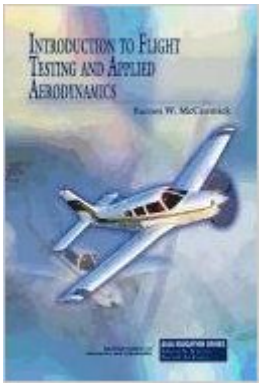
Introduction To Flight Testing And Applied Aerodynamics (Aiaa Education Series)



Synopsis

An introduction into the art and science of measuring and predicting airplane performance, "Introduction to Flight Testing and Applied Aerodynamics" will benefit students, homebuilders, pilots, and engineers in learning how to collect and analyze data relevant to the takeoff, climb, cruise, handling qualities, descent, and landing of an aircraft. This textbook presents a basic and concise analysis of airplane performance, stability, and control. Basic algebra, trigonometry, and some calculus are used. Topics discussed include: Engine and propeller performance; Estimation of drag; Airplane dynamics; Wing spanwise lift distributions; Flight experimentation; Airspeed calibration; Takeoff performance; Climb performance; and, Dynamic and static stability. Special features: examples containing student-obtained data about specific airplanes and engines; simple experiments that determine an airplane’s performance and handling qualities; and, end-of-chapter problems (with answers supplied in an appendix).

Book Information

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Customer Reviews

Barnes (Barney) W. McCormick is the Boeing Professor Emeritus at the Pennsylvania State University. He has a long history with the university, receiving his B.S., M.S., and Ph.D. from the Department of Aeronautical Engineering. He returned to Penn State in 1959 and, in 1969, was named head of the Department of Aerospace Engineering. Later, he accepted a distinguished professorship as the Boeing Professor of Aerospace Engineering. In 1985, Dr. McCormick ventured

into the corporate world, becoming Chief of Aerodynamics for Vertol (now Boeing Helicopters). He has served as consultant to many legal firms as well as industrial and government organizations, including a position as scientific consultant to the U.S. House of Representatives. Dr. McCormick served as Associate Editor for AIAA's Journal of Aircraft, and is an AIAA Fellow. In 1976, he was awarded the AIAA Educational Achievement Award for his innovative contributions to aerospace engineering education.

Has a decent coverage, but not really a stand-alone flight test text book.

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