

Dear Dr. Hatzianastassiou,

We appreciate the positive decision regarding our manuscript. Regarding the following comment:

Actually, AI is not appropriately defined in the manuscript, it first appears in line 51 without being defined, whereas afterwards there seems to be a confusion with it. It is "Aerosol Index", right? In fact, later on, you refer to MODIS AI, and this is also the case of Figure 7 (Aqua-MODIS AI). But, AI is not derived by MODIS, it is an OMI product. Can you please clarify this

We indeed derived the aerosol index from MODIS, as the product between MODIS aerosol optical depth at 550 nm and its corresponding Angstrom exponent retrieval using Level 3 daily data. We did not use OMI aerosol index AI. OMI AI is not defined in the same way as the AI used in the aerosol-cloud interaction community, and therefore its use in the context of our manuscript would be inadequate.

We revised the manuscript to read:

“Moreover, Aqua-MODIS AI in Figure 7 (the product between daytime Level 3 Angstrom exponent and AOD at 550 nm) for the same period of study reveals a spatial pattern poorly correlated with N_d , especially over the eastern Pacific, despite an AI decrease over the tropical north Atlantic, where dust is the main aerosol species.”

We also updated Figure 7 caption to explain the way AI was calculated.