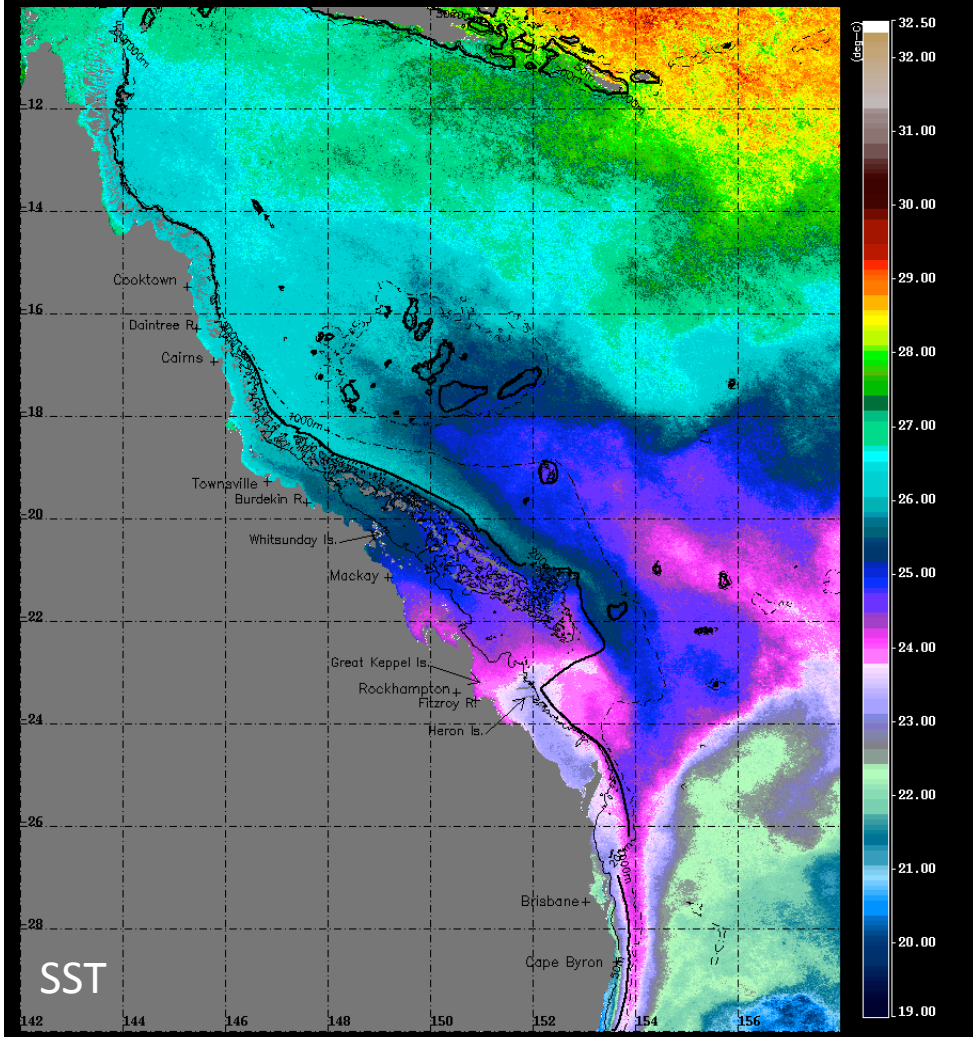
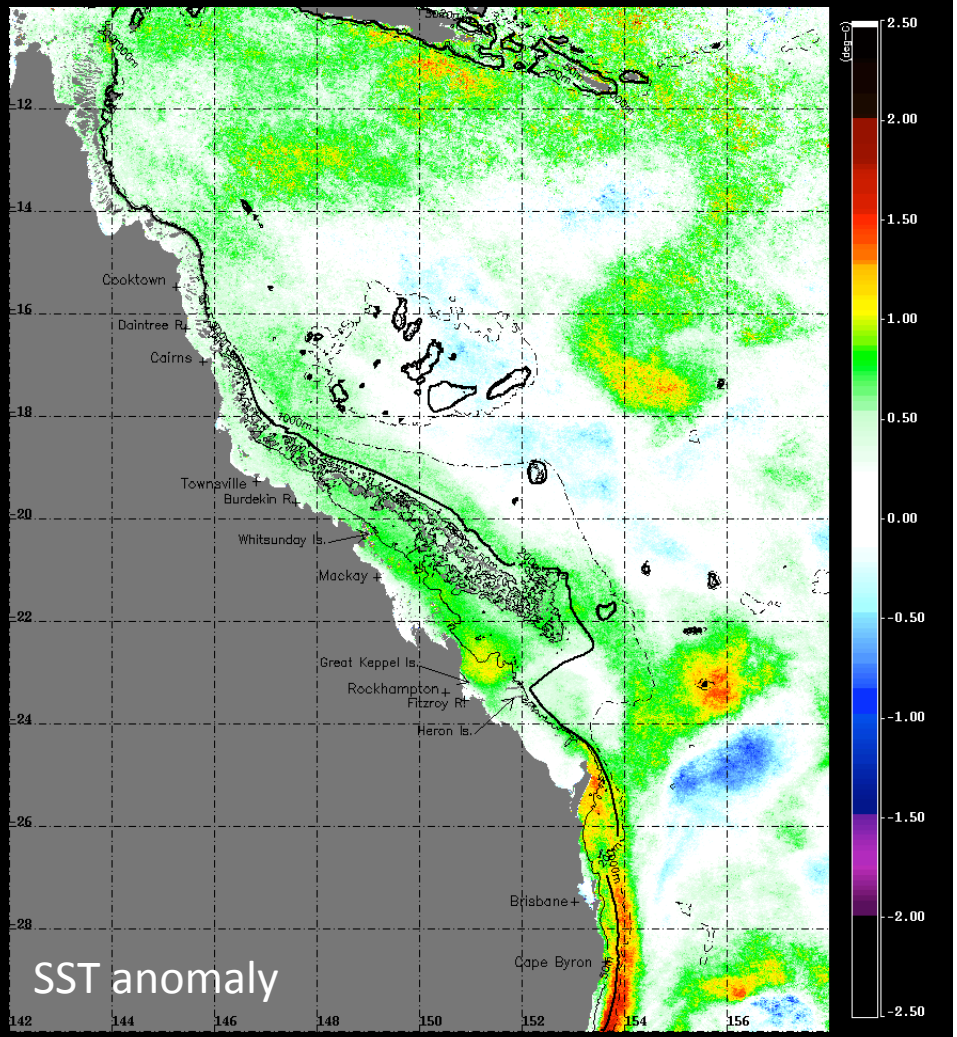
Modis SST (day+night): October 2009

