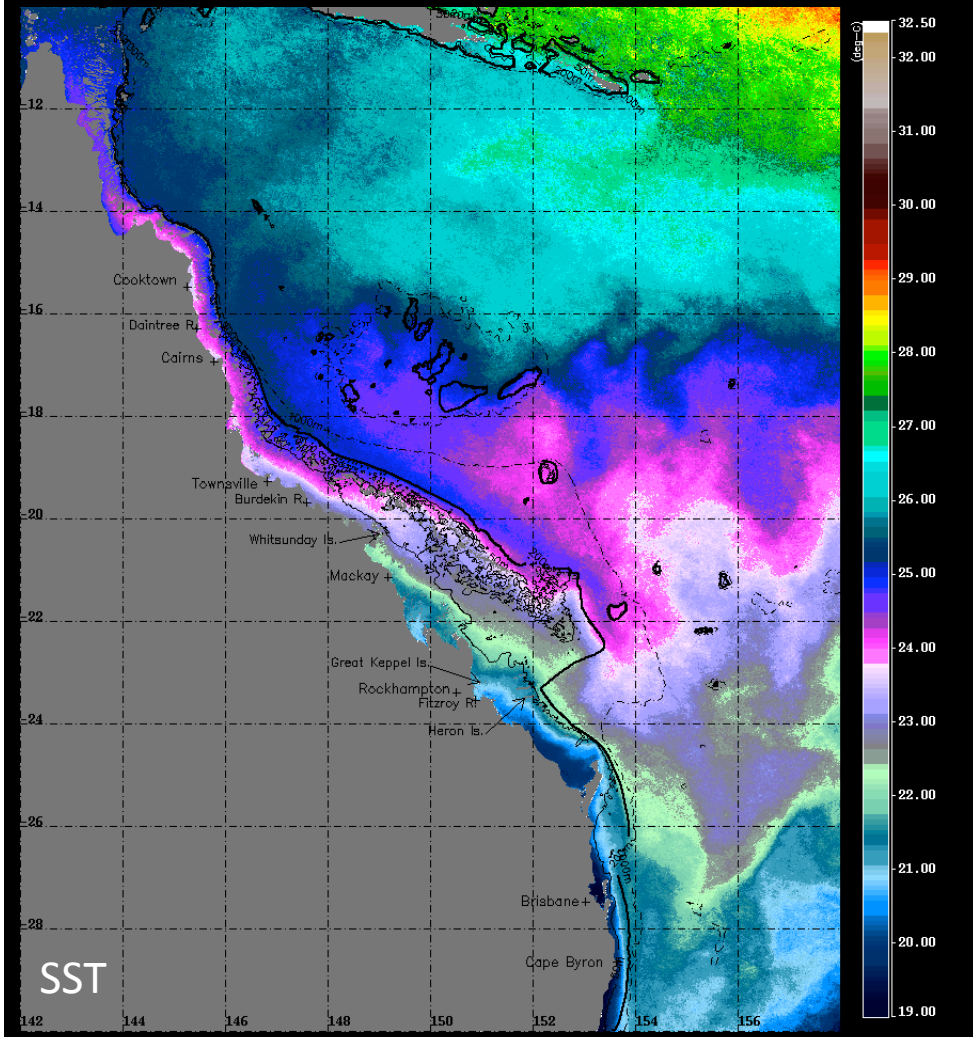
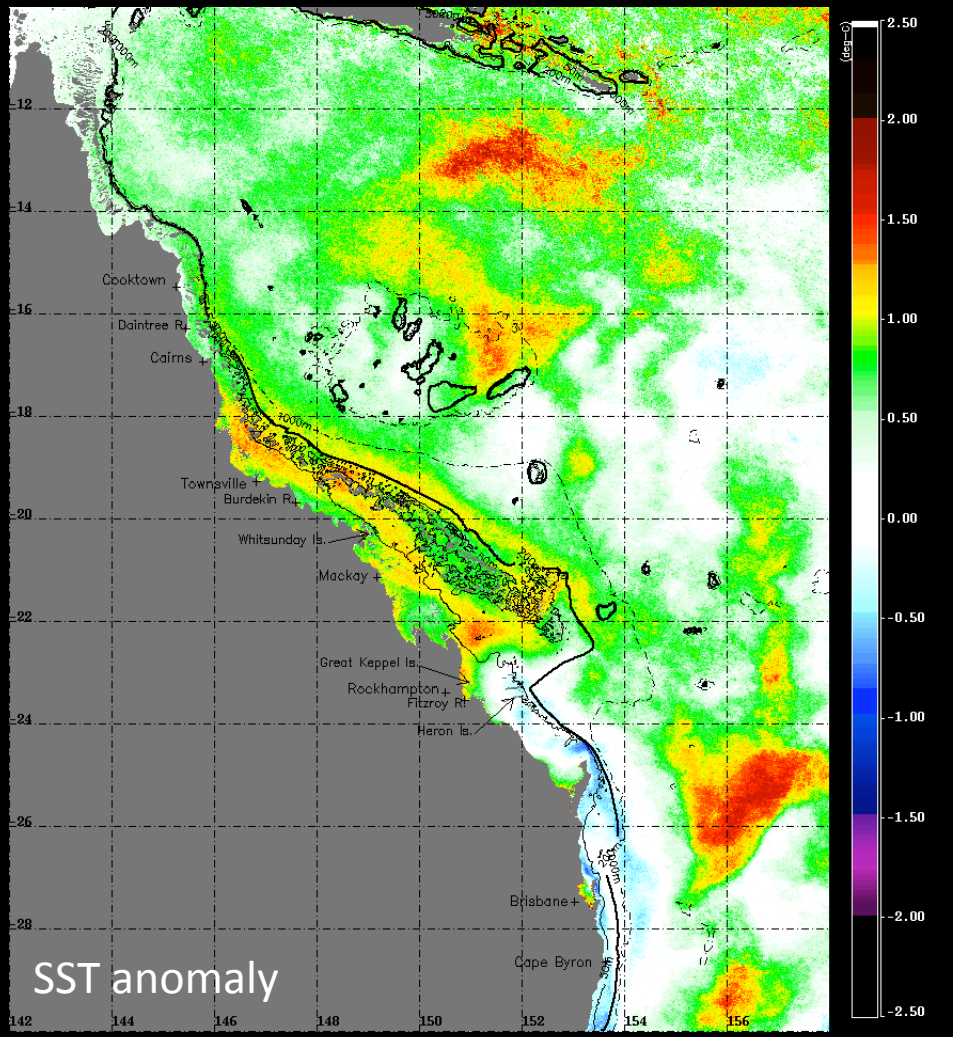
Modis SST (day+night): 1-31 Aug 2009

