We thank the reviewer for taking the time to review our manuscrip. We particularly appreciate the recommended publications on the internal tide regime. We are glad that the reviewer finds the article publishable after minor revisions. In the following, the reviewers' comments are in red and our responses in black colors.

1- The Introduction Section is well written and suited for the paper's results and discussions. Nonetheless, the issues related with IW propagation through a variable background (i.e. mesoscale variability via stratification and shear) have been discussed before in a few papers. Three papers are highlighted here which merit some additional framing and discussion in light of their previous results and the new (and valuable) insights provided by this paper. Nash et al. (2012) http://dx.doi.org/10.5670/oceanog.2012.44) Jeans and Sherwin (2001) https://doi.org/10.1016/S0278-4343(01)00026-7). Jensen et al. (2019) https://doi.org/10.1016/j.dsr2.2019.104710

We thank the reviewer for sharing these publications with us. Nash et al., 2012 was cited in the introduction (L40-45, and also L57). Instead of Jensen et al. (2019) https://doi.org/10.1016/j.dsr2.2019.104710, we discuss our results in regards to Jensen et al., (2018) which focus more on the interactions between internal tide and eddies: "This is not surprising since the interactions between internal waves and eddies can enhance the forward energy cascade (Barkan et al., 2021; Thomas and Daniel, 2021) or stimulate the generation of sub-mesoscale (Jensen et al., 2018).", (L584-586). The impact of internal waves on salinity and temperature is currently being analyzed, a dedicated paper to this study is in preparation. It will be the occasion to compare our results to those of Jensen et al., (2019).

2- Figs. 4c and 5d need some additional clarification. Stratification along the waves' typical propagation paths have two maxima between August and December. It may be misleading to assume that the IT energy is propagating in the same fashion as that of a waveguide with a single pycnocline (and any dynamics thereof). That does not hinder the results of the paper nor its conclusions, but it is better to clarify and discuss (very briefly!) that different dynamics are expected as reported in previous studie e.g. see the works by Theo Gerkema (https://doi.org/10.5194/npg-10-397-2003).

As recommended by the reviewer, we briefly discuss the double pycnocline and justify our choice to focus only on the deeper one: '' The presence of this near surface Nmax will have an impact on the modal structure of the internal tide and certainly impacts on the internal wave regime according to Gerkema (2003). We do not address the issue of the internal wave regime in this study. Vertical sections (Not shown), indicate that the internal tide interacts first with the base of the pycnocline around the depth of the second peak of N . Thus, to differentiate MAMJJ from ASOND, and following Barbot et al. (2021), we will use the deeper Nmax as the proxy of the pycnocline.'', (L235-238)

3- I think it may be very useful to have a visual illustration of the IT dynamics in this region perhaps even highlight the distinct seasonal regimes. An example is attempted bellow for Oct. 13 th 2015. There are other for the two contrasting seasons.

We have made different movies showing the propagation of internal tides during the two seasons. If necessary, we could add them to the publication as supplementary material.

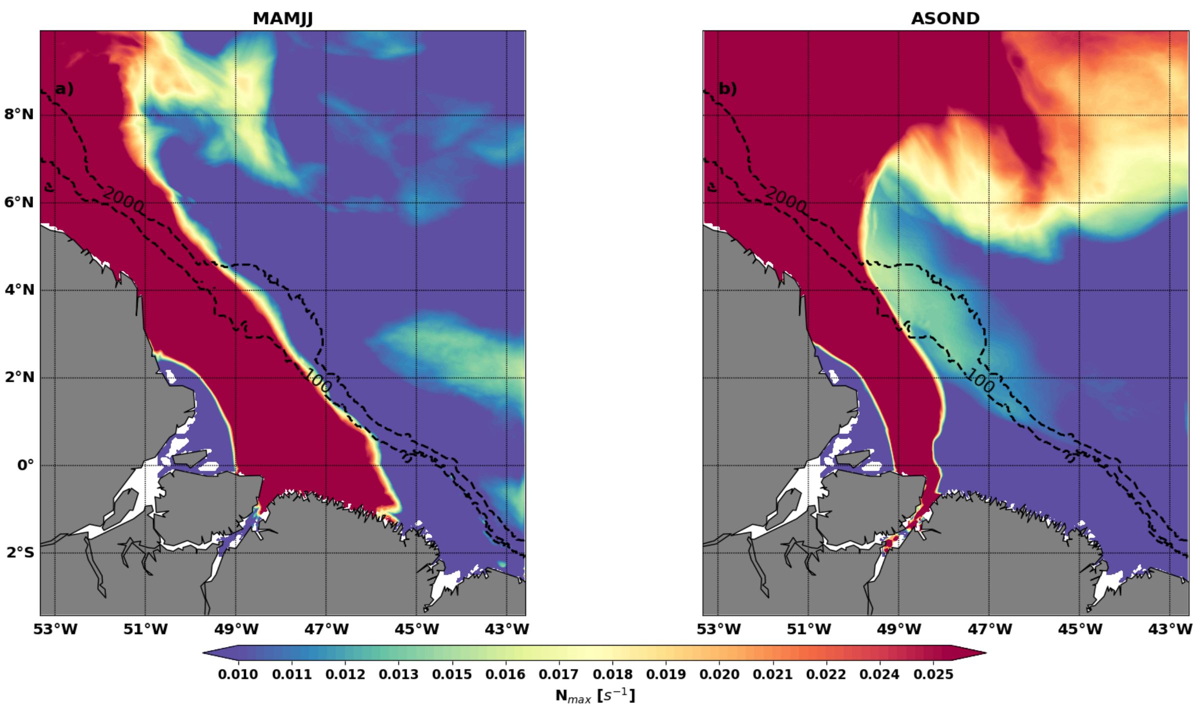
4- Please see also the attached pdf. (Check yellow highlights for suggestions/corrections).

