Bibliography for Aircraft Parameter Estimation

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PREFACE

A bibliography is a useful source of potential references for research in any field of study. An extensive bibliography has not been available in the field of aircraft parameter estimation, and this document is the result of an effort to fill this void. The list is extensive, although not exhaustive, and does contain definitive works related to most aircraft parameter estimation approaches. Theoretical studies as well as practical applications are included. Many of these publications are pertinent to subjects peripherally related to parameter estimation, such as aircraft maneuver design or instrumentation considerations.

This bibliography was generated by soliciting useful reference material from leading international parameter estimation specialists; the primary criterion for including any reference was that it be considered meaningful by some specialists. There is no claim that the list is complete.
BIBLIOGRAPHY


Bayes, Thomas: An Introduction to the Doctrine of Fluxions, and a Defence of the Mathematicians Against the Objections of the Author of "The Analyst." John Noon, London, 1736. (For additional information see Barnard, 1958.)


Goodwin, G.C.; Payne, R.L.; and Murdoch, J.C.: Optimal Test Signal Design for Linear Single Input-
Single Output Closed Loop Identification. Conference on Computer Aided Control System Design,

Gould, D.G.; and Hindson, W.S.: Estimates of the Lateral-Directional Stability Derivatives of a
Helicopter from Flight Measurements. National Research Council Canada, Aeronautical Report LR-572,

Gould, D.G.; and Hindson, W.S.: Estimates of the Stability Derivatives of a Helicopter from Flight
Measurements. Ninth Congress of the International Council of the Aeronautical Sciences, Haifa,

Gould, D.G.; and Hindson, W.S.: Estimates of the Stability Derivatives of a Helicopter and a V/STOL
Aircraft from Flight Data. Methods for Aircraft State and Parameter Identification, AGARD-CP-172,
pp. 23-1 to 23-8, May 1975.


Greenberg, Harry: A Survey of Methods for Determining Stability Parameters of an Airplane from


Parameters from Flight Test Data by Using Maximum Likelihood Methods Employing a Real-Time Digital

Control Conference, San Francisco, June 22-24, 1977, vol. 2, pp. 804-808, Institute of Electrical and

Gupta, Narendra K.; and Hall, W. Earl, Jr.: Design and Evaluation of Sensor Systems for State and

Gupta, Naren K.; and Iliff, Kenneth W.: Identification of Aerodynamic Indicial Functions Using

Gupta, N.K.; and Mehr, R.K.: Computational Aspects of Maximum Likelihood Estimation and Reduction in

Gupta, Narendra K.; Hall, W. Earl, Jr.; and Trankle, Thomas L.: Advanced Methods of Model Structure

Hafer, X.: Wind Tunnel Testing of Dynamic Derivatives in W. Germany. Dynamic Stability Parameters,

Hajdasinski, A.K.; Eykhoff, P.; Damen, A.A.H.; and van den Boom, A.J.W.: The Choice and Use of
Different Model Sets for System Identification. Sixth IFAC Symposium on Identification and System
Parameter Identification, Washington, D.C., June 7-11, 1982, pp. 47-58, Pergamon Press, Oxford and
New York, 1983.


Hall, W.E., Jr.; Gupta, N.K.; and Hansen, R.S.: Rotorcraft System Identification Techniques for

Hall, W.E., Jr.; Gupta, N.K.; and Tyler, J.S.: Model Structure Determination and Parameter
Identification for Nonlinear Aerodynamic Flight Regimes. Methods for Aircraft State and Parameter

Hamel, P.G.: A Systems Analysis View of Aerodynamic Coupling. J. Aircraft, vol. 7, no. 6,

Hamel, P.G.: Aircraft Parameter Identification Methods and Their Applications Survey and Future


Hamel, P.G.; and Krag, B.: Dynamic Windtunnel Simulation of Active Control Systems. Stability and


Kurzhal, P.R., ed.: Active Controls in Aircraft Design. AGARD-AG-234, Nov. 1978.


Renz, Ronald R.L.; Clarke, Robert; Mosser, Mark A.; Roskam, Jan; and Rummer, Dale: Development of a Simple, Self-Contained Flight Test Data Acquisition System. SAE Business Aircraft Meeting and Exposition, Wichita, Kansas, April 7-10, 1981, SAE Paper 810596, 1981.


Ross, A. Jean; and Foster, G.W.: Fortran Programs for the Determination of Aerodynamic Derivatives from Transient Longitudinal or Lateral Responses of Aircraft. RAE ARC CP-1344, 1976.


This document is the result of an effort to compile an extensive bibliography in the field of aircraft parameter estimation. This list contains definitive works related to most aircraft parameter estimation approaches. Theoretical studies as well as practical applications are included. Many of these publications are pertinent to subjects peripherally related to parameter estimation, such as aircraft maneuver design or instrumentation considerations.