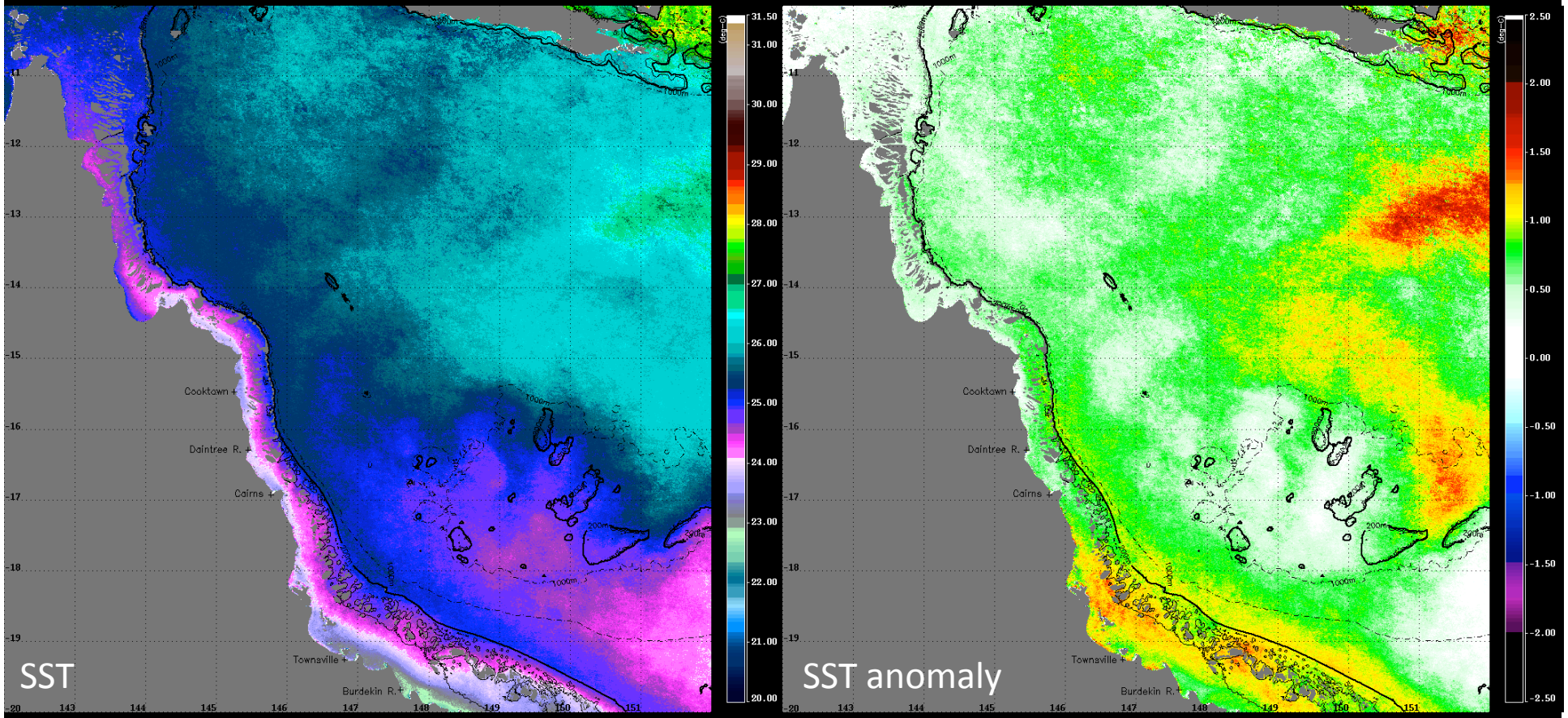




Note:

- SST anomalies generated from 8 yr climatology (2000-2007) for coincident period.
- Positive anomalies offshore & along the GBR except in the Capricorn Bunker region, where the anomalies remain slightly negative

