

Authors' response to the Reviewer #1 comments on "Representation of solar tides in the stratosphere and lower mesosphere in state-of-the-art reanalyses and in satellite observations" by T. Sakazaki et al.

We appreciate the efforts of the Reviewer to evaluate our manuscript. Below we provide our specific responses to each of the Reviewer's points. Below we reproduce the Reviewer's comments verbatim in a **blue font** while our responses are in a standard **black font**.

The authors performed a minor revision during the quick review process, and the article is in a very good shape now. The analysis of the solar tides in various data sets is very accurate and detailed. Thus, the article is a progress in this research area and of high interest for the readers of ACP. I only found a shortcoming in the figure caption 1 where the viewgraph g) is not mentioned.

Thank you very much for favorable comments. The caption of Fig. 1 will be revised as:

“Latitude-altitude distribution of amplitude for diurnal (S_1) migrating tide in temperature, as derived from (a) SABER, (b) JRA55, (c) JRA55-C, (d) JRA55-AMIP, (e) MERRA-2, (f) MERRA, (g) ERA-Interim, and (h) CFSR.”