# Project Manta

## East Australian Current (EAC) Region: Oceanographic conditions report

February 2013

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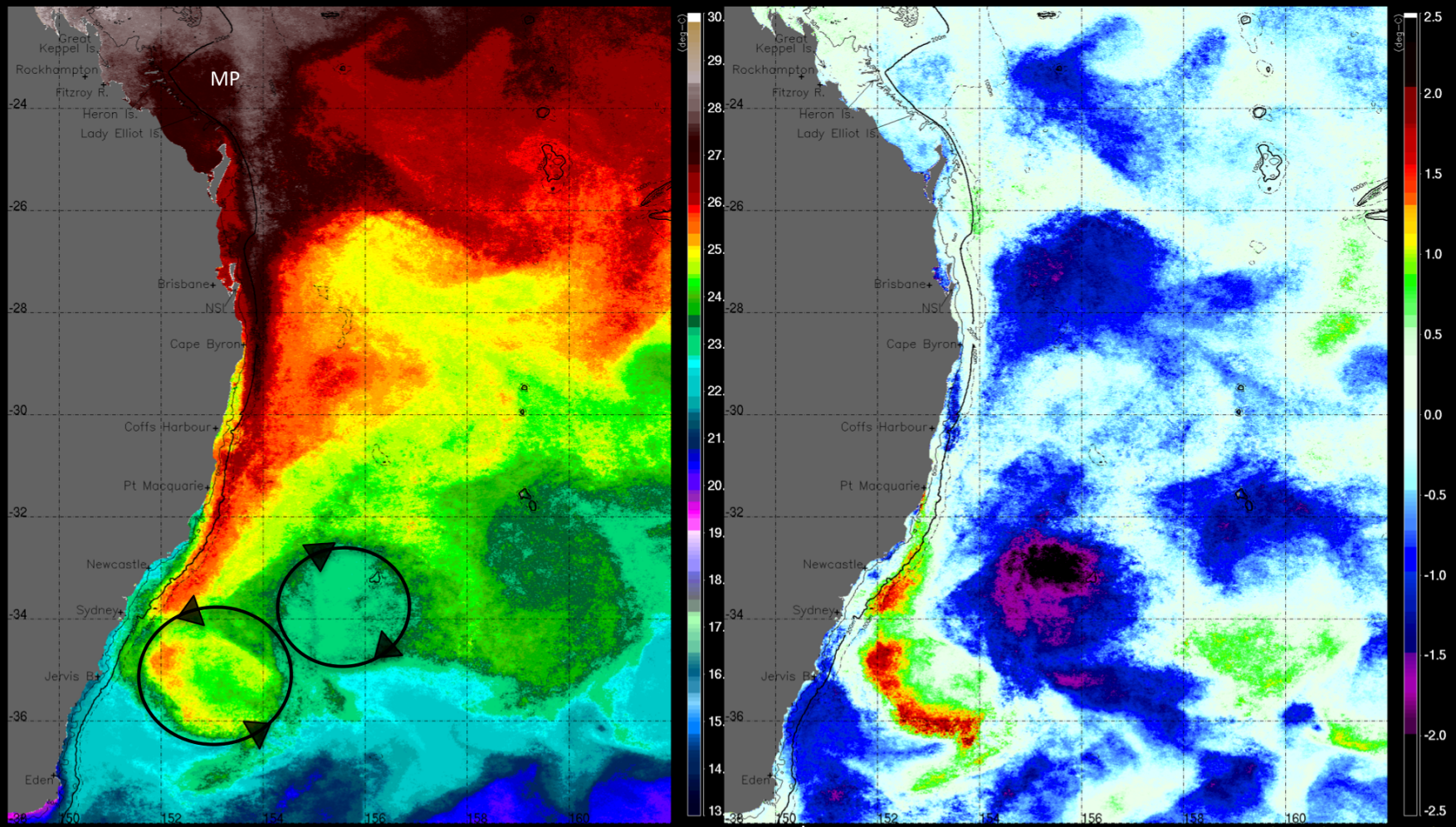
# EAC Monthly MODIS SST (D+N): February 2012

