

Remote Sensing at Work

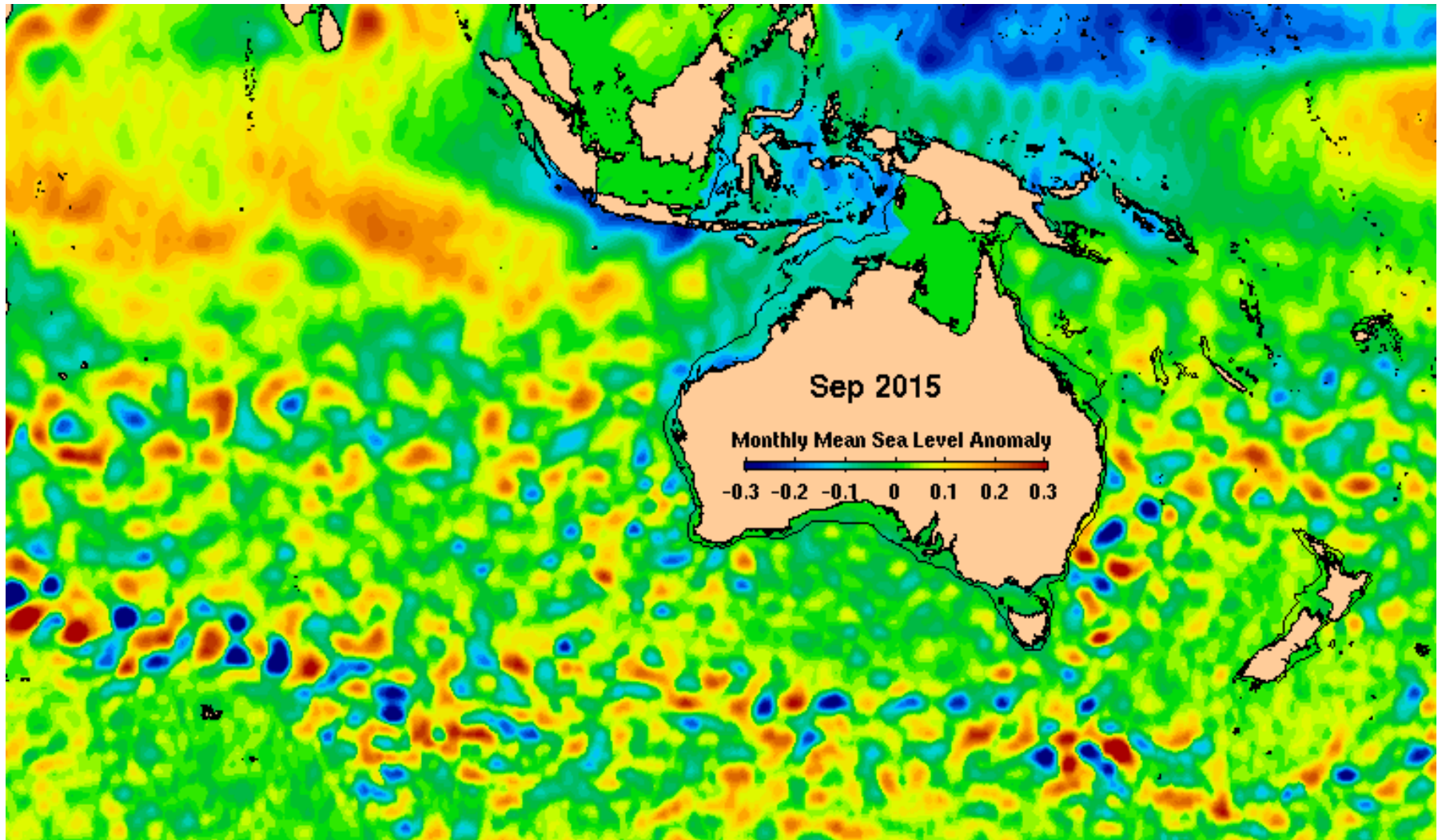
in Australia's ocean territories

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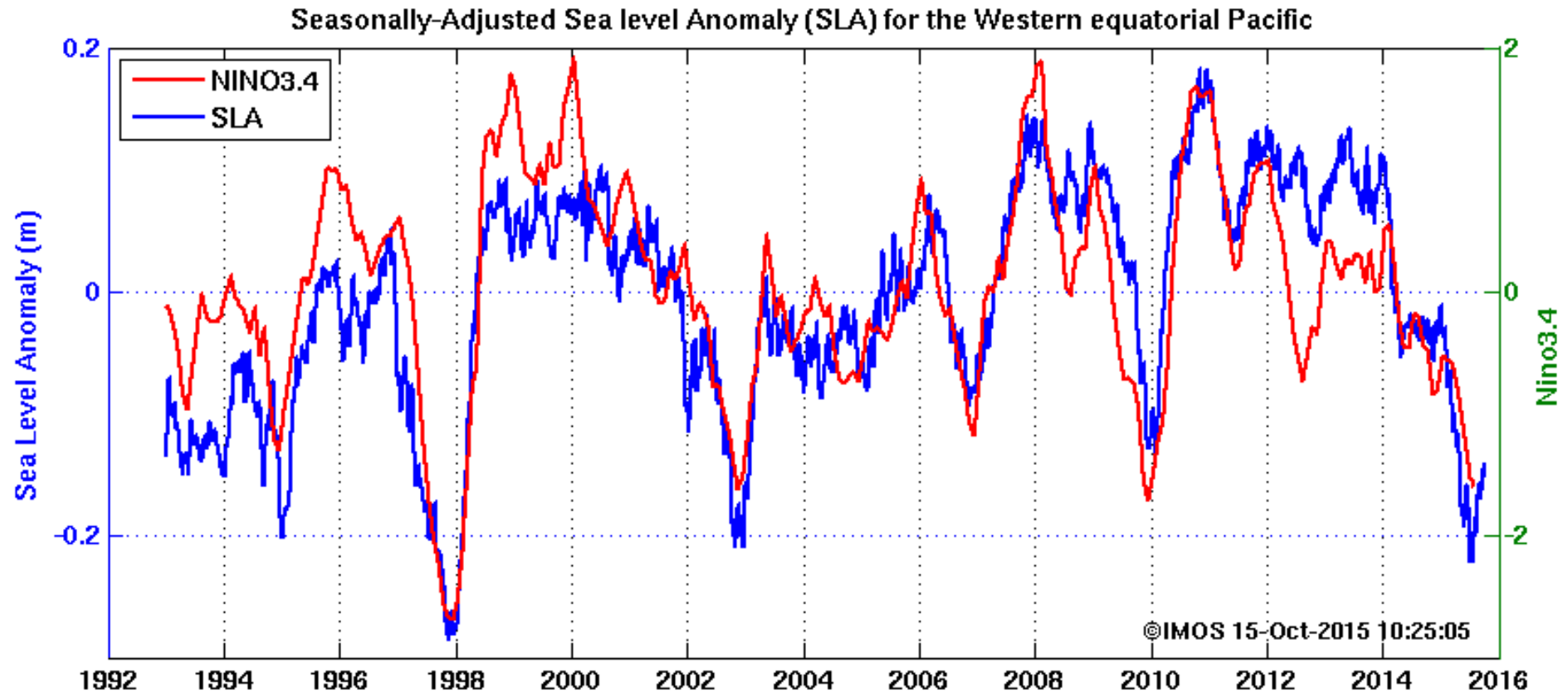
“at work”?

- Yesterday we heard about several types of satellites and the quantities they measure: temperature, sea level, colour, waves...
- This morning’s sessions are about Applications
- “Why governments spend money on Earth Observation”
- There are many more applications than we have time to discuss today
- most of these are probably not happening yet
- i.e. - EO data is still mostly *under-utilized*
- *Like an adolescent who hasn’t had a real job yet*
- Scientists need to think and act like parents.
- Steer your ‘child’ into a job. Be on the lookout for applications.