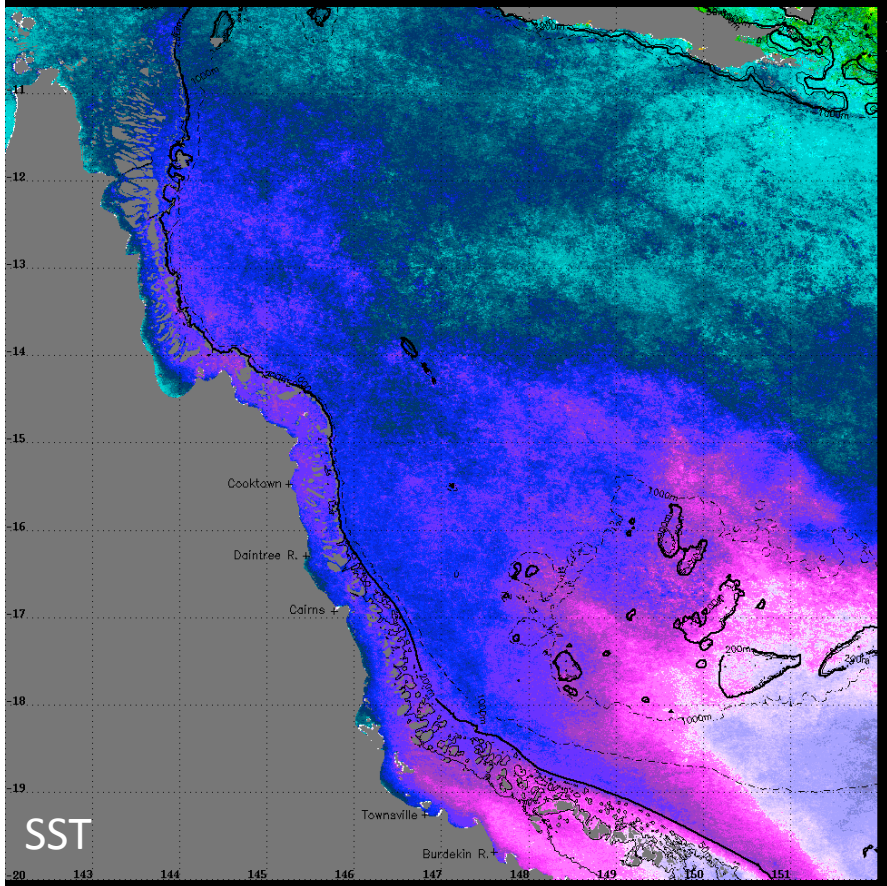


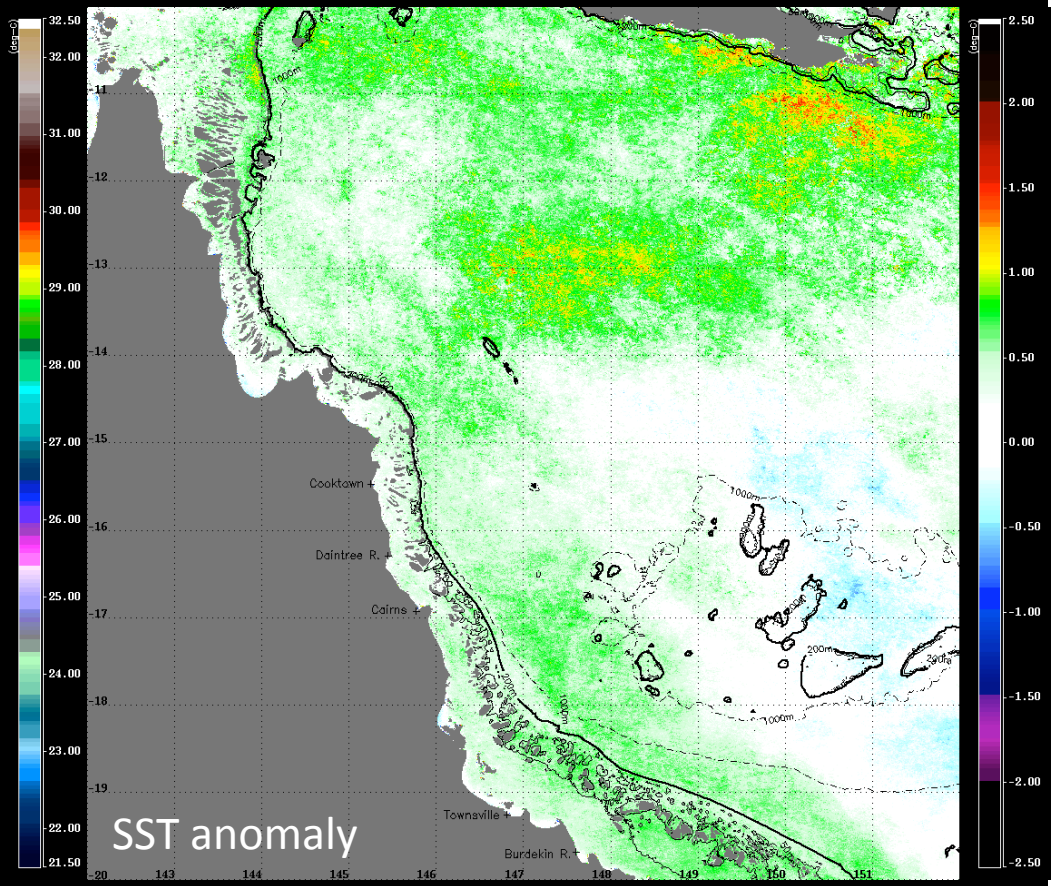


Note:

- The SST anomalies along the GBR have dissipated, however remain slightly positive south of 20 deg S
- The EAC is clearly visible along the S-GBR continental shelf

