

We thank the Editor and Reviewers #1 and #2 for their further work on our revised manuscript. We address their specific comments below, and we also carefully re-read the paper and made a few minor (tracked) tweaks throughout to improve clarity and precision.

1. Please rename the supplement figures according to the example: Figure SM1 -> Figure S1. More information please see: <https://www.atmospheric-chemistry-and-physics.net/submission.html#assets> -> Supplements 2. Coloured or marked text in *.pdf supplement file is not allowed. **Please provide a clean version of the *.pdf supplement file (with black text) with the next revision.** I would recommend you combine the coloured version of the supplement and the coloured version of the manuscript into one Author's tracked changes version of the files. This way you will be able to save data about changes both in the manuscript and in the supplement.

We renamed all figures as *Fig. Sx* in the manuscript body and as *Figure Sx* in the supplement figure captions.

We uploaded a clean version of the supplement. There were no changes to the Supplement text other than accepting the marked up text (which we understand from the above is not allowed) and revising the captions to say *Figure Sx* instead of *Figure SMx*.

Minor Comment from Report #1

In my opinion, the authors have addressed my comments in a satisfactory way. I only noticed that Figure 3 seems to be kept the same in the final version, although the authors stated that they have adjusted the color. For better presentation, I would suggest the authors change the colors for the panels in the bottom row in Figure 3. It is just all black.

An oversight on our part. We have now revised the colorbar to accommodate the dynamic range of the data.

Minor Comment from Report #2

I found the author's responses to my (RC2's) comments satisfactory. I only have one small comment on the abstract. I thought the authors found a negative interannual correlation of ~ -0.49 between snow cover and dust FoO in Fig. 7. However, in the abstract, the authors said "annual mean time series (2003-2022) of FoO (DOD > 0.5) suggest some increase in the frequency of dustiness with time, ... but without significant anti-correlation to snow cover." I thought the authors did find anticorrelation between FoO and snow cover, so they may want to clarify on this point.

We re-emphasized in the Conclusions that only AOD and snow cover are correlated, not DOD and snow cover. We also inserted the word 'statistically' in front of 'significant anti-correlation to snow cover' in the Abstract.