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Interactive comment on “Aerosol characterization at the Saharan AERONET site Tamanrasset” by C. Guirado et al.

J. Marsham

jmarsham@env.leeds.ac.uk

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I just wanted to note two points, I think that the authors should: (1) Note the caveats in Ryder et al. (2013), Atmos. Chem. Phys., 13, 303–325 regarding AERONET retrievals of aspects of aerosol properties such as the size distribution, made in light of recent aircraft measurements of size distributions. It would be worth contrasting your size distributions and those in Ryder et al (2) Much of the summertime dust at Tamanrasset is likely a result of cold pool outflows ("haboobs") from moist convection (Marsham et al., 2008, J Geophys res; Marsham et al., 2013, J. Geophys. Res.) which together with the breakdown of low-level jets around the heat low (Knippertz 2008) likely generates the summertime dust maximum. These haboobs are missing in models with parametrised

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convection (Marsham et al., 2011 Geophys. Res. Lett; Heinold et al., 2013, J. Geophys. Res) and hence from the analyses used in HYSPLIT trajectories. This is likely a source of significant error in the use of such trajectories in the monsoon season.

Interactive comment on Atmos. Chem. Phys. Discuss., 14, 16641, 2014.

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