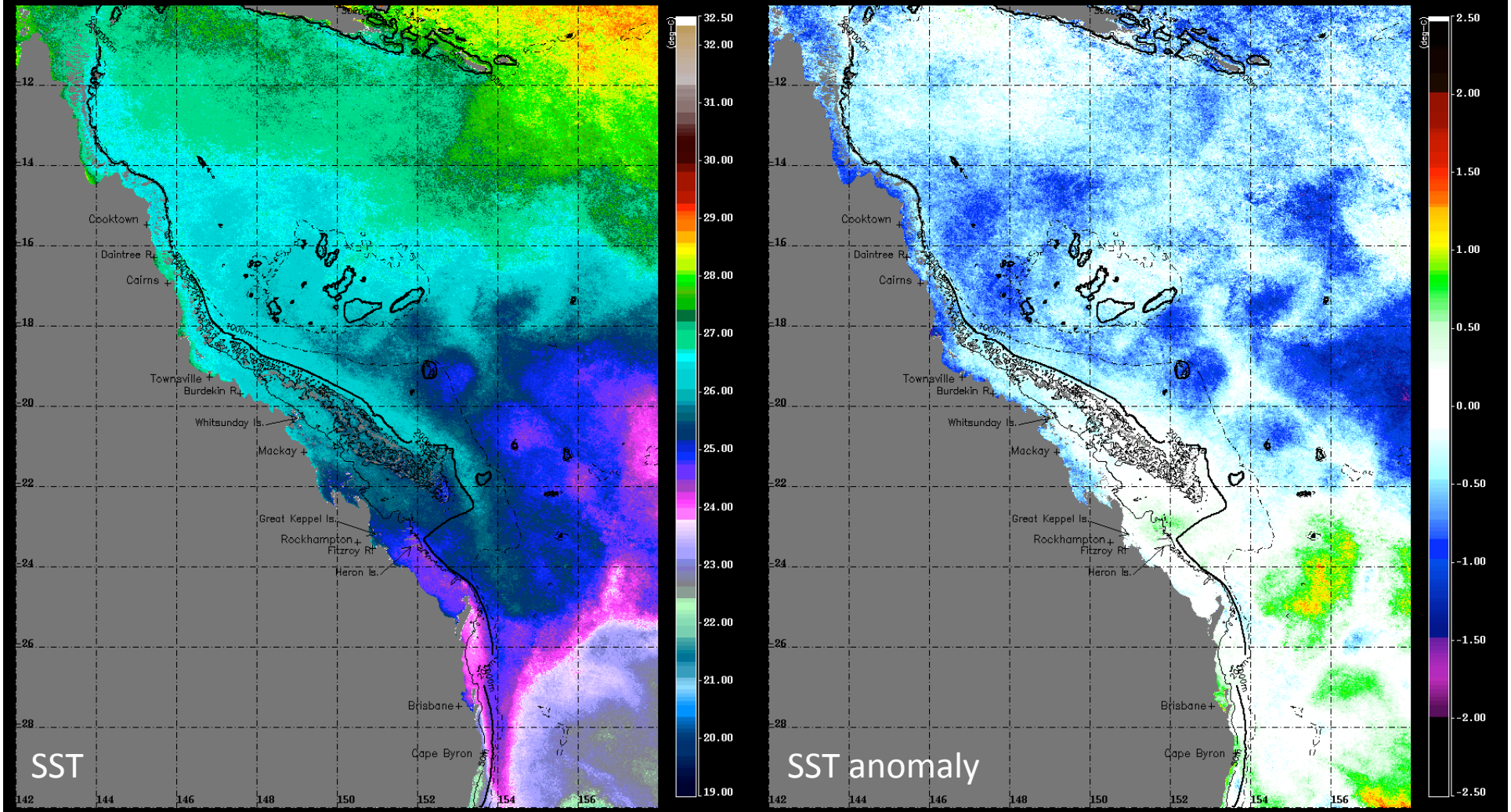
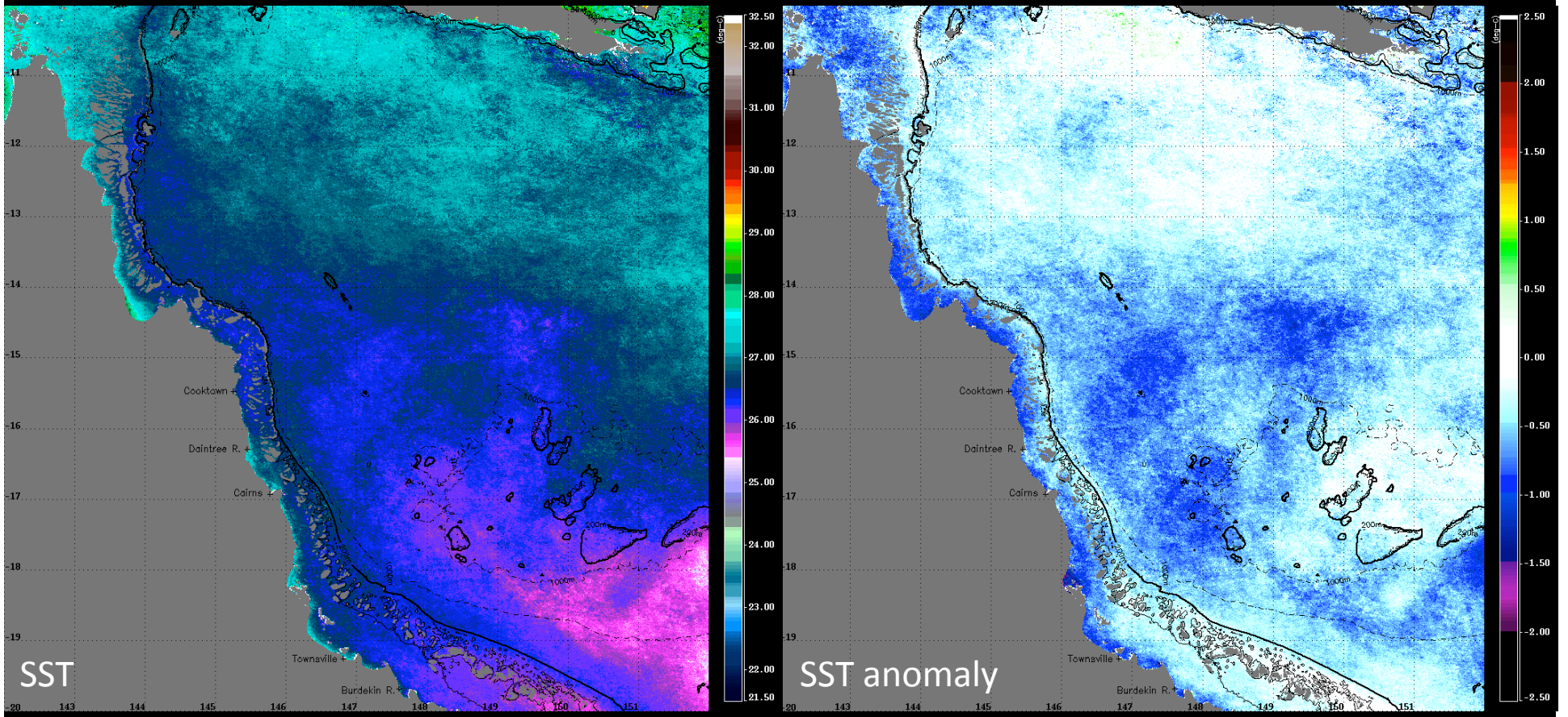
Modis SST (day+night): November 2009