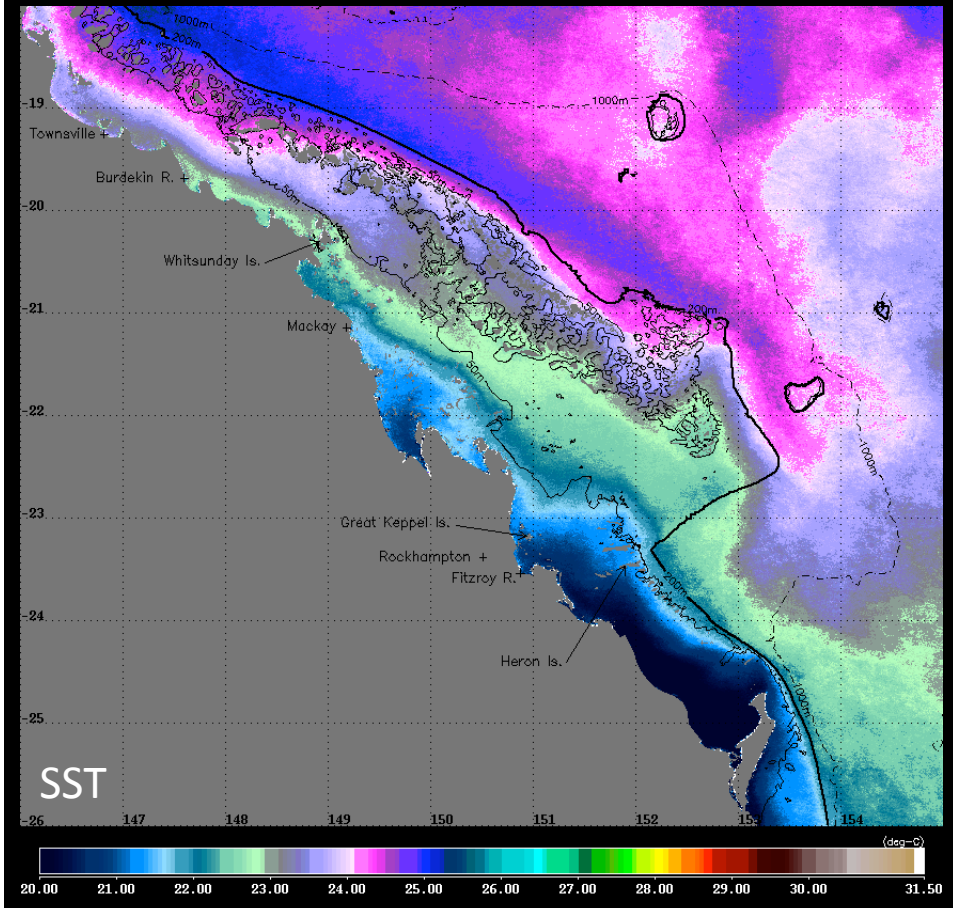
Northern GBR SST: 1-31 Aug 2009

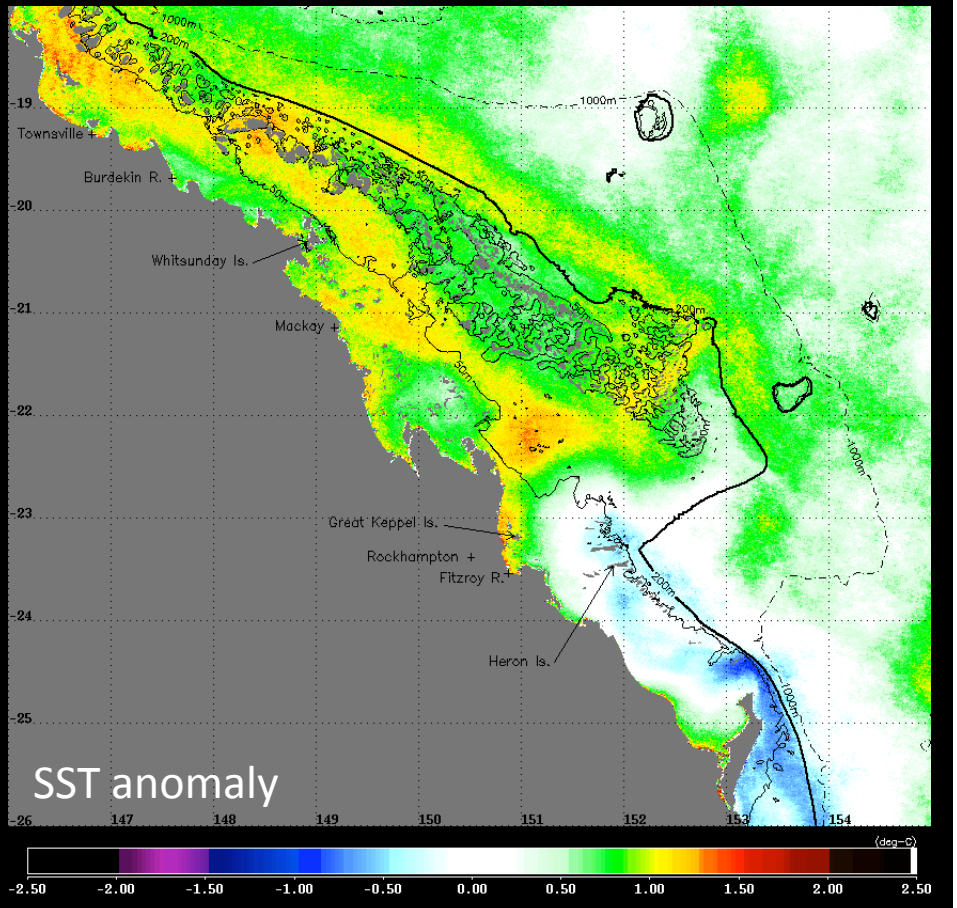


Note:

- SST range adjusted slightly for northern GBR (21.5-32.5 deg C)
- Positive anomalies anomalies along shelf edge & in the central GBR although although less intense than in July

Southern GBR SST: 1-31 Aug 2009

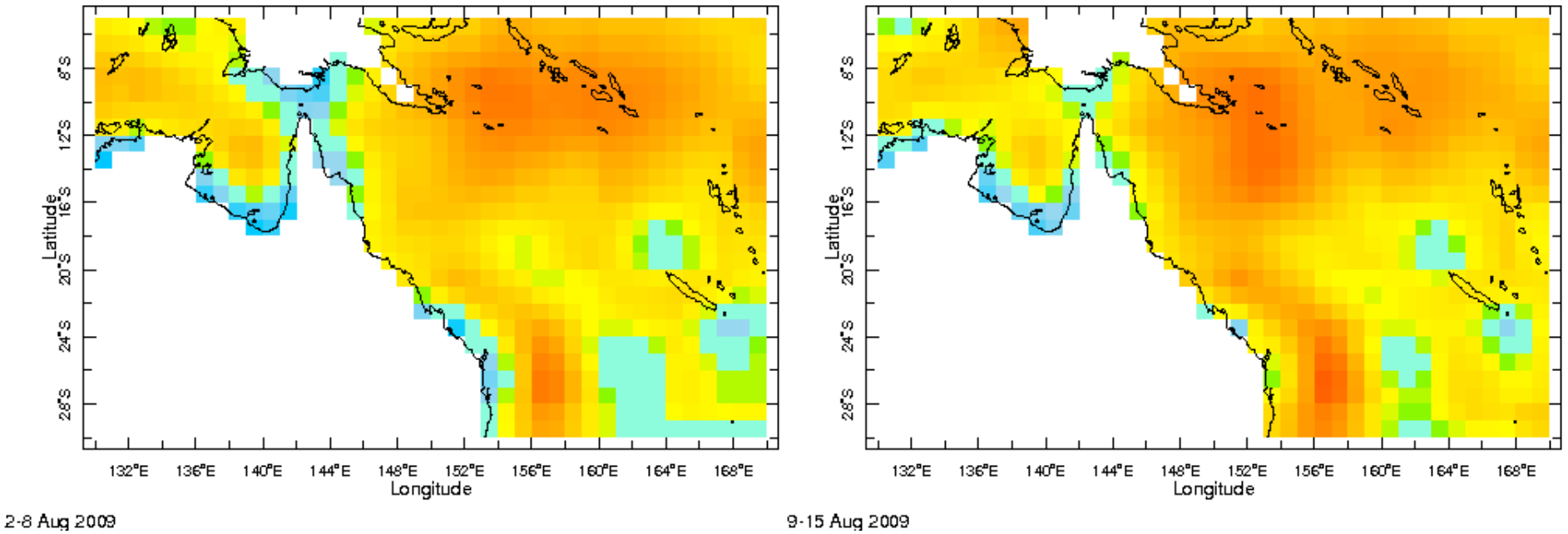




Note:

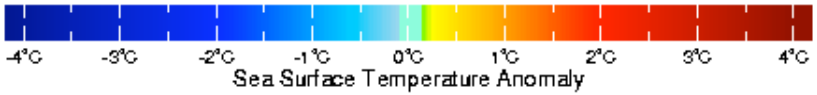
- SST range adjusted slightly for southern GBR (20 - 31.5 deg C)
- Positive anomalies along the shelf edge & southern GBR except in the Capricorn Bunker region, where anomalies remain slightly negative

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



02 – 08 Aug 2009

09 – 15 Aug 2009

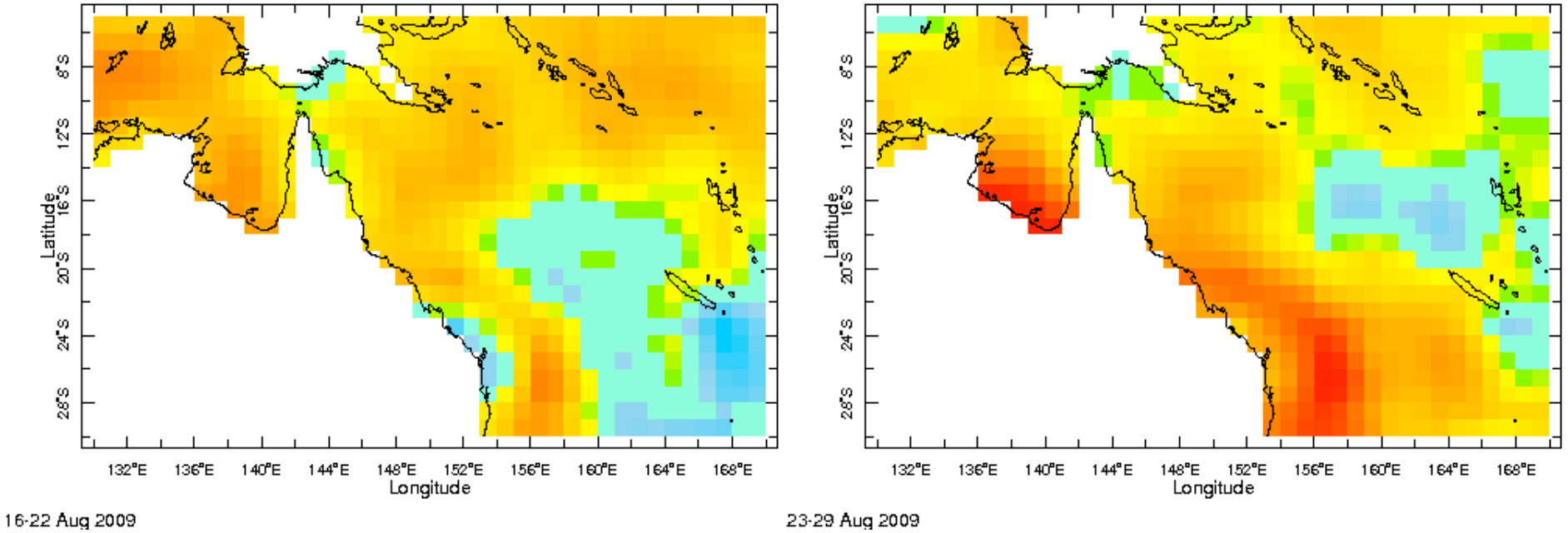


Note:

- In agreement with previous MODIS SST images, the NCEP SST anomalies show strong positive anomalies over the most of the GBR & the Coral Sea region.

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



16 – 22 Aug 2009

23 – 29 Aug 2009

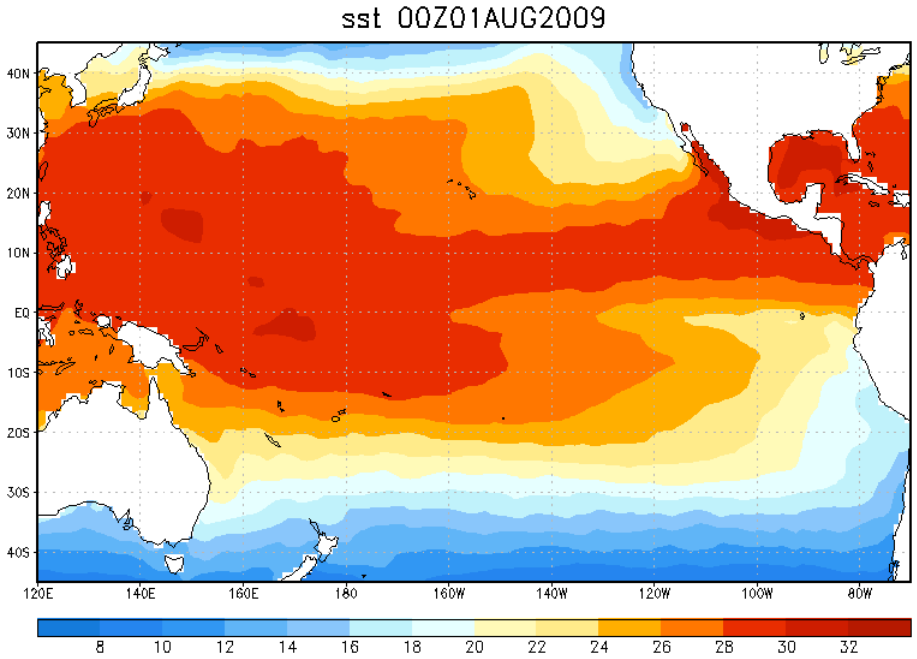
Note:

- By the end of August, SST anomalies have moved southwards, and again strengthened somewhat
- Negative anomalies in Capricorn Bunker region have dissipated

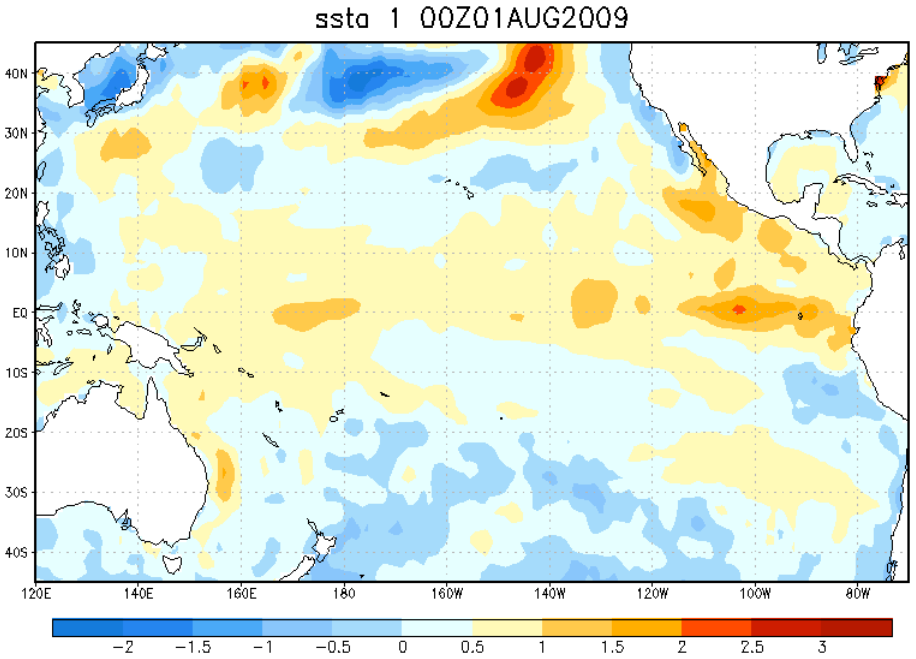
http://iridl.ldeo.columbia.edu/SOURCES/.NOAA/.NCEP/.EMC/.CMB/.GLOBAL/.Reyn_SmithOIv2/.weekly/.ssta/

NOAA Optimum Interpolation Sea Surface Temperature Analysis:

OI SST: AUGUST 2009



OI SST ANOMALY: AUGUST 2009

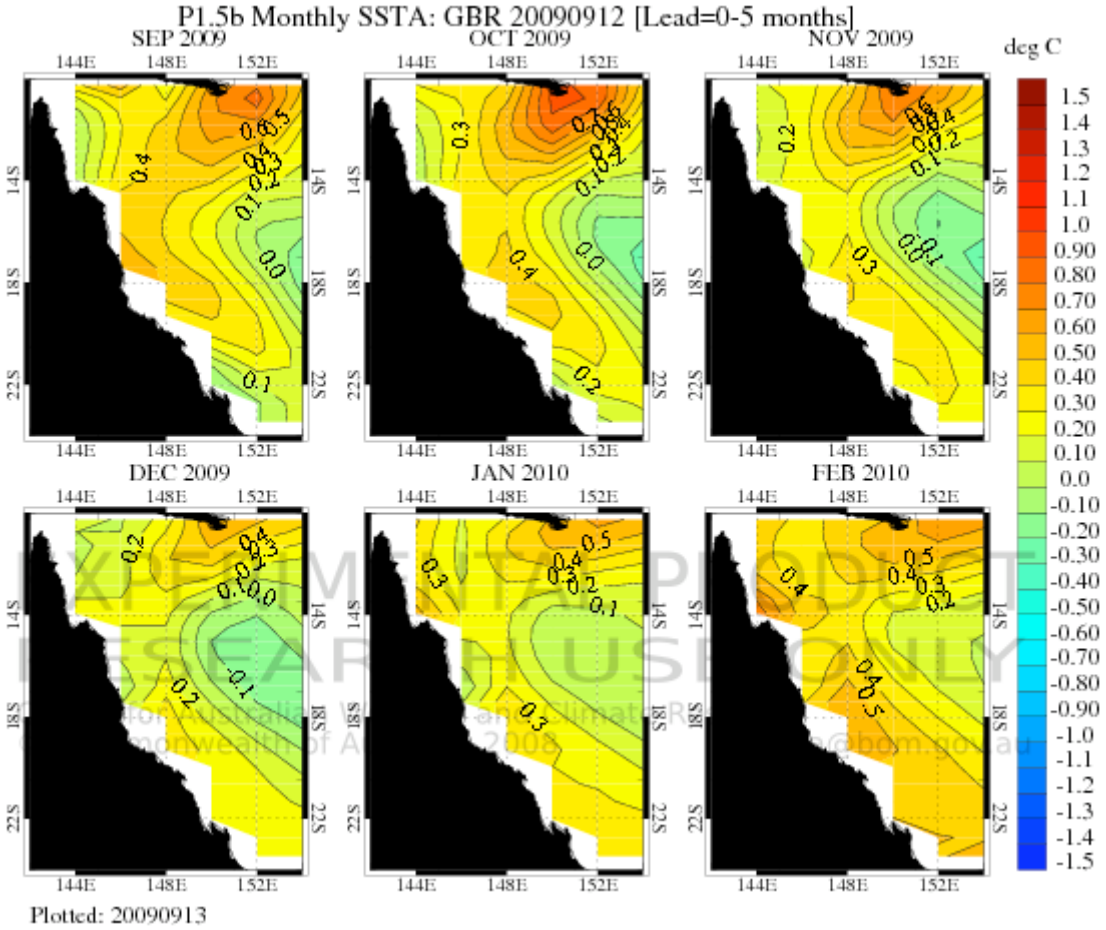


Note:

- The OISST shows positive anomalies for the eastern equatorial region, typically associated with El Niño phenomena.
- However, the pattern of SST anomalies over the GBR and Coral Sea region is not typical of El Niño conditions.

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

Experimental Great Barrier Reef SST Anomaly Forecasts (POAMA)



Note:

- POAMA is forecasting lower anomalies than the previous month for the spring-summer season, with close to average temperatures in December and positive anomalies up to 0.5deg C by February

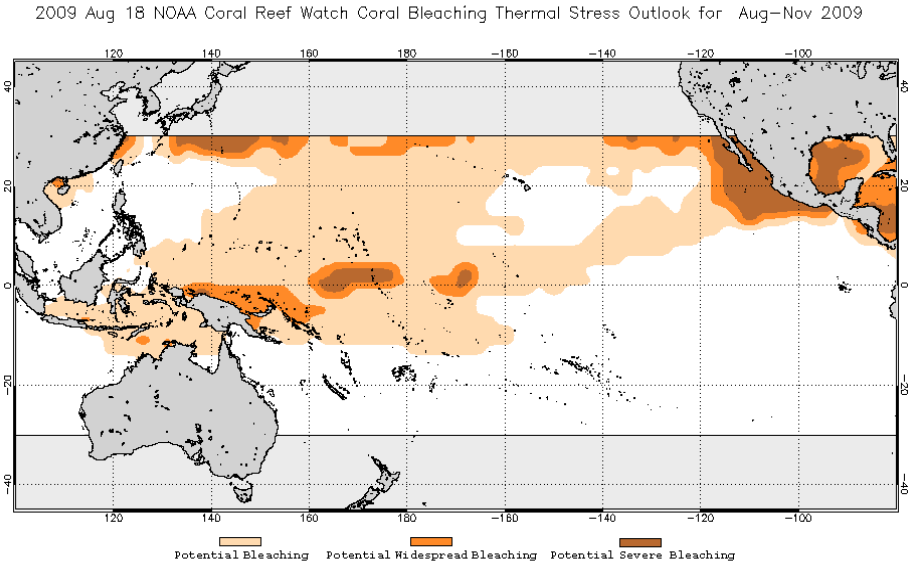
http://poama.bom.gov.au/experimental/poama15/sp_gbr.htm

NOAA Coral Reef Watch

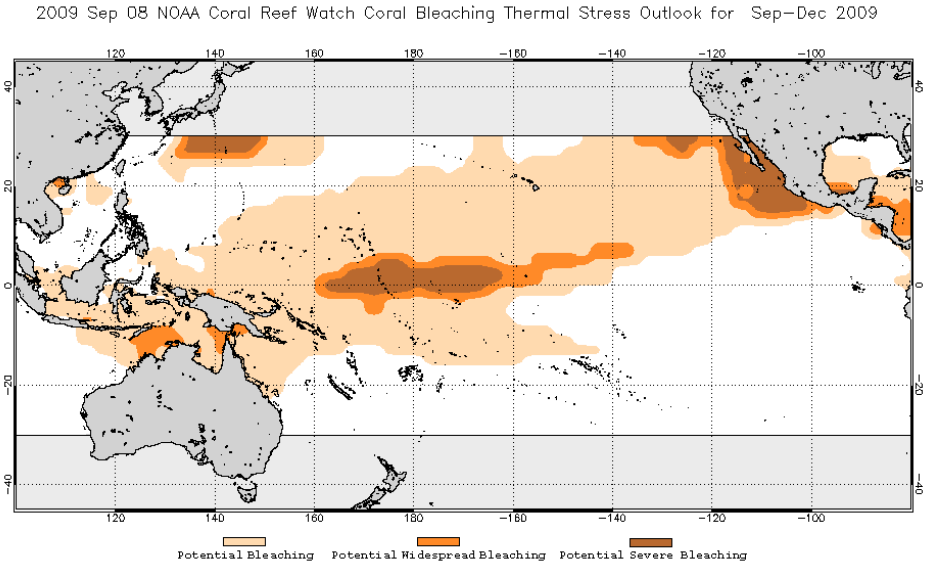
Seasonal Coral Bleaching Thermal Stress Outlook

(Experimental product, 2x2 degree spatial resolution)

Outlook for August to November



Outlook for September to December



Note:

