

reviewer 1

The authors have answered my questions and I recommend this manuscript for publication. One quick suggestion is to write a sentence about what happens when water saltier than 31 is not found in a profile - how is freshwater content calculated in that scenario?

Re:

We thank the reviewer for pointing out this detail. In this scenario, the freshwater content was calculated by integrating over the entire water column from the surface down to the maximum profile depth. We have added a clarifying sentence to the methodology section to ensure this is clear to the readers. Line 242.

reviewer 2

Major Comments

- Residual deep-renewal wording. The Abstract has been corrected and no longer claims a deep-basin renewal time, which is appropriate. However, a related phrase remains in the closing Discussion paragraph, where the fjord is described as being “characterized by slow deep-water renewal and mixing processes.” This is not demonstrated by the present data. The renewal and oxygenation evidence in the manuscript concerns the upper layer and the mooring depth near the fjord head, not the deep basin. Please remove this phrase, or clearly frame it as a general expectation from the fjord literature rather than as a result of this study. For the same reason, the phrase “modulates basin renewal rates” in the Conclusions should be changed to “modulates upper-layer renewal” or similar wording.

Re:

Thanks for the comment, now we delete the “deep-water renewal..” for “with a seasonal stratification of the upper layer and mixing processes dependent..” at lines 786-787. Similarly, we change on conclusions by “...modulates upper layer renewal rates.” On line 792.

- Incomplete deletion of the barotropic-seiche paragraph. The response states that the barotropic-seiche paragraph was deleted. This was the right decision, since the 4 h signal is not central to the paper. However, a fragment remains in Section 4.3: the text still refers to a barotropic seiche and gives $c = \sqrt{gh} = 46.4 \text{ m s}^{-1}$, but the argument is not completed. This is confusing and implicitly brings back the same $L \approx 165 \text{ km}$ scale discussed in the previous rounds. Please either remove these remaining sentences entirely, or complete the calculation and justify why the seiche domain differs from the $L = 75 \text{ km}$ fjord scale used for the wind and exchange diagnostics.

Re:

Thanks, we forgot to delete that paragraph from the past version, we delete completely in this new corrected version.

- Freshwater Content caveat. The added caveat about CTD-SRLD salinity uncertainty is useful and should remain, but the current wording is unclear. The phrase “but the along-fjord FWC estimations” appears incomplete, and “longer uncertainty” should be “larger uncertainty.” Please rewrite this sentence so that the point is clear: summer upper-layer salinity from the seal-borne data is less well constrained than temperature, and this uncertainty propagates into the along-fjord Freshwater Content estimates.

Re:

Thanks, changed the paragraph and we include the suggested phrase to be clear about the limitation of the FWC in the Almirantazgo fjord.

Minor Comments

- The Abstract could be slightly more precise by indicating that the wind-power comparison applies to strong wind events, not to mean summer winds.

Re:

Thanks, we include in the abstract “During stratified summer periods, strong wind events (above the 90th percentile) generated wind power of the same order of magnitude as that of the estuarine circulation” on lines 28-29.

- Since the flushing times are now explicitly first-order estimates, Table 3 should avoid excessive precision. Reporting TF as approximately 7 d and 9 d, or simply as order one week in the text, would be more consistent with the uncertainty of the calculation.

Re:

Thanks, we changed the Table 3 TF values ~ 7 and ~ 9 days due to the uncertainty of these first estimations, we already indicate that Flushing time of the upper layer is c.a. one week, but we changed a little bit to be more concise about that idea. Line 653.