Atmospheric Measurement Techniques Discussions

Interactive comment on "Global and regional evaluation of over-land spectral aerosol optical depth retrievals from SeaWiFS" *by* A. M. Sayer et al.

Anonymous Referee #3

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The paper is very well written. The paper provides massive amounts of data in large no of figures that are very clearly and logically presented. This is a great accomplishment. Yet, I am sorry to say that at the end all the tables, figures, and text manage to convey precious little information to the reader. The paper reads more like a comprehensive, well written project report rather than a scientific paper.

Do we need all these figures to learn what the statistics given in Table 2 and 3 adequately capture? Wouldn't it be enough to provide just few illustrative examples. Rest of the figures and the data could be made available through a website to the few peo-

ple who maybe interested in such detail. Is there a need for so much discussion of AE when it is clear that the quantity is not well measured? This is all the more so since AE is of rather marginal utility- useful just to separate small and large particle aerosols-except even when it is well measured.

Fig 8 is a good example of a plot that conveys so little information that it could be captured in a single sentence. The purpose of a figure should be do just the opposite- to provide information that will otherwise take lots of words to convey. From my perspective the two most interesting figures of the paper are figs 10 and 11. I would have liked to see more discussion of these figures with some attempt to sort out which results the reader should consider more reliable. What a reader would have liked to know if the inter-annual variability of the mean AOD in different geographical regions are similar to that derived from other techniques. But it appears that this information has been deliberately left out of this paper.

Figs 12-20 are simply massive data dump. It is not clear how useful are correlation numbers when the data are so heavily clustered around one corner. It would have been lot better if the data would have binned and mean difference and std err of the mean difference in each bin would have been provided instead.

My basic recommendation is that the paper should be revised to increase the ratio of information to data. I will leave it upon the authors to decide whether they want to provide more information or less data to increase the ratio. If they want to do the former I will suggest focussing on the variability of the mean- in space and time- rather than on the variability of raw data around the mean.

Interactive comment on Atmos. Meas. Tech. Discuss., 5, 2169, 2012.