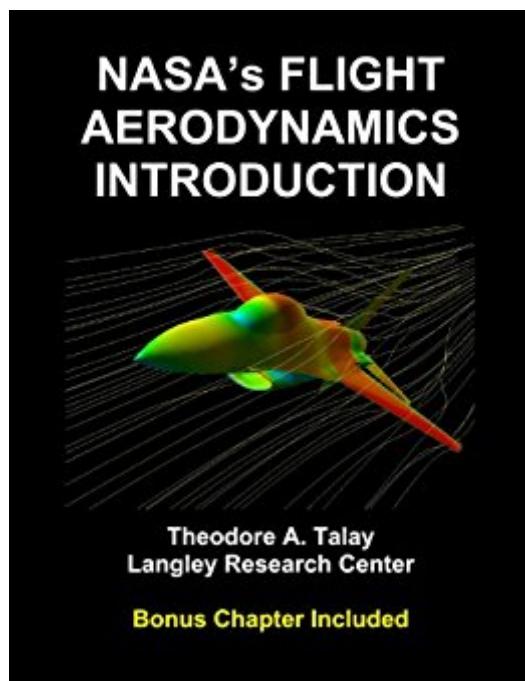


The book was found

# NASA's Flight Aerodynamics Introduction (Annotated And Illustrated)



## Synopsis

The science of aerodynamics can be traced back thousands of years to its beginnings but, remarkably, only one human life span has separated the first heavier-than-air powered airplane flight at Kitty Hawk from the first manned moon landing. The last few decades have witnessed phenomenal growth in the science and technology of aerodynamics and no letup is in sight. For those who possess an interest, the task of education encompassing all the various aspects of the subject is staggering. Specialization is indicated but a background knowledge is an essential of any education. This volume is a result of several semesters of the author's teaching of an introductory course in aerodynamics to apprentices and technicians at the NASA Langley Research Center. The problem faced was to provide more than a layman's treatment of the subject but not the detail as taught in many individual courses on the college level. The result is a highly qualitative, illustrated set of notes which, through the teaching process, was modified to fulfill the objectives better. A thorough revision of these notes with considerable up-to-date material has resulted in the text as presented herein. It is hoped that this volume will stimulate the reader's interest to pursue more specialized education in the many topics of aerodynamics. Bonus chapter (Aerodynamics Overview) included. Hyperlinked index for easy navigation. 251 pages. 171 illustrations and diagrams. Includes the following sections: Foreword I. A Short History of Flight II. Background Information The Atmosphere Winds and Turbulence The Airplane III. FLUID FLOW The Fluid The Flow Ideal Fluid Flow Real Fluid Flow IV. SUBSONIC FLOW EFFECTS Airfoils and Wings Aerodynamic Devices Propellers and Rotors V. TRANSONIC FLOW VI. SUPERSONIC FLOW The SST Sonic Boom VII. BEYOND THE SUPERSONIC Hypersonic Flight Lifting Bodies Space Shuttle VIII. PERFORMANCE Motions of an Airplane Class 1 Motion Class 2 Motion Class 3 Motion-Hovering Flight IX. STABILITY AND CONTROL Stability Control Appendix A - AERONAUTICAL NOMENCLATURE Appendix B - DIMENSIONS AND UNITS Appendix C - COORDINATE SYSTEMS Bibliography Bonus Material Aerodynamics: An Explanation Overview History Design issues with increasing speed Continuity assumption Laws of conservation Incompressible aerodynamics Subsonic flow Transonic flow

## Book Information

File Size: 8273 KB

Print Length: 266 pages

Publisher: Seea Publishing (March 10, 2013)

Publication Date: March 10, 2013

Sold by: Digital Services LLC

Language: English

ASIN: B00BSFDA9O

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Not Enabled

Best Sellers Rank: #404,486 Paid in Kindle Store (See Top 100 Paid in Kindle Store) #56 in Books > Arts & Photography > Vehicle Pictorials > Aviation #183 in Kindle Store > Kindle eBooks > Nonfiction > Science > Astronomy & Space Science > Aeronautics & Astronautics #328 in Kindle Store > Kindle eBooks > Engineering & Transportation > Transportation > Aviation

## Customer Reviews

As a flight instructor and former aeronautical science major, this book has been a pleasant review and knowledge enhancer for me. It's presented neatly and offers easy to understand information that made me stop and feel revelated. I highly recommend this to all my friends and coworkers

Very good!

Good book ..... for the curious, people like me.

[Download to continue reading...](#)

NASA's Flight Aerodynamics Introduction (Annotated and Illustrated) The Student Pilot's Flight Manual: From First Flight to Private Certificate (The Flight Manuals Series) Foundations of Aerodynamics: Bases of Aerodynamics Design Introduction to Flight Testing and Applied Aerodynamics (Aiaa Education Series) Flight Theory And Aerodynamics: A Practical Guide For Operational Safety, 2Nd Edition Aerodynamics, Aeronautics and Flight Mechanics Flight Vehicle Aerodynamics (MIT Press) Airplane Flight Dynamics and Automatic Flight Controls Pt. 1 The Annotated Luther, Volume 3: Church and Sacraments (The Annotated Luther) Electronics in the Evolution of Flight (Centennial of Flight Series) The Annotated Mona Lisa: A Crash Course in Art History from Prehistoric to Post-Modern (Annotated Series) The Annotated Luther, Volume 5: Christian Life in the World (Annotated Luther) The Annotated Luther, Volume 4: Pastoral Writings

(The Annotated Luther) An Annotated Guide to Biblical Resources for Ministry (Annotated Guides (Hendrickson Publishers)) Illustrated Guide to Aerodynamics Illustrated Guide to Aerodynamics 2ND EDITION The Illustrated Guide to Aerodynamics Eyes Turned Skyward: An Introduction to Aerospace Engineering with Emphasis on Aerodynamics and Aircraft Performance Analysis An Introduction to Theoretical and Computational Aerodynamics (Dover Books on Aeronautical Engineering) An Introduction to Flapping Wing Aerodynamics (Cambridge Aerospace Series)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)