4.1 There is also similar dynamical issues with a double thermocline e.g. your Fig. 4. See works by Theo Gerkema.

Gerkema's work is now cited in the introduction, see for example: '' The scattering (reflection and refraction) and horizontal ducting of the internal tide by the pycnocline depend on its strength and width, and thus on the stratification (Gerkema, 2001, 2003), (L47-49)

4.2 This figure and figure 4 are very interesting. It is very likely that together with these results it will help understand the main dynamics of the higher mode IT systems. Maximum depth and value for N for a double thermocline should be highlighted. Maybe have two panels for ASOND. Then just add a very! brief discussion about it. No more than that is needed in this reviewer's opinion.

The maximum depth and value for N for the first 50 meters of depth are presented below. The figures could be part of the appendix, if necessary. Compared to Figure 5, to the north in the plume area, the stratification is more intense in the first 50 meters in ASOND. We briefly discuss the double pycnocline in the text (L230-248) and state that we will focus on the deeper pycnocline.



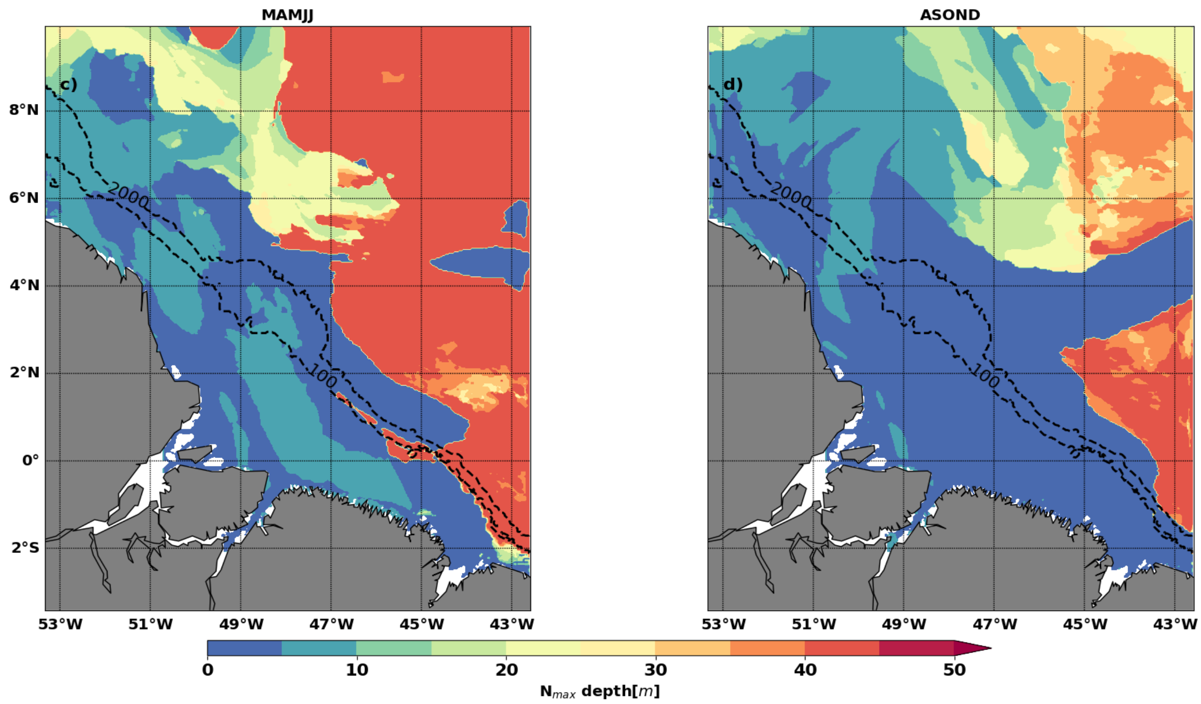


Figure: Top: N_{max} value (units: s^{-1}) during MAMJJ (a) and (c) ASOND. Bottom: Pycnocline depth (depth of N_{max}, units: m) during MAMJJ (d) and (d) ASOND. The N_{max} value and depth were deducted from the mean potential density over each season. Dashed blacks contours are 100 m and 2000 m isobaths. N_{max} was deduced within the first 50m depth.

