

Turbofan And Turbojet Engines Database Handbook

IHS Jane's Aero-Engines Aircraft Engines and Gas
Turbines Fundamentals of Aircraft and Rocket
Propulsion Elements of Gas Turbine Propulsion Green
Aviation Innovative Design and Development Practices
in Aerospace and Automotive Engineering Government
Reports Announcements & Index Aeronautical
Engineer's Data Book Fundamentals of Jet Propulsion
with Applications Commercial Aircraft Propulsion and
Energy Systems Research Technology for a Quieter
America Powered Flight Library of Congress Subject
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and Gas Turbine Engines Aircraft Propulsion and Gas
Turbine Engines Systems of Commercial Turbofan
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92-4250 Pilot's Handbook of Aeronautical
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IHS Jane's Aero-Engines

Commercial Airplane Design Principles is a succinct, focused text covering all the information required at the preliminary stage of aircraft design: initial sizing and weight estimation, fuselage design, engine selection, aerodynamic analysis, stability and control, drag estimation, performance analysis, and economic analysis. The text places emphasis on making informed choices from an array of competing options, and developing the confidence to do so. Shows the use of standard, empirical, and classical methods in support of the design process Explains the preparation of a professional quality design report Provides a sample outline of a design report Can be used in conjunction with Sforza, Commercial Aircraft Design Principles to form a complete course in Aircraft/Spacecraft Design

Aircraft Engines and Gas Turbines

This book provides a comprehensive basics-to-advanced course in an aero-thermal science vital to the design of engines for either type of craft. The text classifies engines powering aircraft and single/multi-stage rockets, and derives performance parameters for both from basic aerodynamics and thermodynamics laws. Each type of engine is analyzed for optimum performance goals, and mission-appropriate engines selection is explained.

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Fundamentals of Aircraft and Rocket Propulsion provides information about and analyses of: thermodynamic cycles of shaft engines (piston, turboprop, turboshaft and propfan); jet engines (pulsejet, pulse detonation engine, ramjet, scramjet, turbojet and turbofan); chemical and non-chemical rocket engines; conceptual design of modular rocket engines (combustor, nozzle and turbopumps); and conceptual design of different modules of aero-engines in their design and off-design state. Aimed at graduate and final-year undergraduate students, this textbook provides a thorough grounding in the history and classification of both aircraft and rocket engines, important design features of all the engines detailed, and particular consideration of special aircraft such as unmanned aerial and short/vertical takeoff and landing aircraft. End-of-chapter exercises make this a valuable student resource, and the provision of a downloadable solutions manual will be of further benefit for course instructors.

Fundamentals of Aircraft and Rocket Propulsion

Airbreathing Propulsion covers the physics of combustion, fluid and thermo-dynamics, and structural mechanics of airbreathing engines, including piston, turboprop, turbojet, turbofan, and ramjet engines. End-of-chapter exercises allow the reader to practice the fundamental concepts behind airbreathing propulsion, and the included PAGIC computer code will help the reader to examine the relationships between the performance parameters of

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different engines. Large amounts of data have on many different piston, turbojet, and turboprop engines have been compiled for this book and are included as an appendix. This textbook is ideal for senior undergraduate and graduate students studying aeronautical engineering, aerospace engineering, and mechanical engineering.

Elements of Gas Turbine Propulsion

An updated edition of the essential FAA resource for both beginner and expert pilots.

Green Aviation

Innovative Design and Development Practices in Aerospace and Automotive Engineering

Aeronautical Engineer's Data Book is an essential handy guide containing useful up to date information regularly needed by the student or practising engineer. Covering all aspects of aircraft, both fixed wing and rotary craft, this pocket book provides quick access to useful aeronautical engineering data and sources of information for further in-depth information. Quick reference to essential data Most up to date information available

Government Reports Announcements & Index

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To understand the operation of aircraft gas turbine engines, it is not enough to know the basic operation of a gas turbine. It is also necessary to understand the operation and the design of its auxiliary systems. This book fills that need by providing an introduction to the operating principles underlying systems of modern commercial turbofan engines and bringing readers up to date with the latest technology. It also offers a basic overview of the tubes, lines, and system components installed on a complex turbofan engine. Readers can follow detailed examples that describe engines from different manufacturers. The text is recommended for aircraft engineers and mechanics, aeronautical engineering students, and pilots.

Aeronautical Engineer's Data Book

Aircraft emissions currently account for ~3.5% of all greenhouse gas emissions. The number of passenger miles has increased by 5% annually despite 9/11, two wars and gloomy economic conditions. Since aircraft have no viable alternative to the internal combustion engine, improvements in aircraft efficiency and alternative fuel development become essential. This book comprehensively covers the relevant issues in green aviation. Environmental impacts, technology advances, public policy and economics are intricately linked to the pace of development that will be realized in the coming decades. Experts from NASA, industry and academia review current technology development in green aviation that will carry the industry through 2025 and beyond. This includes increased efficiency through better propulsion

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systems, reduced drag airframes, advanced materials and operational changes. Clean combustion and emission control of noise, exhaust gases and particulates are also addressed through combustor design and the use of alternative fuels. Economic imperatives from aircraft lifetime and maintenance logistics dictate the drive for "drop-in" fuels, blending jet-grade and biofuel. New certification standards for alternative fuels are outlined. Life Cycle Assessments are used to evaluate worldwide biofuel approaches, highlighting that there is no single rational approach for sustainable buildup. In fact, unless local conditions are considered, the use of biofuels can create a net increase in environmental impact as a result of biofuel manufacturing processes. Governmental experts evaluate current and future regulations and their impact on green aviation. Sustainable approaches to biofuel development are discussed for locations around the globe, including the US, EU, Brazil, China and India.

Fundamentals of Jet Propulsion with Applications

The book is written for engineers and students who wish to address the preliminary design of gas turbine engines, as well as the associated performance calculations, in a practical manner. A basic knowledge of thermodynamics and turbomachinery is a prerequisite for understanding the concepts and ideas described. The book is also intended for teachers as a source of information for lecture materials and exercises for their students. It is extensively

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illustrated with examples and data from real engine cycles, all of which can be reproduced with GasTurb (TM). It discusses the practical application of thermodynamic, aerodynamic and mechanical principles. The authors describe the theoretical background of the simulation elements and the relevant correlations through which they are applied, however they refrain from detailed scientific derivations.

Commercial Aircraft Propulsion and Energy Systems Research

New edition of the successful textbook updated to include new material on UAVs, design guidelines in aircraft engine component systems and additional end of chapter problems Aircraft Propulsion, Second Edition follows the successful first edition textbook with comprehensive treatment of the subjects in airbreathing propulsion, from the basic principles to more advanced treatments in engine components and system integration. This new edition has been extensively updated to include a number of new and important topics. A chapter is now included on General Aviation and Uninhabited Aerial Vehicle (UAV) Propulsion Systems that includes a discussion on electric and hybrid propulsion. Propeller theory is added to the presentation of turboprop engines. A new section in cycle analysis treats Ultra-High Bypass (UHB) and Geared Turbofan engines. New material on drop-in biofuels and design for sustainability is added to reflect the FAA's 2025 Vision. In addition, the design guidelines in aircraft engine components are

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expanded to make the book user friendly for engine designers. Extensive review material and derivations are included to help the reader navigate through the subject with ease. Key features: General Aviation and UAV Propulsion Systems are presented in a new chapter Discusses Ultra-High Bypass and Geared Turbofan engines Presents alternative drop-in jet fuels Expands on engine components' design guidelines The end-of-chapter problem sets have been increased by nearly 50% and solutions are available on a companion website Presents a new section on engine performance testing and instrumentation Includes a new 10-Minute Quiz appendix (with 45 quizzes) that can be used as a continuous assessment and improvement tool in teaching/learning propulsion principles and concepts Includes a new appendix on Rules of Thumb and Trends in aircraft propulsion Aircraft Propulsion, Second Edition is a must-have textbook for graduate and undergraduate students, and is also an excellent source of information for researchers and practitioners in the aerospace and power industry.

Technology for a Quieter America

Aircraft Propulsion and Gas Turbine Engines, Second Edition builds upon the success of the book's first edition, with the addition of three major topic areas: Piston Engines with integrated propeller coverage; Pump Technologies; and Rocket Propulsion. The rocket propulsion section extends the text's coverage so that both Aerospace and Aeronautical topics can be studied and compared. Numerous updates have

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been made to reflect the latest advances in turbine engines, fuels, and combustion. The text is now divided into three parts, the first two devoted to air breathing engines, and the third covering non-air breathing or rocket engines.

Powered Flight

Although poor air quality is probably not the hazard that is foremost in peoples' minds as they board planes, it has been a concern for years. Passengers have complained about dry eyes, sore throat, dizziness, headaches, and other symptoms. Flight attendants have repeatedly raised questions about the safety of the air that they breathe. The Airliner Cabin Environment and the Health of Passengers and Crew examines in detail the aircraft environmental control systems, the sources of chemical and biological contaminants in aircraft cabins, and the toxicity and health effects associated with these contaminants. The book provides some recommendations for potential approaches for improving cabin air quality and a surveillance and research program.