Killer App#1 - seasonal forecasting: El Nino

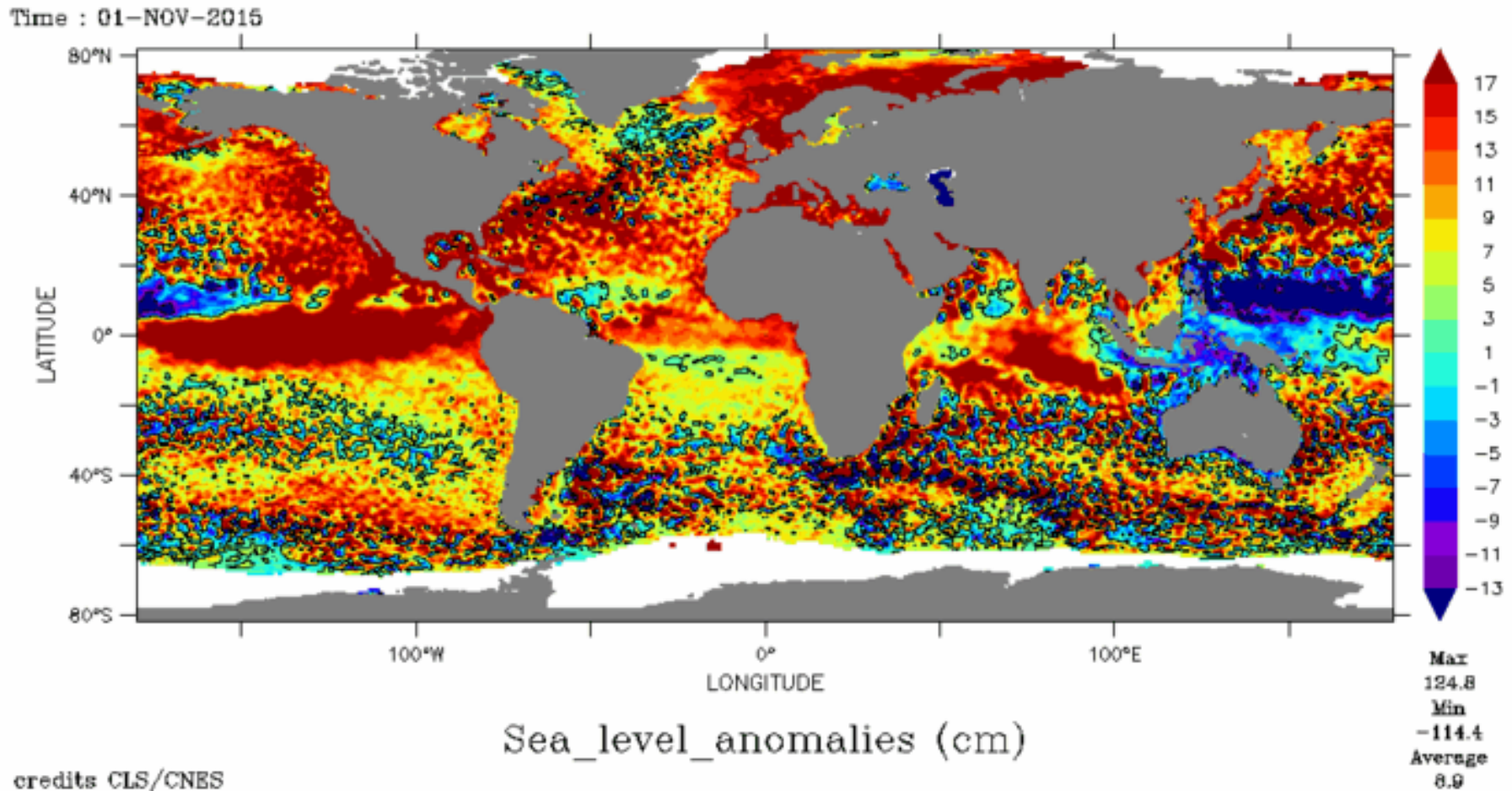


Western Pacific Warm Pool not so warm now. Sea level low: temporary respite for islands



