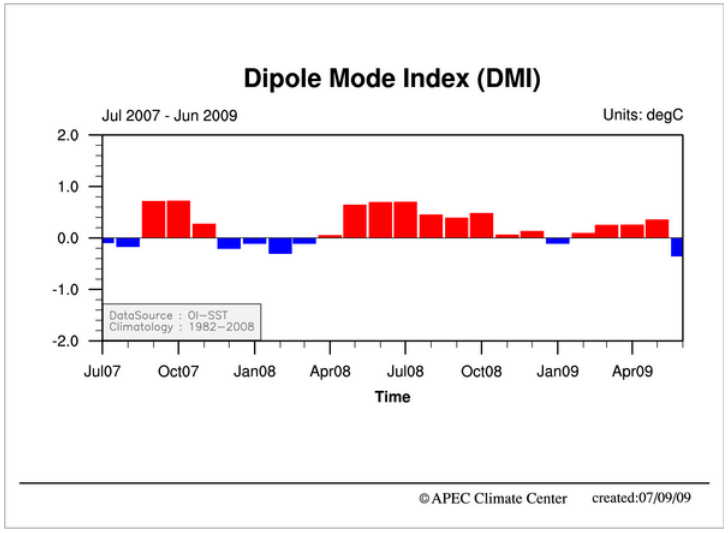
SST Departures (ºC) Recent Evolution

From APCC





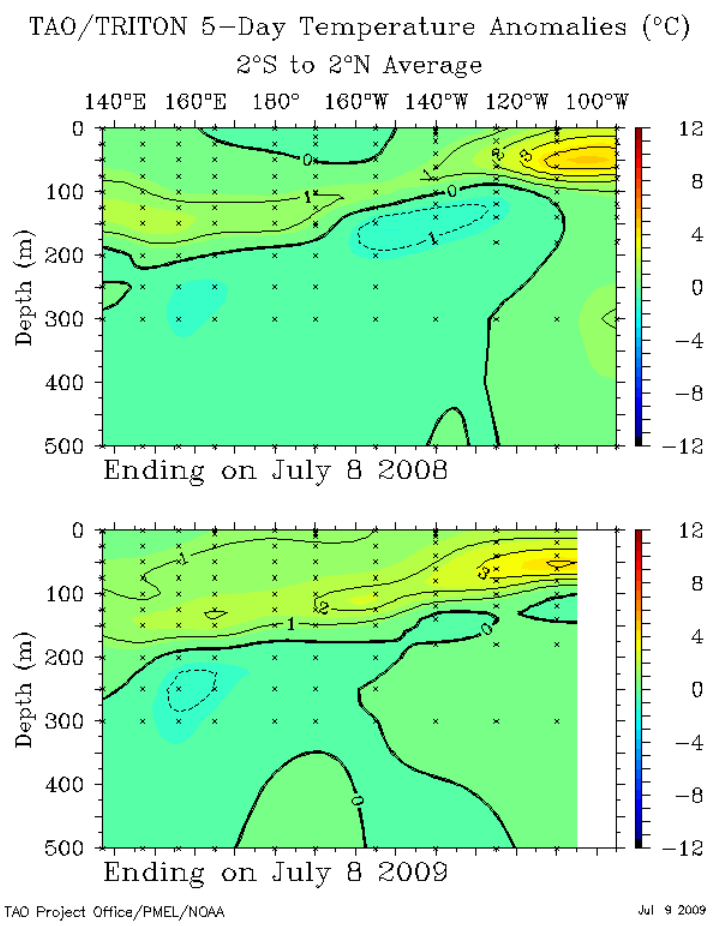


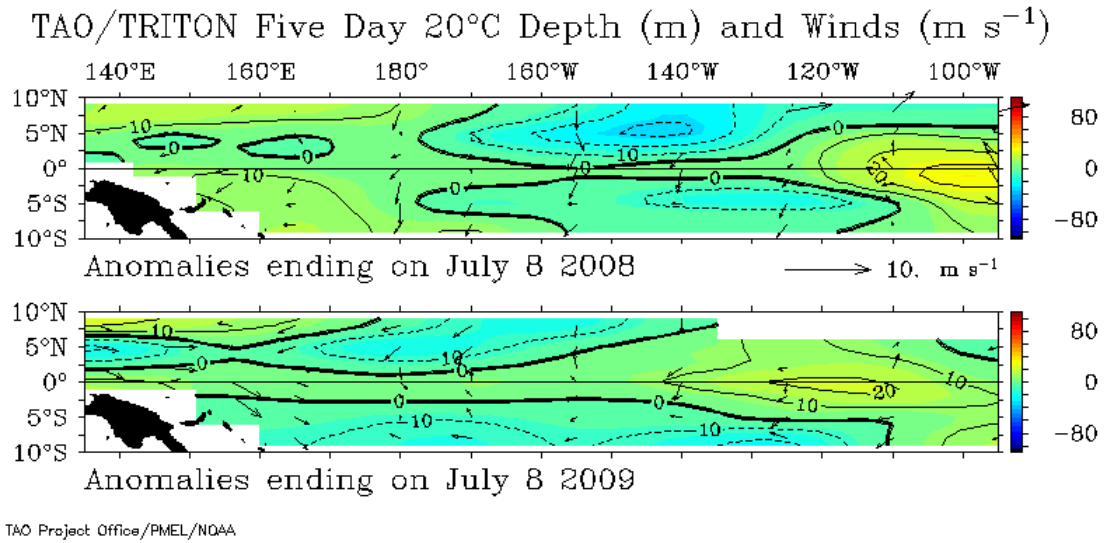


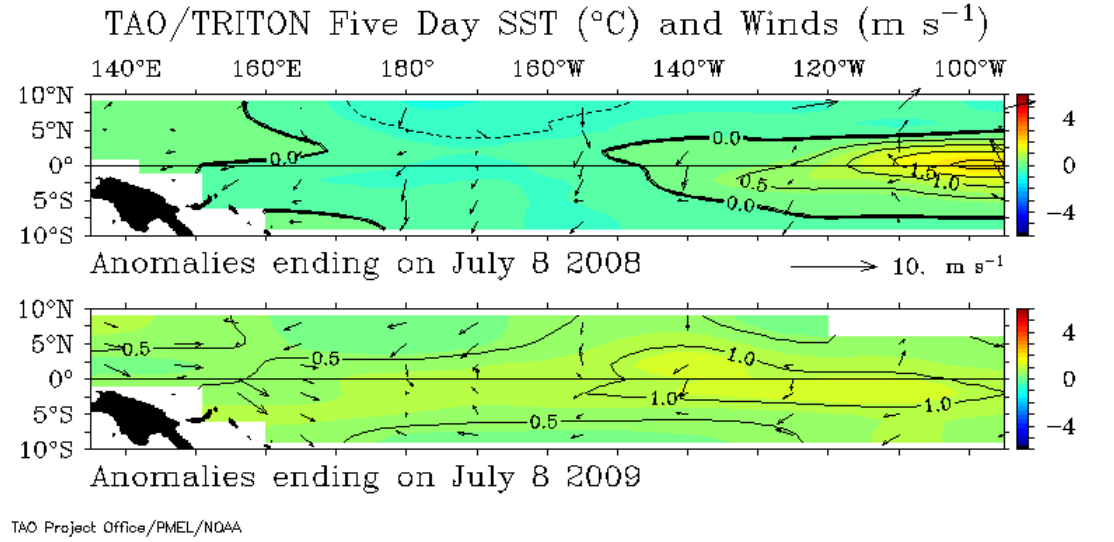
http://www.apcc21.net/climate/climate03_10.php

