

Interactive comment on “Hydrographic data from the GEF Patagonia cruises” by M. Charo and A. R. Piola

Anonymous Referee #2

Received and published: 7 April 2014

This manuscript is an excellent example of documenting the calibration procedures for a set of cruises - here for three cruises on the Patagonia shelf. The measurements taken - CTD temperature, salinity + oxygen, fluorescence and turbidity - are detailed and the steps taken to ensure quality of the data and calibrate based on bottle samples are also documented. Thermosalinograph calibration and quality control are likewise documented. I would recommend final publication after some minor changes as detailed below.

- Was there any calibration/quality control performed on the temperature sensor for the CTD?
- The accuracy/precision of the instruments in table 1 should be given, especially for

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salinity and oxygen - to give some idea of the size of the performed calibrations relative to the accuracy of the instruments. Please give the accuracy of the conductivity sensor relative to the practical salinity scale, since calibration results are given on this scale.

- the authors note that there were numerous instances when the thermosalinograph was subject to biofouling or other disturbances. The authors apply a smoother with an 11 step window to the thermosalinograph data. If this smoother is applied to biofouled sensor data without removal of bad data, it can have the effect of smoothing the biofouled data, possibly with good data, leaving data which does not appear to be erroneous, but is skewed toward the biofouled data. Was any type of bad value removal for biofouling applied before the 11 step window smoother?

- fluorescences and turbidity were measured during some of the cruises. It is noted in the manuscript that these variables were reported with factory calibration only. What was the purpose of taking the fluorescence measurements if no calibration was performed? Why were no bottle samples utilized for fluorescence calibration? Are the fluorescence measurements useful without calibration? I confess I know little of turbidity measurements. Do they need to be calibrated (beyond factory calibrations)? Are they useful without calibration? What was the purpose of the turbidity measurements?

- Figures 2-5 show residuals after calibration. It would be instructive to also show the residuals before calibration - to give an idea of how important the calibration were to the use of the data. Likewise, table 2 should give pre and well as post-calibration residual between bottle samples and CTD.

Interactive comment on Earth Syst. Sci. Data Discuss., 7, 89, 2014.

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