Note:

- Negative SST anomalies north of 22 deg South (Coral Sea and northern GBR).
- Close to average conditions for the S-GBR

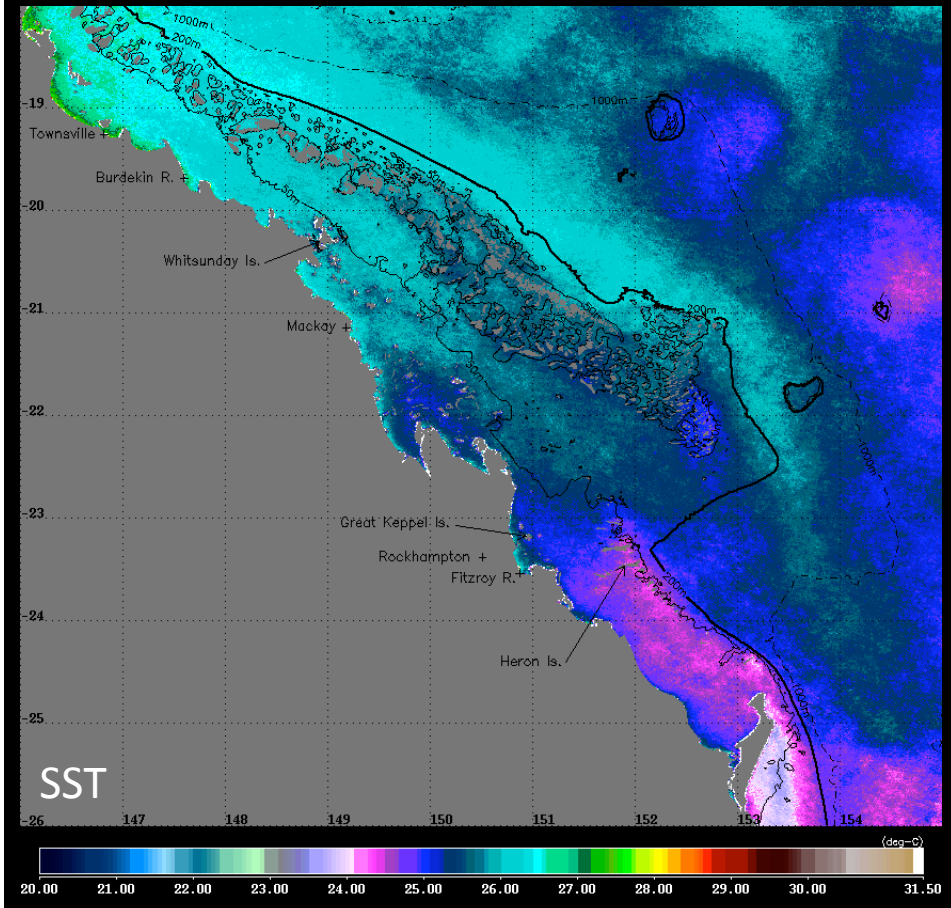
Northern GBR SST: November 2009

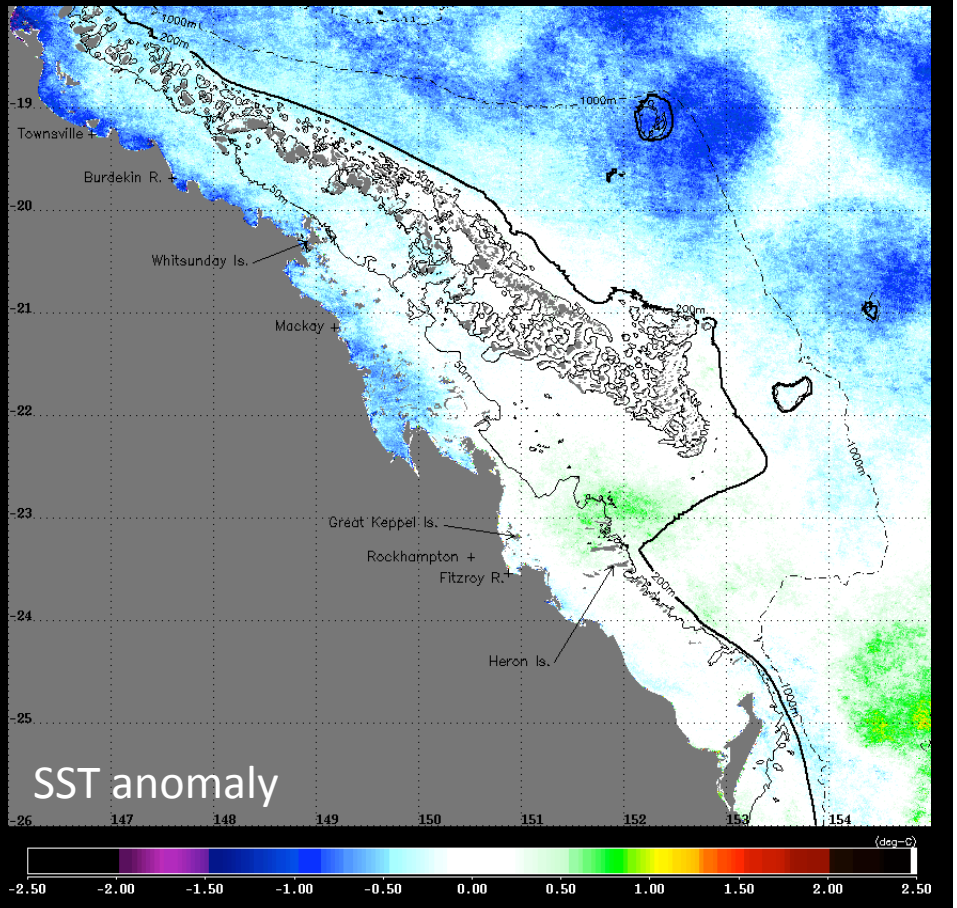


Note:

- Shift in SST anomalies towards negative values along the N-GBR

Southern GBR SST: November 2009

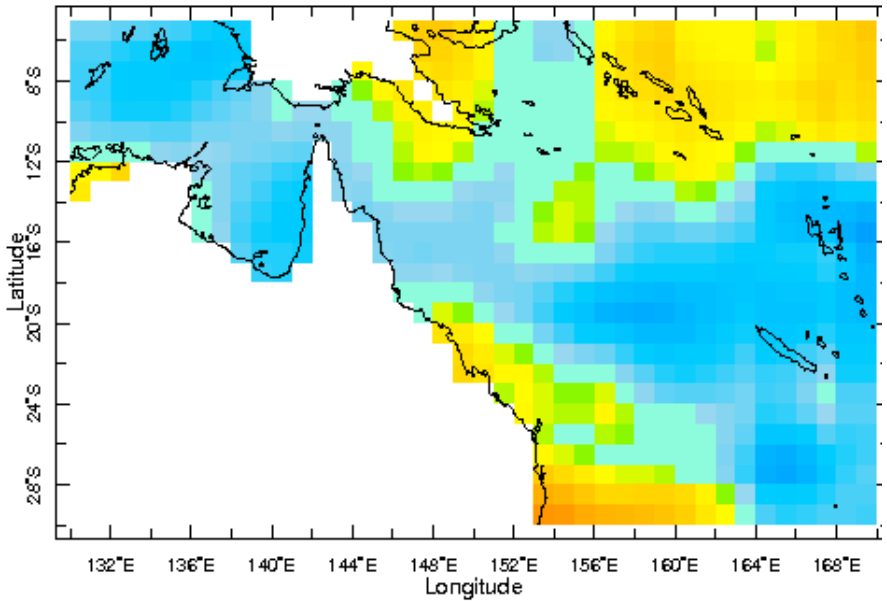




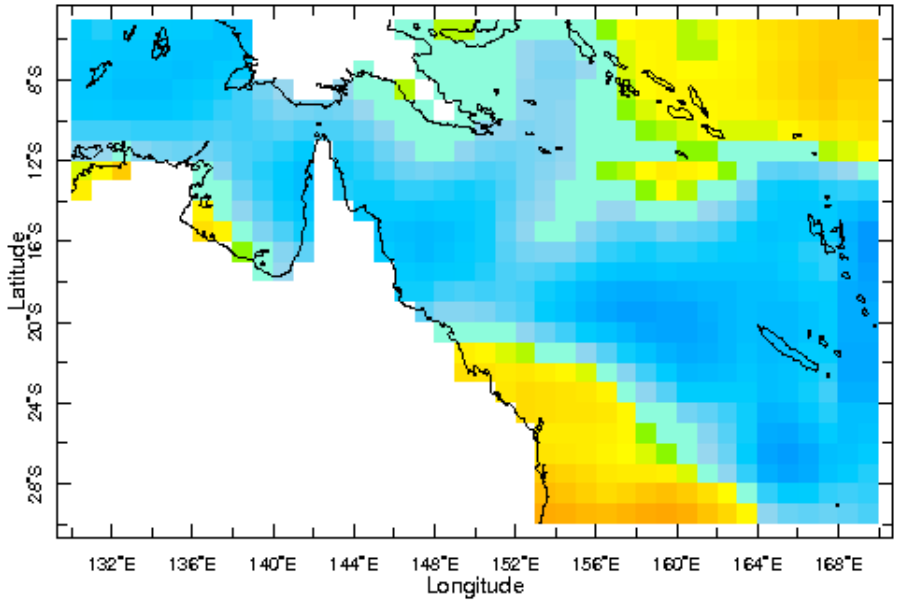
Note:

- The previous weak positive anomalies along the S-GBR have dissipated, with marginally negative SST anomalies north of 22 deg S.

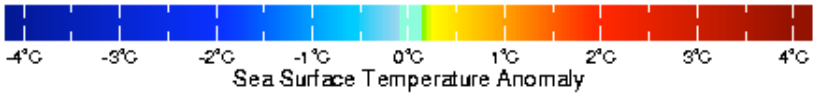
NOAA NCEP EMC CMB GLOBAL Reyn_SmithOIv2 weekly ssta: Sea Surface Temperature Anomaly data



01 – 07 Nov 2009



08 – 14 Nov 2009

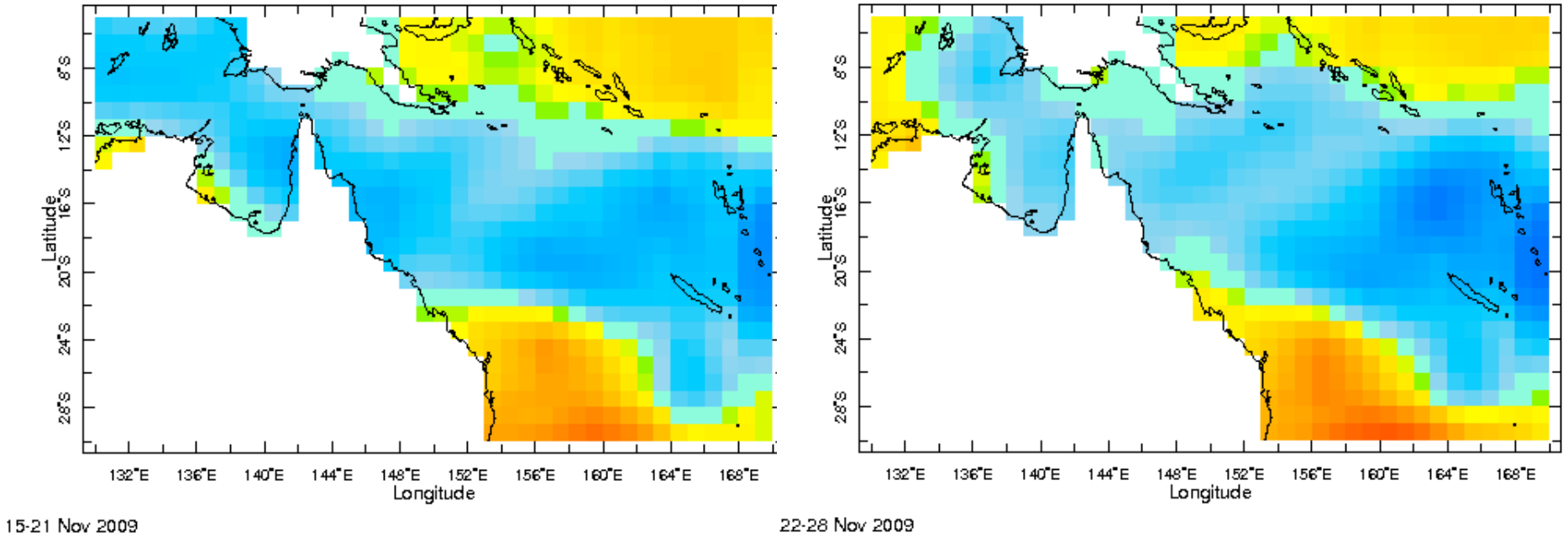


Note:

- At the beginning of November, the slightly positive SST anomalies began to dissipate and move southwards.

http://iridl.ldeo.columbia.edu/
SOURCES/.NOAA/.NCEP/.EMC/.CMB/.GLOBAL/.Reyn_SmithOIv2/.weekly/.ssta/

NOAA NCEP EMC CMB GLOBAL Reyn_SmithOIv2 weekly ssta: Sea Surface Temperature Anomaly data



