Major comments :

- I recommend the authors to redefine the structure of the paper (for instance, having a more general and structured approach grouping cyclones and anticyclones in separate sections, as well as seasonal variability and impacts on chlorophyll-a) and to deepen their analysis of the mesoscale structures,

- The eddy tracking algorithm is relatively unsubstantial and not fully exploited. I am aware of the eddy detection algorithm by Nencioli et al. (2010). There is also a global atlas of eddy detection from gridded altimetry publicly available (eg https://www.aviso.altimetry.fr/en/data/products/value-added-products/global-mesoscale-eddy-trajectory-product.html). More recent detection methods such as AMEDA (Le Vu et al., 2018)) have also been widely used recently by the community working with satellite altimetry. So, I believe that there could be more appropriate tools or data sets to consider. More importantly, this might give a better description of eddy radius and intensity, as well as the possibility to better explore statistically the life-cycle of eddies formed in or passing by the study region (expanding the analysis of Figure 1). Please take the opportunity to revise the way mesoscale eddies are being detected, or improve the method description in light of existing methods.

- In line 143 where vorticity is defined, there are not enough details on how the Rossby number is calculated for each eddy. This part should be put after the eddy detection algorithm description, as it is closely linked and deduced from satellite currents. It should hence be mentioned how the Rossby number is calculated (average over a certain contour? and over time?). Since glider can also be used to characterize mesoscale eddies, I recommend the authors to go beyond the present analysis and try to compare the eddies characteristics seen from space with the ones inferred from their glider observations (as there can be noticeable differences, see for instance Yu et al. (2019))

Specific and minor comments :
- l8 : « particles » I would speak about water parcel more than particles for a fluid.
- l10 « as is »
- l15 and after : «anticlonic » without « - »
- l23 : « diameter >50km » : Mesoscale eddies haves scales ranging more generally from 10 to 100km depending on their location and water column stratification.
- l59 : Testor et al. (2018) could be cited here.
- l62 : Bosse et al. (2016) could also be cited here.
- l94 : what is the inertial frequency in the study area ? Please rephrase the sentence ending with « the resonant wind driven inertial currents extend to 500m water depth », there is something wrong with it.
- l102 : The generation of eddies in that context is actually very particular. What about baroclinic/barotropic instability ?
- L128 : « distributed by »
- section 2.3 : there should be details on glider data processing like thermal lag correction and non-photochemical quenching for chlorophyll-a.
- l168 : « m » not « km »
- l202 : « Rossby number, Ro » (Ro, no need for subscript)
- l203 and 462 : I don’t think that the conclusion about the Coriolis frequency is right. Rossby number indicates whether the eddy dynamics is in geostrophic balance (Ro<<1) or cyclogeostrophic balance when Ro approach unity.
- Figure 4 and others : There are interpolation artefact showing triangular shapes at the bottom of each glider sections. Please consider another way of representing glider sections.
- l400-410 : this feels like an introduction part…
- Fugure 14 is not very informative and rather confusing with the 3D perspective and different scales invovled.

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- Le Vu, B., Stegner, A., & Arsouze, T. (2018). Angular momentum eddy detection and tracking algorithm (AMEDA) and its application to coastal eddy formation. Journal of Atmospheric and Oceanic Technology, 35(4), 739-762.
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