Answers to the editor's comments

We thank the editor for carefully reading our revised manuscript and the author's final comments, and for his additional comments. Below, we address each comment point by point. The comments are repeated in blue, our responses are given in black, and the changes to the manuscript in black italic.

1) l. 251: Please change to scientific power notation 10^{-10}.

Changed according to the editor's suggestion

2) In line with ACPs data policy, please make the $COSMO_{iso}$ output and the IASI data available in a permanent repository with a doi linked to the paper.

The $COSMO_{iso}$ output fields are now published with the doi https://doi.org/10.3929/ethz-b-000506055 and the IASI data is accessible with the doi https://dx.doi.org/10.35097/492. We changed the data availability statement accordingly in the manuscript:

p. 37, l. 920–923: "The $COSMO_{iso}$ simulation output is published on the ETH research collection with the doi https://doi.org/10.3929/ethz-b-000506055 (Dahinden et al., 2021). Airborne in situ and ground-based FTIR remote sensing observations can be accessed via https://www.imk-asf.kit.edu/english/musica-data.php. Space-based IASI observations for July and August 2013 are published on https://dx.doi.org/10.35097/492 (Diekmann et al. 2021c)."

3) Please clarify whether the $COSMO_{iso}$ code is published and from where it can be obtained.

The availability of the $COSMO_{iso}$ code and the Fortran code for the trajectory calculations is now specified in the manuscript:

p. 37, l 923–929: "The particular version of the COSMO model used in this study is based on the official version 4.18 with additionally implemented stable water isotope physics and is available under license (see http://www.cosmo-model.org/content/consortium/licencing.htm for more information, last access: 20 September 2021). COSMO may be used for operational and for research applications by the members of COSMO. Moreover, within a license agreement, the COSMO model may be used for operational and research applications by other national (hydro-)meteorological services, universities, and research institutes. The Fortran code for the trajectory calculations is available under http://iacweb.ethz.ch/staff/sprenger/lagranto/download.html."

References

Dahinden, F., Aemisegger, F., Pfahl, S., and Wernli, H.: Numerical weather simulation using COSMOiso over the eastern subtropical North Atlantic in July and August 2013, Research Collection, ETH Zurich, Zurich, https://doi.org/10.3929/ethz-b-000506055, 2021.

Diekmann, C. J., Schneider, M., Ertl, B.: Data for "Disentangling different moisture transport pathways over the eastern subtropical North Atlantic using multi-platform isotope observations and high-resolution numerical modelling". Institute of Meteorology and Climate Research, Atmospheric Trace Gases and Remote Sensing (IMK-ASF), Karlsruhe Institute of Technology (KIT), https://dx.doi.org/10.35097/492, 2021c.