15 – 21 Nov 2009

22 – 28 Nov 2009

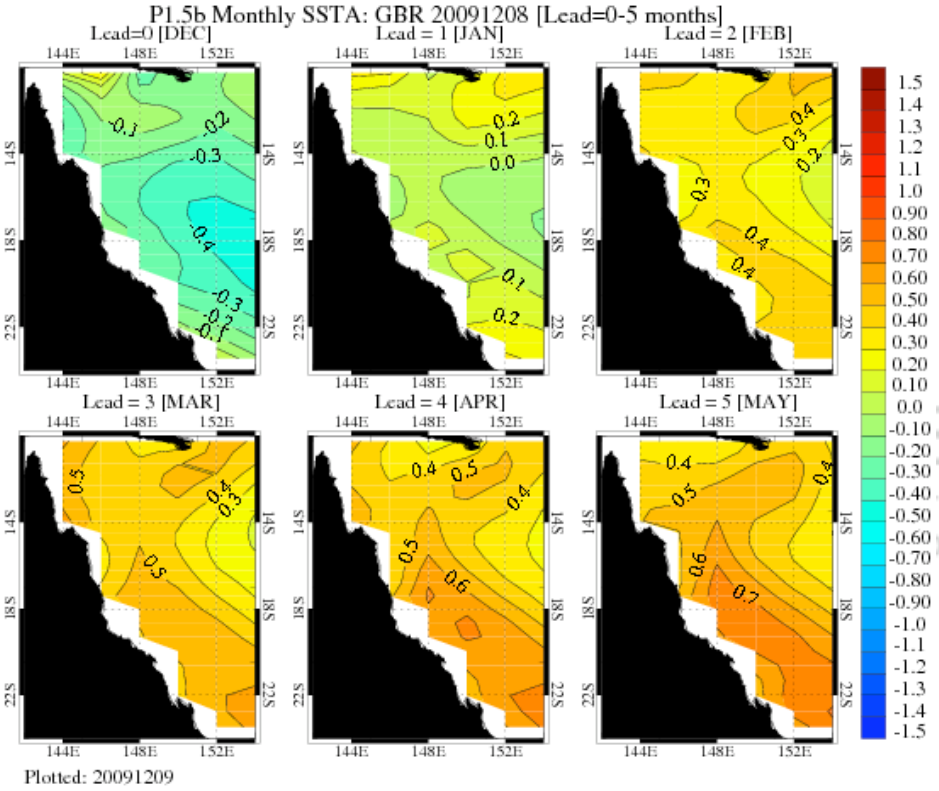
Note:

- Coincident with MODIS monthly SST, NOAA Reynolds SST anomaly product shows negative anomalies over most of the GBR
- In contrast, positive SST anomalies south of ~22 deg S.

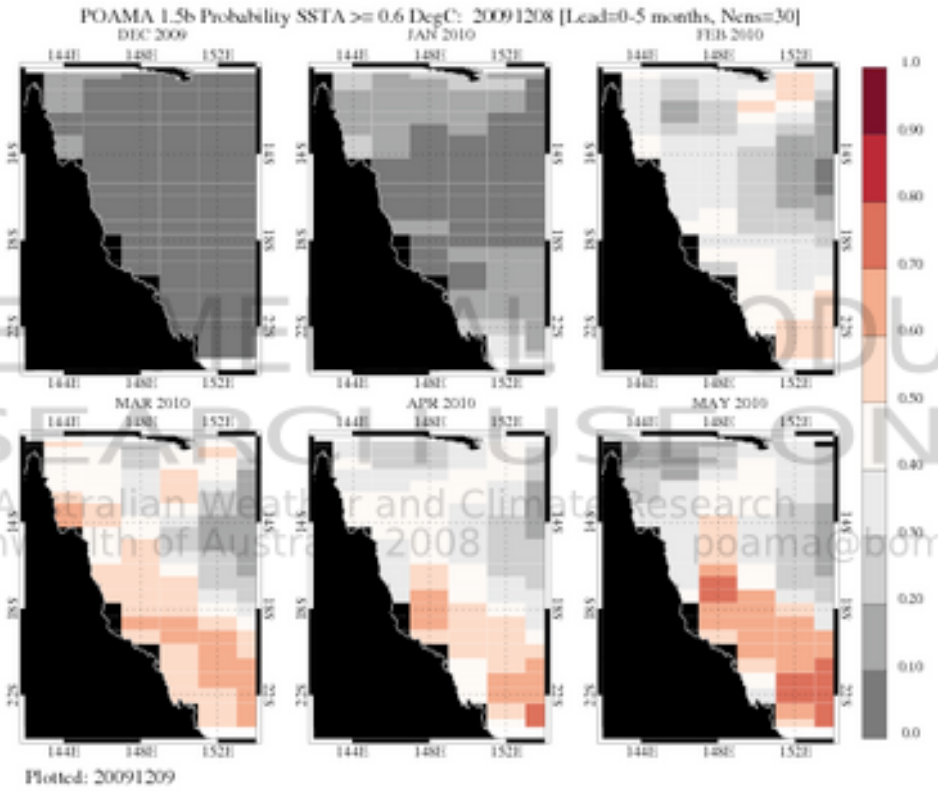
http://iridl.ldeo.columbia.edu/SOURCES/.NOAA/.NCEP/.EMC/.CMB/.GLOBAL/.Reyn_SmithOIv2/.weekly/.ssta/

Experimental Great Barrier Reef SST Anomaly Forecasts (POAMA)

POAMA SST anomalies forecast for the following 6 months.



New POAMA product highlighting the probability of SST anomalies greater than 0.6 deg C for the following 6 months.



Note:

- POAMA predicts lower than average SST for December that will change to positive SST anomalies in February.
- In March, temperatures are expected to be 0.5 Deg C above average for most of the GBR, and the positive anomalies will continue through May.