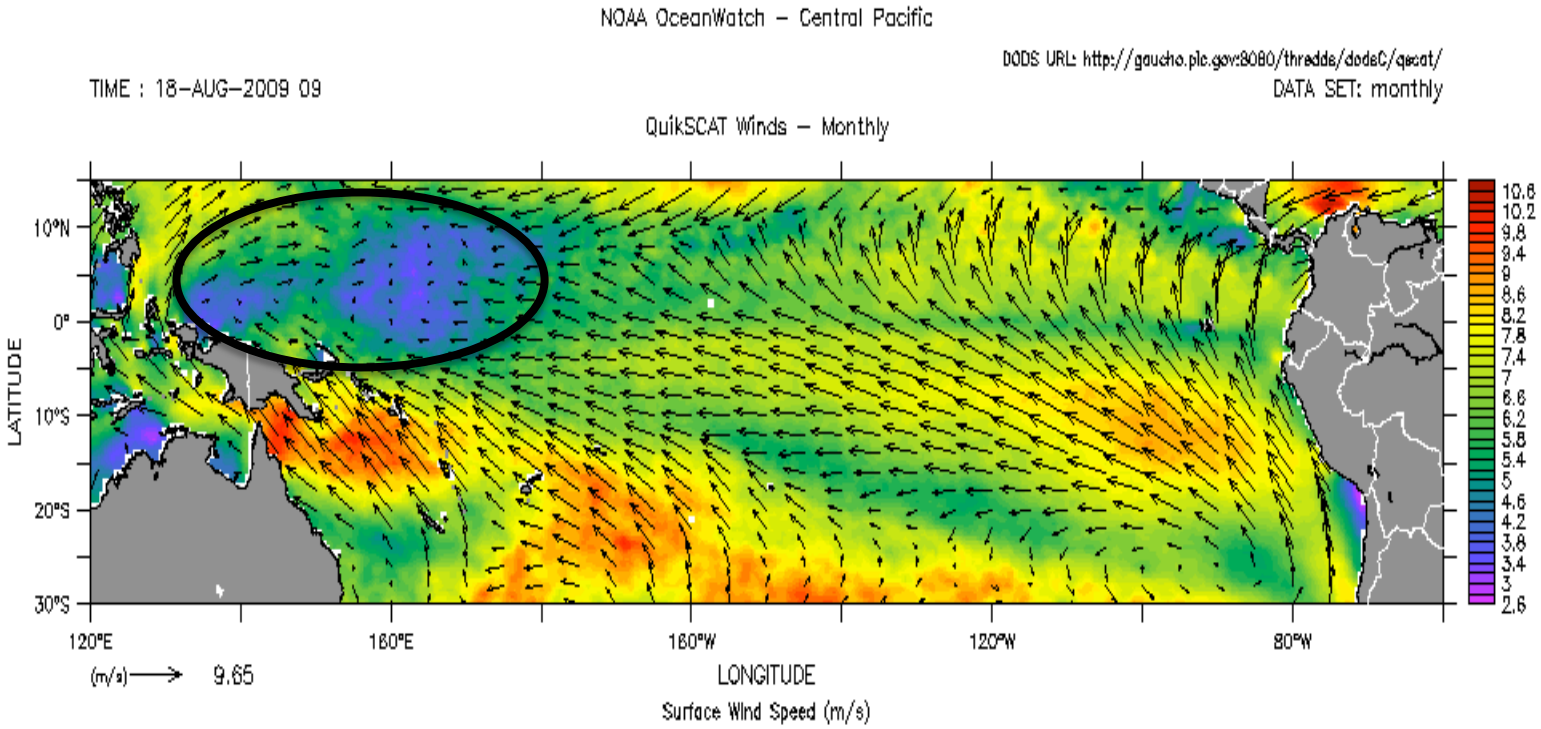
- NOAA showed a risk of bleaching in the equatorial Pacific area as a consequence of expected peak NH temperature anomalies in mid-September.
- The risk of potential bleaching has expanded to the GBR as the we approach summer

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

UQ_ OceanSpace group

QuickSCAT Ocean Surface Winds

August 2009 (monthly mean)



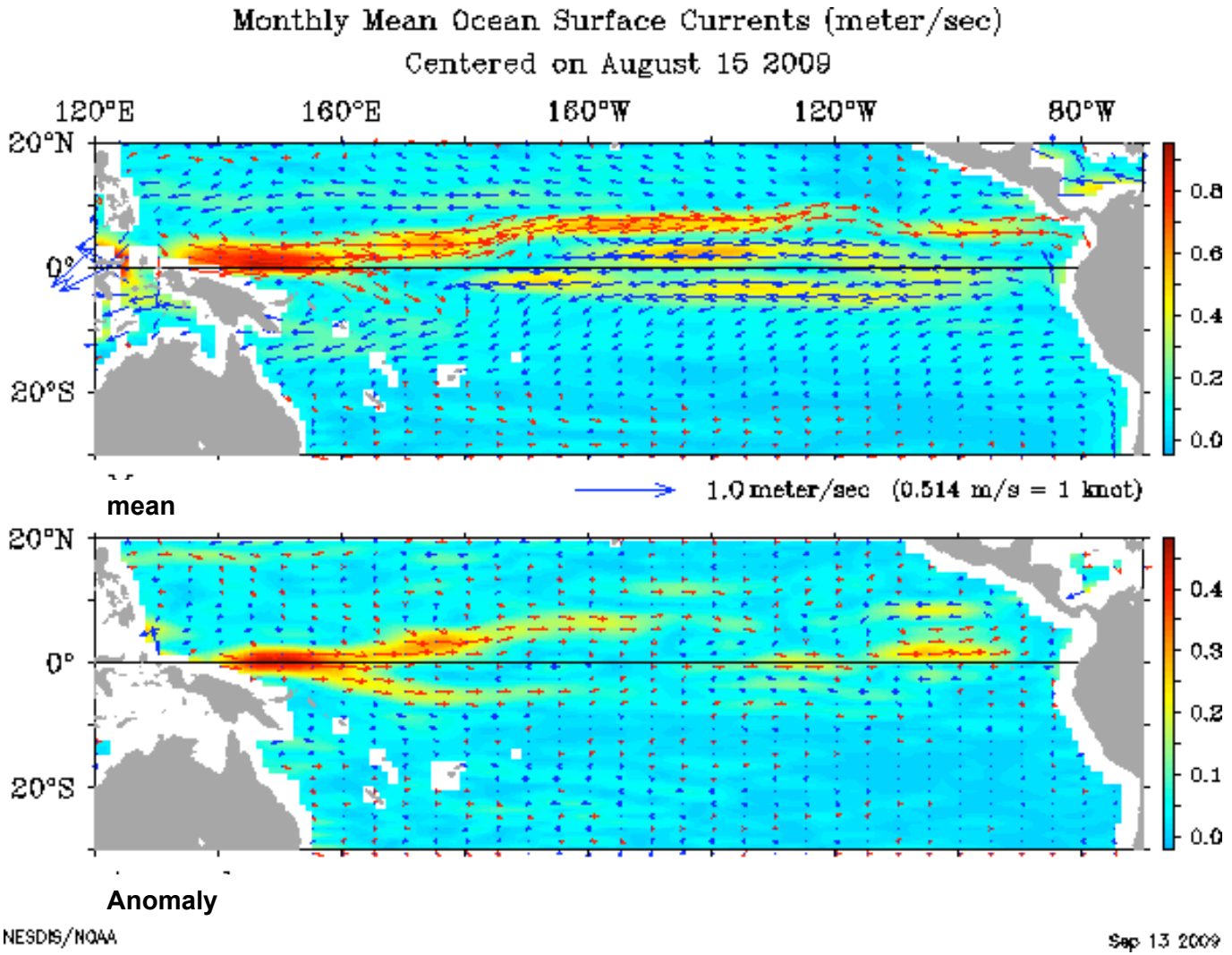
Note:

- Weak zonal wind in the western equatorial region
- Intense South Easterlies in the Coral Sea and northern GBR regions

http://oceanwatch.pifsc.noaa.gov/las/servlets/dataset

OSCAR: Ocean Surface Current Analysis - Real time

August 2009: monthly mean vs anomaly

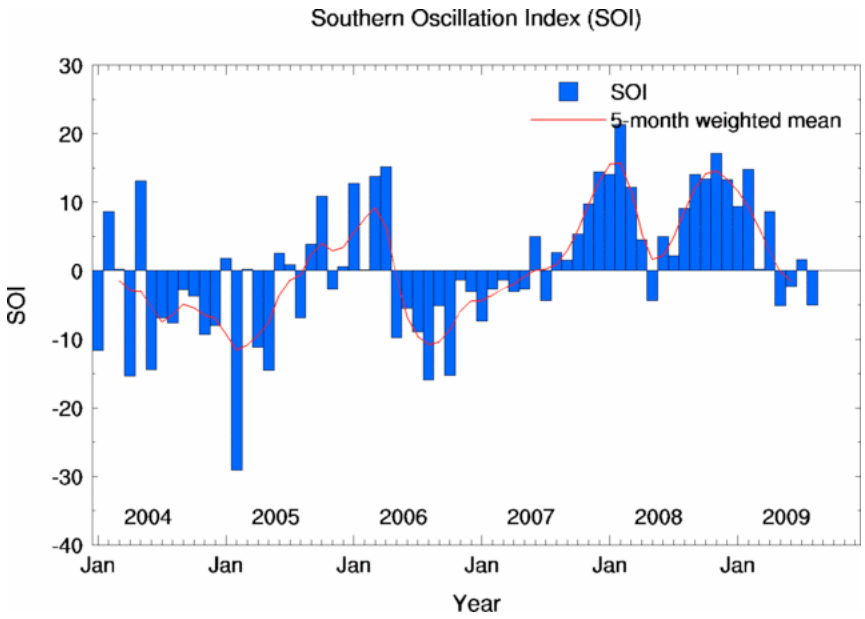


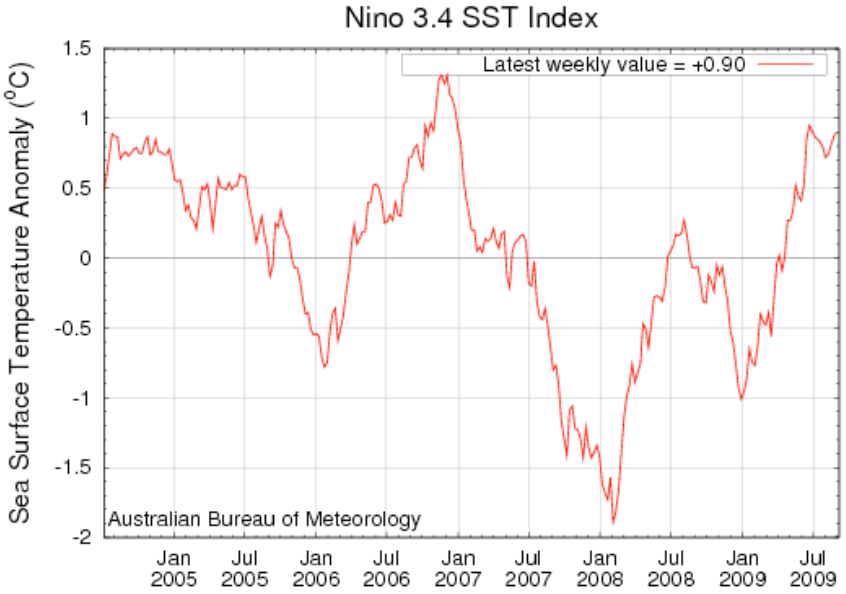
Note:

• Strong positive anomalies over the western equatorial Pacific showing that the SEC is weaker than the average for this time of the year or even reversing. These conditions are typically associated with El Nino conditions.

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

ENSO index





Negative SOI = El Niño

Positive Nino 3.4 index= El Niño

Note:

- The Australian BOM Nino 3.4 index suggests an El Niño phase is developing. The NOAA SOI index shows close-to-average conditions.
- The US Climate Prediction Center currently states that El Niño conditions are expected to develop and last through the beginning of 2010. However, the predicted El Niño is expected to be of moderate-strength.