5 Day Anomalies Comparison

From TAO/TRITON



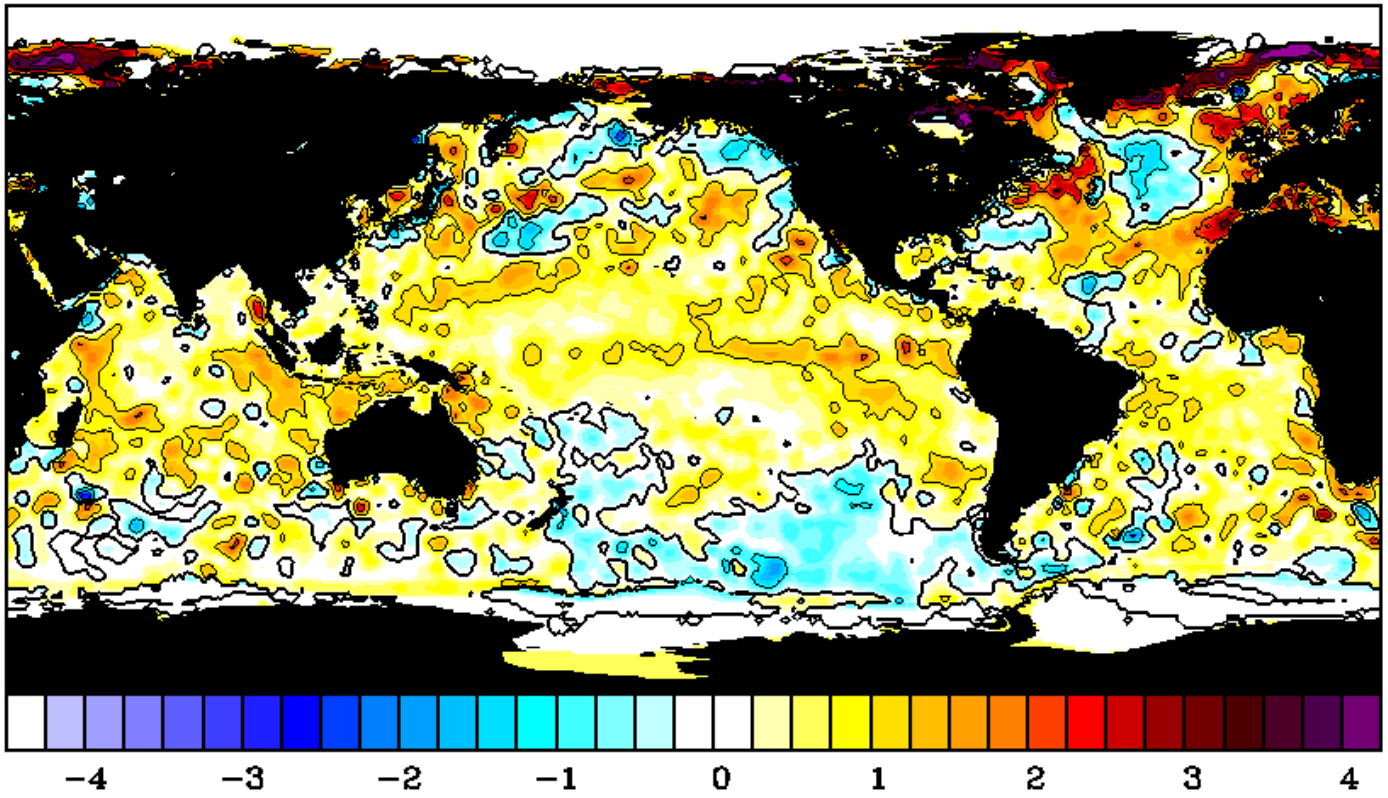




http://www.pmel.noaa.gov/tao/jsdisplay/

BMRC/NMC Global SST Anomaly

Week Ending 5 Jul 2009

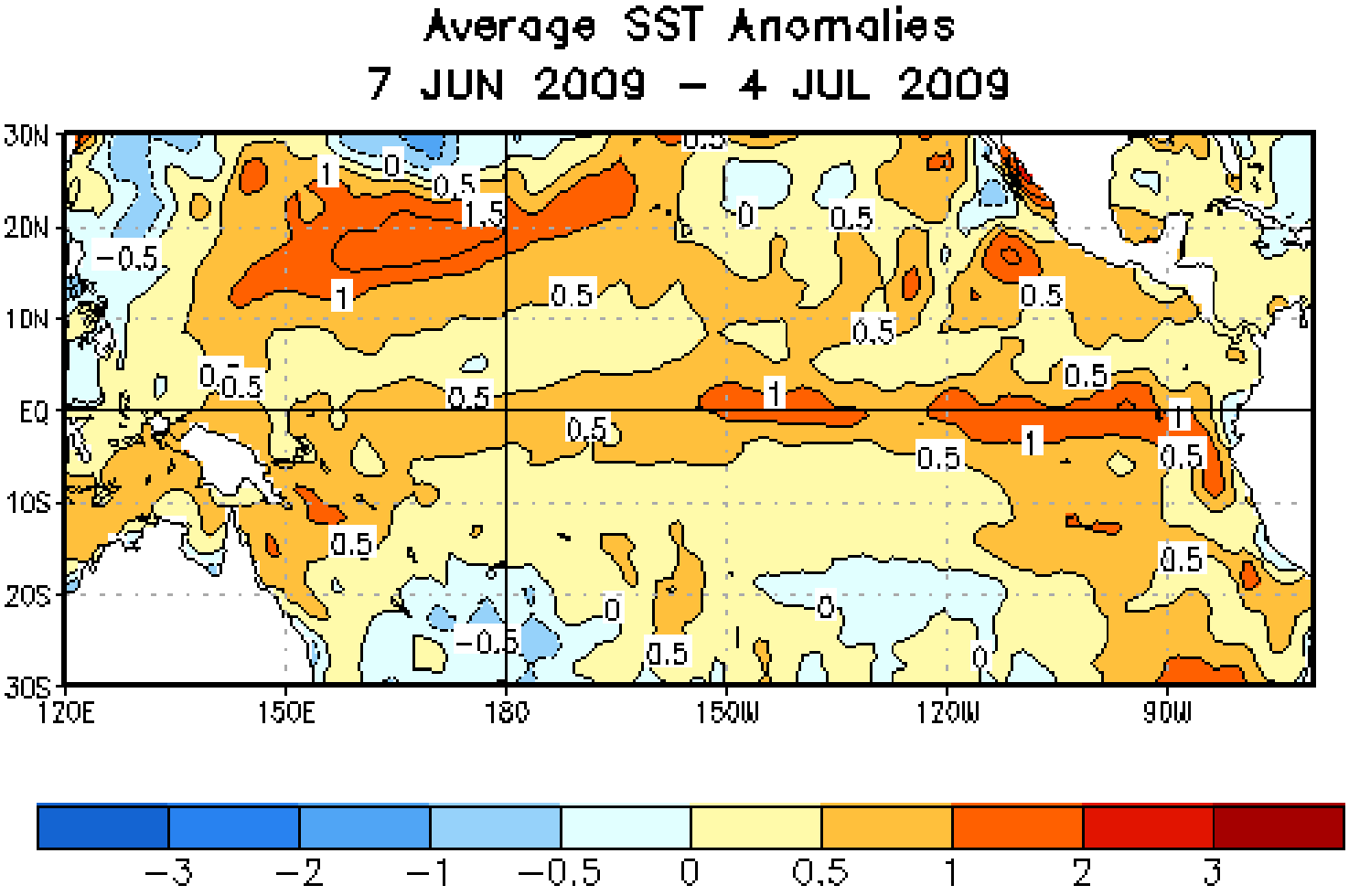


http://www.bom.gov.au/bmrc/ocean/results/climocan.htm

SST Departures (C) in the Tropical Pacific During the Last 4 Weeks

From NOAA

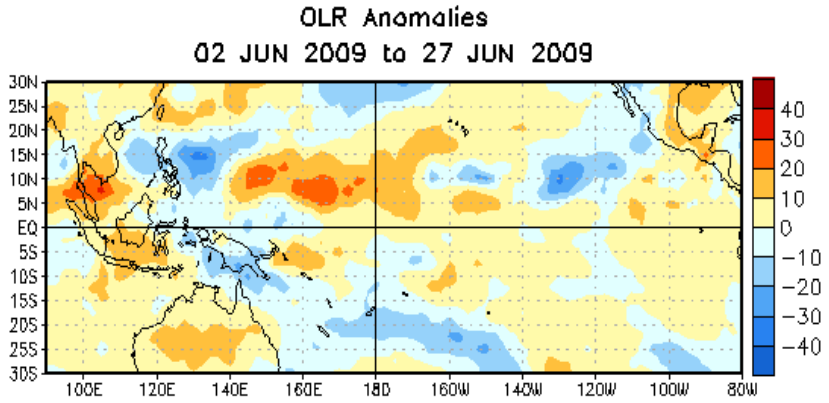
During the last 4-weeks, equatorial SSTs were at least +0.5°C above-average across the equatorial Pacific Ocean and at least +1.0°C in most of the eastern Pacific.



