We thank the reviewer for their positive evaluation of our manuscript. We are grateful that the reviewer supports publication of the manuscript after minor revisions.

Below, we provide a detailed point-by-point response to each of the reviewer's comments, along with a summary of the corresponding modifications implemented in the revised manuscript.

The authors answered the referree comments in an adequate way. Of particular interest is the extended analysis in Sect 3.4 about mesoscale eddies distinguishing anticyclones and cyclones. This further highlights the differences between all-sat and two-sat products, but using the framework of coherent mesoscale eddies.

The paragraphs added in the discussion also further explain the observed difference between two-sat and all-sat products. The processes can be either regional pattern changes (Sect4.1) or altimetry processing artefacts (Sect4.2)

Below are some minor specific comments.

l.89 : Is there any filter on eddy lifetime to be considered as a track ?
In the META eddy atlas, eddies are sorted in three categories, including short-lived eddies (lifetime strictly shorter than 10 days), long-lived eddies (longer than 10 days), and untracked eddies. Untracked eddies correspond to features detected at a given time step that are not associated with any other eddy at adjacent time steps. All categories of detected eddies are included in our analysis. We added the following sentence (l. 89-91):
In this study, no lifetime threshold is applied and all detected eddies are considered, including short-lived eddies (lifetime < 10 days), long-lived eddies (> 10 days), and untracked eddies, which are detected features not associated with any other eddy in time.

l.249 "in this section" : remind for the reader that you will use here the META Atlas, as the data source varies between Sect 3.3 and 3.4.
We modified the text as follow (l. 251-253):
In this section, we use the META Atlas to analyze the statistics of these mesoscale eddies derived from the all-sat-glo and two-sat-glo satellite products, distinguishing cyclonic from anticyclonic eddies, including their number, size, spatial extent, and rotational speed (Fig. 8).

l.253-254 : number of eddies per year is still given adding AE and CE, confusing with Fig.8b
We now specify in the text (l. 256-257):
Over the altimetric era, the total number of eddies detected per year shows a stronger increasing trend in all-sat-glo (27812 per year on average) than in two-sat-glo (23744 per year). Figure 8b further differentiates between anticyclonic and cyclonic eddies.

l.247 : Discussing specifically observation of watermasses trapped by mesoscale eddies, one can also refer to Barboni et al (2023) in the Mediterranean Sea, or Laxenaire et al (2019) for Agulhas Rings.
Thank you. We added Barboni et al. 2023.

l.303 : "Previous studies have suggested that some
Ierapetra eddies may deviate south-eastward toward the Mersa-Matruh area" you can add that you checked this in a Lagrangian Framework in your supplementary material. It shows that this behavior is quite isolated, hence the EKE trend dipole (Fig.7c) is not a shift of the same mesoscale structure. This seems a fair result to add.
We completed the text (l. 308-310):
We investigated this behavior using the META atlas (see Supplementary Material), which shows that such deviations are relatively isolated events. This indicates that the EKE trend dipole observed in the area (Fig. 7c) does not reflect a systematic shift of the same mesoscale structure.

l.373-375 : Nice addition to your conclusion. You can also add (or maybe at the end of discussion) that the same is valid not only for EKE but also to intreprete mesoscale eddies long-term trends. The use of META two-sat product is then advised.
As altimetric products evolve, differences between climate-oriented and multi-mission data sets require caution when interpreting long-term trends in EKE **and mesoscale eddy parameters**. While the Surface Water and Ocean Topography mission (SWOT; Morrow et al., 2019; Fu et al., 2024) will enhance mesoscale observations (Wang et al., 2025; Verger-Miralles et al., 2025), sustained altimetric continuity remains essential to understand the drivers and impacts of ocean energetics in the Mediterranean Sea and the global ocean.

We hope these revisions adequately address the reviewer's concerns and improve the clarity and scientific contribution of our manuscript. We remain grateful for the helpful feedback.

Sincerely,

Paul Hargous, on behalf of all co-authors