

ADCP data and QC

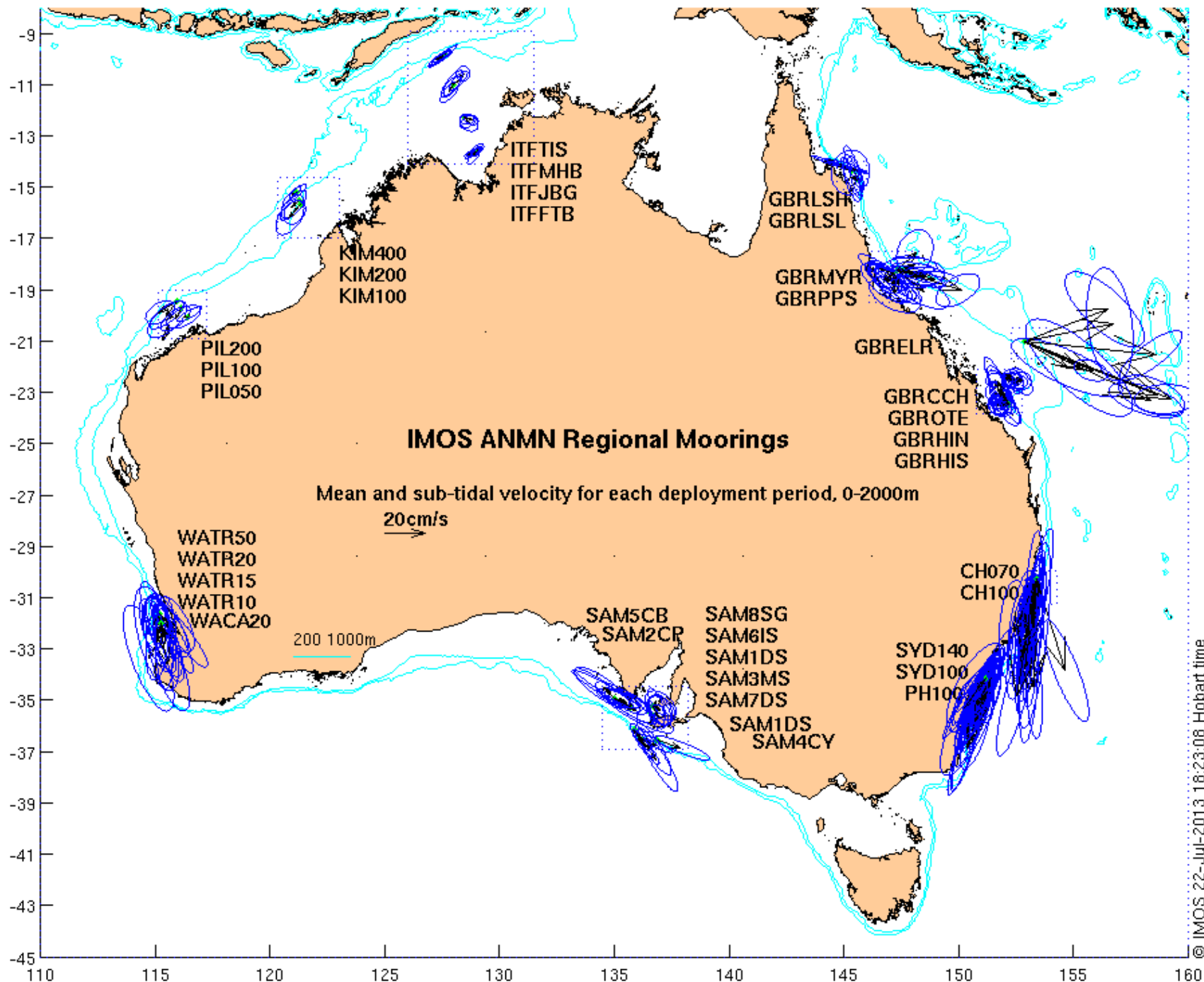
users perspective

Dr David Griffin

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