Aero Multidisciplinary Optimization Tool

Andres Sandoval

September 26, 2020



Contents

1	Introduction			
	1.1	A subsection	3	
2	Airplanes			
	2.1	Wings	3	
		2.1.1 Flaps	3	
	2.2	Fuselage	3	
3	Analysis 3			
	3.1	Balanced Field Length	3	
	3.2	Range	3	
	3.3	Specific Excess Power	3	
	3.4	Trim	3	
		3.4.1 Linear Trims	4	
4	Modeling 4			
	4.1	Aerodynamics	4	
	4.2	Athena Vortex Lattice	4	
	4.3	Propulsion	4	
5	Common			
	5.1	Atmosphere	4	
	5.2	Earth	4	
	5.3	Equations of Motion	4	
	E 1	Detations	1	

1 Introduction

Sharks are a part of the chondricthyes family.

1.1 A subsection

More text.

2 Airplanes

Your text goes here.

2.1 Wings

More text.

2.1.1 Flaps

More text.

2.2 Fuselage

More text.

3 Analysis

Your text goes here.

3.1 Balanced Field Length

More text.

3.2 Range

More text.

3.3 Specific Excess Power

More text.

3.4 Trim

More text.

3.4.1 Linear Trims

More text.

4 Modeling

Your text goes here.

4.1 Aerodynamics

More text.

4.2 Athena Vortex Lattice

Link to MIT Athena Vortex Lattice Method (AVL): http://web.mit.edu/drela/Public/web/avl/

AVL.exe is included in the repository, and should be added to the PATH of your system. The resulting data from AVL is obtained using the avlwrapper API.

4.3 Propulsion

More text.

5 Common

Your text goes here.

5.1 Atmosphere

More text.

5.2 Earth

More text.

5.3 Equations of Motion

More text.

5.4 Rotations

More text.