

Interactive comment on “Aerodynamic Effects of Gurney Flaps on the Rotor Blades of a Research Wind Turbine” by Jörg Alber et al.

Anonymous Referee #1

Received and published: 2 March 2020

Dear authors, your study is clear and well presented. The topic (use of GFs as a retrofit for HAWTs) is of interest. The peculiar characteristics of your case study - although honestly discussed - limit a little bit the impact and the generality of the results. Overall, I would recommend it for publication, provided that some corrections are made. In particular:

- 1) You often use the verb "provoke", but very often not with the proper meaning. I would suggest replacing it in several instances. Overall, a revision by a native English speaker is suggested.
- 2) It would be useful to have a quantification of the experimental errors. Please also add error bars in Figure 11

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3) Figure 9 (and the corresponding ones in the appendix) are not very readable. Please make lines thicker and/or manage the axes scale

4) The " $1/2$ " in Eq. (9) is quite unusual. This formulation, however, is not coherent with the expression of Eq. 11. Please discuss and/or correct

5) Please expand the comments about the blockage effects. Beyond the aggregate BF, do you believe that the massive blockage could induce spanwise variation of the AoA? In other words, could BF alter the relative effect of GF depending on the span location?

6) To add some impact to the work, it would be nice to re-calculate the AoA by simulating the airfoil with CFD and to try comparing the pressure distribution with the experimental one. Do you think this could be feasible?

Interactive comment on Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2020-40>, 2020.

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