- Warmer EAC flowing strongly southward closer to the shelf compared to previous month. Primary flow (i.e., past Marion Plateau (MP) and east/southeast of Fraser Is) is ~1+°C warmer than January 2013
- Note eddy pair in the south: anticyclonic eddy has separated from the primary EAC flow (black circle arrow) resulting in intense positive SST anomalies, with contrasting intense negative SST anomalies related to the cyclonic eddy
- Further strong negative anomalies offshore Brisbane, as well inshore between Jervis Bay and Eden




mean

anomaly

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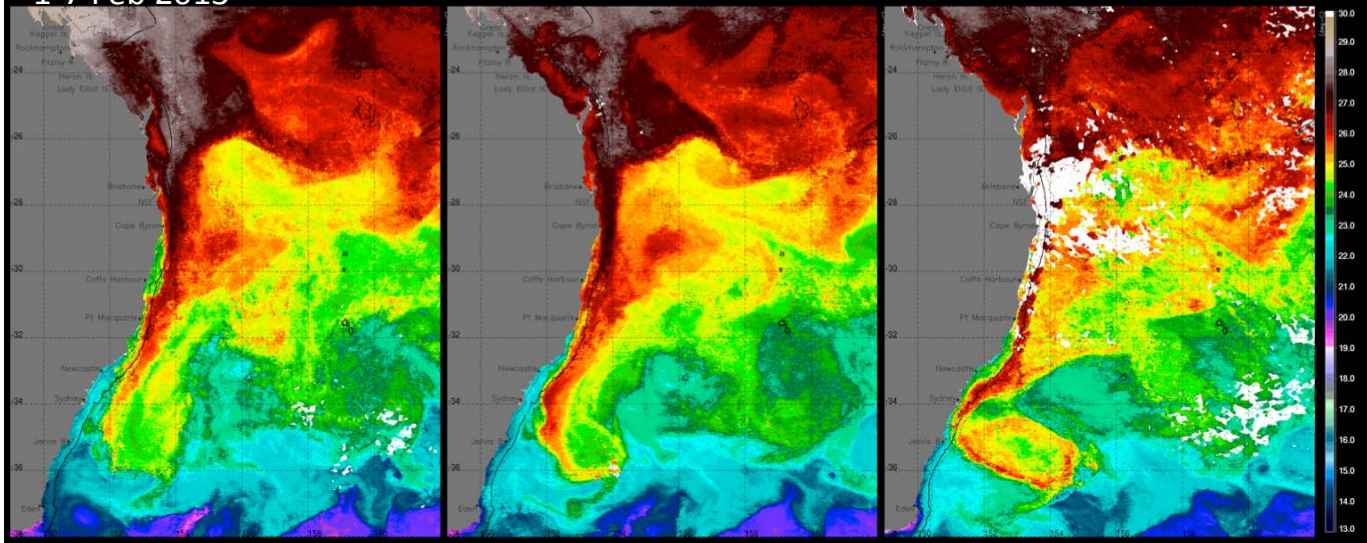
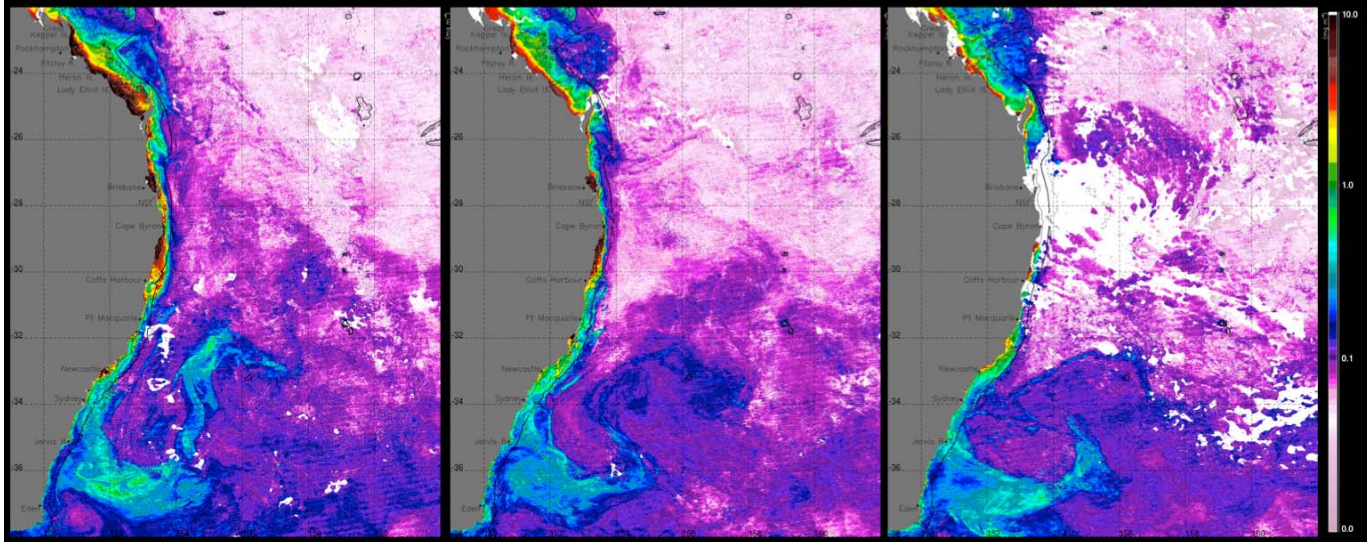
# Weekly MODIS SST and Chlorophyll

