

Interactive comment on “Does the wind turbine wake follow the topography? – A multi-lidar study in complex terrain” by Robert Menke et al.

Anonymous Referee #2

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General comment: The manuscript describing wind turbine wake measurements is well written, of good scientific value and probably the first publication describing turbine wake measurements in complex terrain. The biggest challenge with this manuscript is the very short period of wake observations. Due to this, making any definite conclusions is not possible. However, this manuscript still deserves publication after a few minor revisions.

Specific comments: Since the scan strategy is not suited to study more than a couple of rotor diameters of the wake extent, it would be useful to go into the details of the deficit magnitude. For example, does the deficit magnitude vary as a function of turbine operation and stability?

From Figure 9, I see that the deficit minimum at the wake center seems to exhibit

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different characteristics for the four different cases. For example, the length of the minimum at the center seems to vary for the different conditions. Is this a function of the stability or turbine operation? Do these differences show up in the other cases?

There are a few places in the manuscript that could use some grammar corrections. I have identified some of them. However, I am not proficient in English myself and therefore it might be a good idea to get this manuscript proof read by an expert rather than rely on my suggestions.

- 1) Page 1, line 14: “cause” and not “are causing”
- 2) Page 1, line 20: “cover” and not “are covering”
- 3) Page 5, line 7: “cause” and not “are causing”

Interactive comment on Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2018-21>, 2018.