

Corrections - referee 1

Please find our point-to-point response below. We thank the reviewer again for his/her comments.

"The authors have addressed most of my questions. I just have two minor comments.

1. I made a typo in the previous review comments. In the last paragraph of section 4.2, the drifting velocity of $NBC_{sub}2$ is used to estimate transported volume of $NBC_{sub}1$. I suggest using the drift velocity of $NBC_{surf}2$ to make a lower estimate of transported volume of surface rings, because $NBC_{surf}2$ has a lower drift velocity than $NBC_{surf}1$.

We thank the reviewer for his/her remark and suggestion. A sentence has been added in line 419 of the revised manuscript.

2. In figure 10, the authors mentioned the shading "WNACW" and "ENACW" in the caption now. However, in the caption they use "WNSACW" AND "ENSACW". I suggest they use consistent acronyms."

We thank the reviewer for bringing this to our attention. The caption has been corrected accordingly.