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Interactive comment

Interactive comment on "Downscaling surface wind predictions from numerical weather prediction models in complex terrain with WindNinja" by N. S. Wagenbrenner et al.

N. S. Wagenbrenner et al.

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Reply to Referee #2

Thanks for the comments and suggestions. We will highlight the lack of terrain representation in the WRF forecasts as suggested. Here are our detailed responses:

- 1. FDM will be defined.
- 2. Yes, this reference will be added.
- 3. The interpolation assumes neutral atmospheric stability. This information will be added in the methods.

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- 4. We will include additional discussion of the terrain representation in NAM and its inability to resolve the butte.
- 5. Yes, looking at the perturbations to the mean flow could be an interesting addition to our analysis. We will consider adding this in the revised manuscript.
- 6. We will consider adding a spatial plot of the bias at the windward and ridgetop locations.
- 7. We will include discussion of the horizontal resolution and terrain representation in the summary.

Interactive comment on Atmos. Chem. Phys. Discuss., doi:10.5194/acp-2015-761, 2016.

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