

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

**Anonymous Referee #2**

Received and published: 14 December 2010

This paper presents upper-air sonde data from 2 early ship-based cruises and compares it to a recent reanalysis, 20CR. I found the manuscript to be interesting, informative on the errors and shortcomings of these datasets, and well written. It should be published subject to a handful of relatively minor suggestions described below which will help to clarify the text.

Abstract line 20; "form" should be "form"

Section 2.1.1 line 22; mention in a footnote what a registering balloon is.

Section 2: Could you mention what the purposes (goals) of these early cruises were? Was it simply to collect new atmospheric datasets or did they have some specific purposes in mind?

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pg 2429, mention the time of day of launches at SMS Planet. Are radiation errors an issue for all sondes or were some launches at night?

pg 2429, line 14; cite some examples of other possible sources of systematic errors in T and P.

pg 2429, what is the meaning of Neuschwabenland?

pg 2429, line 20; "radiosonde ascents"

pg 2430, Is it necessary to show original German version of this note? Seems like the English translation would be enough.

pg 2433, It's unclear if surface pressure from the MS Schwabenland was used in 20CR.

pg 2433, line 26; define NNR first time it is used.

pg 2436, lines 17-18; It's unclear how "description of the data asserts a high quality" has been inferred.

pg 2440, line 4; Can you expand on the comment "much more ship-based upper-air data" by describing how much more data is actually available. Can these data be used in a updated CR20 reanalysis?

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

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