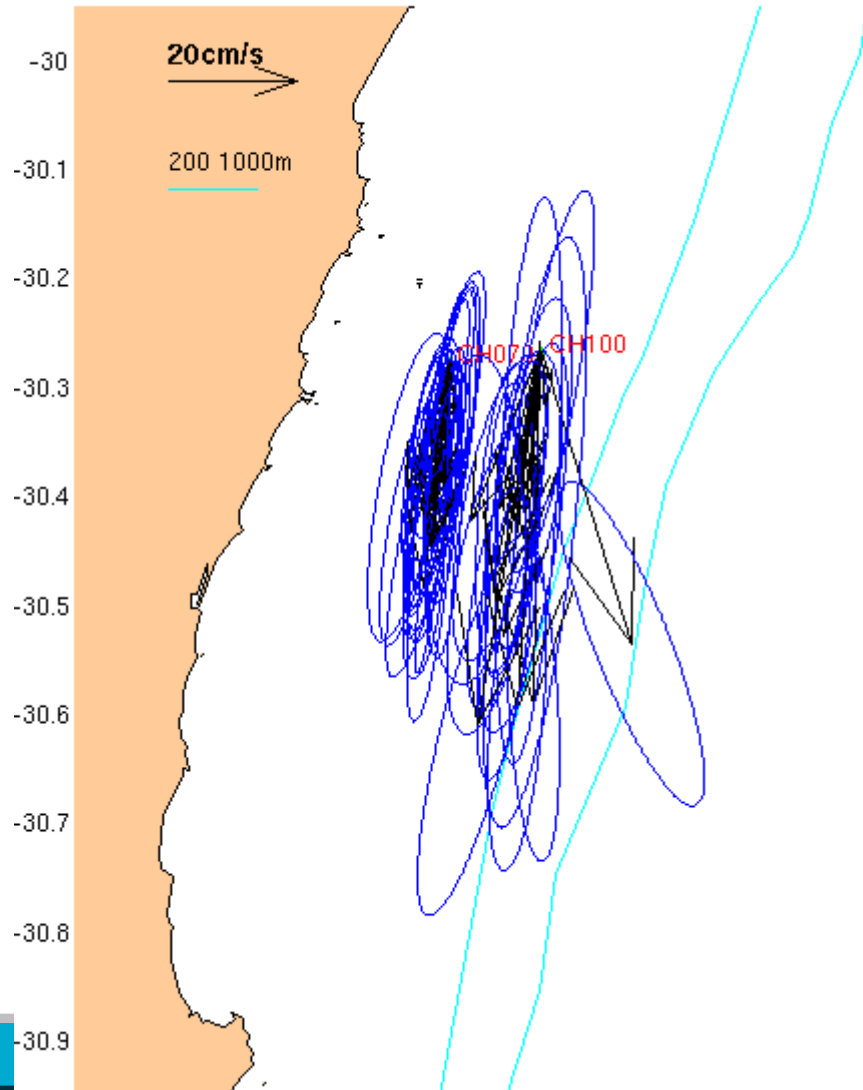
www.csiro.au





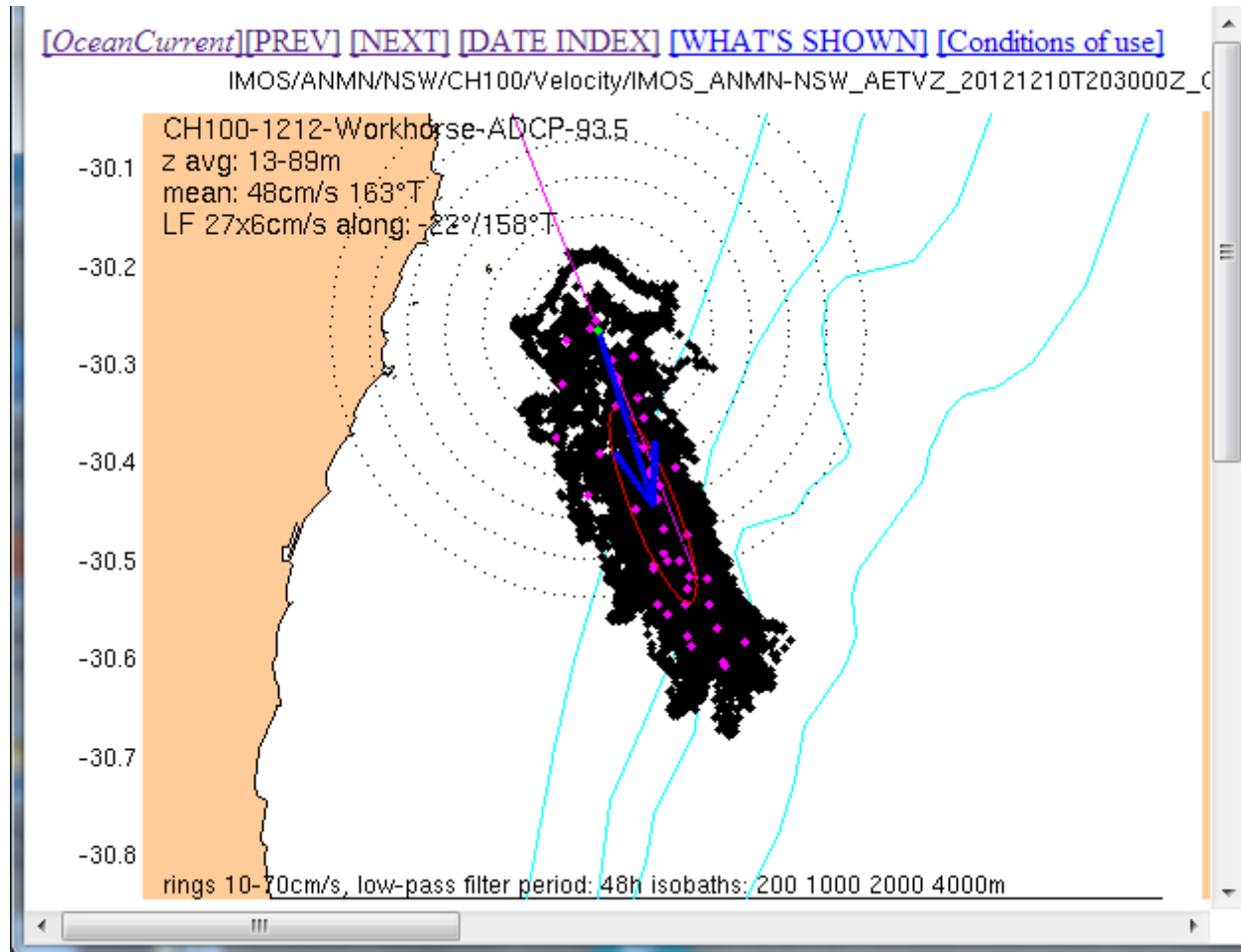
All suspiciously unrotated + one outlier.

