DESIGN AND DEVELOPMENT OF A BREATH-BY-BREATH ANALYSIS SYSTEM FOR USE AT LOW ALTITUDES

By

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Thesis Approved:

Thesis Advisor

Dean of Graduate College

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PREFACE

I found designing and developing a breath-by-breath analysis system to be very rewarding. The challenges and triumphs I experienced, will help me throughout my engineering career. I received a great deal of help on this project and would like to thank all of the people who helped make this project possible.

First, I would like to thank the Federal Aviation Association for funding this project and making the facilities available for its development. A big thanks is given to Bob Garner, the team leader of the project, for his support, advice, and the opportunity he gave me to work on this project. I owe a deep gratitude to Frontier Engineering, my current employer, and Scott Phillips, my manager, for permitting me to use Frontier's facilities for this project and for tolerating my hectic schedule so that I could complete this last step of my Masters.

I would also like to thank the members of my advisory committee, Dr. Louis Johnson, Dr. George Scheets, and Dr. Ramakumar. A special thank you is extended to Dr. Louis Johnson for his guidance and patience during this project and previous semesters.

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