

Comments:

Thank you for addressing all the comments thoughtfully. I suggest publication following a few technical corrections. In Section 3.2.3, the discussion of Fig. 10 has some statistics listed in the text that do not match those written in Fig. 10. These include:

- mnMB for Fig. 10b is listed as 111% in the text, while in Fig. 10b it is listed as 198.01%
- mnMB for Fig. 10f is listed as 214% in the text, while in Fig. 10f it is listed as 103.31%

Please double check these calculations and update the text or Fig. 10 accordingly.

One final comment is that all the mnMB values given are positive, whereas usually negative biases indicate an underestimation, and positive biases indicate an overestimation. For example, both the dust and MPOA biases in Fig. 10a and 10b, respectively, are >100%, although the model simulations overall underestimate the total INP concentrations in both cases. This makes it harder to compare the model performance for the different scenarios shown in Fig. 10 and Fig. S7.