IMOS ANMN Regional Moorings. Mean and sub-tidal velocity for each deployment period, 0-2000m

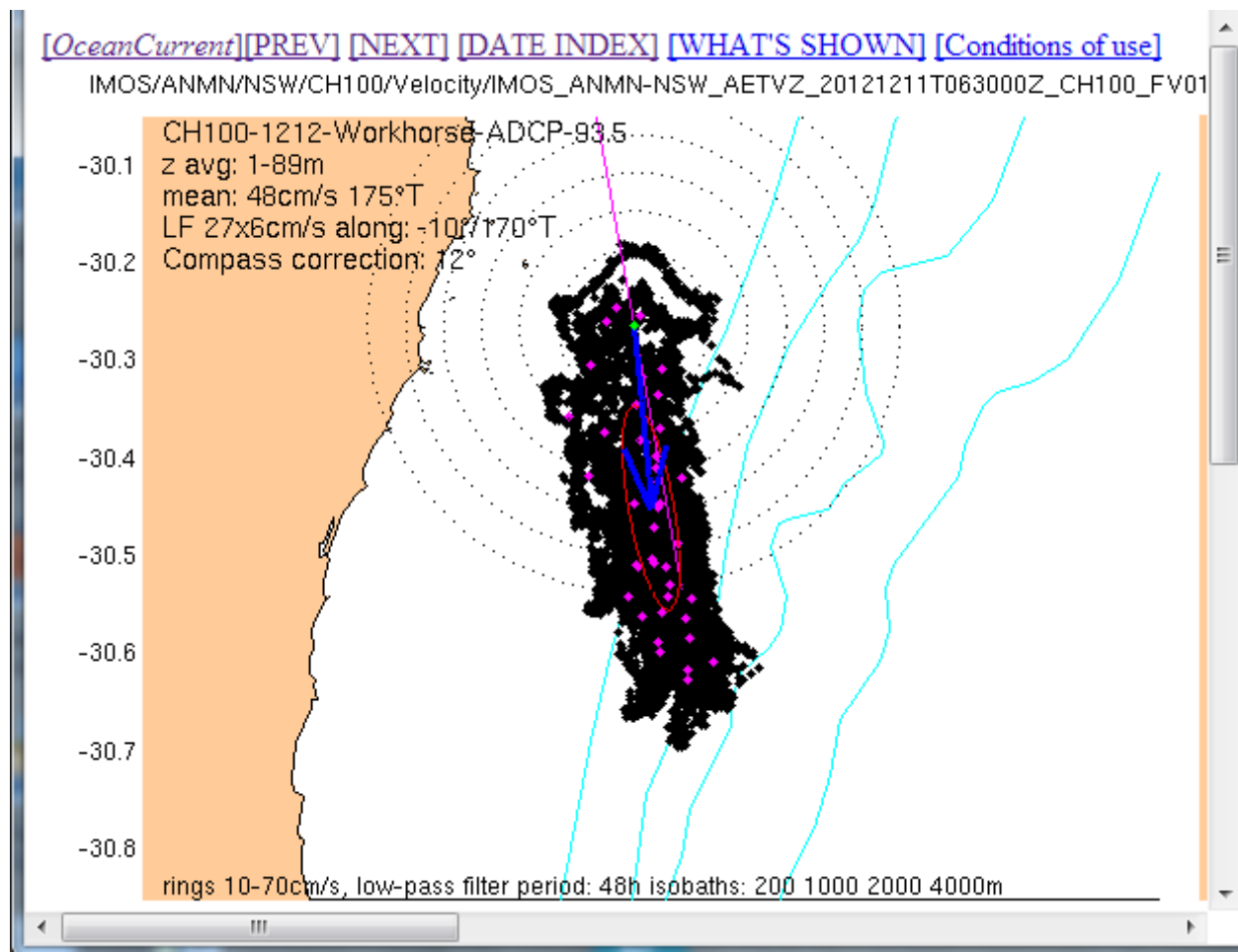


1 Hobart time

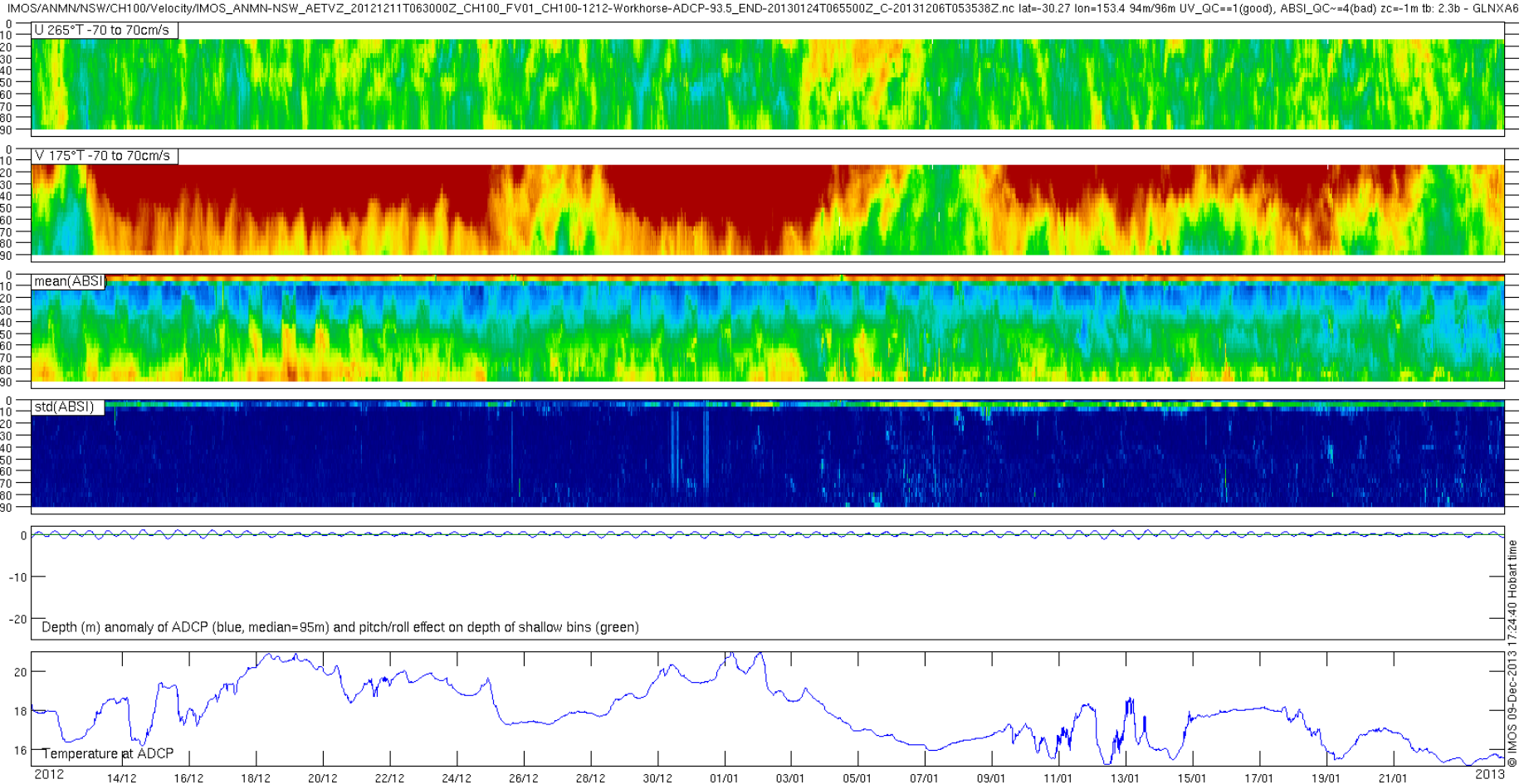