1-7 Feb 2013




Weekly means showing the development of the anticyclonic eddy pinching off from the main EAC flow



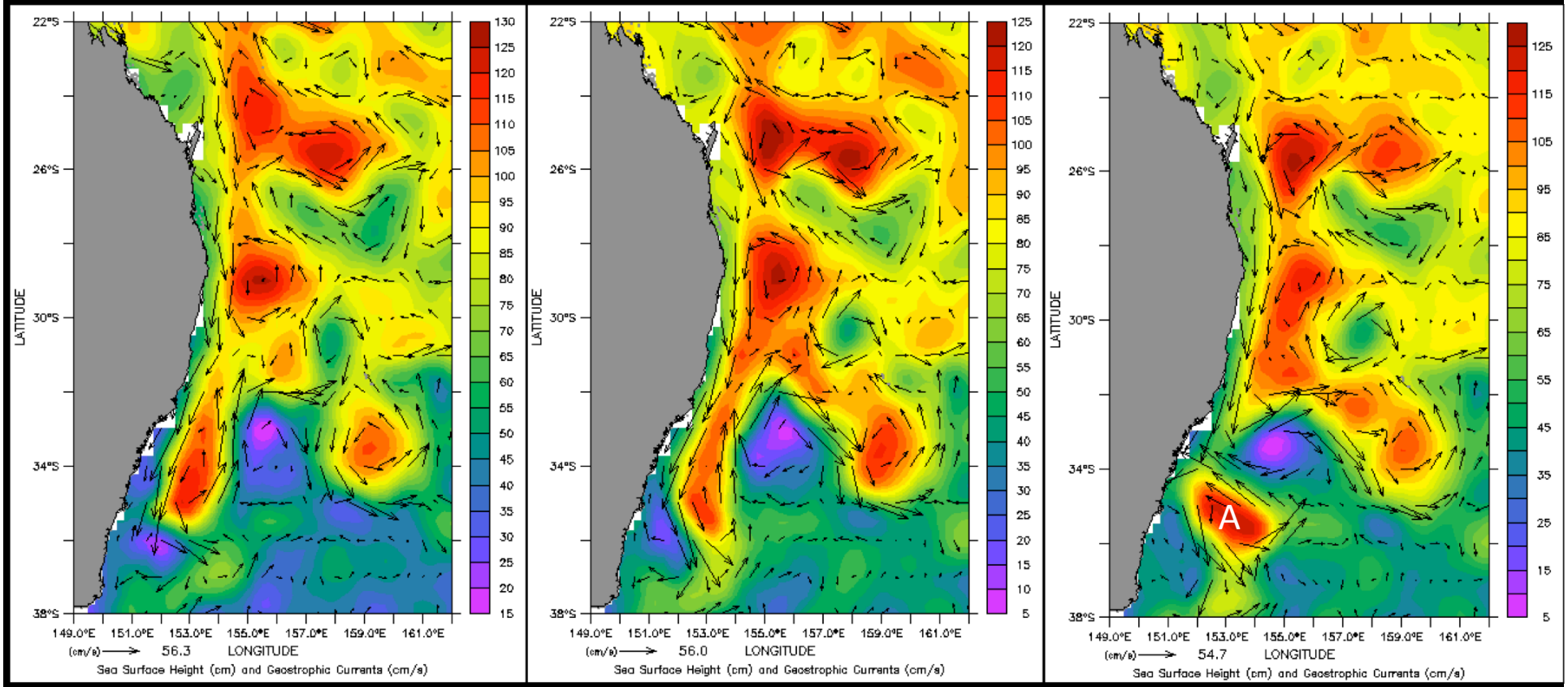

Note the band of high chlorophyll levels due to:

- the frontal boundaries between the anticyclonic / cyclonic eddy pair and Tasman Sea waters
- separation of the main EAC flow from the shelf

** Data for last week of February not included due to extensive cloud cover in the region

# OceanWatch Central Pacific
# Weekly SSH

31 Jan – 6 Feb 2013




- Contours indicate the weekly averaged sea surface height (SSH) while arrows indicate the geostrophic velocities

