

Interactive comment on “The tropical Atlantic surface wind divergence belt and its effect on clouds” by Y. Tubul et al.

Anonymous Referee #1

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Earth System Dynamics Discussions (ESDD), esd-2015-50; Vol. 6, 1557-1577 The tropical Atlantic surface wind divergence belt and its effect on clouds by Y. Tubul, T. Koren and O. Altaratz This research work highlights the characteristics of surface wind divergence (SWD) belt over Atlantic during boreal summer months and proposes to consider SWD as a separate entity of large-scale circulation over the Atlantic. This is very interesting study in understanding the linkage between SWD and properties of the over lying clouds and could be useful in improving the climate modeling capabilities. I think it would be to strengthen the quantification aspect in this research paper as compare with the qualitative description. This paper may be accepted for publication subject to attending the following minor comments. The past studies have presented the quantitative estimates e.g. Cold tongue, warmer ITCZ, increase in the mass flux related to acceleration of the trade winds, the authors may like to consider the same

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for this study. Authors may like to illustrate the robustness of the correlation in bringing out the linkage between SWD and cloud properties. Figure 3a : The legends on X and Y –axes are missing. I hope the above comments are useful for the authors.

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