July 2013 version

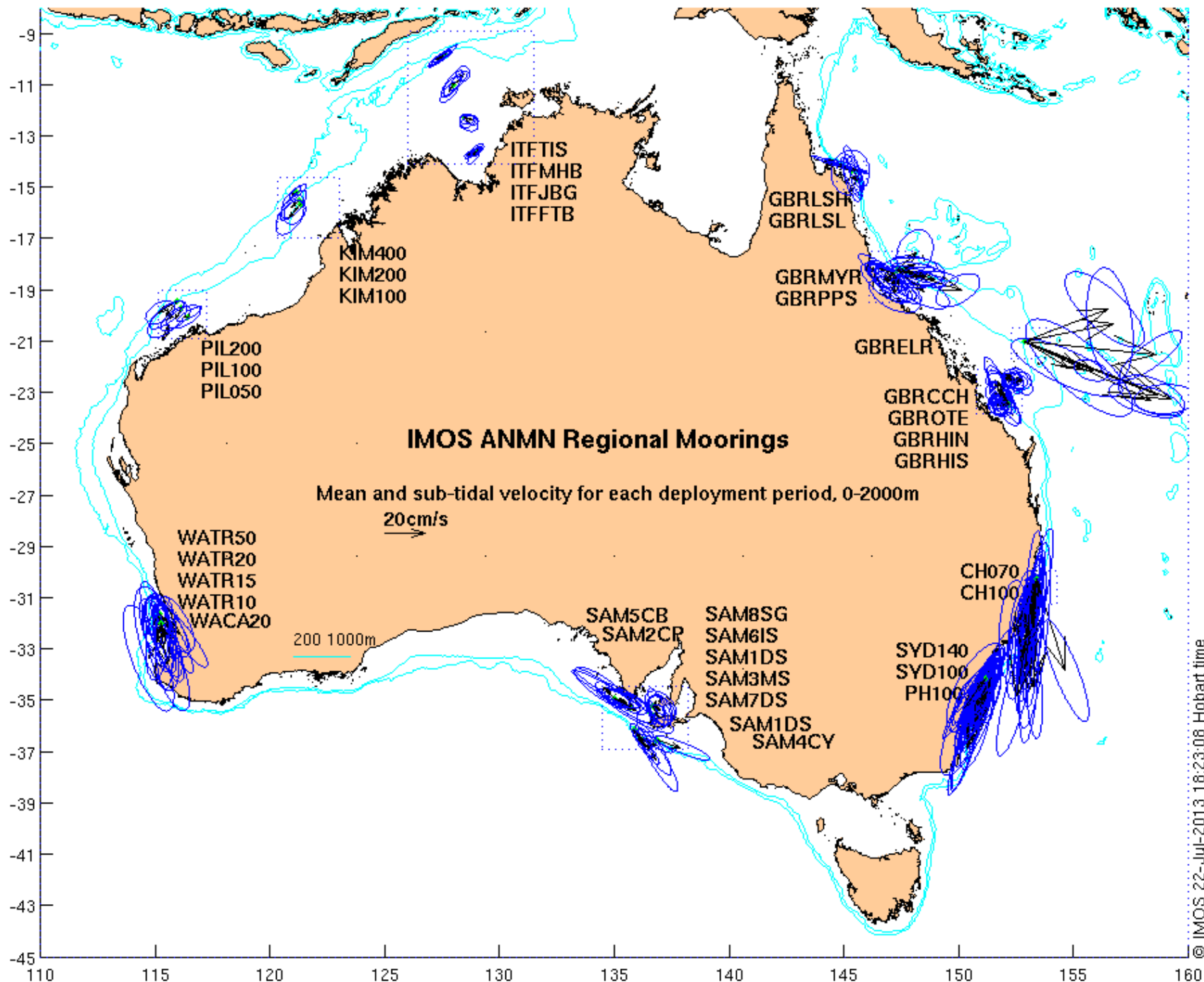


December 2013 version (mag dec correction)