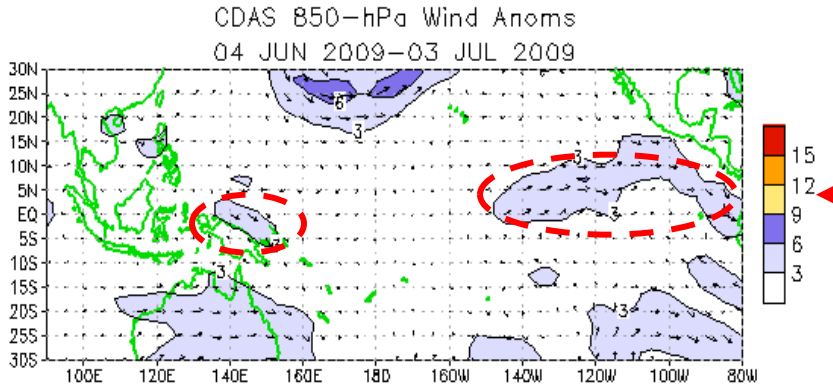
http://www.cpc.noaa.gov/products/analysis_monitoring/lanina/

Tropical OLR and Wind Anomalies During the Last 30 Days

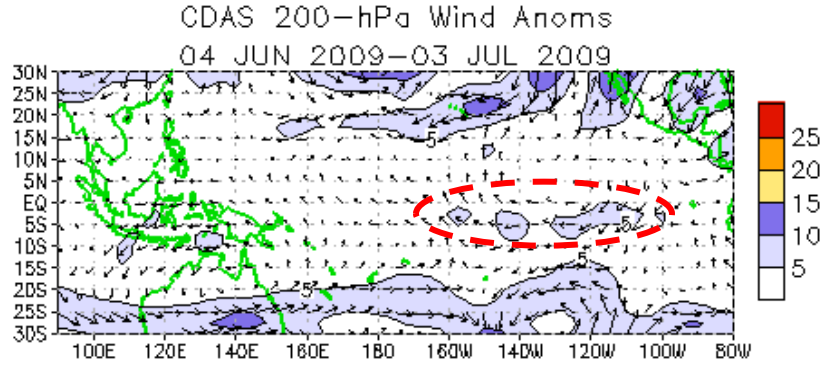
From NOAA



Positive OLR anomalies (suppressed convection and precipitation, red shading) were present over Southeast Asia, Indonesia, and Malaysia, while negative anomalies (enhanced convection, blue shading) were present near the Philippines and Papua New Guinea.



Low-level (850-hPa) winds were near-average, with regions of westerly anomalies in the eastern and western Pacific.

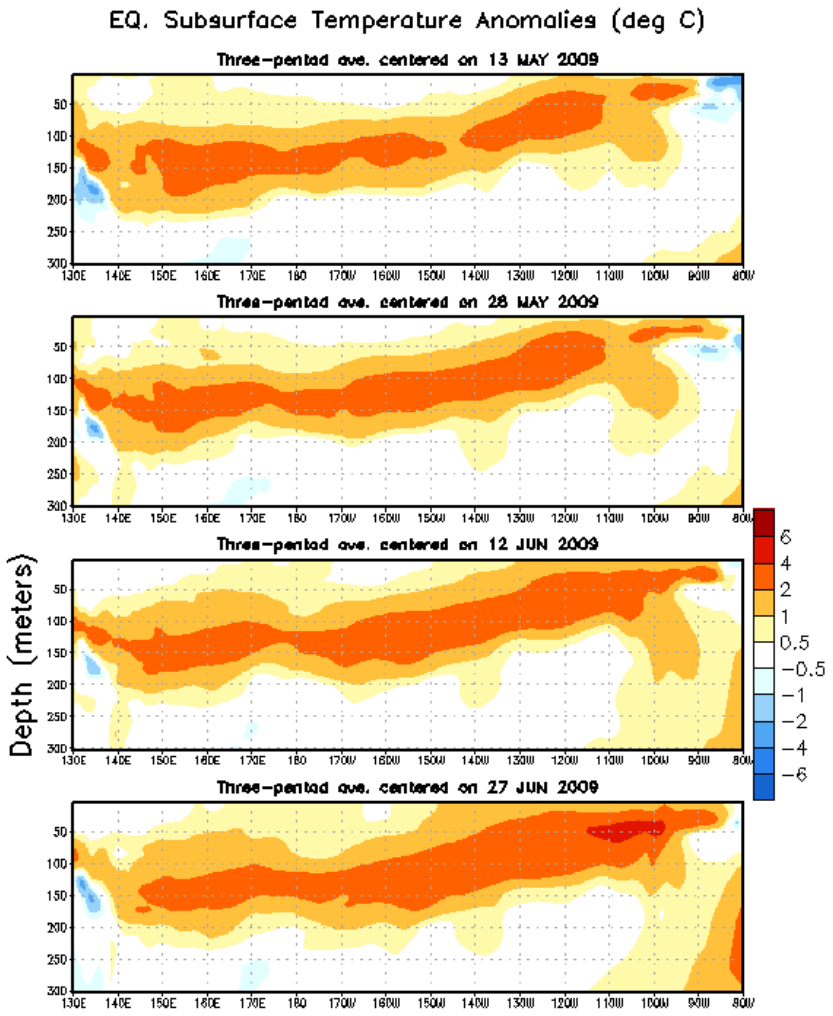


Easterly upper-level (200-hPa) wind anomalies increased over the east-central Pacific.

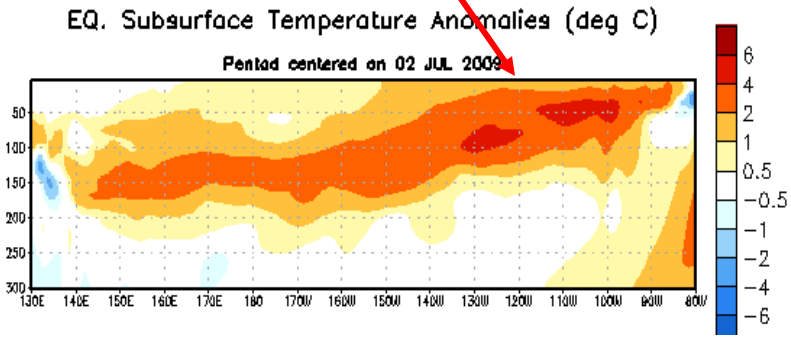
http://www.cpc.noaa.gov/products/analysis_monitoring/lanina/

Sub-Surface Temperature Departures (C) in the Equatorial Pacific

From NOAA



- **During mid-May through June 2009, positive sub-surface temperature departures strengthened.**
- **The most recent period (below) shows positive anomalies across the equatorial Pacific, extending to the surface in the eastern half of the Pacific.**



