

Project Manta

East Australian Current (EAC) Region Oceanographic conditions report

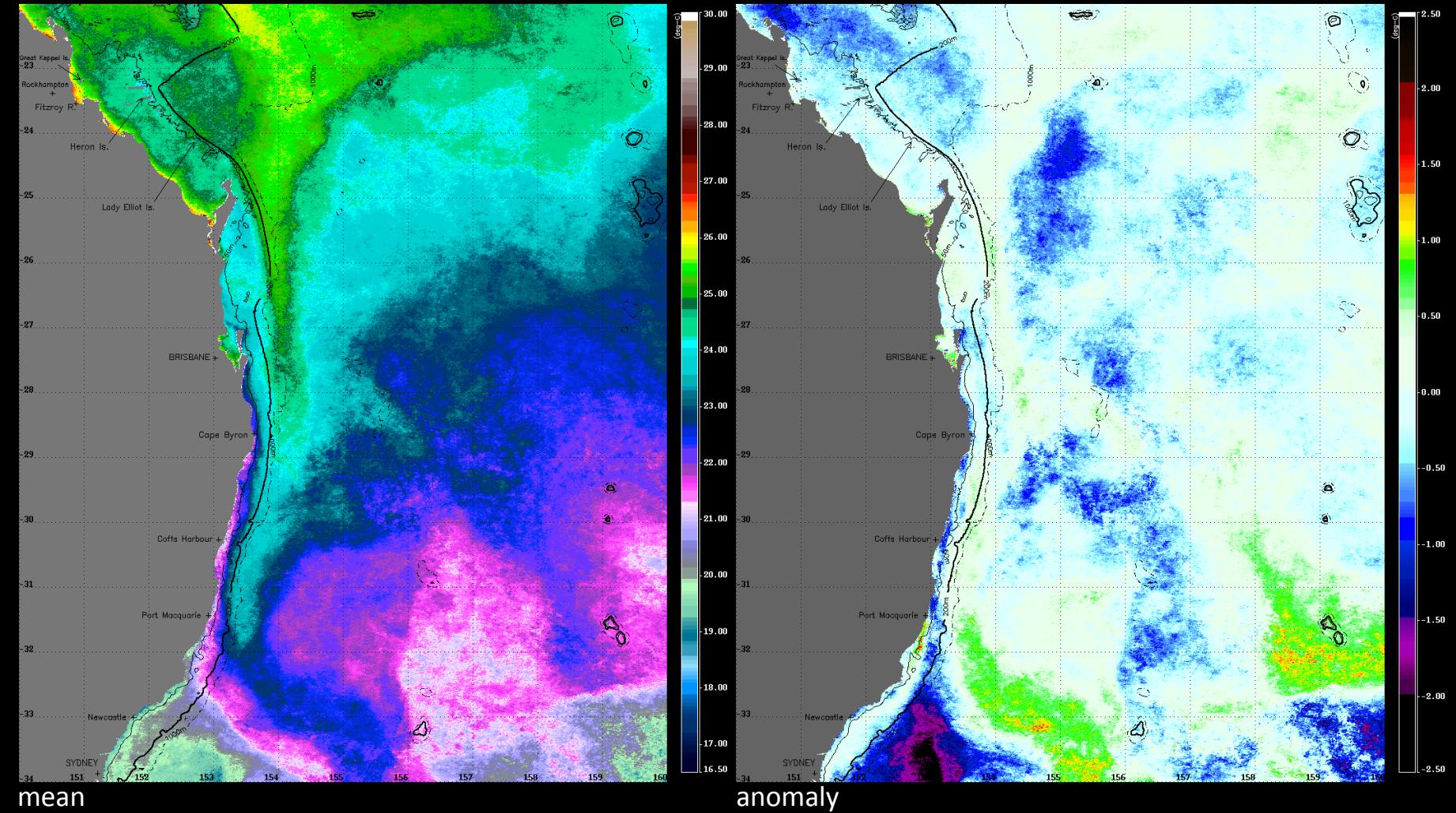
November 2011

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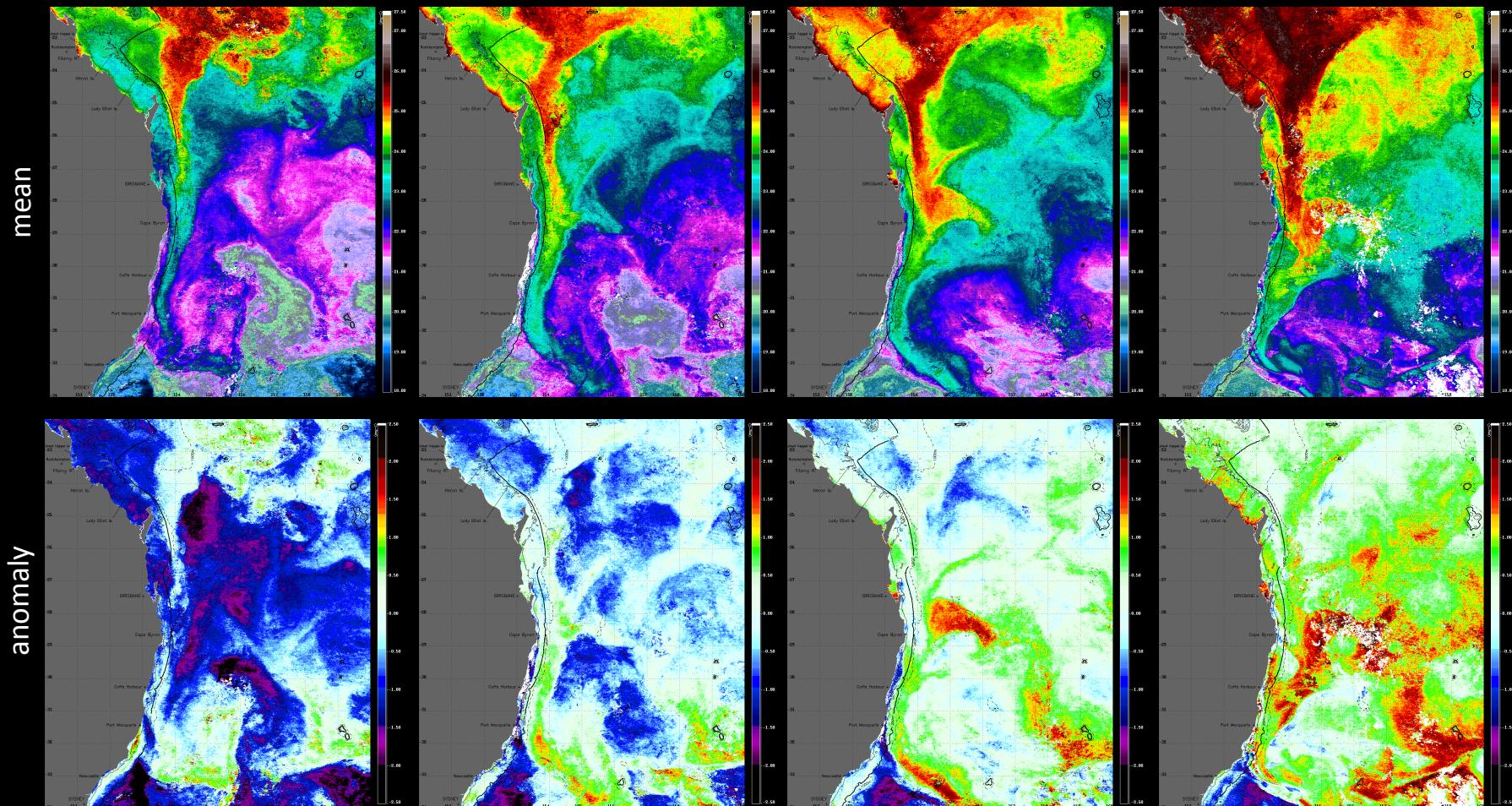
UQ-GPEM Biophysical Oceanography Group

EAC Monthly MODIS SST (D+N): November 2011



- Mostly average SST conditions as opposed to the strong negative anomalies present during the previous month (specifically along Curtis Channel and offshore)
- Strong negative anomalies along the shelf edge southward of 32°S due to the presence of a persistent cyclonic eddy, with a strong offshore frontal boundary due to EAC recirculation
- Positive offshore anomalies south of 30°S due to offshore displacement of EAC by inshore cyclonic eddy

EAC Weekly MODIS SST (D+N): starting from 1-7 November 2011

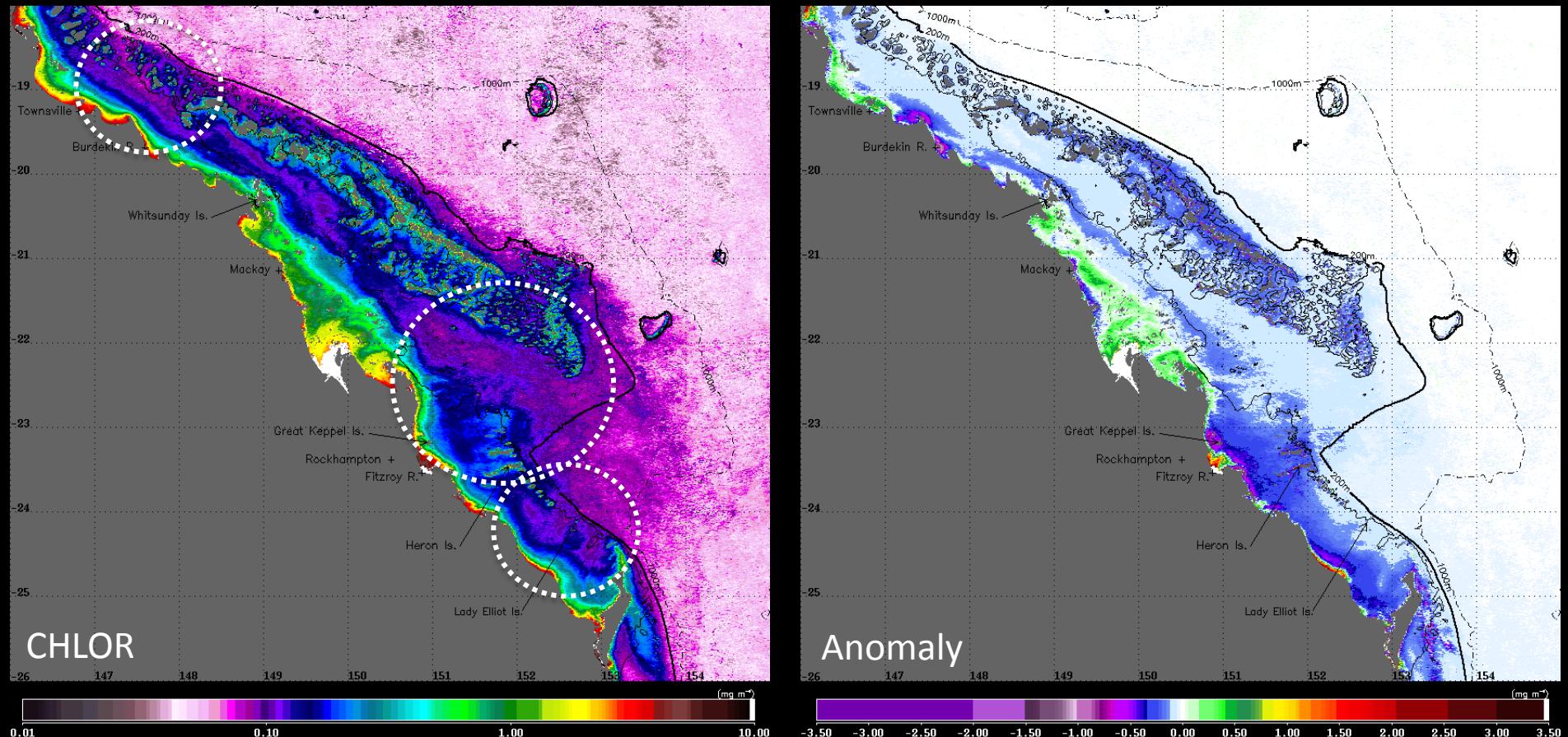


- Weekly images showing the progression and intensification of the EAC for the month of November
- Surface expression of Capricorn Eddy not strongly defined while EAC is clearly intensified compared to previous month
- As EAC rapidly intensified, strong negative anomalies earlier in the month progressively dissipated and replaced by positive anomalies throughout the region by the end of the month
- Pronounced influence on EAC of persistent cyclonic eddy southward of 32°S throughout November

Southern GBR

MODIS Chlorophyll-*a* concentration

November 2011



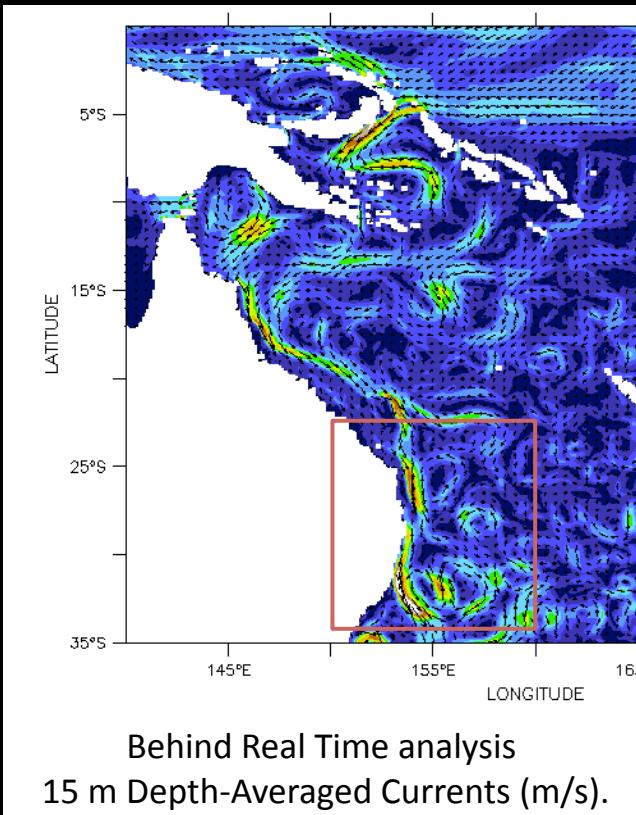
Note:

