

Dear Joanna,

We are very grateful for your comments and suggestions, which have helped to improve our manuscript significantly. We have revised the manuscript accordingly. In the following we respond to your comments. Our changes are also highlighted in the track changes file.

Sincerely,

Maximilian Reißmann and Jia Chen on behalf of all co-authors

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**I have only a couple of technical suggestions. In the Figure 7 caption it would be good to specify that this comparison is for the center instrument and includes all good soundings within the target area. Perhaps the smaller domains for comparisons can also be mentioned in the Figure 9 caption. This would help the reader who is doing figure browsing.**

Thank you for noticing this. We adjusted the Figure captions accordingly.

**On lines 235 and 236, I didn't understand the difference between seasonal behavior and seasonal cycle. Perhaps you could clarify.**

Thank you very much for picking this up. The second sentence indeed was redundant. Thus, we removed the second sentence in line 236 from the manuscript.