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Earth System Science Data Discussions

Interactive comment on "Assessing the internal consistency of the CARINA database in the Indian sector of the Southern Ocean" *by* C. Lo Monaco et al.

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This paper is aimed at assessing data for CO2 and CO2-related properties in the Indian sector of the SO, which were collected in an international framework. The procedure is well examined, and the results are repeatedly checked. The final results are well reliable. Thus as a whole, I have no reasons to request revisions. But,I have a comment, which I'd like to ask the authors to discuss if possible.

Comment: For alkalinity, data from BEAGLE (49NZ20031209) are recommended to add +10. As PI for the alkalinity, I do not have an opposition basically, because I had the same result by comparing BEAGLE data with WOCE data. But this just implies that

there exists a difference between two data sets. We conducted the BEAGLE cruise not only in the Indian Ocean, but also in the Atlantic and Pacific Oceans. As far as I know, no adjustments were recommended for the Atlantic and Pacific data from the same CARINA sysnthesis activity. But adjustment is recommended for the Indian Ocean data. We completed all BEAGLE cruises within half an year. In this short period, I do not think that measurement quality changes largely. So there is a possibility that previous WOCE data need adjustment. After BEAGLE, we have conducted no cruises in the Indian Ocean. Thus we had no oppurtunities to confirm this with newly observed data. Some of the authors have already made cruises in the Indian Ocean. So I think it is possible to check this point.

Interactive comment on Earth Syst. Sci. Data Discuss., 2, 367, 2009.