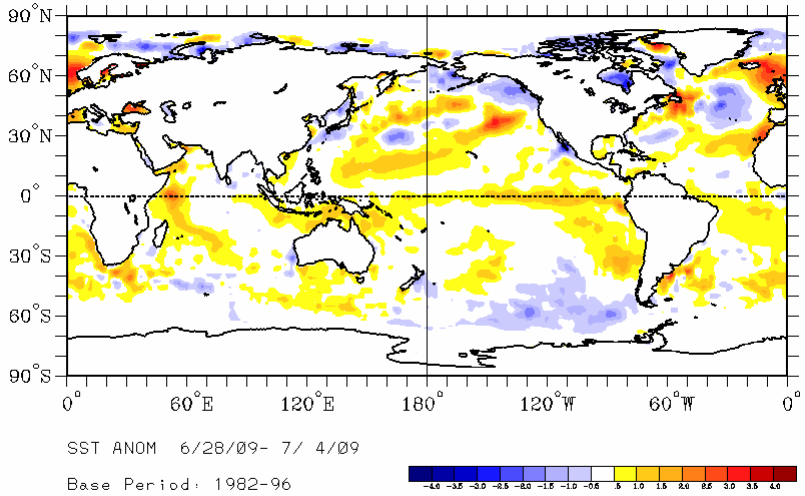
Most recent pentad analysis

http://www.cpc.noaa.gov/products/analysis_monitoring/lanina/

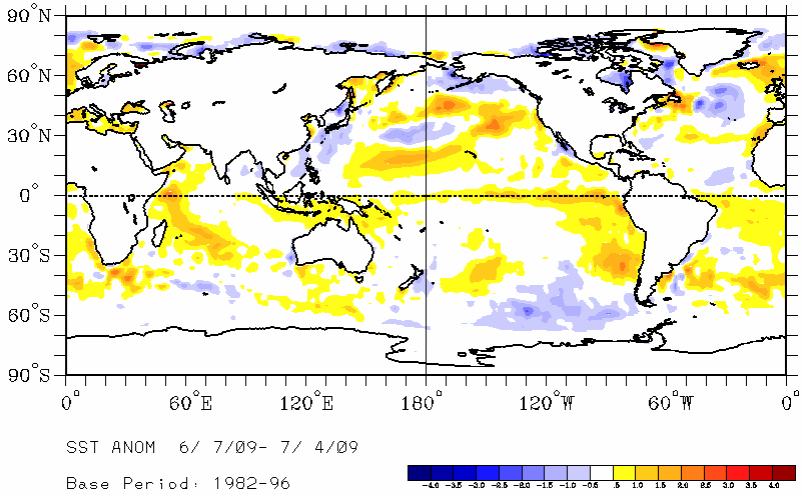
SST Departures (ºC) in the Tropical Pacific

From NCEP

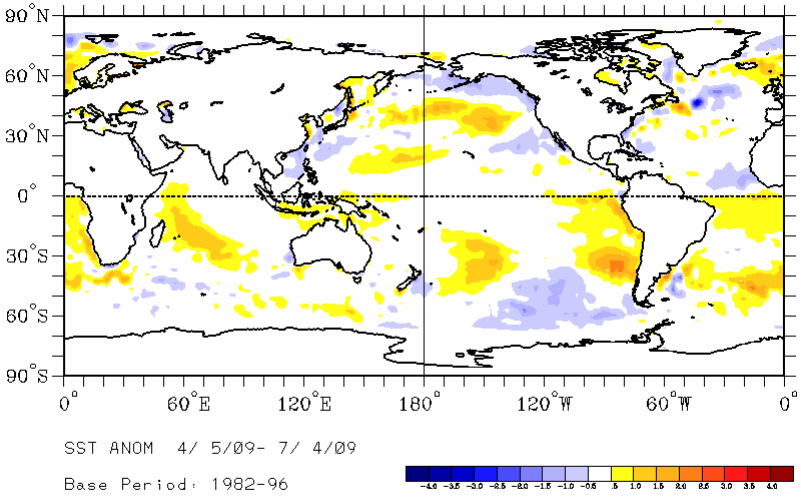
Weekly



Monthly



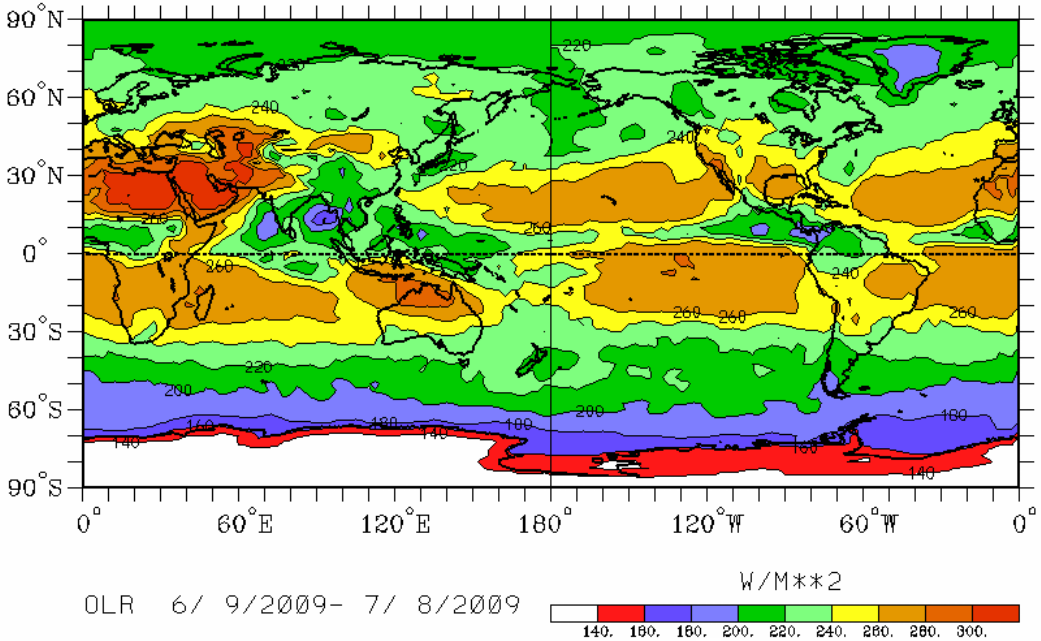
Seasonaly



http://www.cdc.noaa.gov/enso/enso.current.html

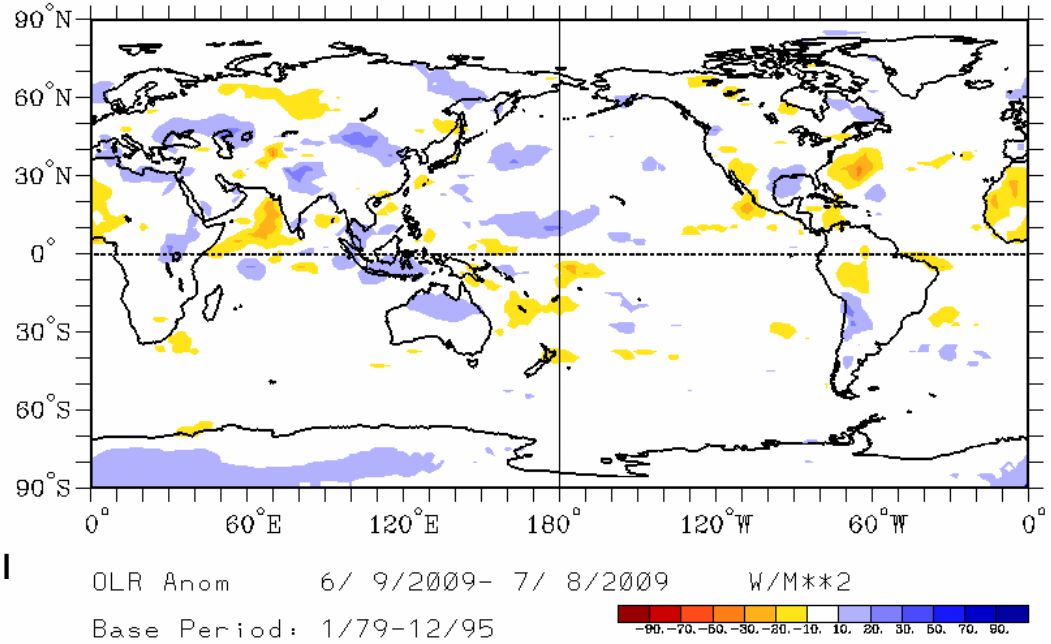
Outgoing Longwave Radiation (OLR)

