

## ***Interactive comment on “Summer upwelling at the Boknis Eck time series station (1982 to 2012) – a combined glider and wind data analysis” by J. Karstensen et al.***

**J. Karstensen et al.**

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Please note the full response to all three reviewers comments in the attached supplementary material.

Reviwert #2 raised minor comments which are addressed below:

Page 2768 line 10. Discrepancies between satellite SST and in situ data are suggested to occur due to the coarse temporal sampling of the satellite. I would also add the fact that the SST imagery is a spatial average on the pixel size. Another source of discrepancy could be the proximity to the land border where satellite data is less accurate.

C2034

Author's response: We fully agree and added the spatial sampling problem to the text.

Page 2768 line 28 and Page 2773 line 7. I would briefly mention how far is expected to be the no lateral inflow hypothesis from reality.

Author's response: The introduction to the “simple upwelling model” has been fundamentally changed in the revised version (also in response to reviewer #3 comments). The observations of the depth average flow stands as it is.

Page 2770 line 2 and Page 2774 line 10. I think the role of turbulent mixing mechanism at the near sea surface (like waves) be also briefly discussed in the context of the experiment.

Author's response: Indeed near surface processes such as waves or Langmuir circulation cell have an impact on the mixing in particular in such shallow areas under discussion here and references are included (as well as mentioned in the text).

Please also note the supplement to this comment:

<http://www.biogeosciences-discuss.net/11/C2034/2014/bgd-11-C2034-2014-supplement.pdf>

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