KTH
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# Flight Mechanics

# Peer Review - Week 1

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**Reviewer:** Nikolaos Koukis

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# 1 Technical Work

| Pros | Cons |
|---|---|
| (+) Well explained procedure towards final outcomes | (-) Stall limit in TEX Graph looks false. Maybe wrong interpolation method (order of polynomial used?)/ wrong data inserted |
| (+) Reasonable mathematical approach to the problem | (-) Maximum mach number is erached at 800s (13.3min), Afterburner use > 10min - should have found a faster approach<br>(-) Max altitude curve not shown at all, not mentioned during the final part of review either.<br>(-) In both optimization tasks presented, final state is not shown (fuel remained, final velocity, etc)<br>(-) Figure 6d: For which case does it correspond to?<br>(-) Figure 6d: Fuel seems to be totally depleted |

# 2 Content - structure of report

| Pros | Cons |
|---|---|
| (+) Very well structured report | (-) Better Title needed - Does not give enough information about the subject |
| (+) Good coherence between the theoretical analysis of the problem at hand and with historical facts, practical implementation etc. | (-) No contents - Should have been included<br>(-) Use different font/style for figure captions [1]<br>(-) References are not properly cited - Refer more to books rather than webpages<br>(-) References style - Do not use justified style |

[1] Different font/style is needed in order for the reader to understand where the main text and where the figure 'boundaries' are

# 3 Conclusions

Besides minor defects (caption style, refs style etc), the structure of the report was positive for this kind of technical report. However there were problems with the technical side of the report since the optimization section was not analyzed adequately, the max altitude plot wasn't presented at all, and the monitoring plots (velocity, rem. fuel, control variable etc) were not properly exaplained.