



## Aerodynamics of Wings and Bodies

By Holt Ashley, M. T. Landahl

Dover Publications Inc., United States, 1986. Paperback. Book Condition: New. New edition. 214 x 136 mm. Language: English . Brand New Book. Amid a welter of topics on the aeronautical engineering curriculum-hypersonic fluid mechanics, heat transfer, nonequilibrium phenomena, etc.-this concise text stands out as a rigorous, classroom-tested treatment of classical aerodynamic theory-indispensable background for aeronautical engineers and the foundation of current and future research. The present volume is also unique for its recognition of matched asymptotic expansions as a unifying framework for introducing boundary-value problems of external flow over thin wings and bodies. In addition, the book fully acknowledges the important role of high-speed computers in aerodynamics. After a short review of the fundamentals of fluid mechanics, the authors offer a fairly extensive treatment of constant-density inviscid flow. Chapter 3 deals with singular perturbation problems, presenting an extremely useful technique not to be found in most texts. Subsequent chapters give solid basic coverage of these topics: Chap. 4-Effects of Viscosity Chap. 5-Thin-Wing Theory Chap. 6-Siender-Body Theory Chap. 7-Three-Dimensional Wings in Steady, Subsonic Flow Chap. 8-Three-Dimensional Thin Wings in Steady Supersonic Flow Chap. 9-Drag at Supersonic Speeds Chap. 10-Use of Flow-Reversal Theorems in Drag Minimization Problems Chap. 11-Interference and Nonplanar Lifting...



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