Library of Congress Subject Headings

A significant addition to the literature on gas turbine technology, the second edition of Gas Turbine Performance is a lengthy text covering product advances and technological developments. Including extensive figures, charts, tables and formulae, this book will interest everyone concerned with gas

turbine technology, whether they are designers, marketing staff or users.

A Review of United States Air Force and Department of Defense Aerospace Propulsion Needs

Prognostics is the science of making predictions of engineering systems. It is part of a suite of techniques that determine whether a system is behaving within nominal operational performance and - if it does not - that determine what is wrong and how long it will take until the system no longer fulfills certain functional requirements. This book presents the latest developments and research findings on the topic of prognostics by the Prognostics Center of Excellence at NASA Ames Research Center. The book is intended to provide a practitioner with an understanding of the foundational concepts as well as practical tools to perform prognostics and health management on different types of engineering systems and in particular to predict remaining useful life.

The Airliner Cabin Environment and the Health of Passengers and Crew

As with all engineering, there is an increasing emphasis on design issues in aeronautical engineering. 'Civil Jet Aircraft Design' is the definitive textbook on this core subject. Written by experts in their field, this book provides a general introduction to aircraft design, while also exploring the underlying procedures and practices in depth. Concentrating on

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large scale commercial jet aircraft, the book reflects current areas of growth in the aircraft industry. Readers are introduced to the procedures and practices of civil aircraft design at a level suitable for undergraduate students of aeronautical design, and for professionals in industry. *The contents of this book represents the personal opinion of the authors and does not necessarily reflect that of CAA/NATS. Available in North and South America from the AIAA, 1801 Alexander Bell Drive, Suite 500, Reston, VA 20191, USA

Progress in Gas Turbine Performance

The primary human activities that release carbon dioxide (CO₂) into the atmosphere are the combustion of fossil fuels (coal, natural gas, and oil) to generate electricity, the provision of energy for transportation, and as a consequence of some industrial processes. Although aviation CO₂ emissions only make up approximately 2.0 to 2.5 percent of total global annual CO₂ emissions, research to reduce CO₂ emissions is urgent because (1) such reductions may be legislated even as commercial air travel grows, (2) because it takes new technology a long time to propagate into and through the aviation fleet, and (3) because of the ongoing impact of global CO₂ emissions. Commercial Aircraft Propulsion and Energy Systems Research develops a national research agenda for reducing CO₂ emissions from commercial aviation. This report focuses on propulsion and energy technologies for reducing carbon emissions from large, commercial aircraft—single-aisle and twin-

aisle aircraft that carry 100 or more passengers" because such aircraft account for more than 90 percent of global emissions from commercial aircraft. Moreover, while smaller aircraft also emit CO₂, they make only a minor contribution to global emissions, and many technologies that reduce CO₂ emissions for large aircraft also apply to smaller aircraft. As commercial aviation continues to grow in terms of revenue-passenger miles and cargo ton miles, CO₂ emissions are expected to increase. To reduce the contribution of aviation to climate change, it is essential to improve the effectiveness of ongoing efforts to reduce emissions and initiate research into new approaches.

Commercial Airplane Design Principles

Whilst most contemporary books in the aerospace propulsion field are dedicated primarily to gas turbine engines, there is often little or no coverage of other propulsion systems and devices such as propeller and helicopter rotors or detailed attention to rocket engines. By taking a wider viewpoint, *Powered Flight - The Engineering of Aerospace Propulsion* aims to provide a broader context, allowing observations and comparisons to be made across systems that are overlooked by focusing on a single aspect alone. The physics and history of aerospace propulsion are built on step-by-step, coupled with the development of an appreciation for the mathematics involved in the science and engineering of propulsion. Combining the author's experience as a researcher, an industry professional and a lecturer in graduate and

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undergraduate aerospace engineering, Powered Flight - The Engineering of Aerospace Propulsion covers its subject matter both theoretically and with an awareness of the practicalities of the industry. To ensure that the content is clear, representative but also interesting the text is complimented by a range of relevant graphs and photographs including representative engineering, in addition to several propeller performance charts. These items provide excellent reference and support materials for graduate and undergraduate projects and exercises. Students in the field of aerospace engineering will find that Powered Flight - The Engineering of Aerospace Propulsion supports their studies from the introductory stage and throughout more intensive follow-on studies.

