

Review of Master's Thesis

Student: Lehocký Gabriel, Bc.
Title: Electronic Flight Bag (id 18375)
Reviewer: Vlk Jan, Ing., UPGM FIT VUT

- 1. Assignment complexity** **more demanding assignment**
The student has selected a topic, which is due to its multidisciplinary nature regarded as challenging. The task requires knowledge of navigation systems, flight planning, computer graphics and user interface design. Therefore I consider the overall difficulty as "above the average".
- 2. Completeness of assignment requirements** **assignment fulfilled**
All assigned tasks of the thesis were completely fulfilled. Student performed an analysis on the state-of-the-art Electronic Flight Bags (EFB) in Chapter 2. Chapter 3 covers the history and key features of EFB as well as the application design suggestions. Implementation of the application and its features is described in detail within Chapter 4. Two last chapters of the thesis deal with the testing and evaluation of the designed EFB and its future development. The student investigated the regulatory requirements for EFB design specified by the Federal Aviation Administration and European Aviation Safety Agency.
- 3. Length of technical report** **in usual extent**
The thesis is written on 60 pages. All Chapters are informatively rich and cover the discussed topic.
- 4. Presentation level of technical report** **89 p. (B)**
The whole technical report is well structured. The author uses language which makes the text conveniently understandable to the reader. The chapters and their content are chosen properly and it's possible to observe good link between individual sections.
- 5. Formal aspects of technical report** **84 p. (B)**
The formal layout of the thesis is at a very high level and the student proved very good English writing skills. Minor imperfections in the text do not negatively influence the overall positive impression.
- 6. Literature usage** **87 p. (B)**
The student cites 32 references, which are relevant to the selected topic. Most of the cited resources were published in last 10 years and in my opinion cover the state-of-the-art of the investigated topic. Instead of citing from wikipedia, which is in my opinion not a trusted resource, I would recommend to use books or published articles.
- 7. Implementation results** **90 p. (A)**
The Electronic Flight Bag designed and implemented by the student is fully functional and perfectly intuitive for an user (based on my own experience). Various calculation features implemented within the application (e.g. weight and balance or flight planning) really help the pilots during flight.
- 8. Utilizability of results**
The Electronic Flight Bag has a high potential to be utilized by the community of sport and recreational pilots due to many useful features and its easy-to-use design.
- 9. Questions for defence**
 - What design changes need to be implemented for the EFB to become suitable for use onboard medium or heavy airplanes?
 - Would it be possible to connect the EFB to aircraft systems and utilize the information from its sensors?
- 10. Total assessment** **88 p. very good (B)**
The student proved a considerable effort and expertise in user interface design and in navigation systems for light aircraft. I'm convinced that the application EasyFlighBag has a great potential to become widespread among sport and recreational pilots. With respect to the previous findings I suggest the grade **very good (B)**.

In Brno 9. June 2017

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signature