



Transonic-Small-Disturbance and Linear Analyses for the Active Aeroelastic Wing Program

By Carol D. Wiesman

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 24 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. Analysis serves many roles in the Active Aeroelastic Wing (AAW) program. It has been employed to ensure safe testing of both a flight vehicle and wind tunnel model, has formulated models for control law design, has provided comparison data for validation of experimental methods and has addressed several analytical research topics. Aeroelastic analyses using mathematical models of both the flight vehicle and the wind tunnel model configurations have been conducted. Static aeroelastic characterizations of the flight vehicle and wind tunnel model have been produced in the transonic regime and at low supersonic Mach numbers. The flight vehicle has been analyzed using linear aerodynamic theory and transonic small disturbance theory. Analyses of the wind-tunnel model were performed using only linear methods. Research efforts conducted through these analyses include defining regions of the test space where transonic effects play an important role and investigating transonic similarity. A comparison of these aeroelastic analyses for the AAW flight vehicle is presented in this paper. Results from a study of transonic similarity are also presented. Data sets from these analyses include pressure distributions, stability and control...



READ ONLINE
[5.87 MB]

Reviews

A top quality publication along with the font used was intriguing to read. I really could comprehend everything using this written e ebook. Its been designed in an remarkably straightforward way and it is only after i finished reading through this publication by which basically altered me, modify the way i believe.

-- **Cathrine Larkin Sr.**

Very useful to all of group of people. I actually have read through and so i am certain that i will planning to study yet again once again down the road. I am just very easily can get a satisfaction of looking at a created book.

-- **Mark Bernier**