

Interactive comment on “The Hamburg Ocean Atmosphere Parameters and Fluxes from Satellite Data – HOAPS-3” by A. Andersson et al.

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The authors thank the reviewer for the very positive comments that helped to clarify some points. A detailed response to the comments is given below.

Anonymous Referee 2 Received and published: 16 August 2010 The paper is of high interest to the observational and modeling community as it thoroughly describes the HOAPS data set, which is becoming a standard for ocean-atmosphere interaction studies. The authors succeed in describing the data set structure in all its parts and make a good job in pointing to pros and cons. The manuscript is well written and completely within the journal scope. It certainly deserves publication as an original scientific contribution. However, a comment needs to be considered by the authors together with a

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small number of minor revisions, which would improve the text (see below).

Comment on the precipitation algorithm. It is not entirely clear how the ECMWF-derived training data set of the neural net differs from the 1DVAR verification data set used to derive data in Fig. 13. The authors should clarify that the two data sets are not connected, otherwise the very good comparison between the HOAPs and the 1DVAR sets would appear somewhat obvious. Maybe I am missing something crucial, but I feel the issue should be tackled and more thoroughly explained in the text of Section 4.6 for clarity sake.

Figure 13 compares the retrieval against the verification data set (the second half of the training data set). Hence, it demonstrates the agreement of the derived neural network algorithm with the verification data set. A good agreement between these data sets is expected and shows the success of the training procedure of the neural network and is not meant to depict a validation of the retrieval with independent data. The regarding paragraph has been adjusted in order to reflect this more clearly. Furthermore, the –probably misleading– label “1DVAR” in Fig. 13b has been changed to “Verification Data Set”.

Minor comments Page 146 Row 19. “The scope of this paper is on the technical description of...” should be “This paper technically describes...”

Reformulated to “This paper focuses on the technical description of the processing...”

Page 147 Rows 1-2. The sentence should be better written as “The initial version of HOAPS (...) was mainly based on the algorithms of ... and was first released in 1998.”

Done

Row 12-13. “...into the atmosphere on climatological scale.” should be “...into the atmosphere on the climatological scale.”

Done

Page 157 Row 3. “...the effect is weakening...” should be “...the effect weakens...”

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Done

Row 4. "...an analogues..." should be "...an analogous..."

Done

Row 11. "...on the SSM/W pixel level..." should be "...at the SSM/I pixel level..."

Done

Page 159 Row 27. "...as wells as..." should be "...as well as..."

Done

Page 164 Row 22. "...at cases of small precipitation..." should be "...in case of low precipitation rates..."

Done

Page 167 Row 8. What does it mean "previously approved retrievals"? Approved by whom?

The sentence has been reformulated to "... previously published and validated retrievals..."

Interactive comment on Earth Syst. Sci. Data Discuss., 3, 143, 2010.