Turbofan and Turbojet Engines

Theory of Aerospace Propulsion, Second Edition, teaches engineering students how to utilize the fundamental principles of fluid mechanics and thermodynamics to analyze aircraft engines, understand the common gas turbine aircraft propulsion systems, be able to determine the applicability of each, perform system studies of aircraft engine systems for specified flight conditions and preliminary aerothermal design of turbomachinery components, and conceive, analyze, and optimize competing preliminary designs for conventional and unconventional missions. This updated edition has been fully revised, with new content, new examples and problems, and improved

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illustrations to better facilitate learning of key concepts. Includes broader coverage than that found in most other books, including coverage of propellers, nuclear rockets, and space propulsion to allows analysis and design of more types of propulsion systems Provides in-depth, quantitative treatments of the components of jet propulsion engines, including the tools for evaluation and component matching for optimal system performance Contains additional worked examples and progressively challenging end-of- chapter exercises that provide practice for analysis, preliminary design, and systems integration

Prognostics

The book presents the best articles presented by researchers, academicians and industrial experts in the International Conference on “Innovative Design and Development Practices in Aerospace and Automotive Engineering (I-DAD 2016)”. The book discusses new concept designs, analysis and manufacturing technologies, where more swing is for improved performance through specific and/or multifunctional linguistic design aspects to downsize the system, improve weight to strength ratio, fuel efficiency, better operational capability at room and elevated temperatures, reduced wear and tear, NVH aspects while balancing the challenges of beyond Euro IV/Barat Stage IV emission norms, Greenhouse effects and recyclable materials. The innovative methods discussed in the book will serve as a reference material for educational and research organizations, as well as industry, to take up

challenging projects of mutual interest.

Aircraft Engine Design

IHS Janes Aero Engines is the definitive guide to civil and military gas-turbine engines currently in use around the world for aircraft propulsion. IHS Janes Aero Engines delivers comprehensive profiles of civil and military gas-turbine engines in production and in service for air platforms around the world, providing A&D businesses with critical independent technical and market intelligence to support effective business development, strategy and product development activity, and giving military and security organizations the information they need to support analysis, planning and procurement activities.

Green Light for Green Flight

The Power for Flight

This text provides an introduction to gas turbine engines and jet propulsion for aerospace or mechanical engineers. The text is divided into four parts: introduction to aircraft propulsion; basic concepts and one-dimensional/gas dynamics; parametric (design point) and performance (off-design) analysis of air breathing propulsion systems; and analysis and design of major gas turbine engine components (fans, compressors, turbines, inlets, nozzles, main burners, and afterburners). Design concepts are introduced early (aircraft performance in

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introductory chapter) and integrated throughout. Written with extensive student input on the design of the book, the book builds upon definitions and gradually develops the thermodynamics, gas dynamics, and gas turbine engine principles.

Aircraft Propulsion and Gas Turbine Engines

Aircraft Propulsion and Gas Turbine Engines

Annotation A design textbook attempting to bridge the gap between traditional academic textbooks, which emphasize individual concepts and principles; and design handbooks, which provide collections of known solutions. The airbreathing gas turbine engine is the example used to teach principles and methods. The first edition appeared in 1987. The disk contains supplemental material. Annotation c. Book News, Inc., Portland, OR (booknews.com).

Systems of Commercial Turbofan Engines

The Airliner Cabin Environment

IPCC Special Report providing comprehensive assessment of the effects of aviation on the global atmosphere.

Civil Jet Aircraft Design

The escalating use of aircraft in the 21st century demands a thorough understanding of engine propulsion concepts, including the performance of aero engines. Among other critical activities, gas turbines play an extensive role in electric power generation, and marine propulsion for naval vessels and cargo ships. In the most exhaustive volume to date, this text examines the foundation of aircraft propulsion: aerodynamics interwoven with thermodynamics, heat transfer, and mechanical design. With a finely focused approach, the author devotes each chapter to a particular engine type, such as ramjet and pulsejet, turbojet, and turbofan. Supported by actual case studies, he illustrates engine performance under various operating conditions. Part I discusses the history, classifications, and performance of air breathing engines. Beginning with Leonardo and continuing on to the emergence of the jet age and beyond, this section chronicles inventions up through the 20th century. It then moves into a detailed discussion of different engine types, including pulsejet, ramjet, single- and multi-spool turbojet, and turbofan in both subsonic and supersonic applications. The author discusses Vertical Take Off and Landing aircraft, and provides a comprehensive examination of hypersonic scramjet and turbo ramjet engines. He also analyzes the different types of industrial gas turbines having single- and multi-spool with intercoolers, regenerators, and reheaters. Part II investigates the design of rotating compressors and turbines, and non-rotating

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components, intakes, combustion chambers, and nozzles for all modern jet propulsion and gas turbine engine systems, along with their performance. Every chapter concludes with illustrative examples followed by a problems section; for greater clarity, some provide a listing of important mathematical relations.

