Review of: "Aerodynamic Design and Performance Analysis of Mars Ascent Vehicles"

Abdul Aabid[1]

1 Prince Sultan University

Potential competing interests: No potential competing interests to declare.

Here are my comments with major revisions.

1. Include recent advancements and broader context within aerospace engineering, especially for Mars ascent vehicle designs.
2. More explicitly define the study's scope and aims, and specify expected outcomes or hypotheses.
3. Provide clearer explanations of computational methods, settings in the CFD simulations, boundary conditions, mesh sizes, and convergence criteria.
4. Strengthen discussions by directly comparing findings with existing data or other studies to underline the research contributions.
5. Improve validation of computational models with experimental data or benchmarks to ensure reliability of the simulation results.
6. Critically evaluate and discuss how assumptions may affect outcomes and limit the generalizability of results.
7. Enhance clarity and presentation of figures and tables with better resolution, descriptive legends, and consistent formatting.
8. Discuss the uncertainties in simulation results and analyze the sensitivity of the results to different parameters and modeling assumptions.