http://poama.bom.gov.au/experimental/poama15/sp_gbr.htm

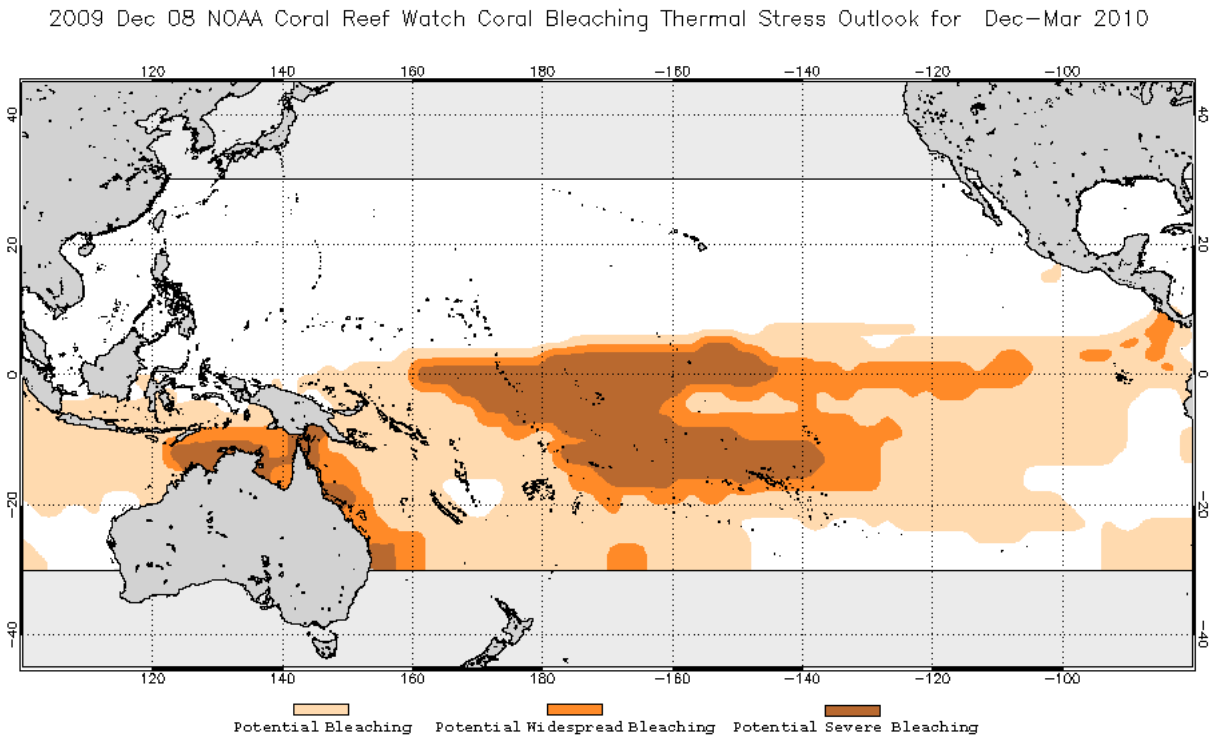
UQ_ OceanSpace group

NOAA Coral Reef Watch

Seasonal Coral Bleaching Thermal Stress Outlook

(Experimental product, 2x2 degree spatial resolution)

Outlook for December to March 2010



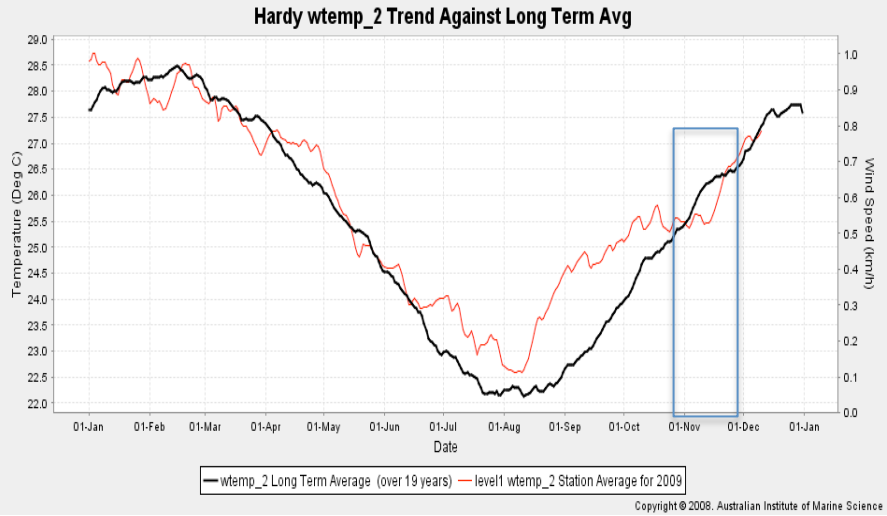
Note:

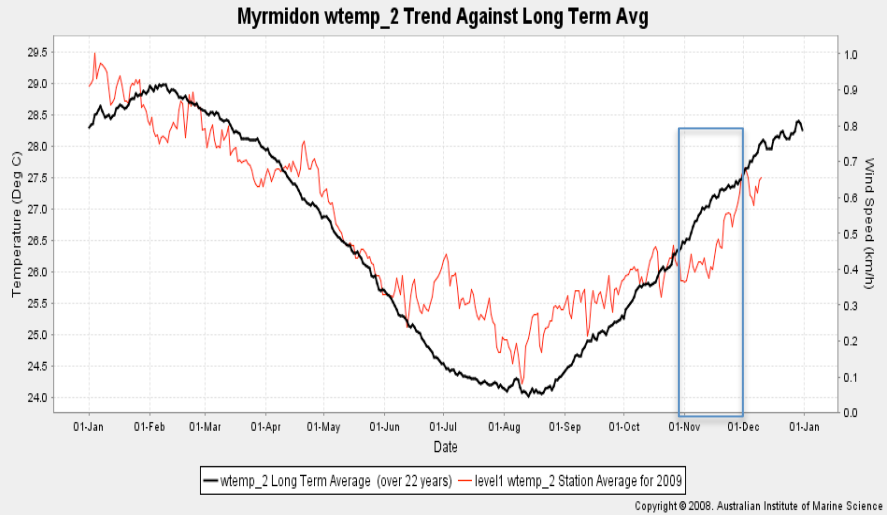
- In contrast to other model predictions, the NOAA thermal stress Outlook for December to March continues to predict potential widespread bleaching on the central and southern GBR. The bleaching risk now also extends to include the northern GBR.

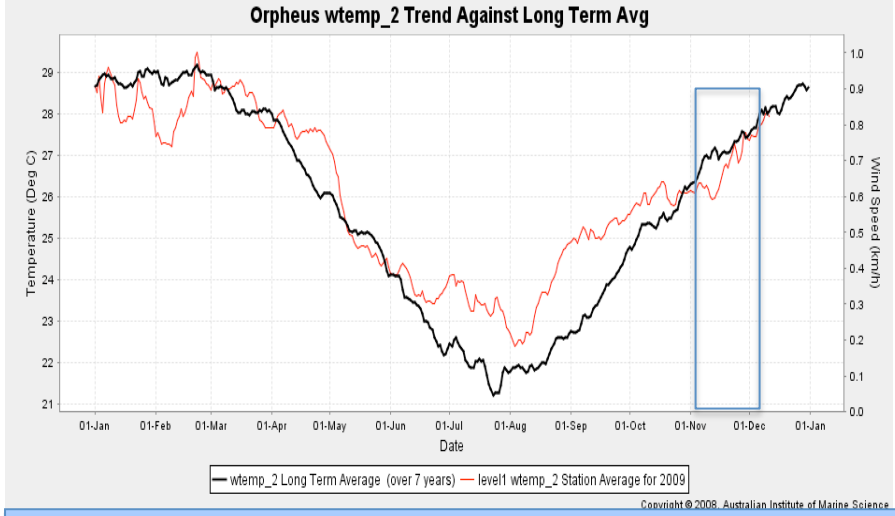
http://coralreefwatch.noaa.gov/satellite/bleachingoutlook/

