Review of: "A Simplified Model for Propeller Thrust in Oblique Flow"

Adel Ghenaiet[1]

1 Thermal power, Université des Sciences et de la Technologie Houari Boumediène, Algeria

Potential competing interests: No potential competing interests to declare.

In this paper, propellers in oblique flow have been modeled using Blade Element Momentum Theory coupled to an inflow model, and the Vortex Lattice Method.

Shortcomings:

1. Authors must present some details of the methods and theory used.
2. Section II needs a drawing to show different velocity components and forces.
3. Explain why the thrust is double in the second line of section II.
4. Authors said "twice what it was at the propeller": confirm exactly where?
5. Fig. 2 (b) shows a double line; why?
6. Is it correct to extrapolate the value of CT at zero velocity directly, since the behavior will not continue as in higher speeds?
7. Why are there many curves in Fig. 3?
8. Why is the velocity in equation (3) related to the thrust, but not to the blade and flow incidence/direction?
9. I disagree that "the crossflow air velocity does not affect the production."
10. Why does the thrust change slightly at an incidence of 90 degrees in Fig. 7? It seems illogical.
11. Why does figure 8 show a non-constant speed of rotation?
12. The same question applies to the thrust.

Queries:

13. There are many typos and linguistic errors. Please read through again and make sure to correct them.
14. The abstract should present the problematic. The real contribution in view of similar works should be clearly stated. What is the novelty of the work? What methods were used? What are the important results?
15. Complete the list of acronyms and symbols.
16. The referencing style is not good.
17. Better to give N in rpm (revolutions per minute).
18. Please do not use "We or our."
19. Please number all the equations.
20. The validation must be shown with graphics in its appropriate section.

21. Why are results shown in the appendix?