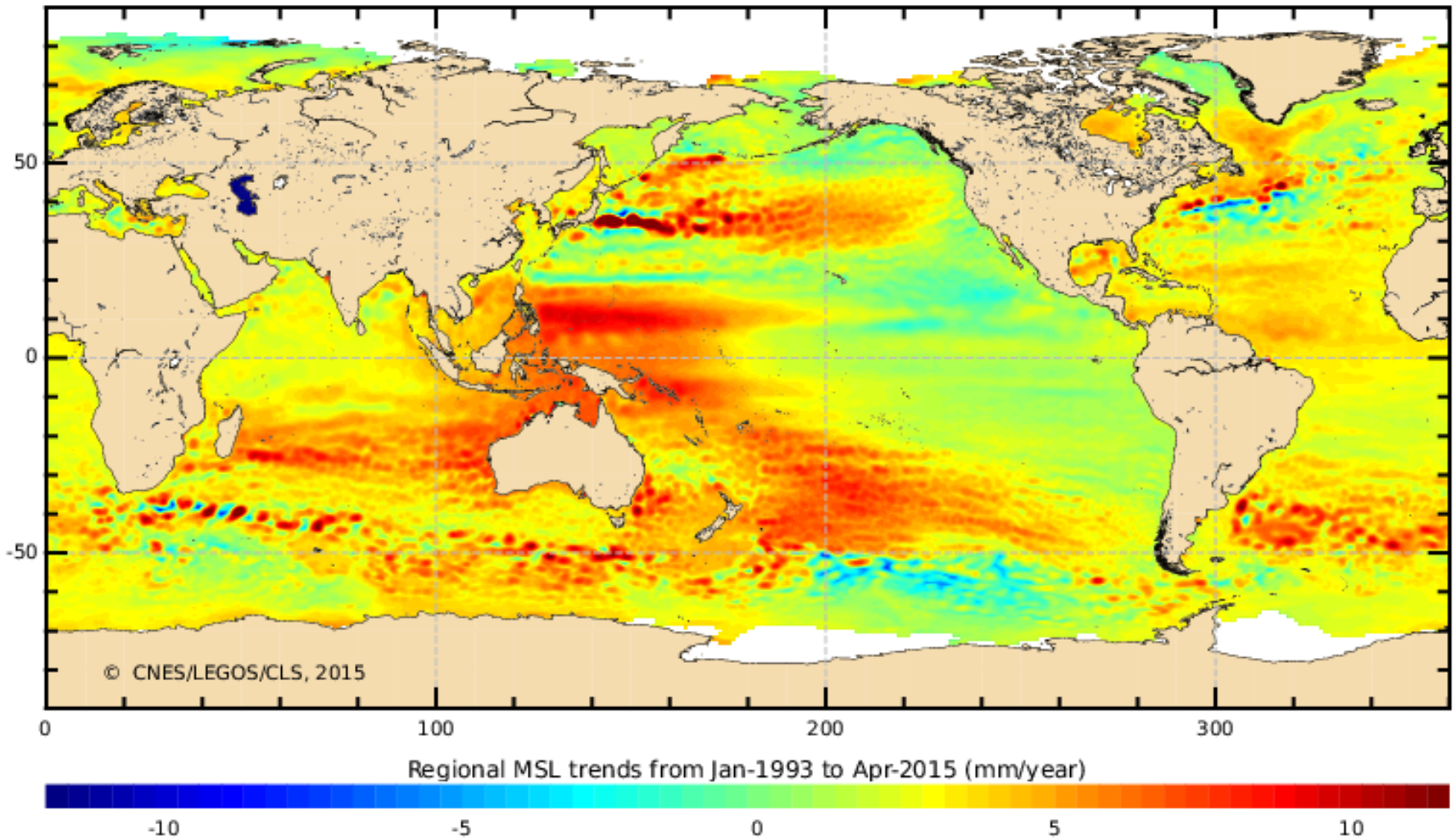
Bigger picture: El-Nino – PDO interaction