Northern GBR SST: October 2009

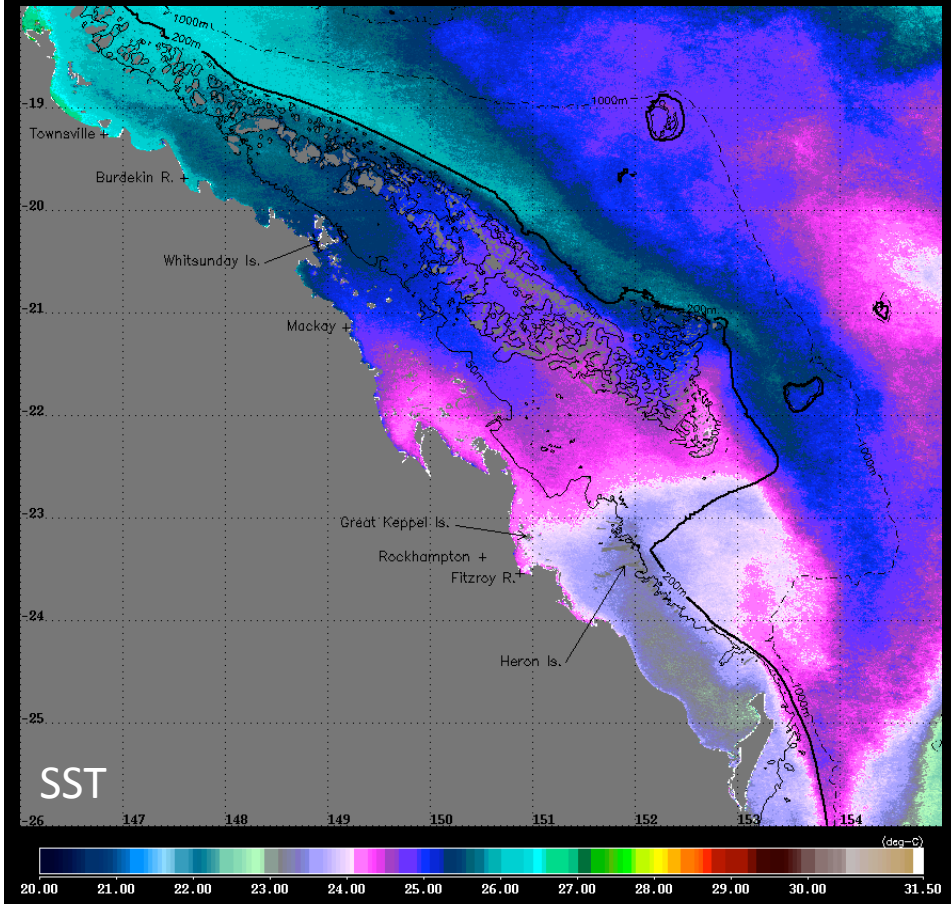


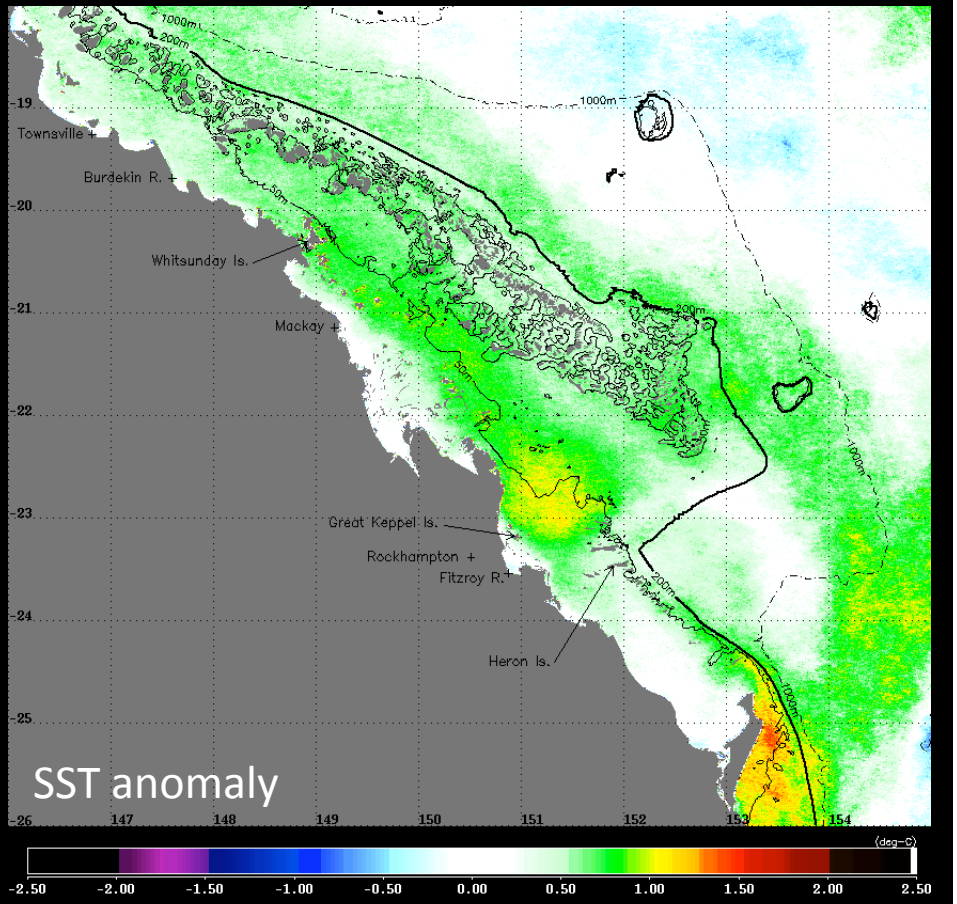


Note:

- The previous strong positive anomalies in the central GBR have dissipated
- Close to average conditions for most of the N-GBR

Southern GBR SST: October 2009

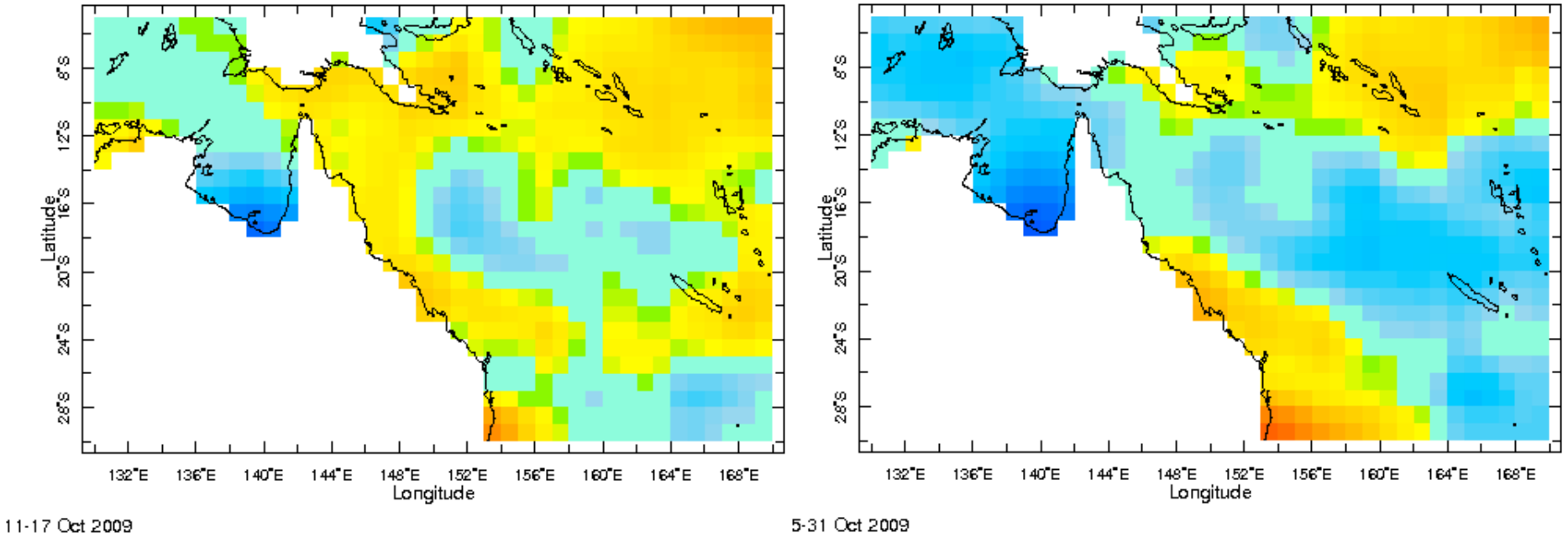




Note:

- The previous strong positive anomalies along the S-GBR have dissipated
- Weak positive anomalies remain
- A clear frontal SST boundary continues to separate the Capricorn Bunker region from waters to the north thereof

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



11 – 17 Oct 2009

25 – 31 Oct 2009

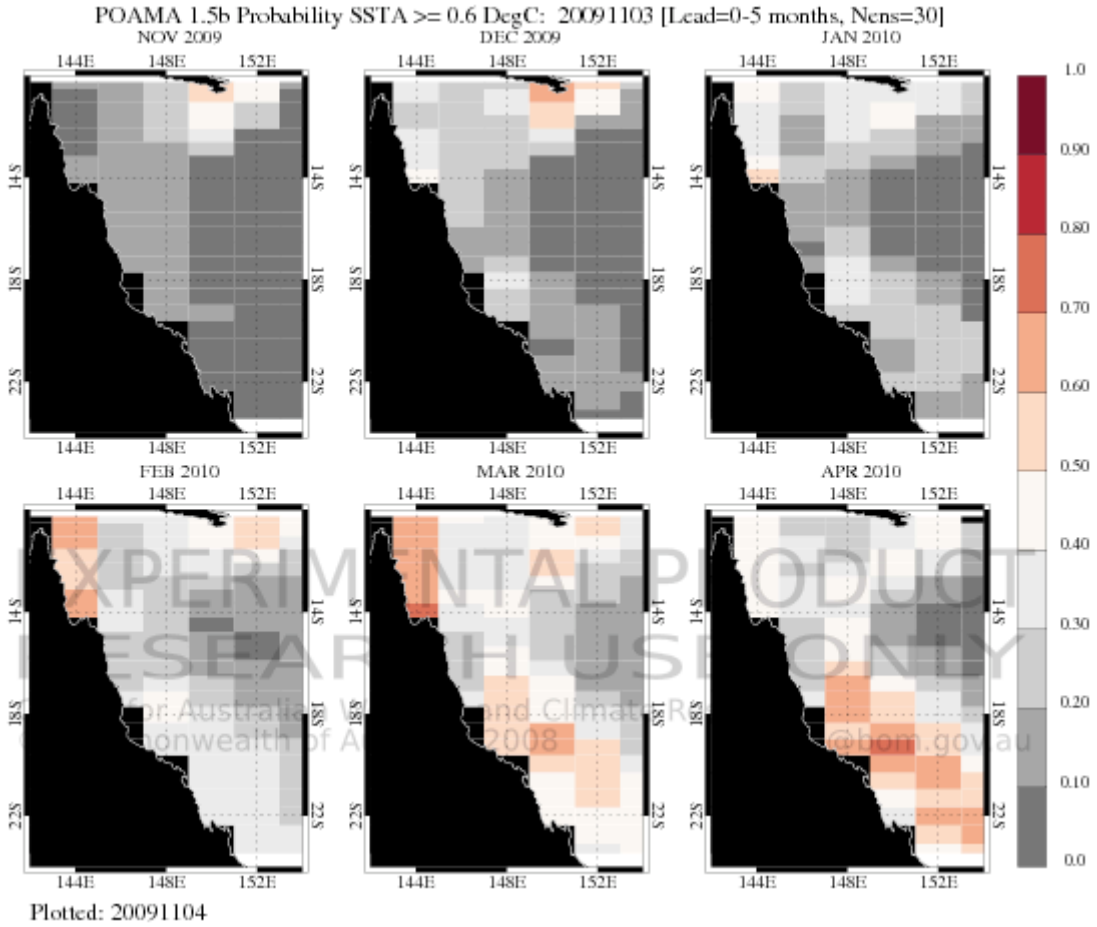
Note:

- The previous strong positive anomalies started to dissipate in mid-Oct
- By the end of October, the positive anomalies were confined to the region south of ~20S

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

Experimental Great Barrier Reef SST Anomaly Forecasts (POAMA)

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



Note:

- POAMA predicts close to average conditions for November – January
- In February and only in the Northern GBR, the SST anomaly is expected to be greater then 0.6 deg C.
- This anomaly will continue through March when anomalies will also begin to exceed 0.6 in the Southern GBR.

