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4, S1672-S1673, 2007

Interactive Comment

## *Interactive comment on* "Optical backscattering properties of the "clearest" natural waters" *by* M. S. Twardowski et al.

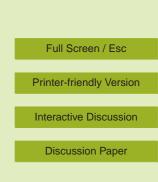
## M. S. Twardowski et al.

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This review was useful and helped improve the manuscript. We personally thank the reviewer for his/her comments and criticisms.

The suggested text with respect to errors in bb measurements relative to pure water was added.

Regarding the questioned use of bbp(650) in the analysis, I ask the reviewer to please understand that bbp(650) was only indistinguishable from pure water in the very clearest waters measured (between 300 and 350 m in the central gyre). Overall, and as indicated in the text, the bbp(650) measurement had the BEST estimated uncertainty (+/- standard error) and BEST estimated accuracy (% standard error normalized to magnitude) of any of the 3 measurements. This primarily is a function of good LED



source intensity and detector response at this wavelength (the relative high uncertainty in bb(462) is the result of a weaker LED at that wavelength). This is why the analysis focused on bb at 650 nm. The comment that "…bb(650) is clearly negative a large amount of the time" is not accurate, as can be observed in the right panel of Figure 7.

Thank you again for your helpful comments.

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