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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Size resolved dust emission fluxes measured in Niger during 3 dust storms of the AMMA experiment" *by* M. Sow et al.

Anonymous Referee #1

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1) The existence of very large particles far away from sources is a well known phenomenon since a long time. Mineral particles as large as 100 μm have been found more than 1000 km from the Saharan desert over the Atlantic Ocean (Jaenicke, R., C. Junge, H.J. Kanter (1971): Messungen der Aerosolgrößenverteilung über dem Atlantik. Meteor Forschungsergebnisse B7, 1-54. Even if it is in German and not available on the internet, that is literature). It is not needed to postpone mother natures laws (deposition velocity) for explanation. That paper offers evaporated rain and cloud drops with the mineral core as explanation. Another explanation might be Crutzens vacuum cleaner, lifting giant particles high up in the atmosphere, transporting it quickly over long distances and let it settle out. 7) The figure 7 is not a size distribution in the common sense. Size distributions in the common sense have dN/dlogr or dN/logd or dN/dr or dN/dd on the ordinate. Your distribution has fluxes on the ordinate.

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 5549, 2009.