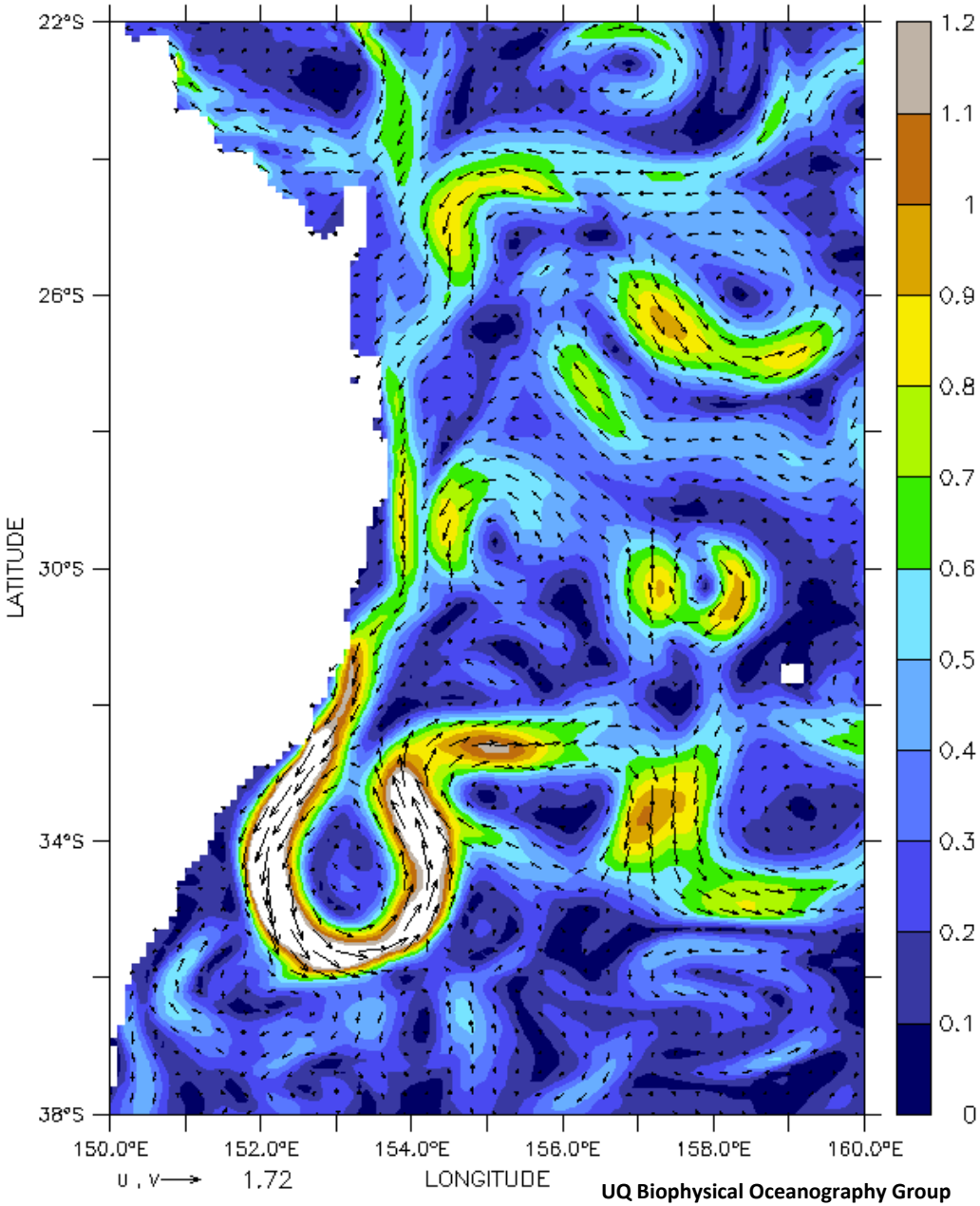
- High/low SSH coincides with the anticyclonic / cyclonic eddy features (A/C) noted in MODIS images – pinched off from main EAC flow during the third week in February

http://oceanwatch.pifsc.noaa.gov/las/servlets/dataset?catitem=57

# OceanMaps: 1-13 February 2013 mean

Depth integrated (0-15m) currents from OceanMaps reveal strong EAC flow along the shelf edge from ~27°S

Further south, an intensified southern limb of the EAC particularly strengthened from 31°S (off Smoky Cape) and developed into the strong anticyclonic eddy that eventually pinched off from the main flow in the 3rd week of February, as shown in MODIS images




http://godae.bom.gov.au/oceanmaps_analysis/ocean_diag_brt/ocean_diag.shtml

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