Decadal variability masks the underlying trend

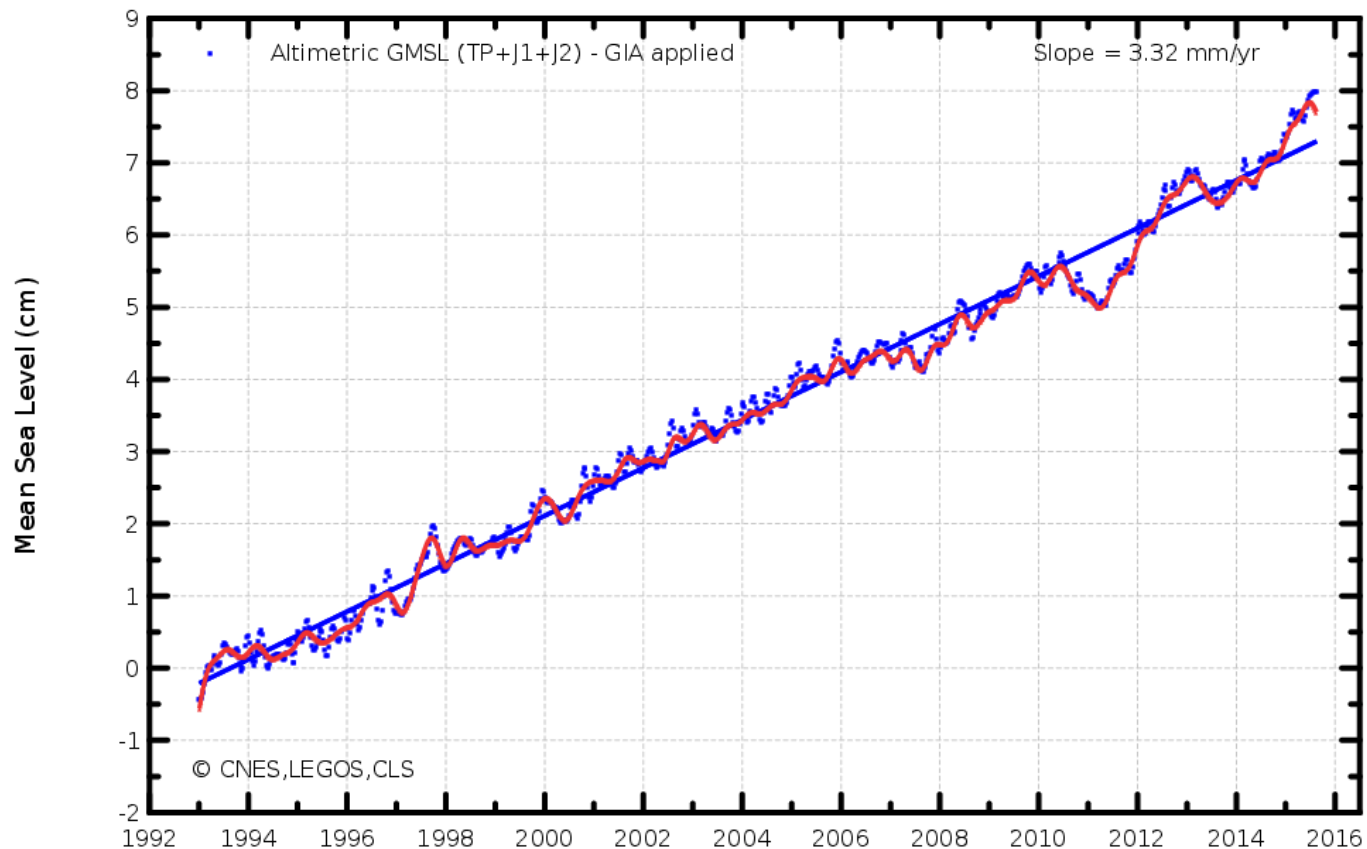


Killer App#2 – regional sea level rise

Don't extrapolate this trend:

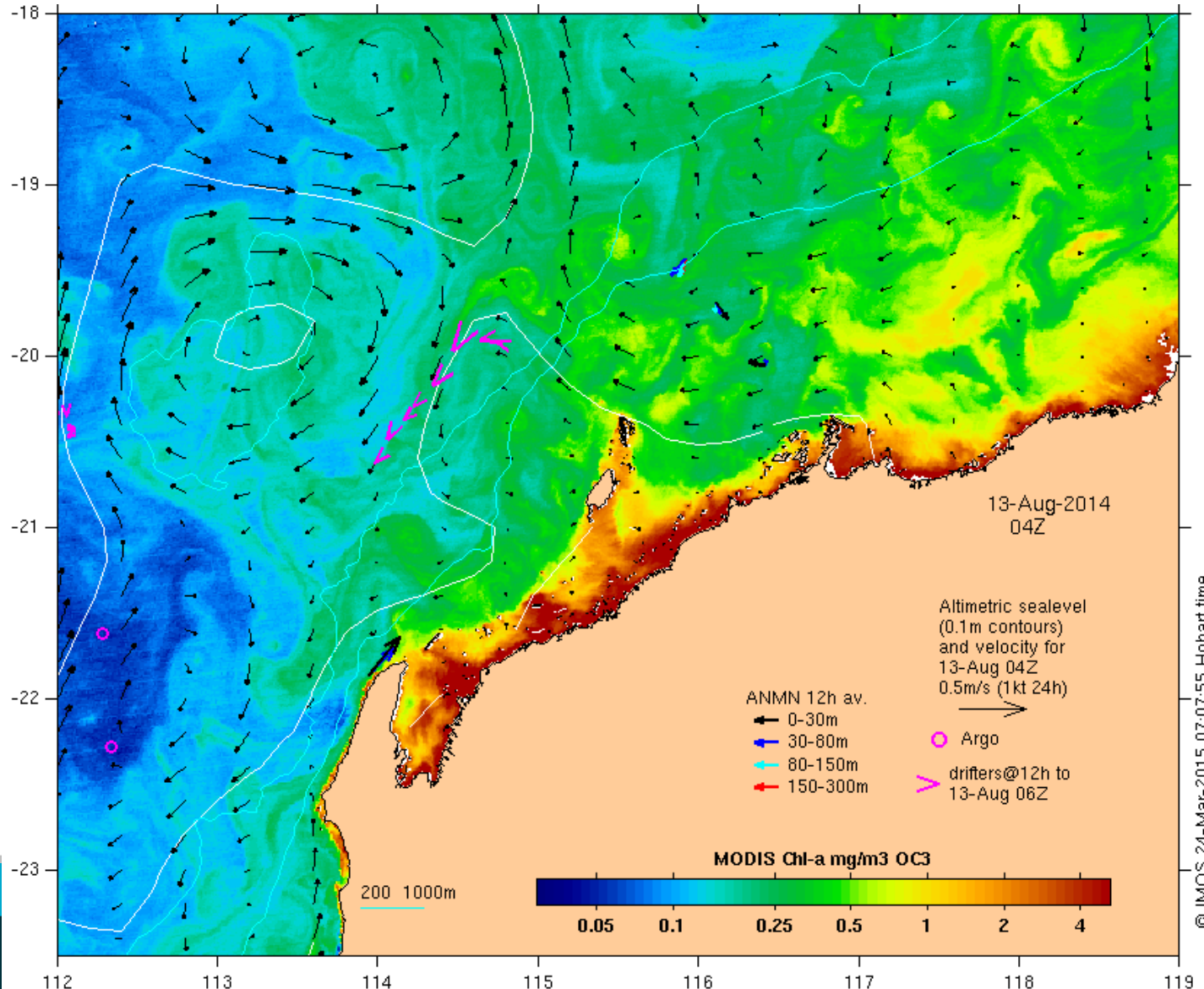


Global-average sea level rise – a safer predictor of regional sea level.

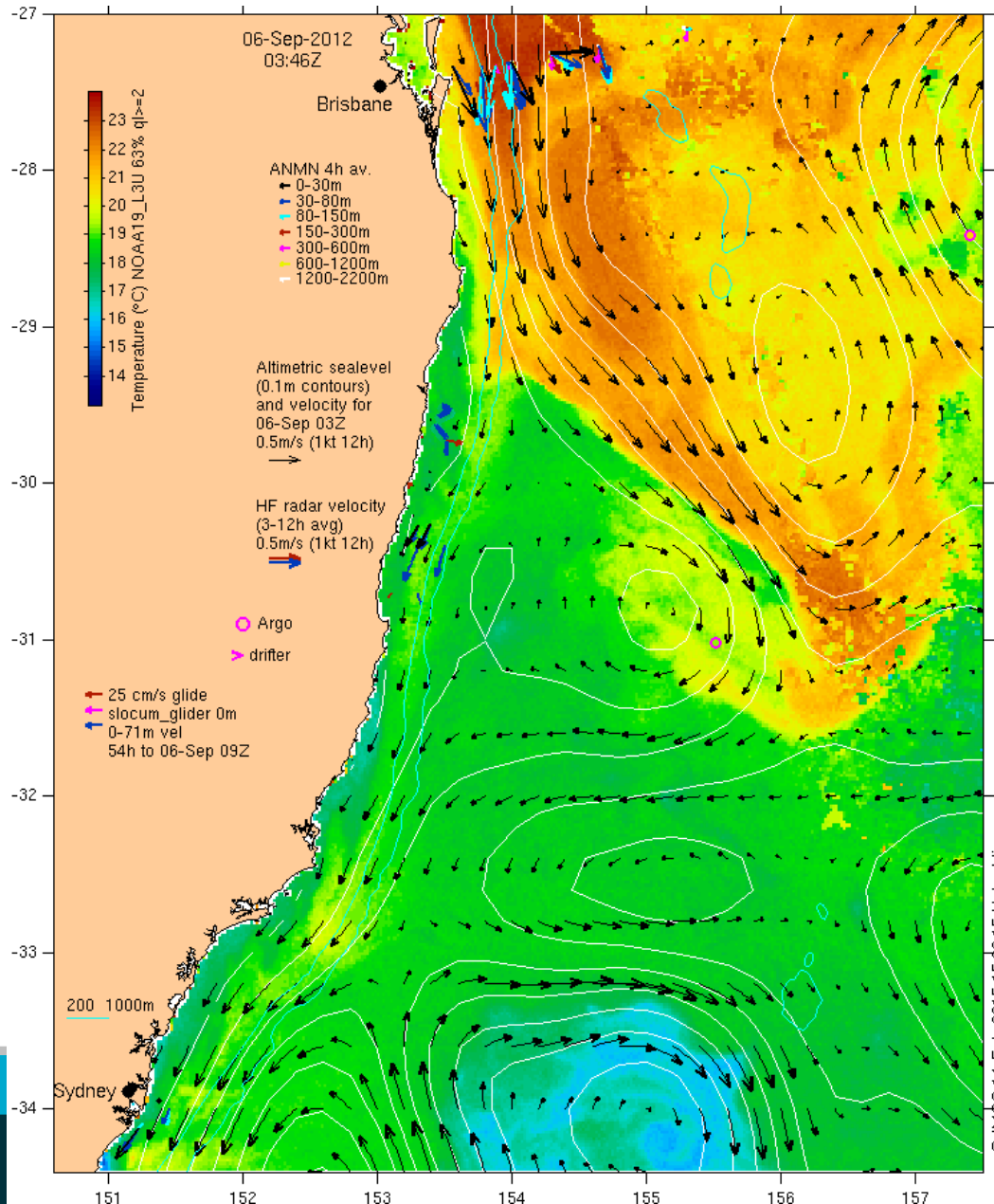


Killer App#3: Ocean Forecasting.

