

Flight Dynamics and Control Description

This project is a dynamical simulation of a Research Civilian Aircraft, a commercial aircraft similar in configuration to a Boeing 757. The dynamical model was implemented with information from this document. Effects such as wind perturbation, fuel slosh, and control latency were examined. This project also used unconstrained/constrained optimization techniques to find equilibrium trim points for the vehicle.

Work in Progress: The next steps of this project is to design a The autopilots shall have two inputs, namely a desired heading and time to maneuver. The autopilot shall warn the pilot if the maneuver poses structural risk to the aircraft.