

Interactive comment on “A uniform, quality controlled Surface Ocean CO₂ Atlas (SOCAT)” by B. Pfeil et al.

Anonymous Referee #2

Received and published: 17 October 2012

The paper by Pfeil and (many) co-authors is an excellent article that very well (as far as I can judge) describe the SOCAT project, the history of SOCAT and (more importantly) the data that constitutes SOCAT. Apart from the fact that SOCAT is a product that has been long sought after by the (ocean) carbon community, this paper is an excellent introduction to SOCAT. The only thing I miss in the paper is some more in depth description of the secondary quality control procedures. Reading the manuscript I learn that "cross-over" analysis is not possible (but possibly a little bit, this is a somewhat unclear), and that procedures are described in a document published on the SOCAT home-page (Olsen and Metzl, 2009). I am not asking for a complete recap of the content in the "SOCAT QC cookbook" by Olsen and Metzl, but the current manuscript is lacking enough information for the reader to judge and understand the procedures used (short of actually downloading and reading the SOCAT QC cookbook).

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The content of the paper is highly relevant for ESSD and the paper is very well written. I strongly support publishing of this paper, after minor corrections as discussed above.

Minor comment: The data coverage is stated to reach from 90°S to 90°N. Is this really true? Are there data in SOCAT from south of, say, 80°S?

Interactive comment on Earth Syst. Sci. Data Discuss., 5, 735, 2012.