

Dear Dr. Schumann,

I would first like to thank you for your interest in this manuscript. We cannot in fact guarantee the exclusion of contrails nor the number of contrails in the sample analyzed. Thank you very much for the information provided on cirrus contrails, I think it is worth to add information about cirrus contrails to the introduction of the manuscript. Finally, no radiosonde humidity data have been used as they were not necessary for the analysis carried out.

I copy the part of the introduction where I mention the cirrus contrails.

“Cirrus clouds can also be triggered from aircraft contrails. These contrails are caused by aircraft engine exhaust, primarily water, which turns into ice crystals at low temperature. Cirrus contrails are often formed in persistent humidity conditions (Schumann, 1996; Schumann and Heymsfield, 2007; Schumann et al., 2021; Li et al., 2023). Their lifetimes sometimes reach several hours and their spatial extension may evolve up to 10 km in width and between 0.5 and 1.5 km in depth. Moreover, cirrus contrails from several aircraft may often overlap and form together a larger contrail cirrus cloud, making it more difficult to distinguish from other cirrus.”

Thank you for your contribution,

Best wishes,

Cristina Gil.