Review of https://doi.org/10.5194/wes-2025-121
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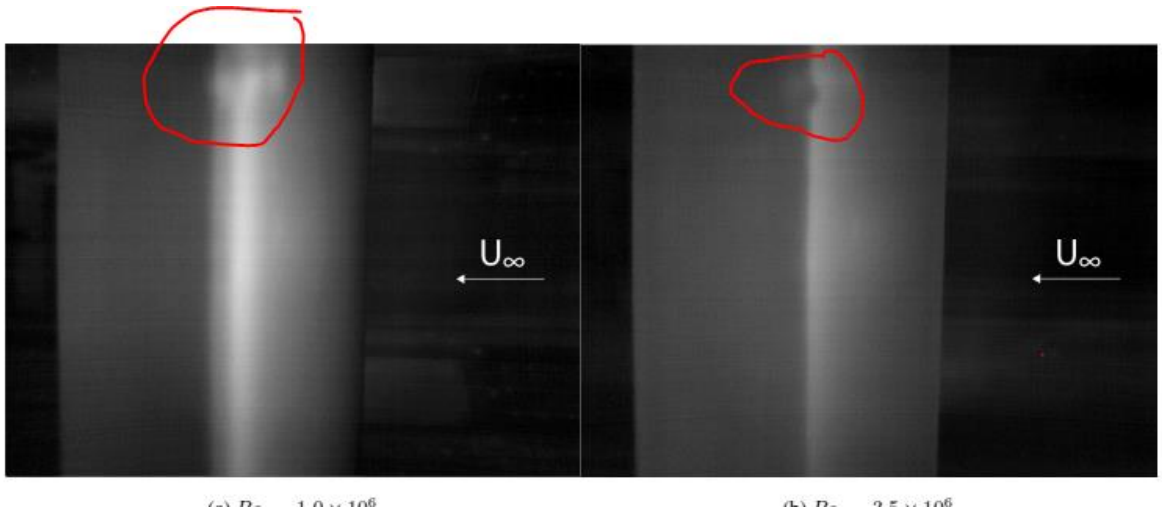
Note: The authors are encouraged to have a critical look at the inconsistencies of the whole paper and not only improve the specific points mentioned here.

Line 75 Reference of Gardner et all (2023) is mentioned without giving context. Please summarize its findings

Around Line 80: Mainly focused on the experimental data and its shortcomings for Beddoes-Leishman model. However, other models such as Onera, Snel (and improved version from Adema et all (2020)), Oye are also still used during wind turbine designs. How these experimental results could support these models should be included.

Although the reason becomes clear when reading the rest of the paper, please clearly motivate the inclusion of the literature about the Re number effects investigation. Also there are inconsistencies such as in Line 51 mentioned 2 airfoils tested, and then listed three airfoils...

A general question about the model checks: What is the impact of the model surface deformation due to uneven distribution of the loads? In other words, please comment if and how the model flexibility effects the results.



How do these red circled bumps or gaps impact the (drag) measurement?

Line 137 why only -20 and 20 and not much larger angles? I would expect at least between -25 and 25 but considering previous experiments also from -60 and 60.

The actuator calibration part is not very clear:
Line 166 The increased aerodynamic loads for the clean airfoil configuration shifted to the Zero angle of attack. Do you mean zero lift angle of attack?

Not sure where 0.5mm difference in initial arm position between transitioned Re=2x106 and clean Re=1x106 come from? A diagram of the system showing this angle might help here. The last point is whether this calibration was finally implemented and how?

Not sure if Figure 4 contributes to anything.

Line 178, adding k here helps the reader ... reduced frequency, k, which is defined...

Line 220 what traditional voices? Which last paragraph? This part is not clear

Line 234 says Table 2 shows the slopes, but its caption says calibration. Was this difference introduced as calibration?

Line 246 what is a compressible panel method? Or do you mean compressibility corrected panel method

Line 247 I am not sure if I would call this great agreement by looking at these two graphs. For the purpose of this paper, it would be better to show Cl alpha graph to visualize the actual differences in relation with angle of attack instead of cl/cd which is more relevant as a design parameter. If there is pressure distribution comparison or Cm, these would also be added value.

Line 255 here you are stating that after re=2x106, clmax start increasing and it is a different regime. Using the Reference, you also imply that this difference is the shift from trailing edge stall to leading edge stall. However, later Line 271, all stall events are stated as trailing edge stall for all tested Re numbers. This is not only contradictory to initial observation but also lacks supporting arguments. And it is likely not correct for the static stall cases. Please support these arguments using pressure distributions.
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Section 3.3.1 needs to be reconsidered first and rewritten. Figure 11 is hard to follow since it doesn't show reduced frequencies. According to the results, Re effects and reduced frequency effects are not isolated; they are combined and the author should be careful when mentioning one without the other.
Another observation is the significant Re number impact and its difference between the upstroke and downstroke movements which is remarkable however not covered.
Line 296 when the negative region of the polars mentioned as last but the figure is included in the beginning of Figure 1, it is very confusing to follow this. Please rearrange either the figures or the interpretation part.
Figure 11: Please include the reduced freq values directly here, next to the Re numbers.

Line 305 the claim that linear and positive regions being independent from Re effects is only true for the upstroke movement and not for the downstroke.

Line 307 Nose down reattachment - does it mean reattachment in the downstroke movement?

Figure 12C: here it seems like Re=1x106 in the downstroke movement is distinctly different from 0.5 and 2x106 cases. In all other cases in the positive region, there is no such distinct behavior. What can be the explanation of this?
Figure 12: please add amplitude value

Line 323 which instability?

Line 326 how could the separation point's fast movement and its relation with trailing edge stall be concluded from these graphs? Also see the previous comment on the static stall type which is conflicting. It could be trailing edge stall, but the reference you refer to, and a few of the pressure distribution comparisons do not fully support this.

Line 328 if the linear case is the middle one, there is hardly any difference.

Line 330 Please either include this reduced freq value of 0.364 to the test results and the test matrix or delete this sentence.

Section 3.3.4 this section should also be improved considering the comments on the previous sections (linear region or positive region?, flow reattachment in downstroke or upstroke, etc...)

Section 3.4 Dynamic pressure distribution is a more appropriate title for this one.

There is no reference to Figure 15 or 16 making readingand following arguments very difficult.

Line 349 presence of LSB is mostly speculative if only the Figure 15 is concerned.

Figure 16: it is quite difficult and even speculative to claim the presence of the LSB on the lower Re numbers by looking at these figures due to these discrepancies in the pressure readings. It could help if you add static polars for the same cases.

Line 349 "As this increases"... - what is referred here?

Line 352 how do the polars show clear suction peak? Polars only show loads.

Line 355 where is the detachment and reattachment?

Line 359 if the suction peak magnitude is responsible for the lift increase which is correct, which case is referred to in line 355 where trailing edge provides the lift.

The drag and moment data and results from zigzag tape are missing.