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

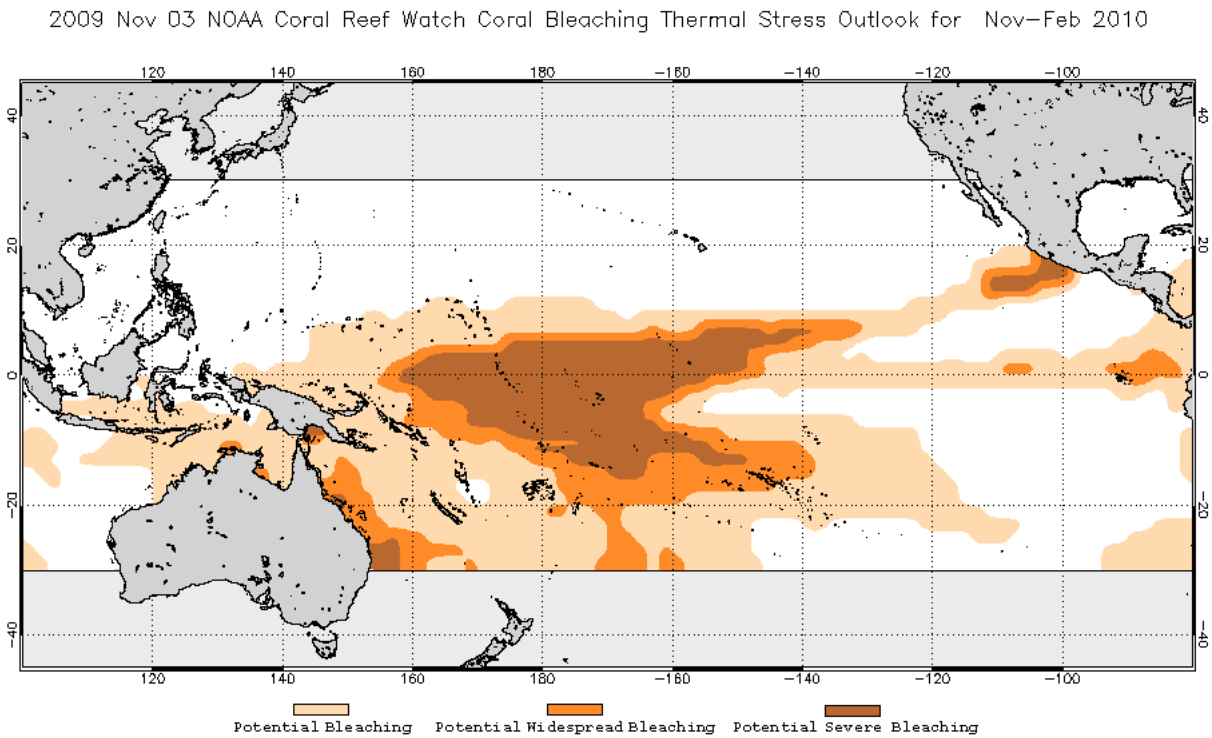
UQ_ OceanSpace group

NOAA Coral Reef Watch

Seasonal Coral Bleaching Thermal Stress Outlook

(Experimental product, 2x2 degree spatial resolution)

Outlook for November to February

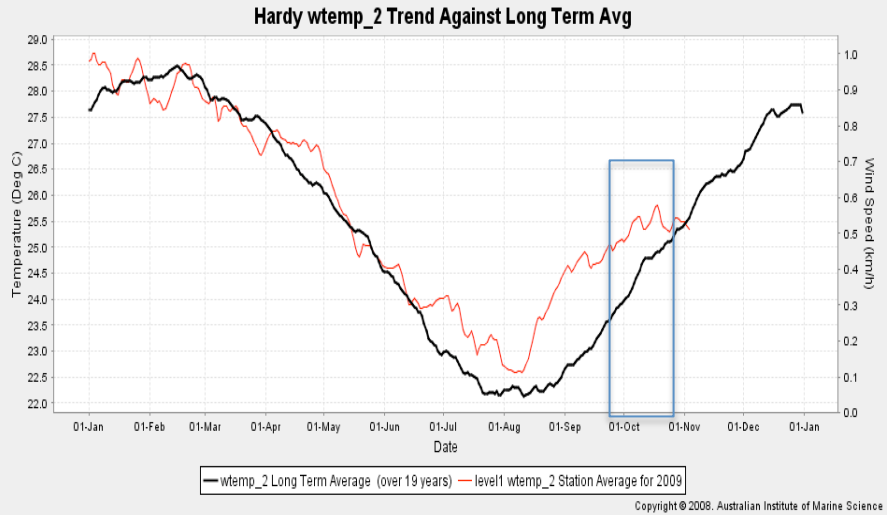


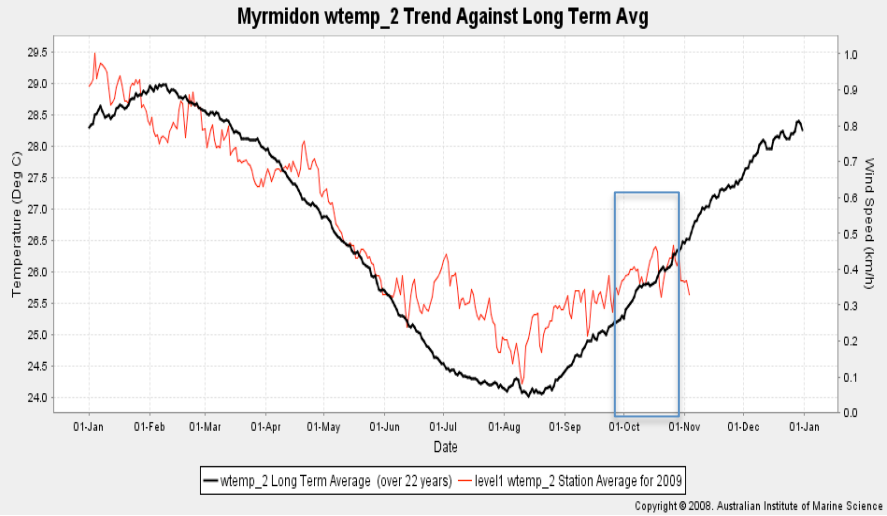
Note:

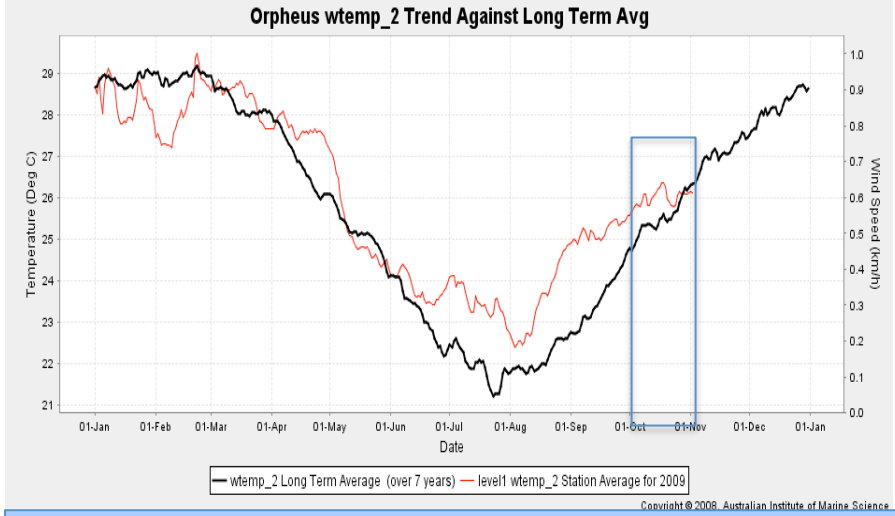
- The NOAA thermal stress Outlook for October to January has changed to now predict a potential widespread bleaching on the central and south GBR.

