

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

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**Potential competing interests:** No potential competing interests to declare.

The paper numerically investigates the effect of changing the shape and flow condition of the reentry vehicle on the aerodynamic forces, thermal loads, and transition predictions. Below are the comments:

- 1) The paper would benefit from a revision of language and referencing. There are several instances of incorrectly written sentences and misreferenced figures and tables throughout the manuscript.
- 2) The paper would benefit from including a mesh convergence study to ensure the solution's independence of the mesh, thus adding reliability to the numerical results. Additionally, a more detailed validation study would enhance the paper's quality.
- 3) The paper could be improved by providing a more detailed analysis of the numerical results and further elaborating on them in the discussion section.