From NCEP



Latest Monthly OLR Mean plot

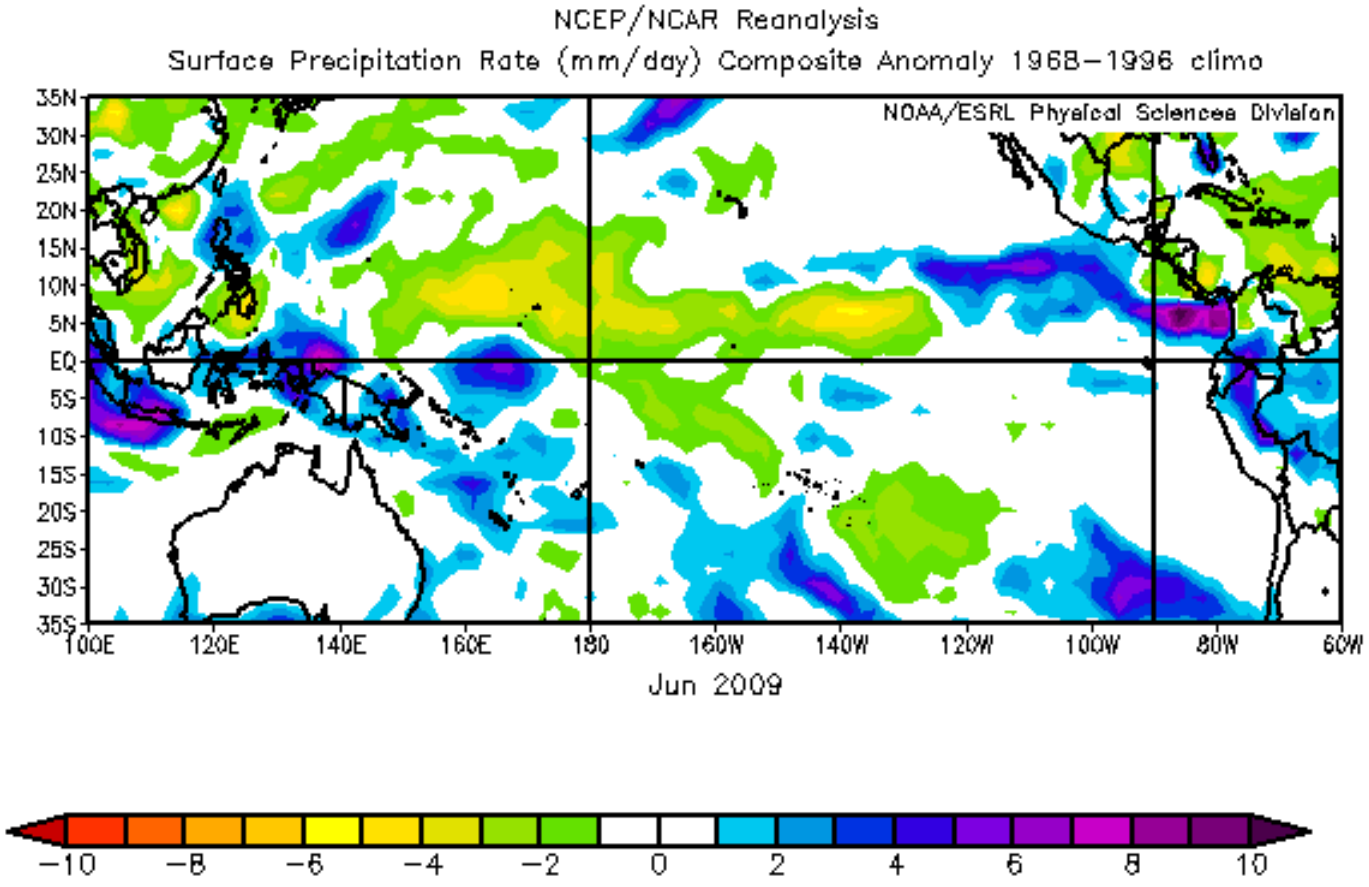
Latest Monthly OLR Anomaly plot



http://www.cdc.noaa.gov/enso/enso.current.html

Latest Monthly Precipitation Rate Plot

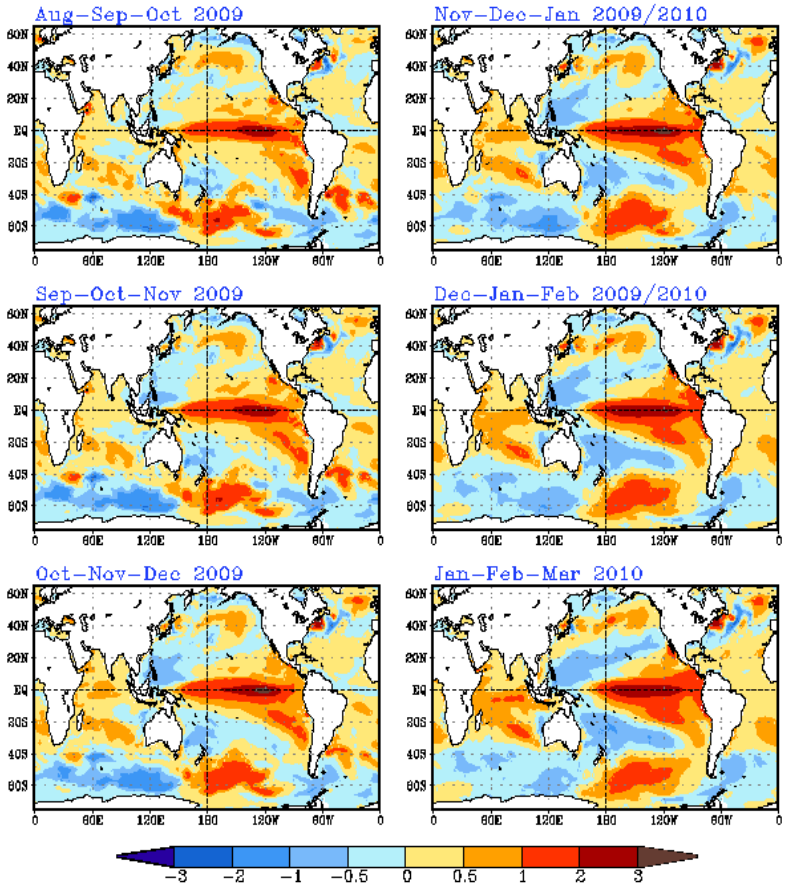
From NCEP



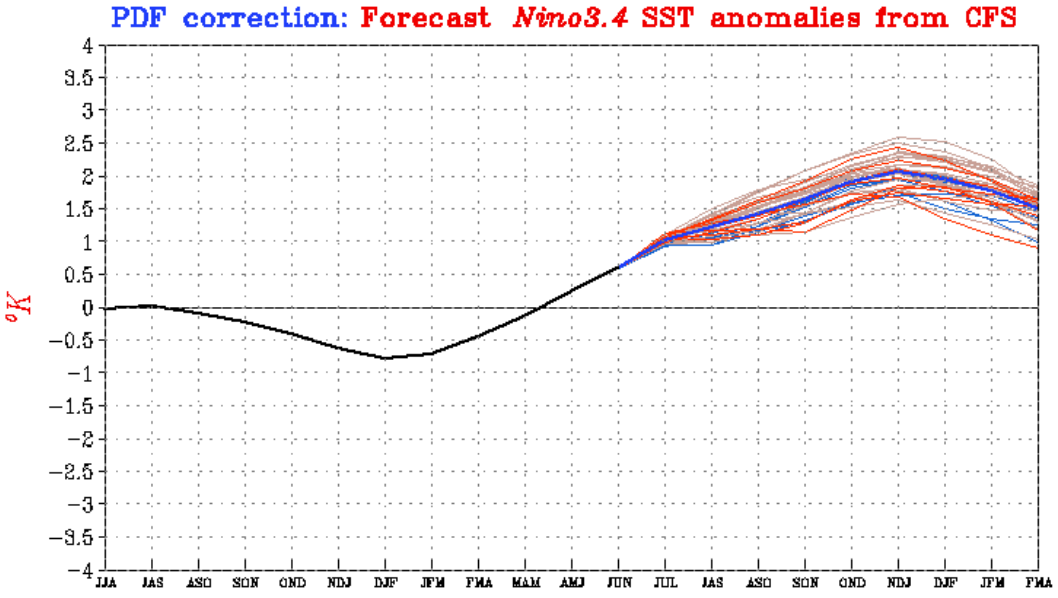
http://www.cdc.noaa.gov/enso/enso.current.html