4.3 Summarizing this in Fig. 1 would help a lot. May add to the spectra two distinct maps (rather than just one), one for each season.

Indeed, we could have made a synthesis on figure 1, but we fear that the figure is too overloaded considering the number of elements to represent. The temporal spectra of the two seasons lead to the same qualitative conclusions as figure 1b (see figure below). We judged that it was not necessary to make this distinction at this stage of the study.

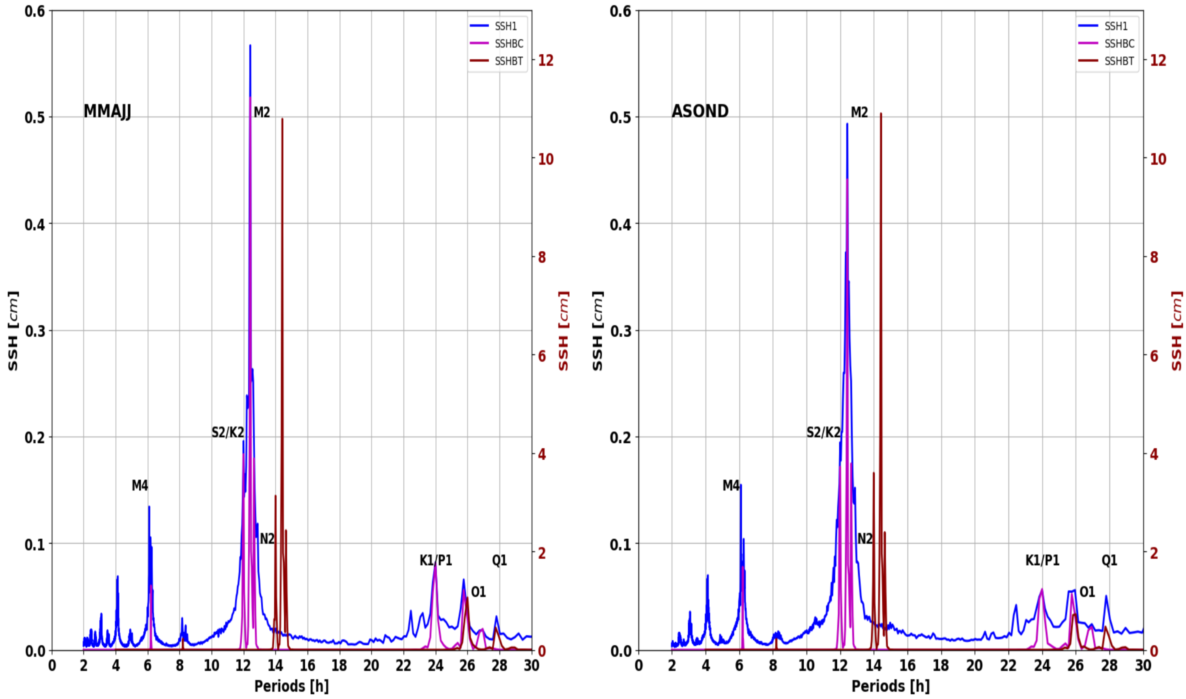


Figure: SSH frequency spectra based on the MAMJJ (left) and ASOND (right) hourly time series of the coherent barotropic tides (SSHBT, brown), coherent baroclinic tides (SSHBC, magenta), and the residual between the full SSH and SSHBT (SSH1, blue). The brown spectrum refers to the right scale and is shifted by 2h for clarity. The spectra are averaged offshore of the 100m isobath.

4.4 Here and whenever appropriate (including in previous sections), I think this needs a little more discussion. According to Figs. 4 and 5 that is not quite the case. Stratification along the waves' typical propagation paths has two maxima between August and December. It may be misleading to assume that the IT energy (and its dynamics) is propagating in the same fashion as that of a waveguide with a single pycnocline. That does not hinder the results of the paper nor its conclusions, but it is better to clarify and discuss (very briefly!) that different dynamics are expected as reported in previous studie e.g. see the works by Theo Gerkema (https://doi.org/10.5194/npg-10-397-2003).

This comment is similar to the one reported in 2. Gerkema's work is cited in the new version of the paper.