Comment on acp-2021-219
Dimitri Trapon

Community comment on "Dust transport and advection measurement with spaceborne lidars ALADIN, CALIOP and model reanalysis data" by Guangyao Dai et al., Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2021-219-CC1, 2021

Section 2.1 ALADIN/Aeolus:
Indicate which L2A baseline (i.e. baseline 10 or 11 referring to the L2Ap v3.10 or v3.11) has been used for processing might be useful for traceability (e.g. new radiometric correction being included in v3.11 using telescope temperatures oscillations).

Section 4.1 Measurement case with CALIOP, ALADIN, ECMWF and HYSPLIT:
The differences between Aeolus/ALADIN and CALIPSO/CALIOP instrumentation principle and geometry could be highlighted (i.e. ALADIN pointing 35° offset from nadir with the ground) as the time gap between acquisitions (e.g. for intercomparison cross-section 3 on June 19, 2020 showed in Figure 5 Aeolus hovered the West of Cape Verde from 08:00 to 08:30 UTC four hours later than CALIOP from 04:07 to 04/20 UTC). It is fair to assume that the particles distribution within the plume might have evolved during the time offset, hence a limit of the data intercomparison.

Dimitri Trapon – L2A development team within Meteo-France CNRM/GMEI