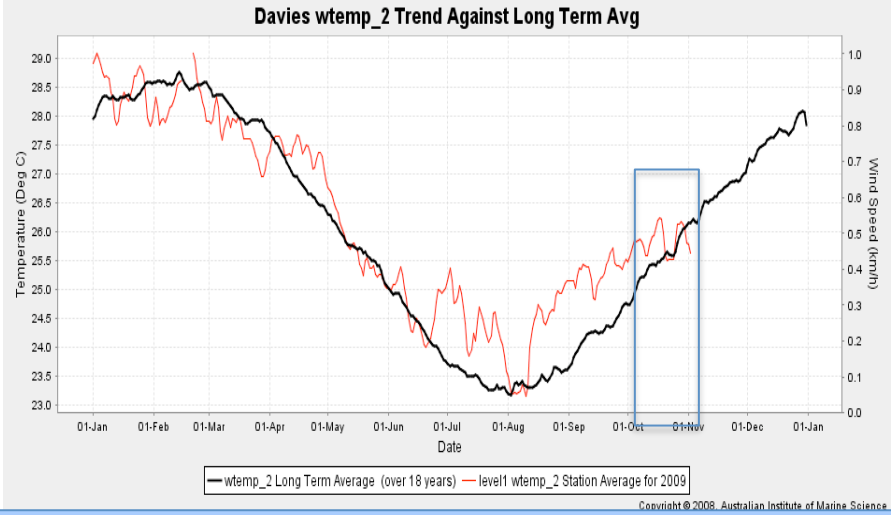
http://coralreefwatch.noaa.gov/satellite/bleachingoutlook/

Weather Observing System: AIMS Data Centre





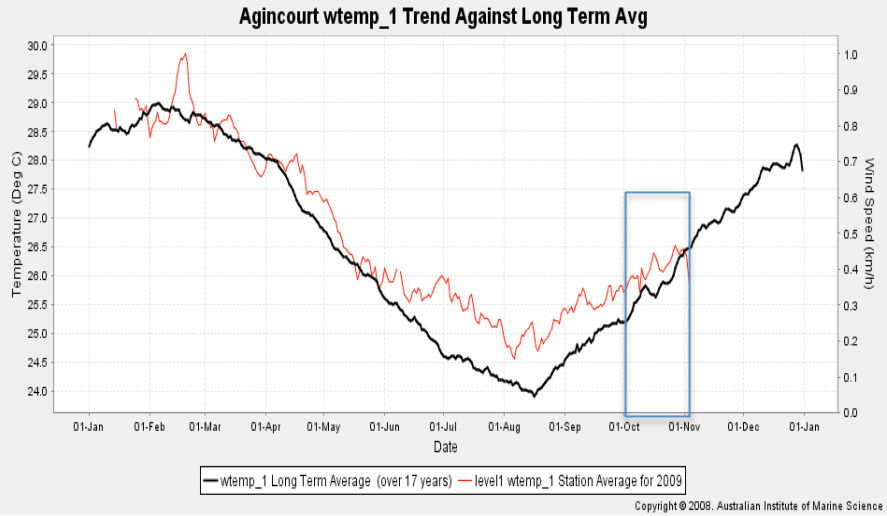


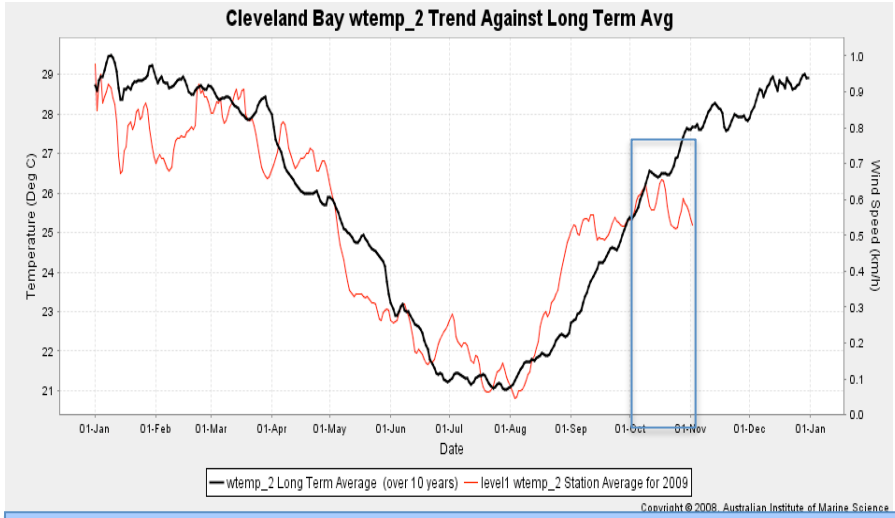


Note:

- The AIMS in-situ data also show closer to average conditions for October

Weather Observing System: AIMS Data Centre



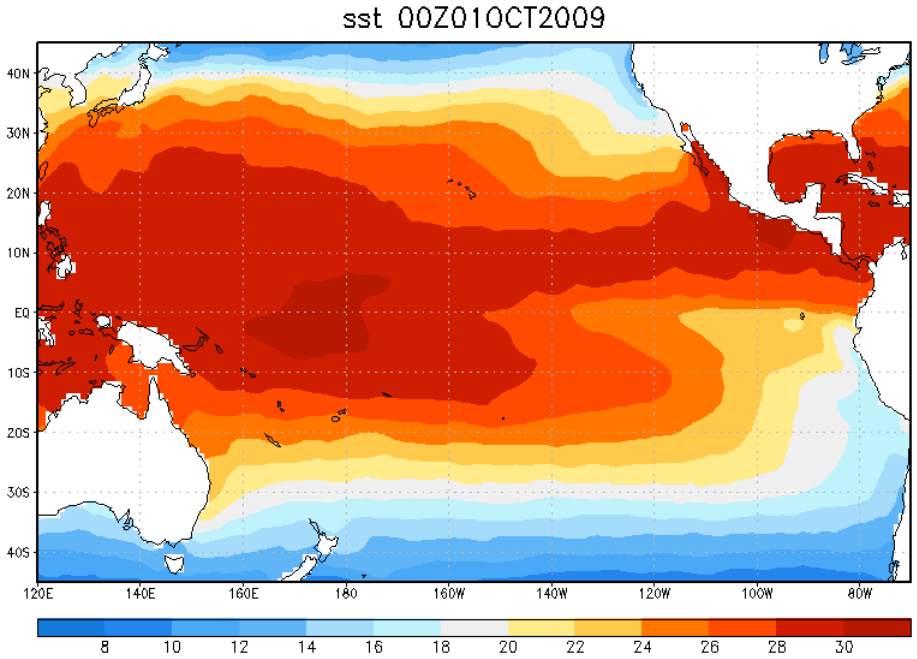


Note:

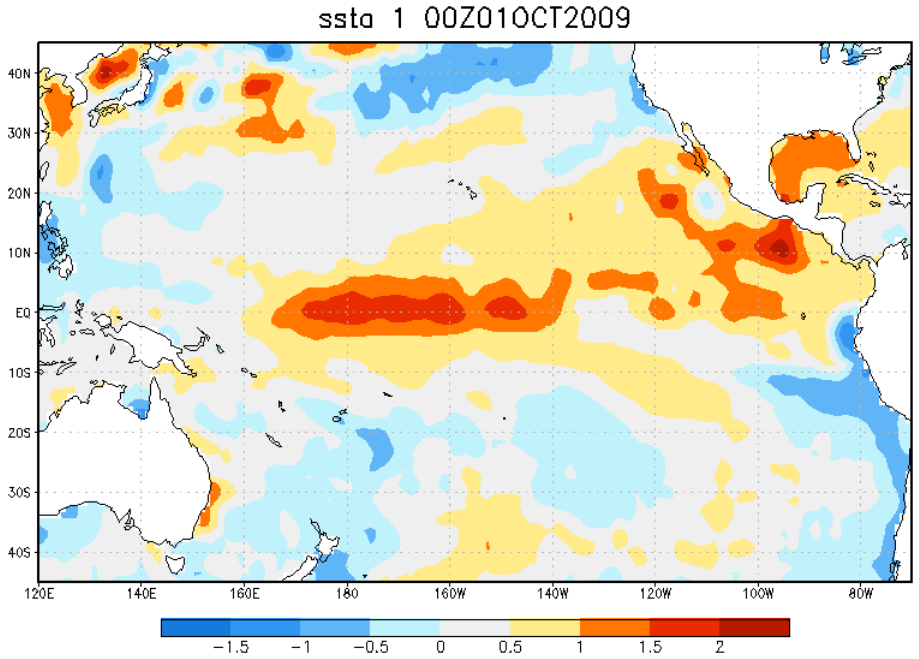
- The AIMS in-situ data also show closer to average conditions for October

NOAA Optimum Interpolation Sea Surface Temperature Analysis:

OI SST: OCTOBER 2009



OI SST ANOMALY: OCTOBER 2009



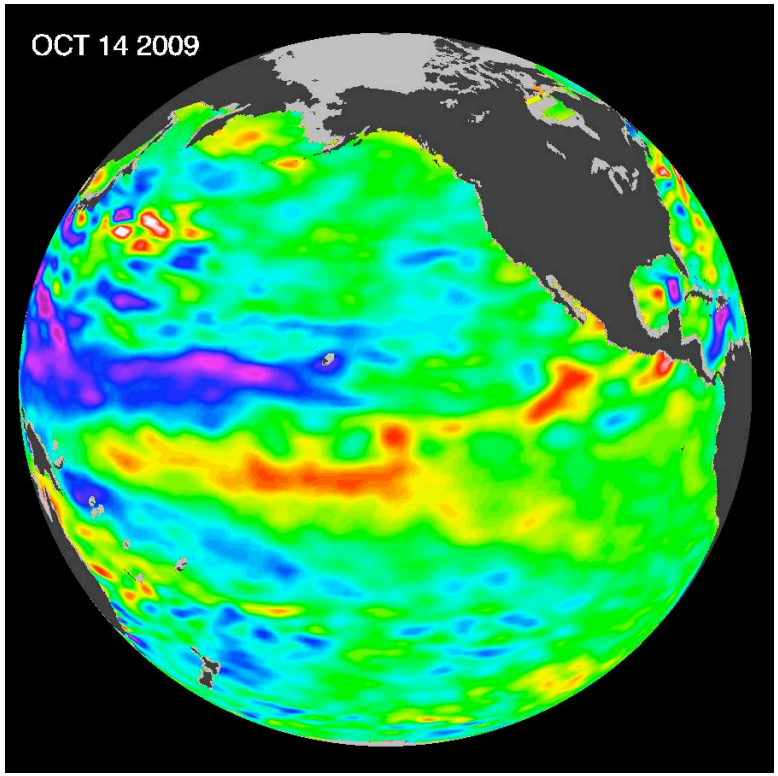
Note:

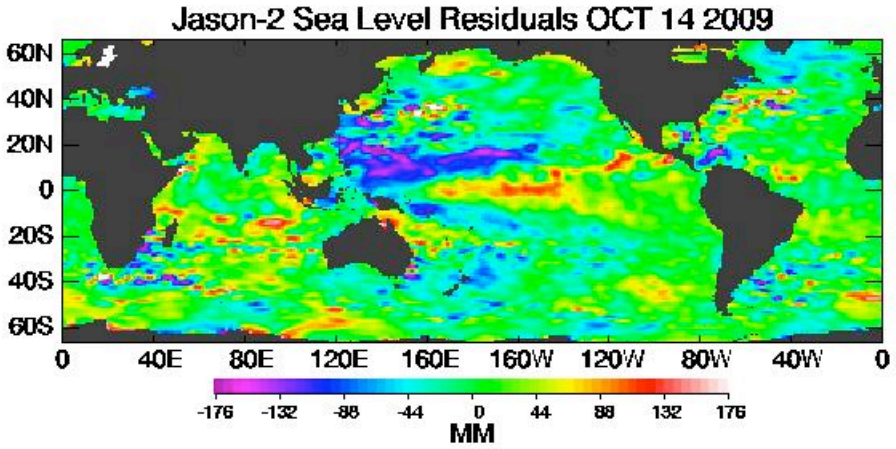
- In the central equatorial Pacific, the NOAA-OISST shows strong positive SST anomalies along the equator clearly indicative of an El Niño pattern.

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 October 14, 2009.





Note:

• (One of the characteristics that signal a developing El Niño is a change in average sea surface height (SSH) compared to normal sea level) The October SSH shows a series of positive anomalies (warm bumps) along the equator, associated with Kelvin waves travelling towards the east. This waves were triggered when the easterly trade winds weakened, related to El Niño phenomenon.