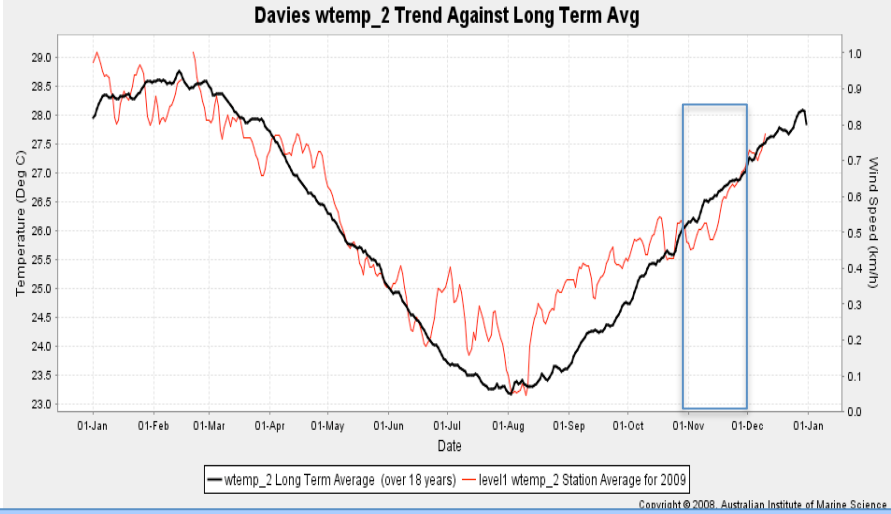
UQ_ OceanSpace group

Weather Observing System: AIMS Data Centre





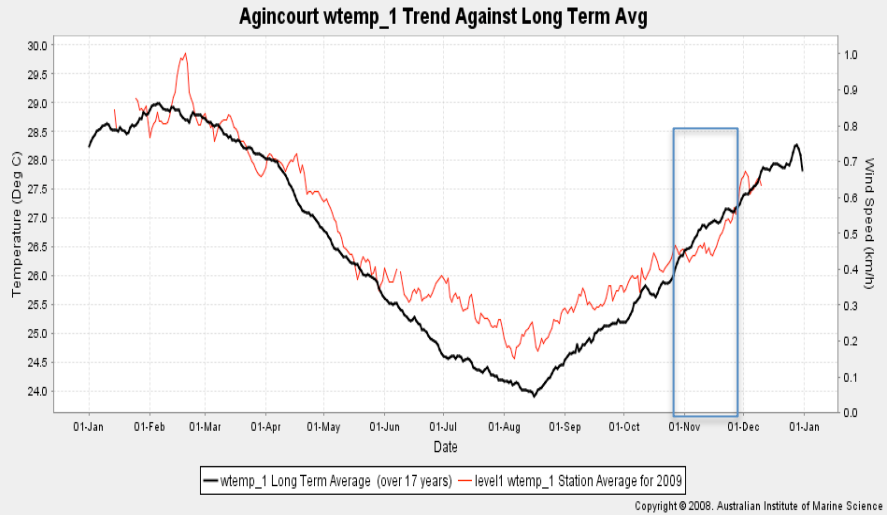


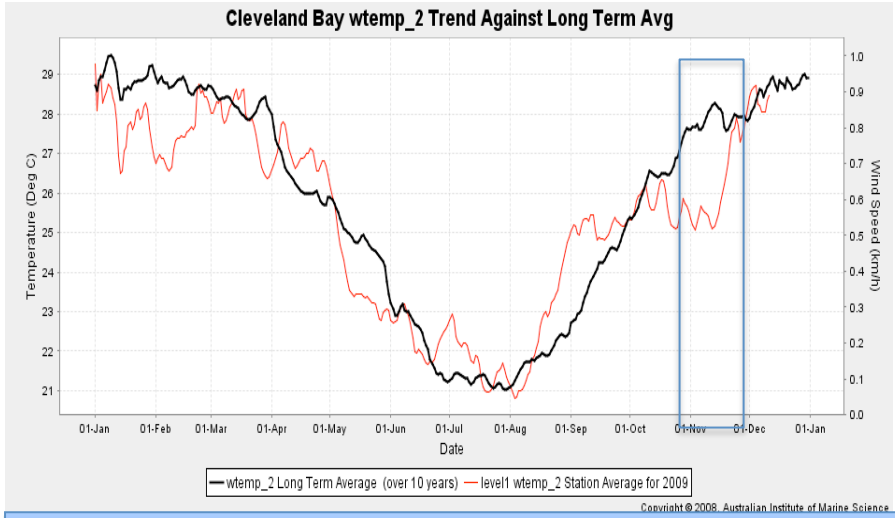


Note:

- The AIMS in-situ data also shows close to or below average conditions for November

Weather Observing System: AIMS Data Centre



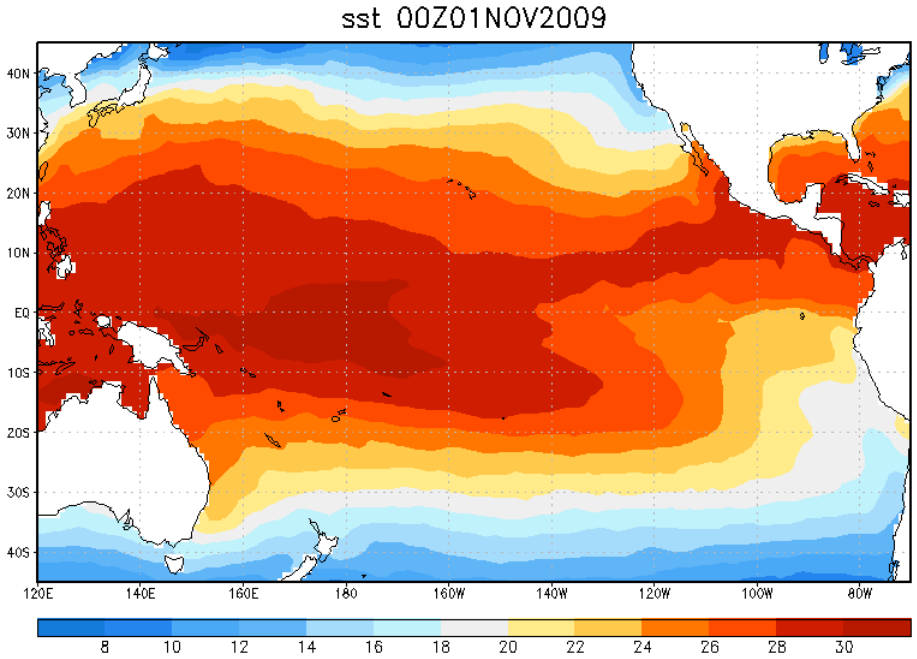


Note:

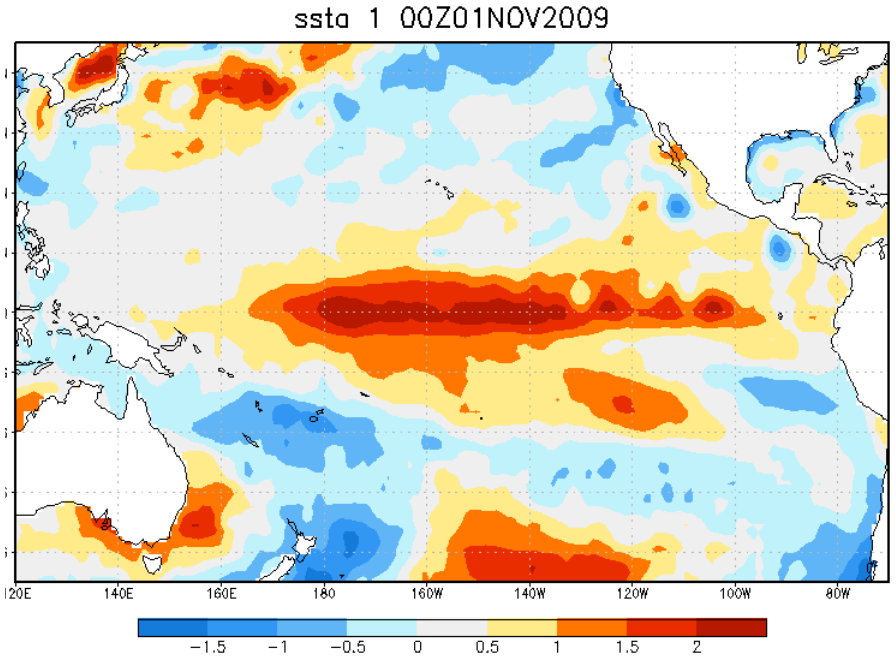
- The AIMS in-situ data also shows close to or below average conditions for November.

NOAA Optimum Interpolation Sea Surface Temperature Analysis:

OI SST: NOVEMBER 2009



OI SST ANOMALY: NOVEMBER 2009



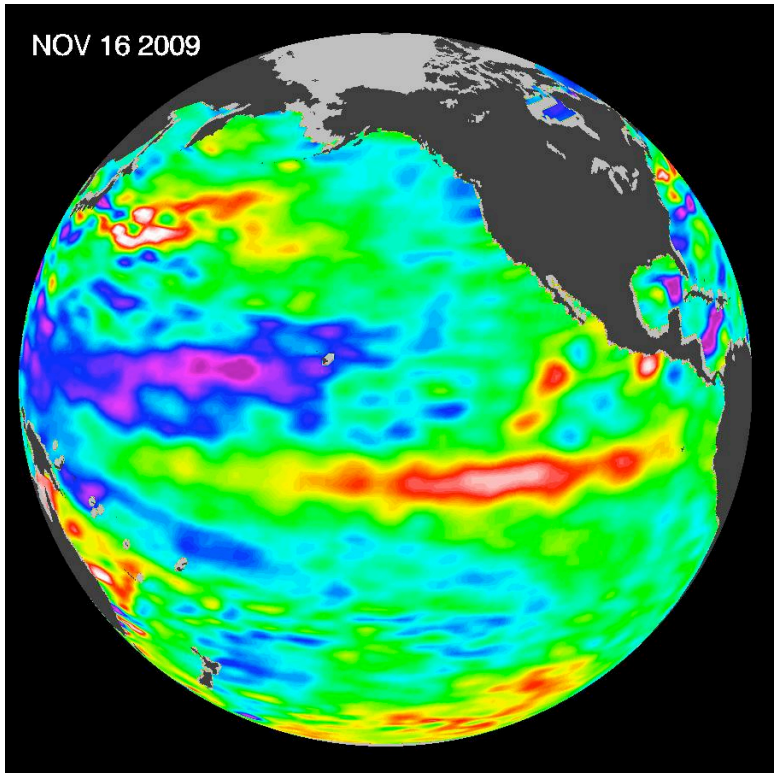
Note:

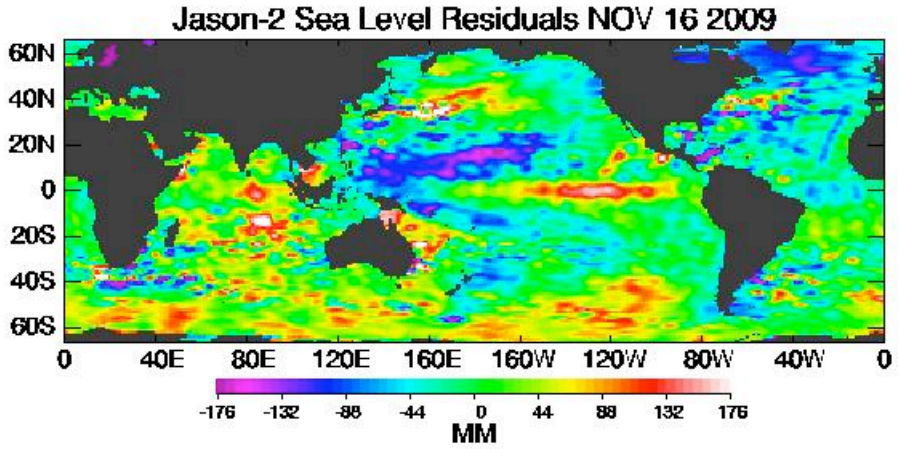
- In the central equatorial Pacific, the NOAA-OISST shows strong positive SST anomalies have intensified along the equator, clearly indicative of an El Niño pattern.

http://www.emc.ncep.noaa.gov/research/cmb/sst_analysis/

Sea surface height anomalies from Ocean Surface Topography: Jason-1 and Jason-22 (NASA/French)

10-day data cycle centered around NOVEMBER ??, 2009.