- Intensified EAC resulted in pronounced intrusions of low chlorophyll EAC waters into the GBR lagoon - clearly apparent through the Myrmidon & Capricorn channels, and on either side of Lady Elliot Island into Curtis Channel

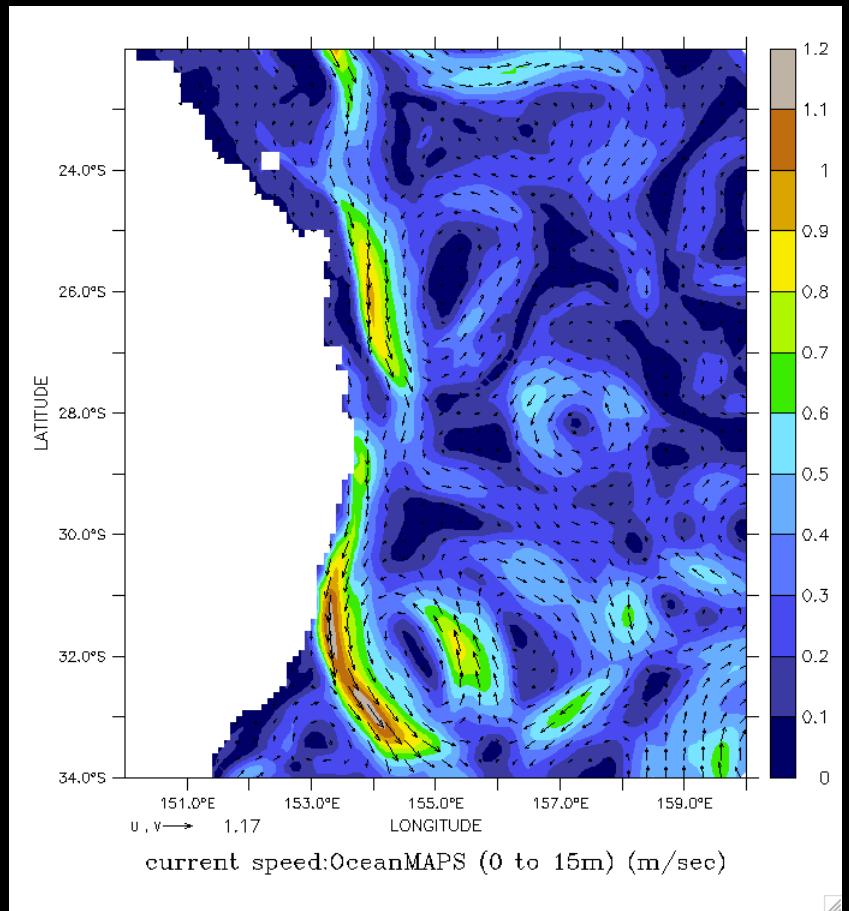
OceanMAPS 15m Depth-Average Currents

November 2011

OceanMAPS Ocean Modeling, Analysis and Prediction System was developed at CSIRO Marine and Atmospheric Research and the Bureau of Meteorology and it is part of the **Bluelink** project.



- Intense southward EAC flow adjacent to the entire GBR shelf (resulting in the strong GBR intrusions noted in chlorophyll images)
- Right panel: Zoomed in image of the EAC region further highlights the strength of this western boundary current



Updates on the satellite tags



- **REDS** : recovered tags (X 6)
- **YELLOW** : Missing tags (X 4)
- three other tags : NEVER transmitted
47521, 47727, 66701
- Data from tags 66703, 104180, and 104179 are still being processed by ARGOS at the moment
- In addition, four tags currently being repaired and are planned to be redeployed at NSI in January
- Reprocessing needed for recovered tags – to be discussed at next PM meeting on 21 December

