

Interactive comment on “Consistency of cruise data of the CARINA database in the Atlantic sector of the Southern Ocean” by M. Hoppema et al.

T. Johannessen (Referee)

truls.johannessen@gfi.uib.no

Received and published: 26 November 2009

Review: [essd-2009-14](#) - Referee Comment Request

Consistency of cruise data of the CARINA database in the Atlantic sector of the Southern Ocean, M. Hoppema, A. Velo, S. van Heuven, T. Tanhu, R. M. Key, X. Lin, D. C. E. Bakker, F. F. Perez, A. F. R. I        , C. Lo Monaco, C. L. Sabine, M.A I  lvarez, and R.G.J. Bellerby.

This paper follows the general procedures for data quality control for QC 1 and QC2 that has been suggested by the CARINA group. In principle, the quality control procedure also follows the GLODAP approach and previous data from the GLODAP analyses has been used as a reference to prove the robustness of the CARINA data quality control.

C122

The CARINA database was established in 1999 and has since then developed into well thought of set of procedures at several meetings, lately conducted as a co-operative action between high rated scientists invited to work for the international organizations SOLAS, IMBER and IOCCP.

A very comprehensive discussion on the issue on the themes: Crossover analysis, what statistical methods to choose etc. give a good impression that the authors have used the best approaches and carefully analyzes to optimize the results (line 20 page 340) and as a final check used inverse analysis of cruise date after adjustments had been applied, clearly documenting the robustness of the quality check of the data.

In sum this paper can be published after my opinion without any correction. The data analysis is well documented, it follows the international approved procedures for data correction discussed and arrived to at several meeting. This paper and data release as such is for this reason a good example of the state of art based upon the present knowledge.

Figures and tables are appropriate and clear.

Interactive comment on [Earth Syst. Sci. Data Discuss., 2, 331, 2009.](#)