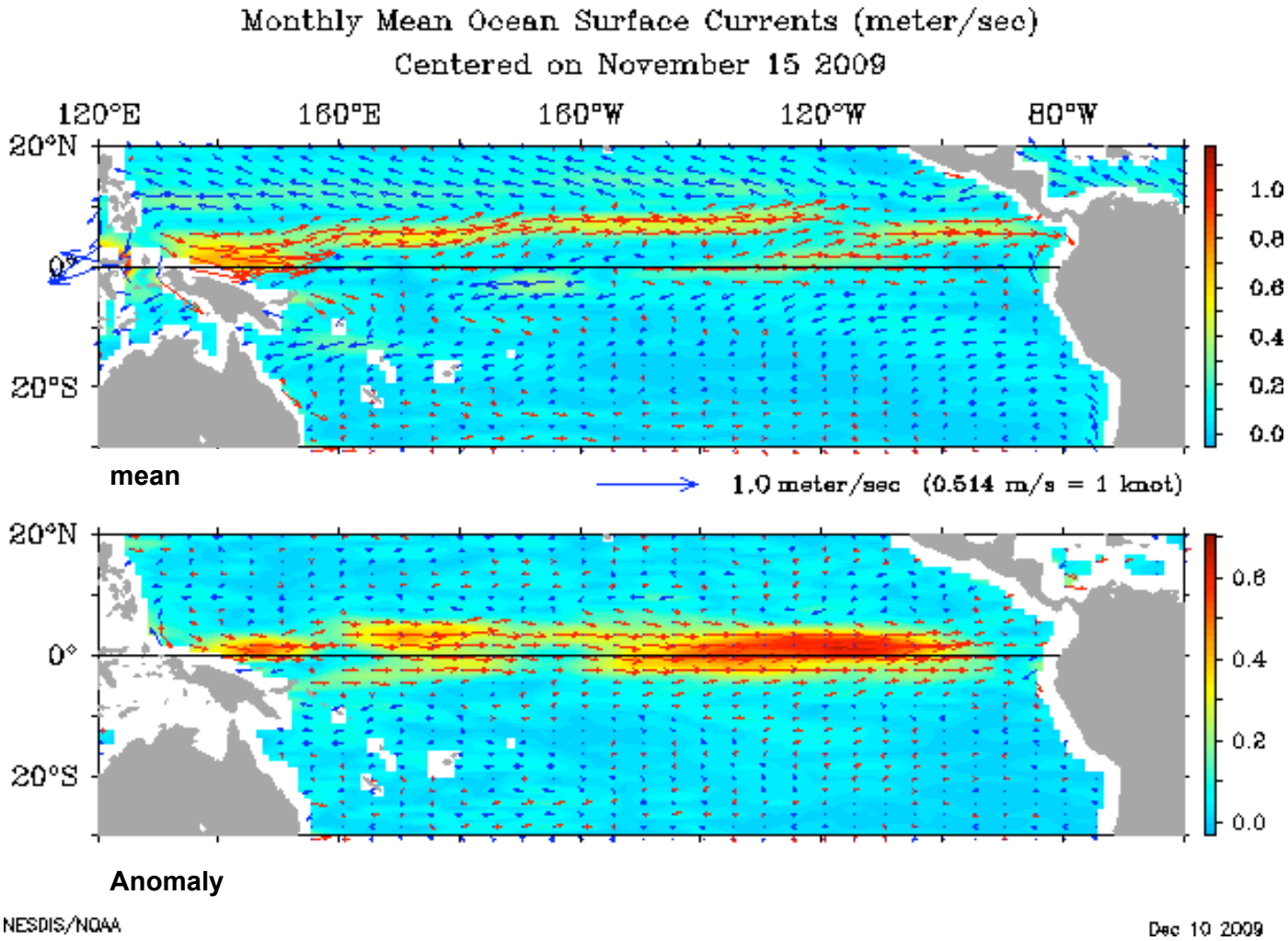


Note:

•The November SSH shows the positive anomalies (warm bumps) along the equator, associated with Kelvin waves, have continued to travel eastwards - a characteristic of a developing El Niño.
(One of the characteristics that signal a developing El Niño is a change in average sea surface height (SSH) compared to normal sea level)

http://sealevel.jpl.nasa.gov/science/jason1-quick-look/

OSCAR: Ocean Surface Current Analysis - Real time

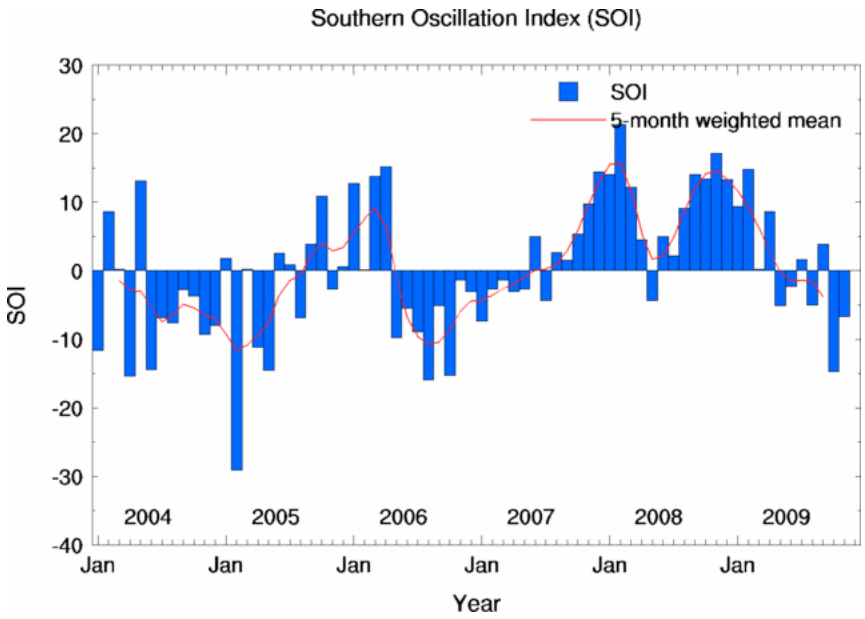


Note:

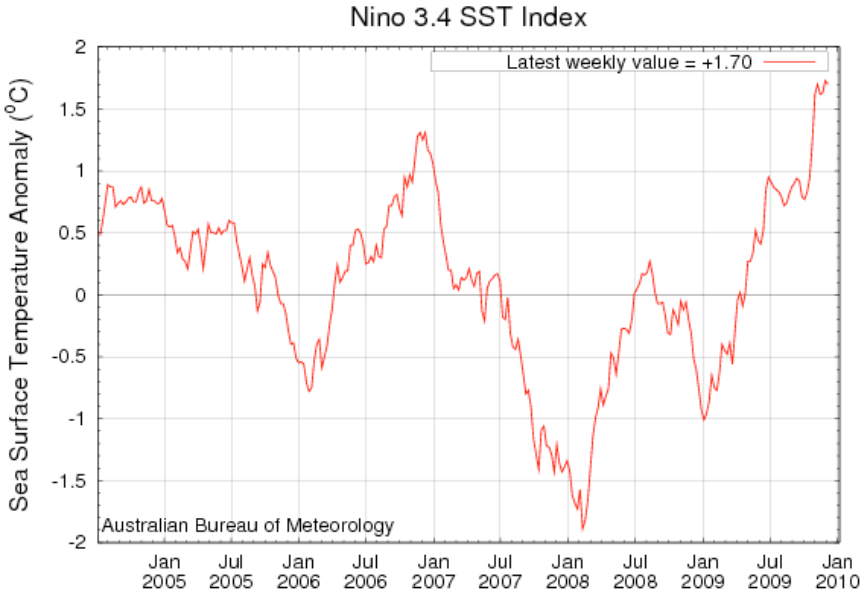
- The SEC shows an anomalous eastward flow across the entire equatorial Pacific. This pattern is characteristic of an El Niño event.

http://www.oscar.noaa.gov/datadisplay/

ENSO index



Negative SOI = El Niño



Positive Nino 3.4 index= El Niño

Note:

- Both indices still show an El Niño event.
- The EL Niño conditions are expected to last through at least the Northern Hemisphere winter 2009/10 (the majority of models indicate at least a moderate strength El Niño through December-January- February 2009-10).