

UNIVERSITY OF NOTRE DAME
Department of Aerospace and Mechanical Engineering
AE 440: Flight Mechanics and Introduction to Design
Fall 1998

Project #12

Due: Monday, December 12, 1998

Previous projects have demonstrated the various disciplines that interact to describe a flight vehicle system and influence its performance. This final project will allow you to consider the design of your UAV in a manner in which you can now perform a "trade study" to improve upon your current design.

A recently developed piece of analysis software, UND-UAV-SA, which can be used to perform a system analysis on a special class of electric powered, unmanned air vehicles, will be used for this project. You will be provided with a "user's manual" for this software.

You currently have a design for your aircraft as a result of your effort on Project 11. Using this design as a baseline perform a parametric trade study with the attempt to meet as many of the design requirements defined in Project 9.

You will have only a limited amount of time to perform this study and you should not be concerned if you cannot meet these target specifications. Your memo should attempt to identify the current status of your design, highlight the goals of your trade study and speculate on what additional efforts would need to be taken to continue this design study.