SST Outlook: Forecast Issued 5 July 2009

From NCEP

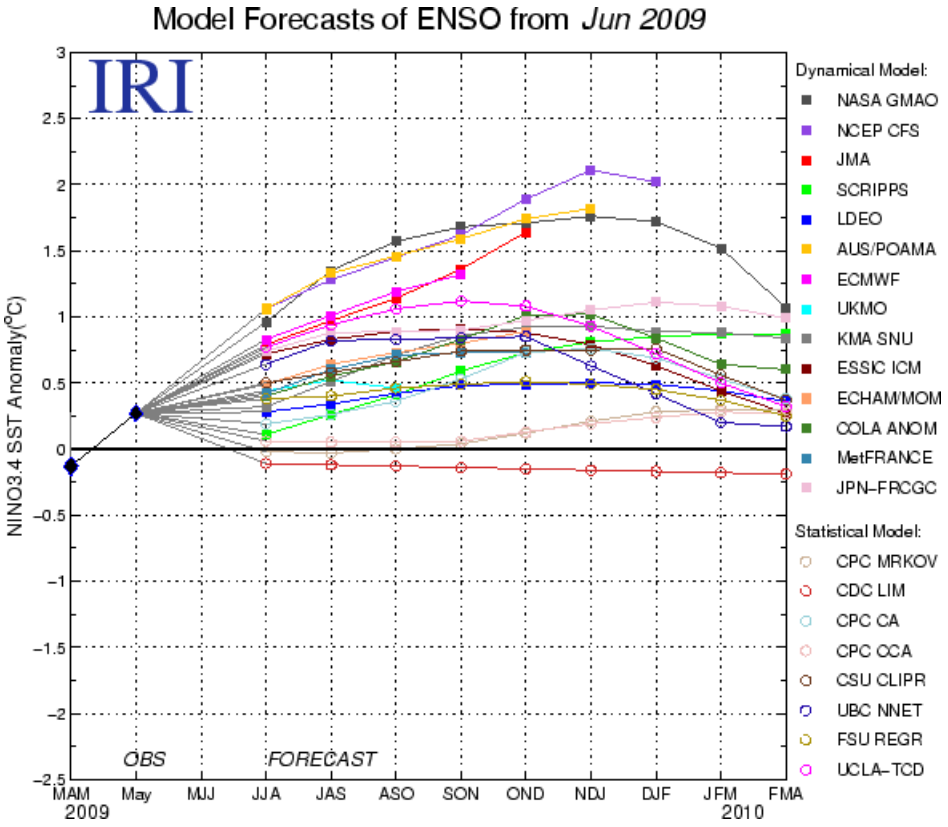


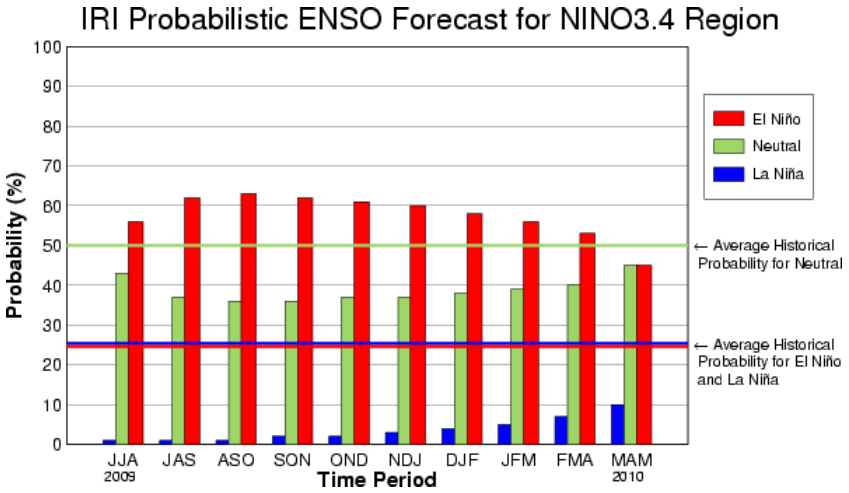
The CFS ensemble mean (heavy blue line) predicts El Niño conditions to last through Northern Hemisphere Winter 2009-10.



