Experimental and Prototype Aircraft, 1931 to 1989

Yefim Gordon with Bill Sweetman



Soviet Xplanes

Rachel Sandford

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Soviet X-planes E. Gordon, Yefim Gordon, Bill Sweetman, 1992 Detailed review of Soviet experimental aircraft from the early 1900s to the latest Russian prototypes of today Describes about 150 aircraft types each with relevant data including X-Planes Manfred Griehl, 2012-10-24 Renowned German aviation specialist Manfred Griehl has many three view drawings collected a unique and valuable selection of photographs of Luftwaffe projects that never made it into battle They remained on the drawing board or at prototype stage either because they were deemed unsuitable or the developers simply ran out of time and the projects never went into production Most photographs come from the development sites and testing grounds of the major manufacturers of Nazi Germany companies such as Dornier Junkers Focke Wulf and Heinkel all received funding from the government to develop bigger and faster aircraft A huge amount of private testing went on with major organizations such as Daimler Benz BMW and Siemens investing huge amounts in new engine systems and other advances such as radar This book also details the innumerable alterations that were made to existing service aircraft to equip them for new roles There are examples of Fw190s developed for the delivery of chemical and toxic weapons the high altitude Junkers EF 61 the early prototype WNF 342 helicopter as well as numerous examples of developmental jet fighters that could very well have been realized had it not been for the effectiveness of the Allied bombing campaign in restricting the supply of necessary X-Planes from the X-1 to the X-60 Michael H. Gorn, Giuseppe De Chiara, 2022-01-01 Foreword by Dr Roger materials D Launius Former NASA Chief Historian For the past 75 years the U S government has invested significant time and money into advanced aerospace research as evidenced by its many experimental X plane aircraft and rockets NASA s X Planes asks a simple question What have we gained from it all To answer this question the authors provide a comprehensive overview of the X plane's long history from the 1946 X 1 to the modern X 60 The chapters describe not just the technological evolution of these models but also the wider story of politics federal budgets and inter agency rivalries surrounding them The book is organized into two sections with the first covering the operational X planes that symbolized the Cold War struggle between the U S and the U S S R and the second section surveying post Cold War aircraft and spacecraft Featuring dozens of original illustrations of X plane cross sections in flight profiles close ups and more this book will educate general readers and specialists alike The Race for Hitler's X-Planes John Christopher, 2012-10-01 During World War 2 Hitler's engineers had pioneered an incredible array of futuristic secret weapons from the Me 262 the first operational jet fighter to the deadly V2 inter continental ballistic missile With the Third Reich shattered and lying in ruins in the summer of 1945 the Allies launched a frantic race to grab what they saw as the justifiable spoils of war The Americans and Russians in particular were anxious to secure not only the aircraft and the research and production facilities but also the key German scientists and engineers This Nazi technology would define the balance of power in the phoney peace of the Cold War era launching an arms race that shaped our modern world for decades to come But what of Britain's role in this supermarket sweep The Race for Hitler's X

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The X-planes Jay Miller,2001 Chuck Yeager introduces this totally revised and updated version of the complete history of the X Planes Each aircraft is described with coverage of history specs propulsion systems and disposition Rare cockpit illustrations of every manned X Plane are included Re-entry Systems Erwin Mooij,2024-12-25 This book explains and describes re entry systems for both the Earth and other planets It provides sufficient information for readers to perform entry mission analysis for different bodies in the Solar System Not only does it discuss re entry flight mechanics but also addresses relevant subsystems and fields enabling readers to put the information into perspective The book begins with a complete description of planetary environments including atmosphere gravity fields and the shape of the primary body After a detailed discussion of planar flight mechanics it then moves on to discuss guidance navigation and control entry descent and landing systems as well as thermal protection systems It uses examples throughout the text enabling the theory to be linked to

practical applications Ideal for those wanting an updated thorough discussion of re entry systems this book is suitable for students and researchers

Technology and the Air Force Jacob Neufeld, 2009-06 Proceedings of a symposium co sponsored by the Air Force Historical Foundation and the Air Force History and Museums Program The symposium covered relevant Air Force technologies ranging from the turbo jet revolution of the 1930s to the stealth revolution of the 1990s Illustrations

History and Evolution of Aircraft Ahmed F. El-Sayed, 2024-07-31 History and Evolution of Aircraft reviews the history of aviation from early history to the present day including the evolution milestones of military aircraft civil aircraft helicopters drones balloons airships and their engines It also provides the background and development of different types of aircraft including manned and unmanned vehicles aircraft carriers fixed or rotary wings air sea and amphibian flight vehicles Covering current and developing applications of unmanned aerial vehicles UAVs the book highlights the prospects of future flying vehicles including automotives and jetpacks It follows the transition from piston to jet engines that include shaft based engines turboprop turboshaft and propfan turbine based engines turbojet and turbofan and athodyd engines ramjet turbo ramjet and scramjet The book explores flight vehicles technological advancements and evolution including their geometrical features and performance parameters It will also include nine appendices resembling databases for all types of aircraft The book will be a useful reference for academic researchers and aviation aerospace and mechanical engineering students taking aerodynamics aircraft structures aircraft engines and propulsion courses Aviation history enthusiasts will be interested in the scope of the content as well Instructors can utilize a Solutions Manual for their course **Cordon of Steel** Curtis A. Utz,1993 Modern Experimental Aircraft Bruce LaFontaine, 2000-05-01 45 accurately rendered illustrations of dynamic flying prototypes Northrop XP 56 Black Bullet the Bell X 1 rocketplane the diminutive McDonnell XF 85 Goblin parasite more Descriptive captions Airbreathing Hypersonic Propulsion Claudio Bruno, 2023-11-27 This book details science of hypersonics especially focusing on propulsion aspects such as supersonic combustion ramjets and their applications and also includes lift and drag in hypersonic flight and their mathematical and physical explanation It provides charts and data from hypersonic testing and measurements from actual vehicles and engines built in the past Criteria to dimension hypersonic powered and unpowered vehicles gliders based on fundamental fluid dynamics and backed by flight testing criteria to preliminary sizing vehicles and preliminary dimensioning of supersonic combustors are introduced. The book will serve better theoretical understanding of drag lift and how to apply them to the design of hypersonic vehicles as well as data to size vehicles and supersonic combustion ramjet SCRJ systems This book will be a useful reference for researchers and designers in hypersonic vehicles but also second or third year graduate students **Airman** ,1992 **Secret Wings of World War** II Lance Cole,2015-06-30 There are many myths and legends surrounding the advanced German aeronautical technology of the Second World War There are also facts and proven events Yet within these stories and behind these facts lie conspiracy theories mistaken assumptions and denials that seem to contradict the evidence So what really happened How far ahead

were the German scientists And of even greater interest why and how There have been other books about advanced German wartime aeronautics yet few authors have fully examined the detail of the designs and their relevance to the fighter and bomber legends of the 1950s and 60s let alone the current crop of military and civil all wing or blended wing aircraft This book charts the story from it origins through current day innovations and beyond into the all wing future of tomorrow

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