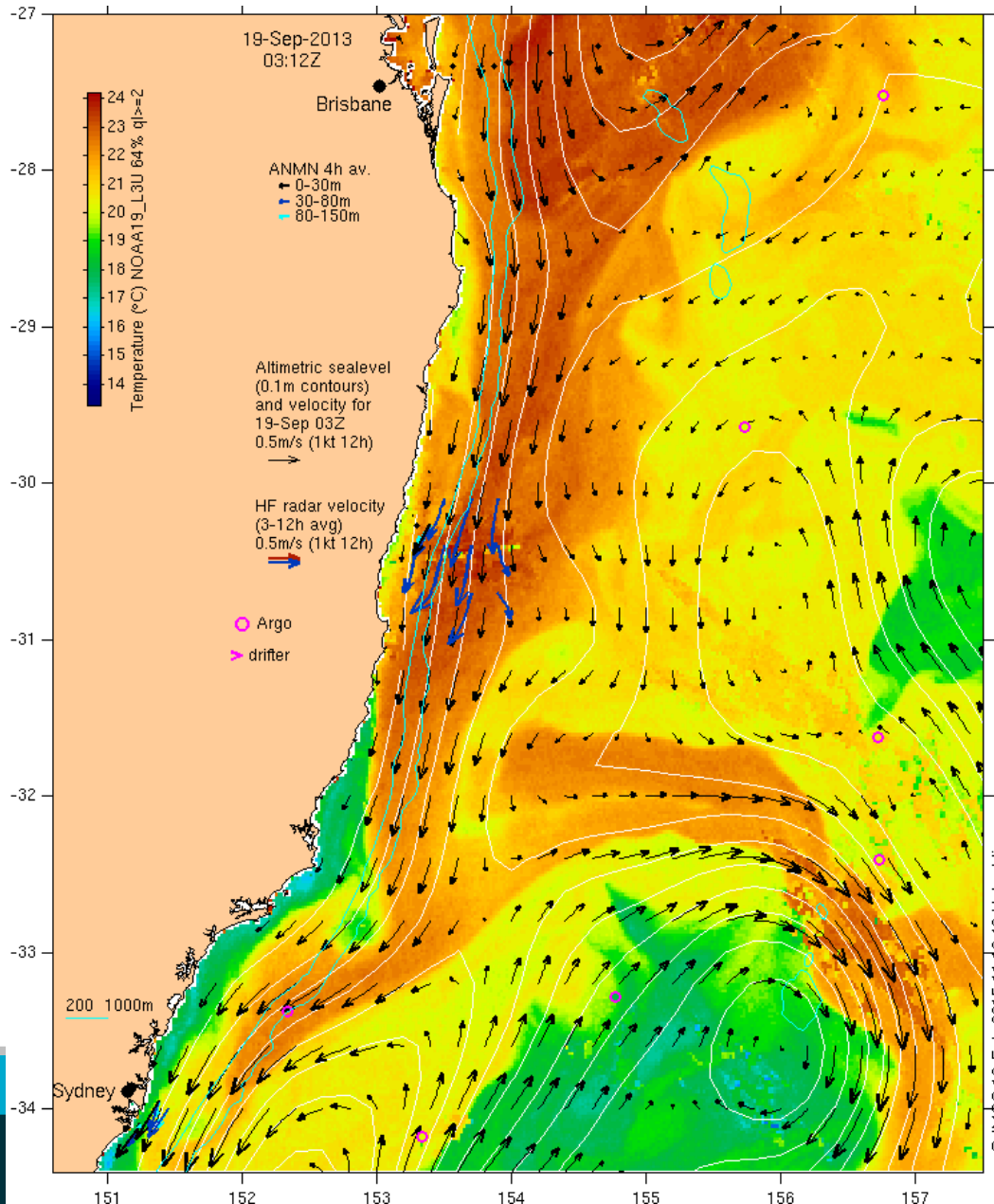
Shipping, Search and Rescue, oil spills, fishing...



September 2012



September 2013



Killer App#4 – short term forecasting.