Pacific Niño 3.4 SST Outlook

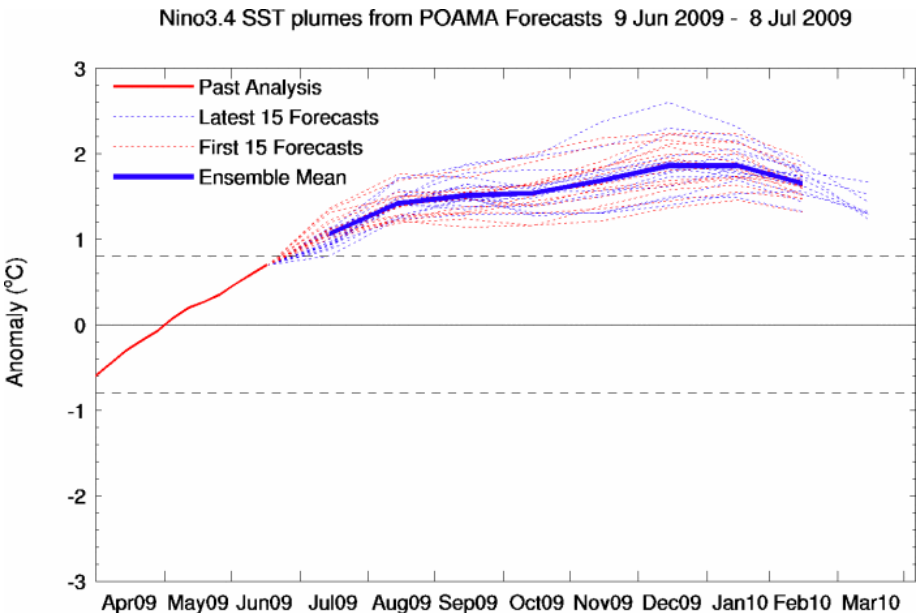
From IRI

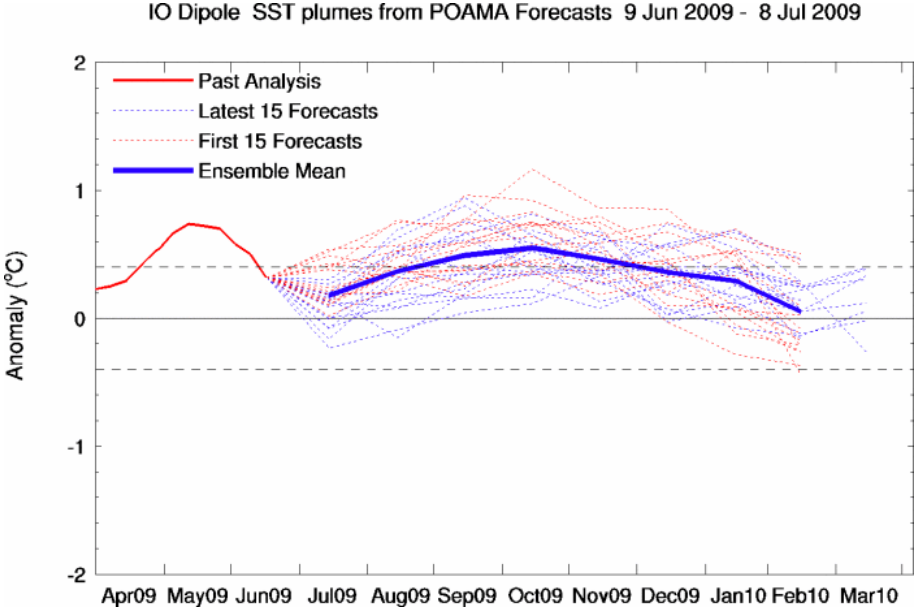


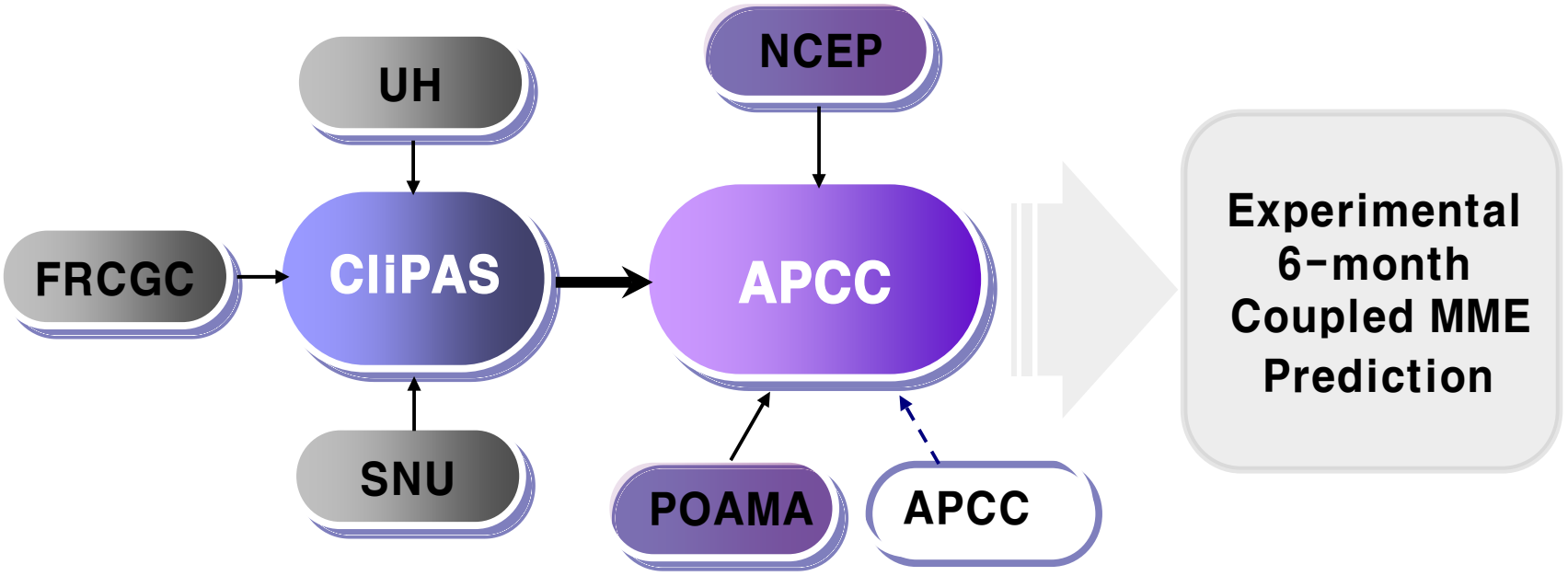


SST Outlook

From BMRC



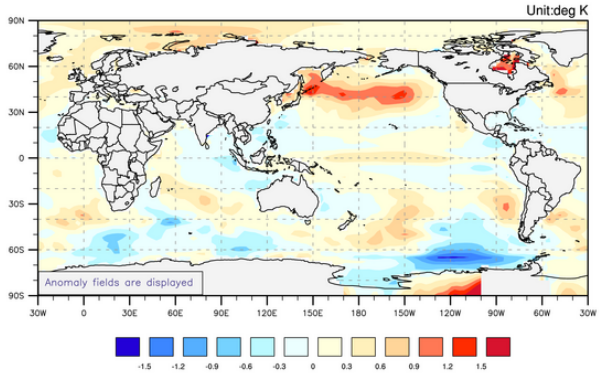
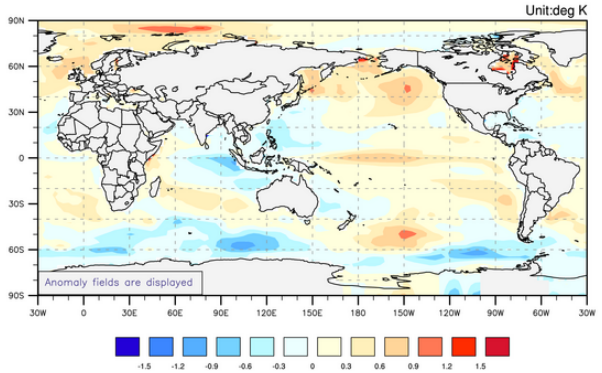
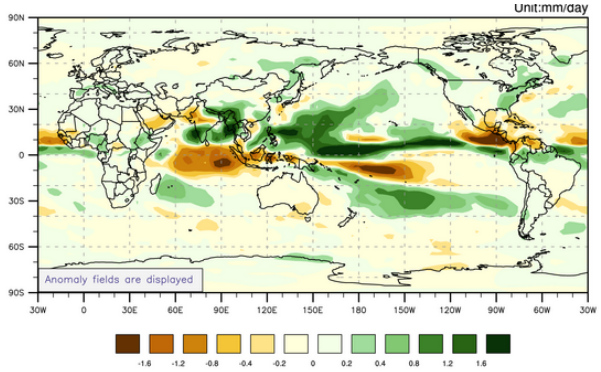
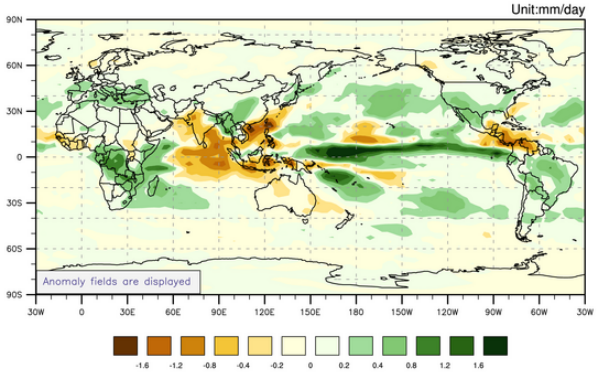
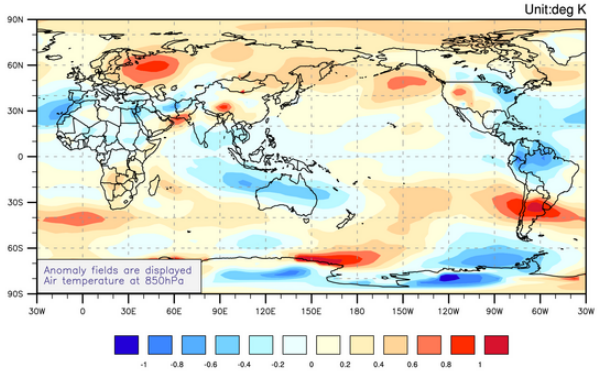
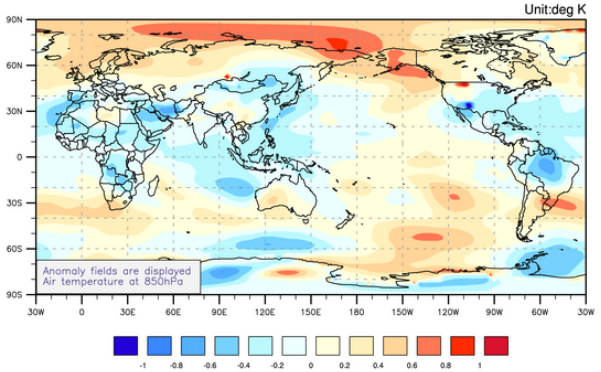




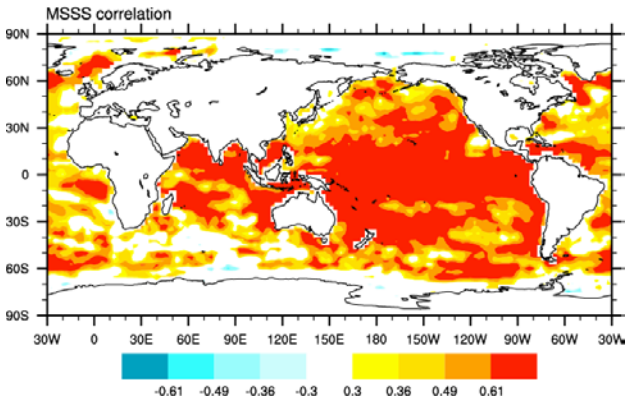
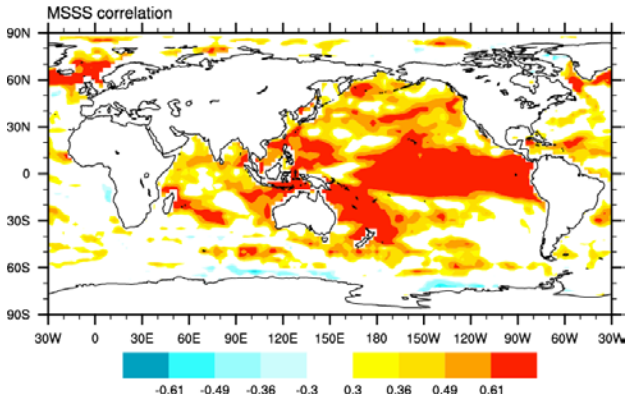
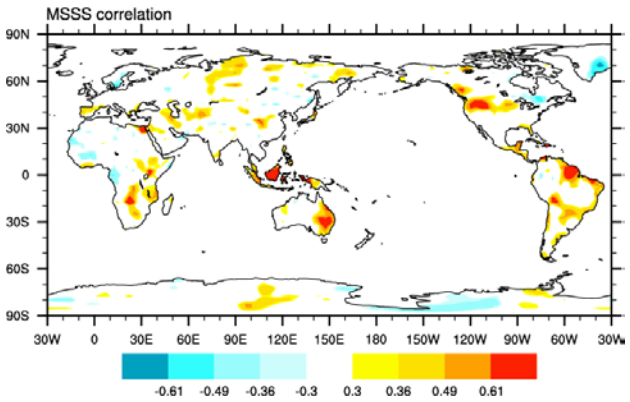
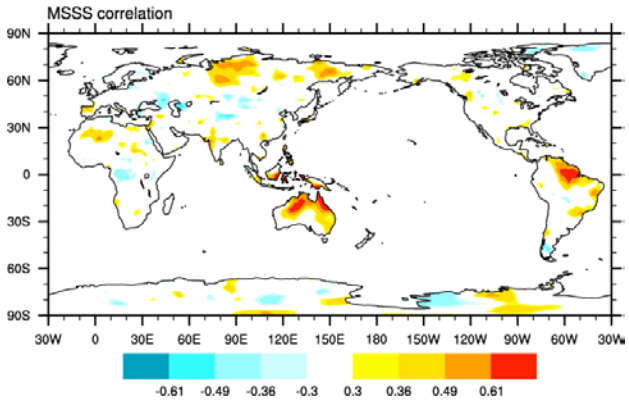
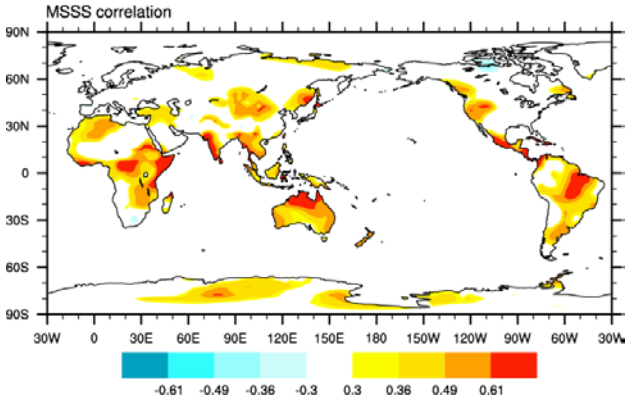
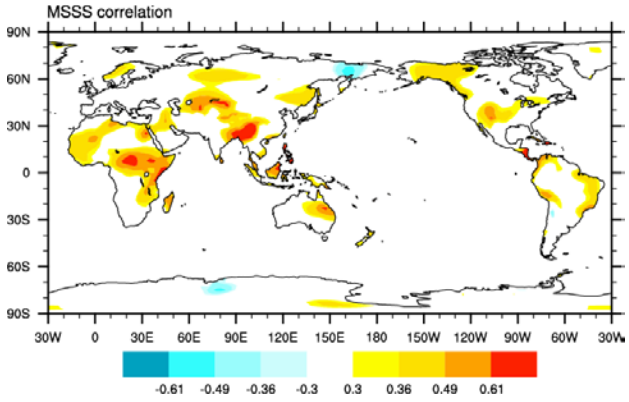
▪ Coupled Models may provide better monsoon prediction (Wang et al., 2008).

▪Forecasts and hindcast verification carried out every season since the fall of 2008.
▪ Completed for SONDJF2008-09 (with IC of Aug., 2008), DJFMAM2008-09,MAMJJA2009, and JJASON2009
▪Experimental 1-7 month lead climate bulletin launched since spring 2009.
▪Will introduce the 1-7 month lead EMSO, ENSO Modoki and IOD prediction in December.

APCC 1-tier MME Forecast for JJASON

	2009JJA	2009SON
SST		
PREC		
T850		

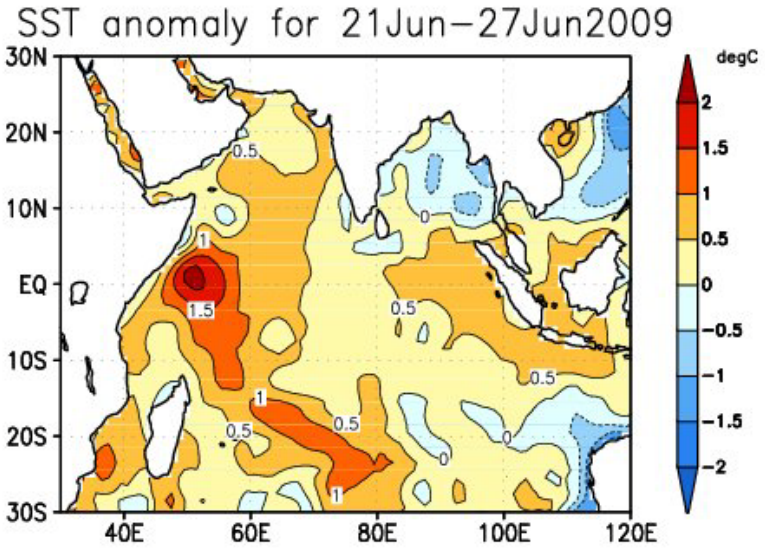
APCC 1-tier MME Verification for JJASON

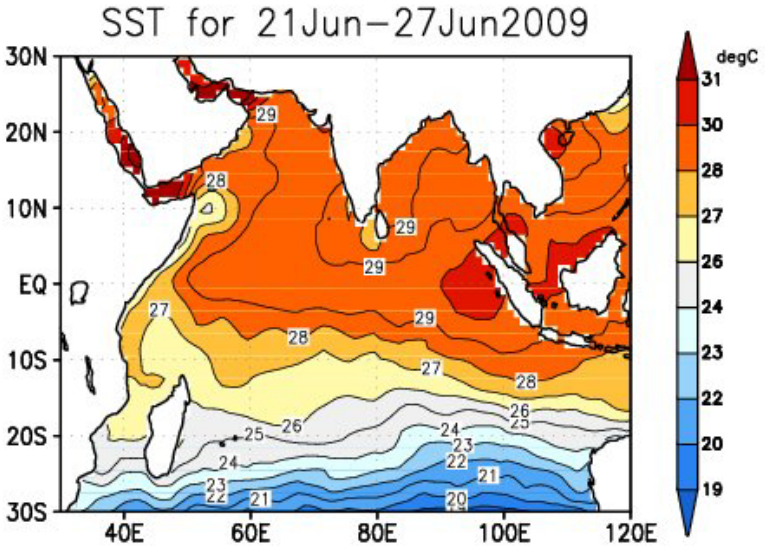
	2009JJA	2009SON
SST		
PREC		
T850		

Indian Ocean Observations

From JAMSTEC

Recent SST anomalies in tropical Indian Ocean (base period 1970-2000)





QUIK SCAT recent winds