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|  | Report Requirements: | WHERE TO INCLUDE | DONE? √ |
| 1 | Tables of all measured and calculated parameters including a calculation of the Mass and Balance and momentary mass of the aircraft per measurement. | ASK TAs |  |
| 2 | A completed mass and balance form.  Pilot weight, all weights, initial cg location. | ASK TAs |  |
| 3 | All equations that are used, values of constants, SI units etc. State all assumptions needed to be allowed to use these equations. | Throughout the Report. |  |
| 4 | The equilibrium equations for the horizontal, stationary and symmetric flight. Clearly state the assumptions used, and discuss (if possible) their effect on the results. | Analytical Model in symmetric motion. |  |
| 5 | Plots of CL -CD, CL-alpha labelled with aircraft configuration, Mach number range, and Reynolds number range. | Numerical Simulation |  |
| 6 | In general, discuss how the values of parameters compare to the theoretically expected values. Does each graph have the correct and expected slope and curvature? This is a form of verification. | VERIFICATION |  |
| 7 | An analytical derivation of the eigenvalues of A\_s and A\_a . State any simplifications you made to the EOM for the analytical derivation (if any). | Analytical Model |  |
| 8 | Provide the following results for the reference data provided on Brightspace: *CLa, Cma, Cmdelta* and the eigenvalues. | Verification |  |
| 9 | The eigenvalues for A\_s and A\_a matrices as calculated using a computer and an explanation what these values tell you about the characteristics of the eigenmodes. Eigenvalues for matrices constructed based on the reference data on Brightspace and for the matrices using your flight test data. | Verification |  |
| 10 | Plots of the response of the relevant aircraft states of the numerical model to a control input. Use a relevant time scale. | Numerical Simulation/Validation |  |
| 11 | Plots of the response of the relevant aircraft states of the numerical model to a disturbance of the states (**initial value problem).** | Numeical Simualtion/ Validation |  |
| 12 | Computer generated plots of the elevator trim curve and the elevator control force curve . | Numerical Simulation |  |
| 13 | To save space in the report, a list of symbols is notrequired. You can refer to the list of symbols in the AE3212-I Lecture Notes instead. However, if you use symbols that cannotbe found in the Lecture Notes, these symbols shouldbe listed or explained in your report. |  |  |
| 14 | All plots should be discussed in the text. |  |  |