The manuscript by Bosser et al. describes shipborne GNSS based measurements of integrated water vapor (IWV) during EUREC4A field experiment. The data acquired on three vessels is described in good detail and the data quality evaluated thoroughly and compared to other source of IWV like ERA5 analyses or GNSS station on land. The exposition is easy to follow and covers the right amount of detail. The presented dataset is of great interest for the interpretation of other data sets acquired during EUREC4A and surely deserves publication. The thorough validation ensures that the limitations of some of the data can be taken into account in an adequate manor. I have no major comments, but only minor suggestions for clarification and enhanced readability.

Minor comments:

L103: Please add short explanation what MP1 and MP2 physically mean?

L250: I guess that observational data on the sea state are available for the different R/Vs to support this conjecture. You could be more explicit on this.

L266: The gravity value g_atm depends on position. In simpler models at least on the latitude. The value given seems to be correct for about 15 °N. So the given value is adequate for the measurements described here, but not in general. The Authors should make this clear.

Section 4.1: For completeness and reference the authors should give the values of the three refractivity constants k1, k2, k3 used in the described retrieval.

Eq. 6: There seems to be a unit missing at the scaling constant to make the product with the height difference dimensionless.

L 287: As written it seems that no temporal interpolation between the two nearest ERA5 times has been performed. Is there a reason for omitting this relatively easy step?

L 322ff: The bias of the ERA5 re-analysis during the EUREC4A period is hard to compare with normal times, as a lot of additional WV data (especially the dropsondes from the research airplanes) had been feed into the ECMWF operational system. So one should be very carful in drawing such conclusions. And for the R/V Atalante the bias does not seem to be latitude dependent as it should be according to the statement about the regional dependence of ERA5 in this paragraph.

L347: CORS is not defined here, but only in a figure caption…

L399: by or through, one has to go…

Fig. 3 is mostly of illustrative nature, but nothing quantitative can be concluded. May be left out.

Fig. 4: Annotations and scale number are too small and very hard to read. A clearer annotation of R/V and software would be good. Are the software attributions swapped? In the text it is stated that SPARK has a better filtering algorithm and in the graphs it appears that the data for Maria S. Merian is better filtered by GIPSY

Fig. 6, Fig. 7, Fig. 9 Annotation and scale fonts are far too small!!!