

Interactive comment on “Year-round record of near-surface ozone and “O₃ enhancement events” (OEEs) at Dome A, East Antarctica” by Minghu Ding et al.

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Thanks for your comments. As you said, the code of STEFLUX tool is not publicly available. When analyzing the data, we have asked for your help through Researchgate two months ago. So we turned to do analysis according to the STEFLUX discipline, which defined the “dynamical tropopause” (ie, the combination of the ± 2 pvu potential vorticity isosurfaces and the 380 K isentrope, as also stated in Škerlak et al. (2014)). Furthermore, STEFLUX involves the declaration of a “target box” of interest, which is taken as a reference 3D area for calculating the STT events. In this article, we replace the 3D area to a vertical profile above Dome A. As all the trajectories should

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be converge above Dome A, the situation that the potential vorticity of 550hpa above 2 pvu or less than -2 pvu can be determined as once STT. But this method is not as good as STEFLUX, which can better screen out potential vorticity anomalies on trajectories in the 3D area, so the screened STT is incomplete. However, it is certain that the potential vorticity anomalies above Dome A at 550hpa are indicative. Besides of that, It is really glad that this study can draw your attention. We hope to do further analysis if you can help on STEFLUX tool. Thank you again for your kind suggestions.

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