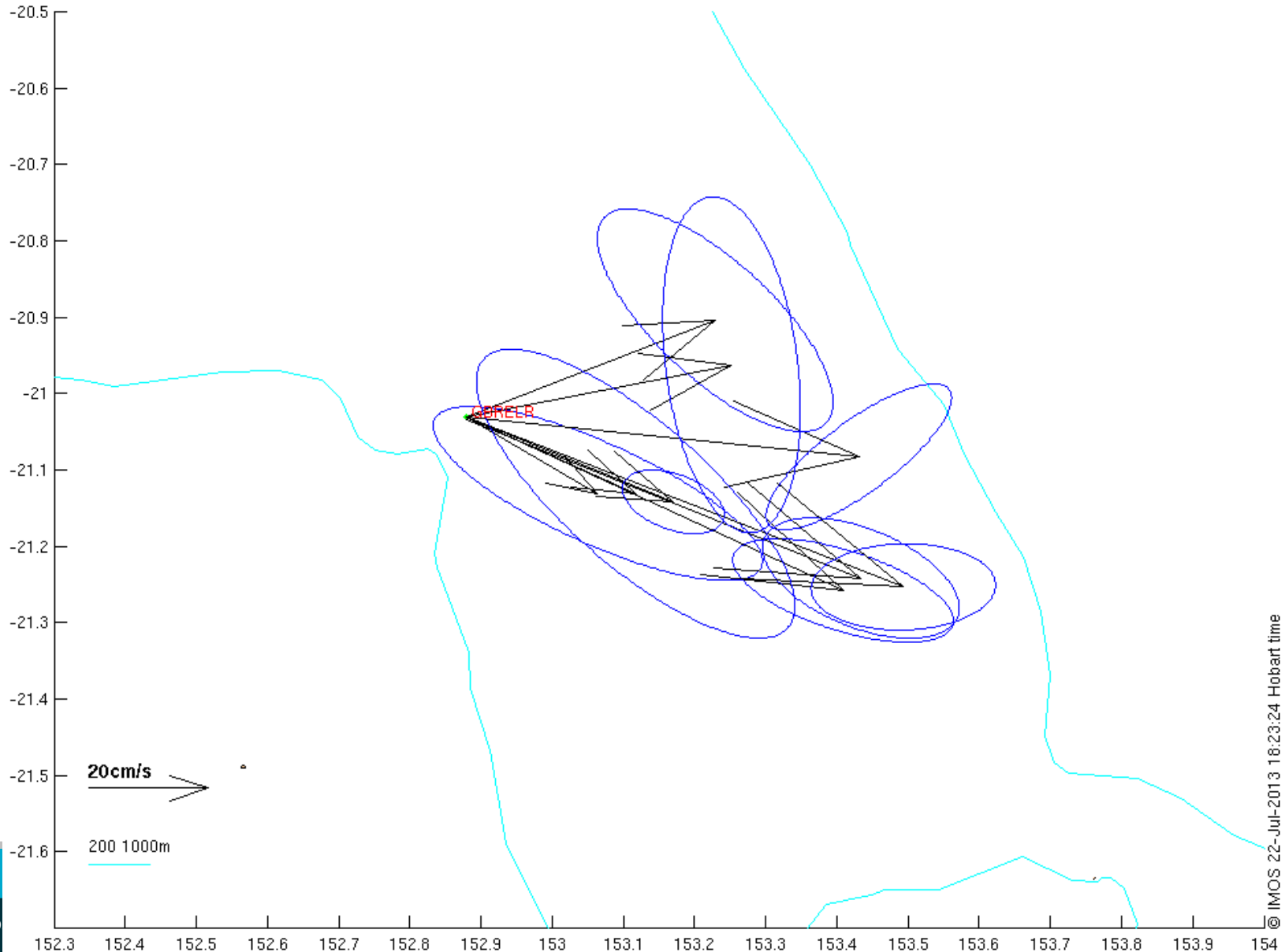
Nothing obviously wrong with data, once rotated arbitrarily.





