

I. IDENTIFICATION DATA

Thesis title:	Post-flight thermal analysis of QARMAN satellite
Author's name:	Bc. Filip Soukup
Type of thesis :	master
Faculty/Institute:	Faculty of Mechanical Engineering (FME)
Department:	Department of Aerospace Engineering
Thesis reviewer:	Mgr. Jaroslav Kousal, Ph.D.
Reviewer's department:	Department of Aerospace Engineering

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>How demanding was the assigned project?</i>	
The assignment required the student to work both with simulation and real flight data. Since the post-flight failure analysis put rather stringent limits on the precision of the simulation, I deem the assignment as challenging.	

Fulfilment of assignment	fulfilled
<i>How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.</i>	
All the goals of the assignment were fulfilled.	

Activity and independence when creating final thesis	A - excellent.
<i>Assess whether the student had a positive approach, whether the time limits were met, whether the conception was regularly consulted and whether the student was well prepared for the consultations. Assess the student's ability to work independently.</i>	
The student actively found the topic that required him to have an internship in Belgium and cooperate with multiple experts in the field along with his thesis supervisor. Due to the character of the problem, the student had to do a lot of independent problem solving. Simultaneously, he consulted regularly and incorporated the suggestions promptly into the work.	

Technical level	A - excellent.
<i>Is the thesis technically sound? How well did the student employ expertise in his/her field of study? Does the student explain clearly what he/she has done?</i>	
The topic of the thesis required precise work with specialized simulation tools. The thesis is technically sound, as supported by a successful reproduction of the on-orbit observed temperatures in the simulation.	

Formal level and language level, scope of thesis	A - excellent.
<i>Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?</i>	
The thesis has a good formal level, and it is logically organized. English of the work is clear and readable.	

Selection of sources, citation correctness	B - very good.
<i>Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?</i>	
The list of references in standard format covers the topic adequately, although the proportion of the online-only sources is somewhat high. The contribution of the student is clear.	

Additional commentary and evaluation (optional)
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THESIS SUPERVISOR'S REPORT

Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.

III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE

Summarize your opinion on the thesis and explain your final grading.

The student had to match simulated, ground testing, and flight data of a specific satellite mission, which is not a trivial task. He has tackled this problem successfully. Although a unique clear cause of satellite failure was not identified, the work gave an important insight into a real-world space technology problem.

The grade that I award for the thesis is **A - excellent**.

Date: **24.6.2021**

Signature: