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

Jean Fulbert Ituna Yudonago

Potential competing interests: No potential competing interests to declare.

This manuscript was focused on the Aerodynamic Design and Performance Analysis of Mars Ascent Vehicles. Numerical analysis has been carried out to investigate the influence of varying geometries on the aerodynamic properties of mid-lift-to-drag ratio vehicles. The topic is very interesting, but the content must be improved so that the article is scientifically consistent for publication.

1. It is important that the authors perform the mesh independence analysis of each configuration to ensure that the mesh size chosen for the study does not have any influence on the numerical results.
2. It is important that the authors specify the CFD software they used for the simulations.
3. Boundary conditions are not clearly specified. For example, the boundary conditions for the turbulence models used in the simulations are not known. It would be better to describe the boundary conditions in a table for better visualization.
4. The authors should improve discussions on the results, especially on the trends of the comparative curves between numerical and experimental results.