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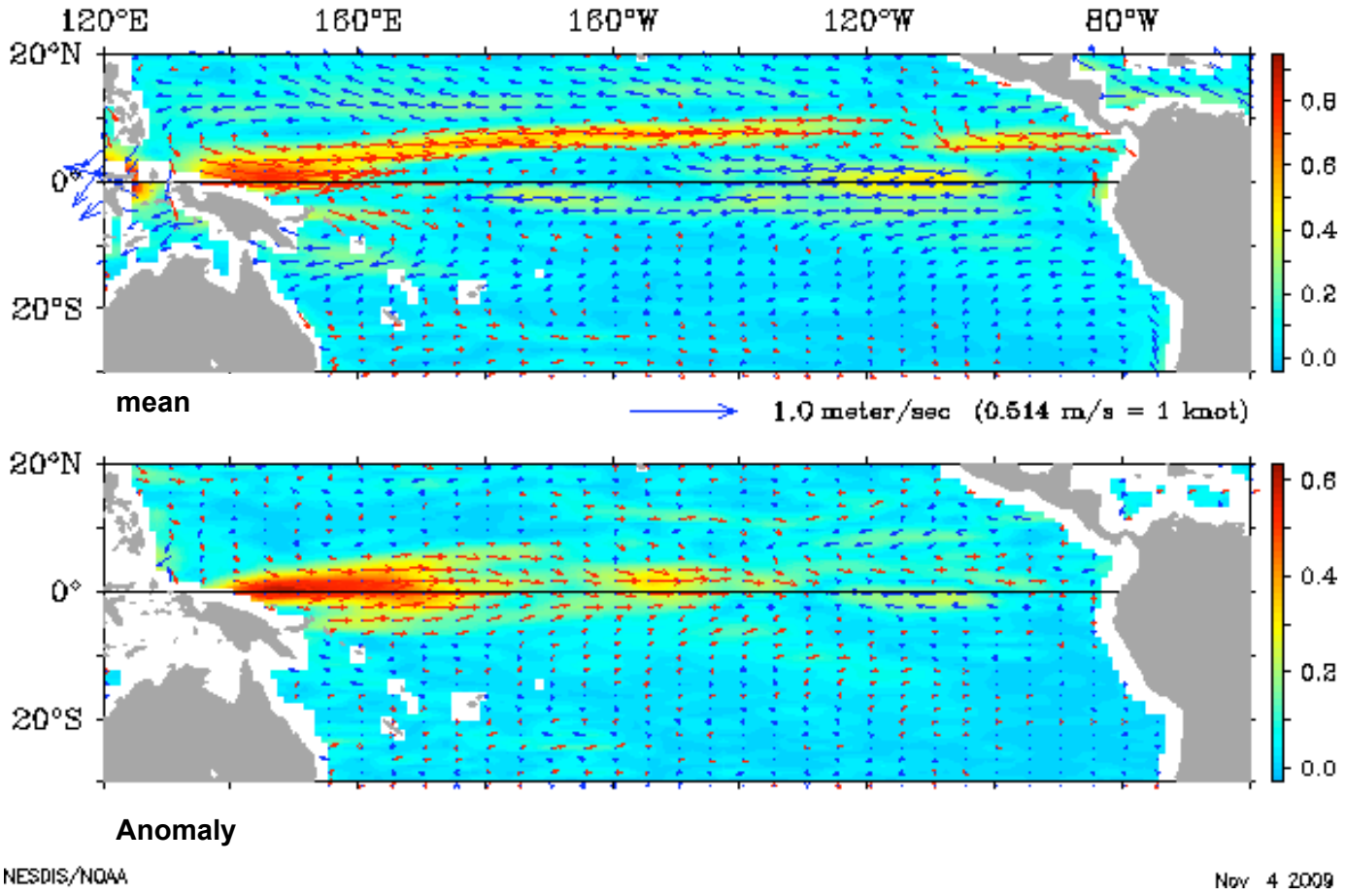
http://sealevel.jpl.nasa.gov/science/jason1-quick-look/

OSCAR: Ocean Surface Current Analysis - Real time

October 2009: monthly mean vs anomaly

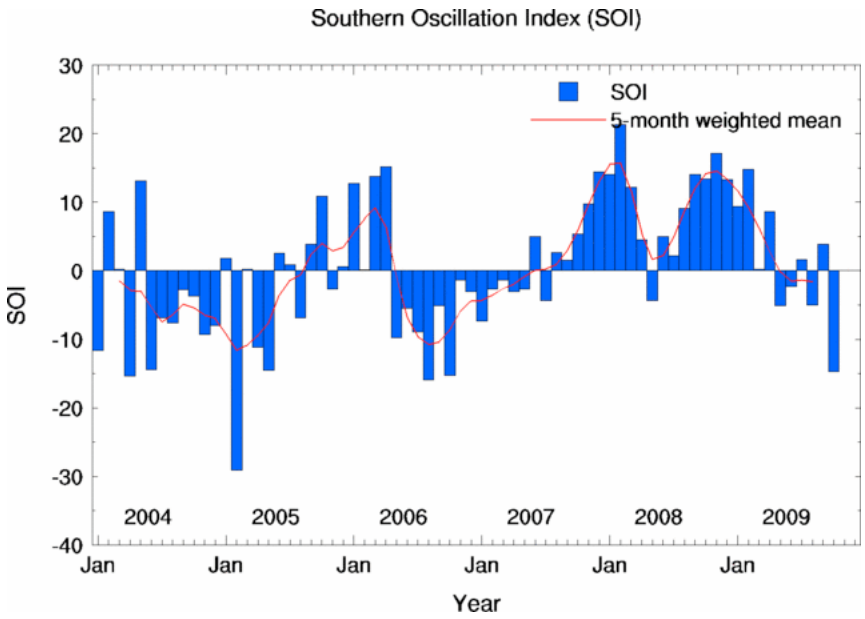


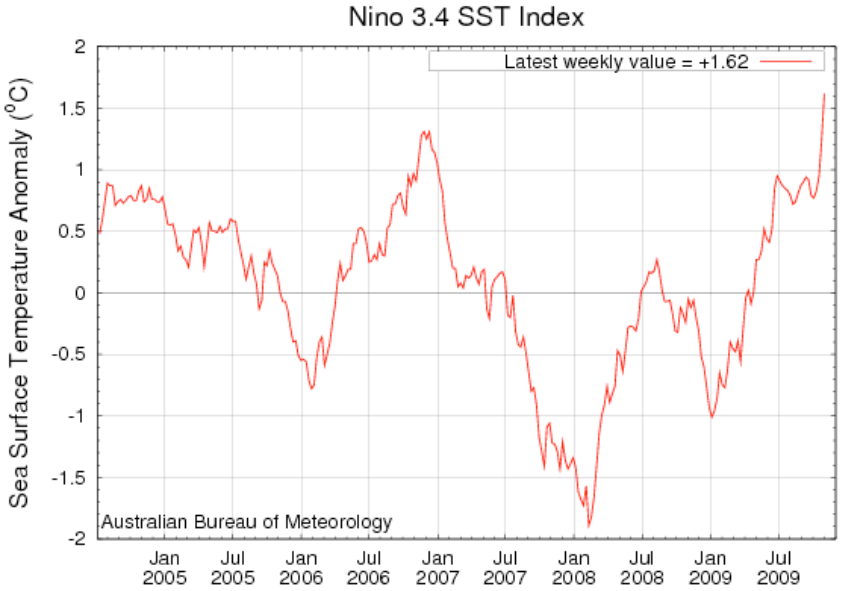
Note:

- The SEC shows an anomalous eastward flow in the western equatorial Pacific. This pattern is associated with an el Niño event.

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

ENSO index





Negative SOI = El Niño

Positive Nino 3.4 index= El Niño

Note:

- During October, the El Niño 3.4 index increased considerably and the SOI similarly decreased, indicating an El Niño event.
- Even though there is still disagreement among the models as to the intensity of the El Niño, all expect the SST anomalies in the central equatorial Pacific to peak sometime during November to January, but it is unknown how long this will persist.