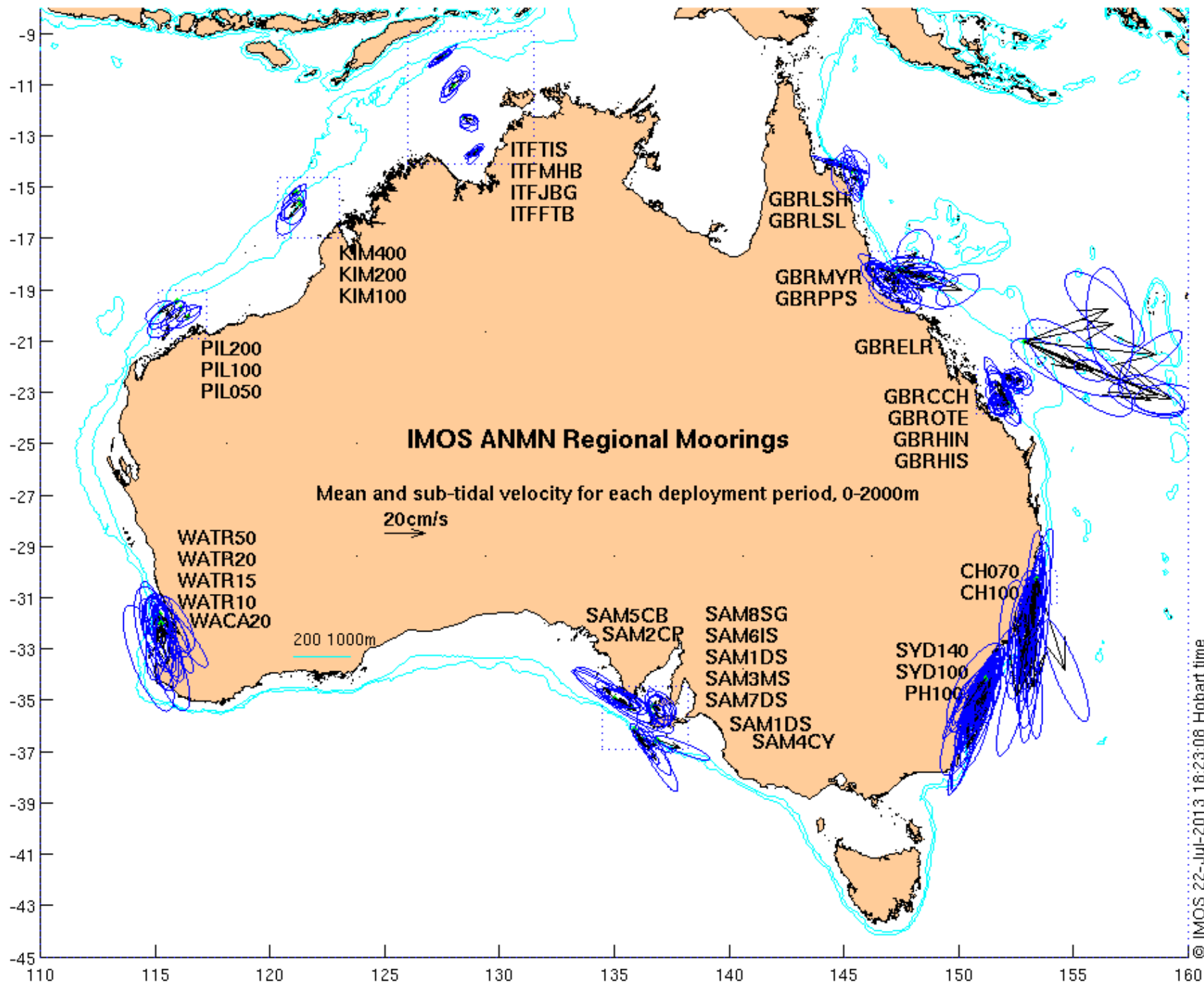
Elusive reef: very variable. QC v difficult.

IMOS ANMN Regional Moorings. Mean and sub-tidal velocity for each deployment period, 0-2000m



