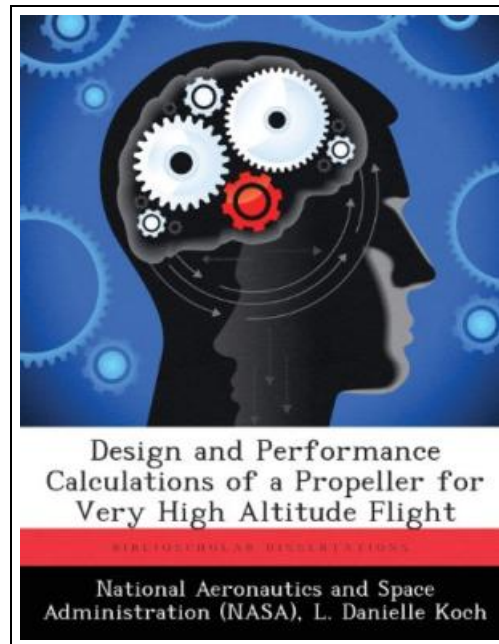


Design and Performance Calculations of a Propeller for Very High Altitude Flight (Paperback)



Filesize: 1.48 MB

Reviews

An extremely wonderful publication with lucid and perfect reasons. It typically will not expense too much. You are going to like the way the blogger compose this publication.

(Prof. Maya Hand)

DESIGN AND PERFORMANCE CALCULATIONS OF A PROPELLER FOR VERY HIGH ALTITUDE FLIGHT (PAPERBACK)



To read **Design and Performance Calculations of a Propeller for Very High Altitude Flight (Paperback)** PDF, remember to click the button listed below and save the file or have accessibility to additional information that are in conjunction with DESIGN AND PERFORMANCE CALCULATIONS OF A PROPELLER FOR VERY HIGH ALTITUDE FLIGHT (PAPERBACK) ebook.

Biblioscholar, United States, 2013. Paperback. Condition: New. Language: English . This book usually ship within 10-15 business days and we will endeavor to dispatch orders quicker than this where possible. Brand New Book. Reported here is a design study of a propeller for a vehicle capable of subsonic flight in Earth s stratosphere. All propellers presented were required to absorb 63.4 kW (85 hp) at 25.9 km (85,000 ft) while aircraft cruise velocity was maintained at Mach 0.40. To produce the final design, classic momentum and blade-element theories were combined with two and three-dimensional results from the Advanced Ducted Propfan Analysis Code (ADPAC), a numerical Navier-Stokes analysis code. The Eppler 387 airfoil was used for each of the constant section propeller designs compared. Experimental data from the Langley Low-Turbulence Pressure Tunnel was used in the strip theory design and analysis programs written. The experimental data was also used to validate ADPAC at a Reynolds numbers of 60,000 and a Mach number of 0.20. Experimental and calculated surface pressure coefficients are compared for a range of angles of attack. Since low Reynolds number transonic experimental data was unavailable, ADPAC was used to generate two-dimensional section performance predictions for Reynolds numbers of 60,000 and 100,000 and Mach numbers ranging from 0.45 to 0.75. Surface pressure coefficients are presented for selected angles of attack. in addition to the variation of lift and drag coefficients at each flow condition. A three-dimensional model of the final design was made which ADPAC used to calculate propeller performance. ADPAC performance predictions were compared with strip-theory calculations at design point. Propeller efficiency predicted by ADPAC was within 1.5 of that calculated by strip theory methods, although ADPAC predictions of thrust, power, and torque coefficients were approximately 5 lower than the strip theory results. Simplifying assumptions made in the...



[Read Design and Performance Calculations of a Propeller for Very High Altitude Flight \(Paperback\) Online](#)

[Download PDF Design and Performance Calculations of a Propeller for Very High Altitude Flight \(Paperback\)](#)

Relevant eBooks



[PDF] **Hands Free Mama: A Guide to Putting Down the Phone, Burning the To-Do List, and Letting Go of Perfection to Grasp What Really Matters!**

Access the link beneath to get "Hands Free Mama: A Guide to Putting Down the Phone, Burning the To-Do List, and Letting Go of Perfection to Grasp What Really Matters!" file.

[Save Document](#)

»



[PDF] **The new era Chihpen woman required reading books: Chihpen woman Liu Jieli financial surgery(Chinese Edition)**

Access the link beneath to get "The new era Chihpen woman required reading books: Chihpen woman Liu Jieli financial surgery(Chinese Edition)" file.

[Save Document](#)

»



[PDF] **Passing Judgement Short Stories about Serving Justice**

Access the link beneath to get "Passing Judgement Short Stories about Serving Justice" file.

[Save Document](#)

»



[PDF] **All My Fault: The True Story of a Sadistic Father and a Little Girl Left Destroyed**

Access the link beneath to get "All My Fault: The True Story of a Sadistic Father and a Little Girl Left Destroyed" file.

[Save Document](#)

»



[PDF] **Eighth grade - reading The Three Musketeers - 15 minutes to read the original ladder-planned**

Access the link beneath to get "Eighth grade - reading The Three Musketeers - 15 minutes to read the original ladder-planned" file.

[Save Document](#)

»



[PDF] **No Friends?: How to Make Friends Fast and Keep Them**

Access the link beneath to get "No Friends?: How to Make Friends Fast and Keep Them" file.

[Save Document](#)

»