

Interactive comment on “Early ship-based upper-air data and comparison with the Twentieth Century Reanalysis” by S. Brönnimann et al.

S. Brönnimann et al.

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"Some surface pressure measurements from the SMS Planet were used in the 20CR whereas measurements from the MS Schwabenland were not. This could be made more explicitly clear (p. 2433, l. 20)." We have changed the sentence.

"Figure 1, ... profile numbering" We added profile numbers to the figure.

"page 2427, l 22: “controlling “ => quality controlling" Changed.

"p. 2427, l 23: define a.s.l the first time it is used" Changed.

"p 2431, l 1: “sketched” = described" Changed.

"p 2431, l 8: “manual of” = manual for" Changed.

C1319

"p 2431, l 3-15: The phrase “German sonde” is first introduced here is it the same as a Lang sonde? This follows on to the next paragraph as well, and could be clearer." This should be plural: "German radio sondes". We are now more specific as to which sonde we think was used, although this is often by implication.

"p 2432, l 15: “among” = between" Changed.

"Figure 1 caption, “the analyses”, better if 20CR is spelled out. You will see (below as well) this reviewer prefers the captions for Figures and Tables to stand on their own, i.e. to be very complete." Changed.

"Table 2 and Table caption, The functional meaning of “r” and “P” should be defined." Changed, also in Table 3.

"p. 2434-2435, l. 19-4: It would be helpful to explicitly know which panel in Figure 3 is being referred to." It's the left panel, this is changed.

"p. 2435, l. 9: cite Table 2?" Yes, thanks, this is changed.

"p. 2435, l.10: "correlations ... absolute values" - At first “absolute” made me think of the mathematical sense, especially when used in conjunction with correlation. Would “observed values of temperature” be better?" Yes, thanks for the suggestion. This is changed here and in one other instance.

"p. 2435, l. 21: More consistent ordering here would help, i.e. (colours and contours) ... (yellow and dashed lines)." Changed.

"p. 2435, l. 26: "misses" may be better "did not capture"." Changed.

"Figure 4 is nicely done - having the ship name and profile number in the caption would add value." Changed.

"p2436, l, 11: “absolute values.... 20CR” – perhaps clearer as “sonde observations and co-located analysis values from 20CR”" Changed.

C1320

"p. 2438, l 11-12: Helpful to cite Table 3 here?" Changed.

"p. 2438, l. 12: "anomaly correlations of 0.6-0.7" - From Table 3, if Zanom and Tanom are considered, it looks more like 0.5-0.7 to me. In fact, the abstract cites 0.5-0.7. Need to tighten this up a little bit." Changed to 0.5-0.7.

"p. 2438, l. 15: Might also be helpful to note this statement excludes the 1000 hPa level where differences are 10-13%." Changed.

"Figure 8. : The area is not defined and the continents are barely visible - could be improved." The area displayed is now indicated ([70°W-30°E, 74°S-20°S]), we have tried to enhance the continent outlines.

Interactive comment on Clim. Past Discuss., 6, 2423, 2010.