Theory of Aerospace Propulsion

The NACA and aircraft propulsion, 1915-1958 -- NASA gets to work, 1958-1975 -- The shift toward commercial aviation, 1966-1975 -- The quest for propulsive efficiency, 1976-1989 -- Propulsion control enters the computer era, 1976-1998 -- Transiting to a new century, 1990-2008 -- Toward the future

Propulsion and Power

Because of the important national defense contribution of large, non-fighter aircraft, rapidly increasing fuel costs and increasing dependence on imported oil have triggered significant interest in increased aircraft engine efficiency by the U.S. Air Force. To help address this need, the Air Force asked the National Research Council (NRC) to examine and assess technical options for improving engine efficiency of all large non-fighter aircraft under Air Force command. This report presents a review of current Air Force fuel consumption patterns; an analysis of previous programs designed to replace aircraft engines; an examination of proposed engine modifications; an assessment of the potential impact of alternative fuels and engine science and

technology programs, and an analysis of costs and funding requirements.

Improving the Efficiency of Engines for Large Nonfighter Aircraft

Readers of this book will be able to: utilize the fundamental principles of fluid mechanics and thermodynamics to analyze aircraft engines, understand the common gas turbine aircraft propulsion systems and be able to determine the applicability of each, perform system studies of aircraft engine systems for specified flight conditions, perform preliminary aerothermal design of turbomachinery components, and conceive, analyze, and optimize competing preliminary designs for conventional and unconventional missions. Early coverage of cycle analysis provides a systems perspective, and offers context for the chapters on turbomachinery and components. Broader coverage than found in most other books - including coverage of propellers, nuclear rockets, and space propulsion - allows analysis and design of more types of propulsion systems. In depth, quantitative treatments of the components of jet propulsion engines provides the tools for evaluation and component matching for optimal system performance. Worked examples and end of chapter exercises provide practice for analysis, preliminary design, and systems integration.

Theory of Aerospace Propulsion

Aircraft Engines and Gas Turbines is widely used as a

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text in the United States and abroad, and has also become a standard reference for professionals in the aircraft engine industry. Unique in treating the engine as a complete system at increasing levels of sophistication, it covers all types of modern aircraft engines, including turbojets, turbofans, and turboprops, and also discusses hypersonic propulsion systems of the future. Performance is described in terms of the fluid dynamic and thermodynamic limits on the behavior of the principal components: inlets, compressors, combustors, turbines, and nozzles. Environmental factors such as atmospheric pollution and noise are treated along with performance. This new edition has been substantially revised to include more complete and up-to-date coverage of compressors, turbines, and combustion systems, and to introduce current research directions. The discussion of high-bypass turbofans has been expanded in keeping with their great commercial importance. Propulsion for civil supersonic transports is taken up in the current context. The chapter on hypersonic air breathing engines has been expanded to reflect interest in the use of scramjets to power the National Aerospace Plane. The discussion of exhaust emissions and noise and associated regulatory structures have been updated and there are many corrections and clarifications. Jack L. Kerrebrock is Richard Cockburn Maclaurin Professor of Aeronautic's and Astronautics at the Massachusetts Institute of Technology.

Library of Congress Subject Headings

AIAA Aircraft Design Systems Meeting: 92-4221 - 92-4250

Each year Americans take more than 300 million plane trips staffed by a total of some 70,000 flight attendants. The health and safety of these individuals are the focus of this volume from the Committee on Airliner Cabin Air Quality. The book examines such topics as cabin air quality, the health effects of reduced pressure and cosmic radiation, emergency procedures, regulations established by U.S. and foreign agencies, records on airline maintenance and operation procedures, and medical statistics on air travel. Numerous recommendations are presented, including a ban on smoking on all domestic commercial flights to lessen discomfort to passengers and crew, to eliminate the possibility of fire caused by cigarettes, and to bring the cabin air quality into line with established standards for other closed environments.