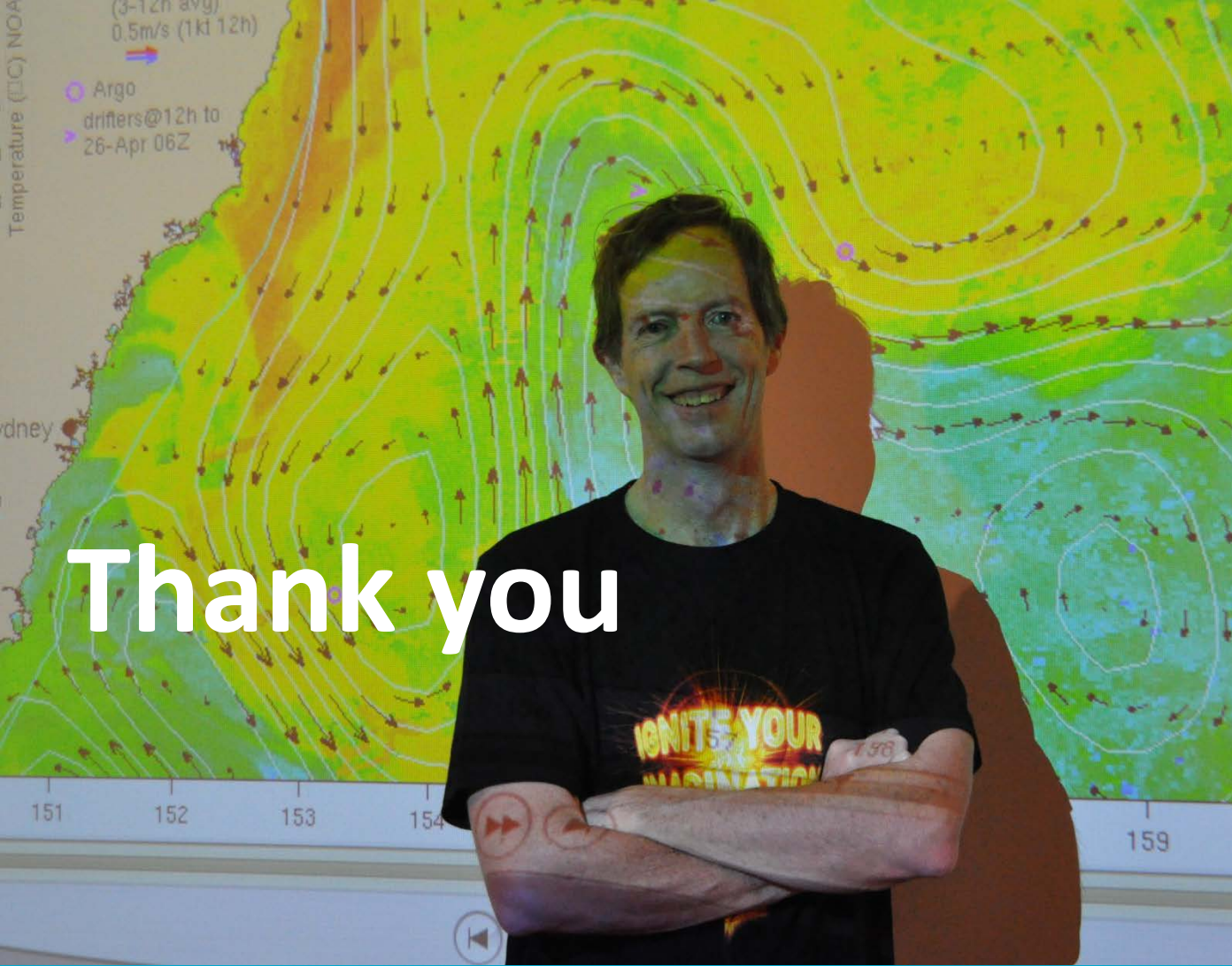
E.g. Extreme weather. TC Yasi: Not there yet?



Photograph 4: Clean-up efforts commence in Cardwell following TC Yasi (Source: News Limited)

Conclusions

- A US Senator (congressman?) once said the US no longer needed NOAA satellites because they now have the Weather Channel
- Hopefully an isolated case of misunderstanding
- But the point remains: use it or lose it.
- Australia gets fantastic ROI from Earth Observation – because we invest so little, and rely on US, European, Japanese, Indian, Chinese etc generosity.
- Sustainable? Unclear.
- Development and demonstration of Applications is a highly-valued contribution to EO missions.
- It's one way Australia contributes quite well, and is thanked for that.



Thank you

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