## Comments for technical corrections of revised ms. acp-2016-497 entitled "North African dust transport toward the western Mediterranean basin: Atmospheric controls on dust source activation and transport pathways during June-July 2013", by K. Schepanski, M. Mallet, B. Heinold and M. Ulrich.

By François Dulac, October 30, 2016

Thank you for the revision of your manuscript and additional material that really adds significant value to the paper. I am pleased to accept you manuscript for publication pending some technical corrections listed below:

-Please complete the abstract with information about the June-July 1979-2015 EOF that is presently not mentioned.

-Page 1, line 12: "predominant" or "predominance of the".

-P. 3, l. 13: "models" (plural).

-P. 3, l. 14: Menut et al., 2016 seems not appropriate here since you are talking about radiative effect of aerosols and that the cited paper only deals with aerosol optical properties. Appropriate reference from these authors concerning aerosol radiative effects is rather Mailler at al. (2016):

Mailler, S., L. Menut, A. G. di Sarra, S. Becagli, T. Di Iorio, B. Bessagnet, R. Briant, P. Formenti, J.-F. Doussin, J. L. Gómez-Amo, M. Mallet, G. Rea, G. Siour, D. M. Sferlazzo, R. Traversi, R. Udisti, and S. Turquety (2016) On the radiative impact of aerosols on photolysis rates: comparison of simulations and observations in the Lampedusa island during the ChArMEx/ADRIMED campaign, Atmos. Chem. Phys., 16, 1219-1244, doi:10.5194/acp-16-1219-2016, 2016.

Since your reply to comments state that you are now referring to Menut et al. (2016) in the introduction, please cite it differently.

-P. 5, l. 15: at end of sentence, please specify "for dust mobilization and transport".

-P. 7, l. 9. please add here reference to Otto et al. (2009) and the relevant statement in your reply to comment of reviewer #1 (p. 4 of your reply).

-P. 12, I.5: referring here to your statement "not shown", I believe you should rather complete fig. 4 with comparable results from the 1979-2015 period.

-P. 24: check doi presently missing in Ritter et al. (1992) and Rodriguez et al. (2001).

-Fig. 3: it should be made clearer that MODIS AOD plots are for total aerosol but MERRA and COSMO-MUSCAT only for dust AOD (check also the text p. 13, line 5 on).

-Fig. 6 : it is missing here that you probably refer to factor 1 of the EOF.

-Fig 11: please homogenize ticks on both axes (e.g., use a label every 10° and a minor tick every 2° in abscissa).

-Figures : please try to enlarge the character size of plot legends (title, axes, and/or inside box), which are hardly visible to me when printed, especially in Figs. 3, 4, 7-11; in addition, rather than duplicating small colour scales in a number of figures (7, 8, 9, 11), having a single 1 enlarged over the two columns would be more readable.

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