Pilot's Handbook of Aeronautical Knowledge

Gas Turbine Performance

This introductory 2005 text on air-breathing jet propulsion focuses on the basic operating principles of jet engines and gas turbines. Previous coursework in fluid mechanics and thermodynamics is elucidated and applied to help the student understand and predict the characteristics of engine components and

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various types of engines and power gas turbines. Numerous examples help the reader appreciate the methods and differing, representative physical parameters. A capstone chapter integrates the text material into a portion of the book devoted to system matching and analysis so that engine performance can be predicted for both on- and off-design conditions. The book is designed for advanced undergraduate and first-year graduate students in aerospace and mechanical engineering. A basic understanding of fluid dynamics and thermodynamics is presumed. Although aircraft propulsion is the focus, the material can also be used to study ground- and marine-based gas turbines and turbomachinery and some advanced topics in compressors and turbines.

Proceedings

Rocket and air-breathing propulsion systems are the foundation on which planning for future aerospace systems rests. A Review of United States Air Force and Department of Defense Aerospace Propulsion Needs assesses the existing technical base in these areas and examines the future Air Force capabilities the base will be expected to support. This report also defines gaps and recommends where future warfighter capabilities not yet fully defined could be met by current science and technology development plans.

Aviation and the Global Atmosphere

Pilot's Handbook of Aeronautical Knowledge

There has been a remarkable difference in the research and development regarding gas turbine technology for transportation and power generation. The former remains substantially florid and unaltered with respect to the past as the superiority of air-breathing engines compared to other technologies is by far immense. On the other hand, the world of gas turbines (GTs) for power generation is indeed characterized by completely different scenarios in so far as new challenges are coming up in the latest energy trends, where both a reduction in the use of carbon-based fuels and the raising up of renewables are becoming more and more important factors. While being considered a key technology for base-load operations for many years, modern stationary gas turbines are in fact facing the challenge to balance electricity from variable renewables with that from flexible conventional power plants. The book intends in fact to provide an updated picture as well as a perspective view of some of the abovementioned issues that characterize GT technology in the two different applications: aircraft propulsion and stationary power generation. Therefore, the target audience for it involves design, analyst, materials and maintenance engineers. Also manufacturers, researchers and scientists will benefit from the timely and accurate information provided in this volume. The book is organized into three main sections including 10 chapters overall: (i) Gas Turbine and Component Performance, (ii) Gas Turbine Combustion and (iii)

Fault Detection in Systems and Materials.

Aircraft Propulsion

NASA's Environmentally Responsible Aviation (ERA) project began in 2009 to explore and document the feasibility, benefits and technical risks of advanced vehicle concepts and enabling technologies for reducing aviation's overall impact on the environment. Goals included reducing community noise footprints, fuel burn, and nitrogen oxide emissions. This book reviews the advanced aircraft design concepts, construction technologies, and propulsion advancements that were researched by the ERA project.

Airbreathing Propulsion

Exposure to noise at home, at work, while traveling, and during leisure activities is a fact of life for all Americans. At times noise can be loud enough to damage hearing, and at lower levels it can disrupt normal living, affect sleep patterns, affect our ability to concentrate at work, interfere with outdoor recreational activities, and, in some cases, interfere with communications and even cause accidents. Clearly, exposure to excessive noise can affect our quality of life. As the population of the United States and, indeed, the world increases and developing countries become more industrialized, problems of noise are likely to become more pervasive and lower the quality of life for everyone. Efforts to manage noise exposures, to design quieter buildings,

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products, equipment, and transportation vehicles, and to provide a regulatory environment that facilitates adequate, cost-effective, sustainable noise controls require our immediate attention. Technology for a Quieter America looks at the most commonly identified sources of noise, how they are characterized, and efforts that have been made to reduce noise emissions and experiences. The book also reviews the standards and regulations that govern noise levels and the federal, state, and local agencies that regulate noise for the benefit, safety, and wellness of society at large. In addition, it presents the cost-benefit trade-offs between efforts to mitigate noise and the improvements they achieve, information sources available to the public on the dimensions of noise problems and their mitigation, and the need to educate professionals who can deal with these issues. Noise emissions are an issue in industry, in communities, in buildings, and during leisure activities. As such, Technology for a Quieter America will appeal to a wide range of stakeholders: the engineering community; the public; government at the federal, state, and local levels; private industry; labor unions; and nonprofit organizations. Implementation of the recommendations in Technology for a Quieter America will result in reduction of the noise levels to which Americans are exposed and will improve the ability of American industry to compete in world markets paying increasing attention to the noise emissions of products.

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