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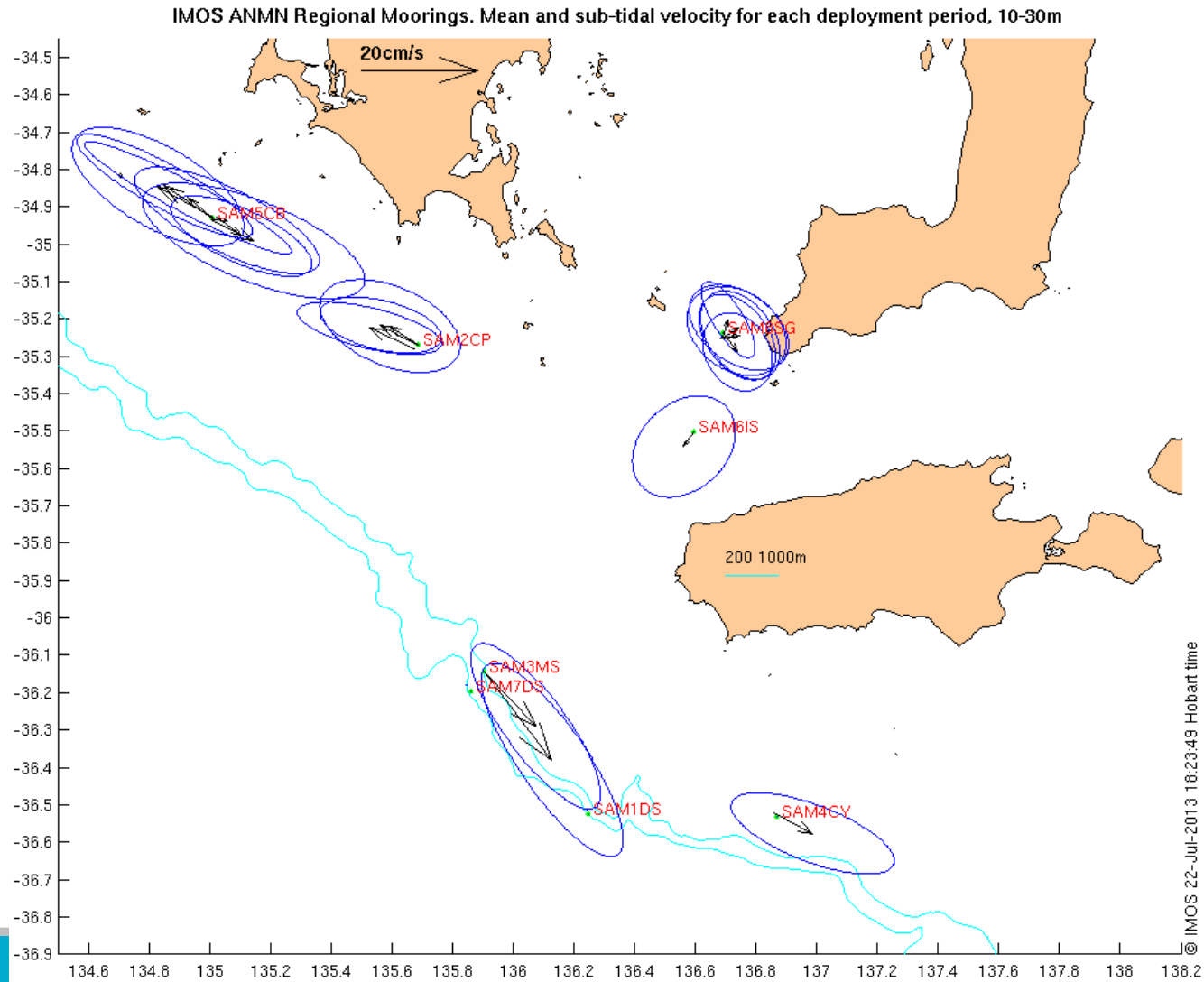




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SA: opposing means. Different seasons.



Scientific QC

- Data errors often evade standalone QC procedures.
- Users expect data to be science-ready, or very close to it.
- The basic statistics of the ADCP time-series should be plausible before the data are labelled as 'quality-controlled'.
- This is not the case for at least one ADCP deployment.
- As well as checking the mean and low-frequency variability of the current velocity, we should check the tidal analyses. This will identify timing errors as well as compass errors.

Blooper reel:

- http://oceancurrent.cmar.csiro.au/timeseries/ANMN_testQC1_allz/KIM100-1208-Workhorse-ADCP-95_zt.html (bad surface bins)
- http://oceancurrent.cmar.csiro.au/timeseries/ANMN_testQC1_allz/KIM050-1301-Workhorse-ADCP-51_zt.html (over-zealous QC?)
- http://oceancurrent.cmar.csiro.au/timeseries/ANMN_testQC1_allz/ITFTIS-1105-Workhorse-ADCP-462_xyz.html (no compass correction)
- http://oceancurrent.cmar.csiro.au/timeseries/ANMN_testQC1_allz/PIL050-1202-Workhorse-ADCP-42p5_zt.html (why so few bins, and so much surface blanking?)
- http://oceancurrent.cmar.csiro.au/timeseries/ANMN_testQC1_allz/NRSNIN-1208-Workhorse-ADCP-48p5_xyz.html (constant onshore flow?)



Thank you

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