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of Fluid Mechanics in the 1920s; 4.1 American Emissaries at Prandtl's Institute; 4.2 Standardization  
4.3 International Conferences 4.4 Applied Mathematics and Mechanics: A New International Discipline Between Science and Technology; 4.5 Internationality in Practice: Max Munk at the NACA; 5 A "Working Program" for Research on Turbulence; 5.1 Turbulent Pipe Flow; 5.2 Prandtl's Research Program on Turbulence; 5.3 The Mixing Length Concept for the Fully Developed Turbulence; 5.4 A Kind of Olympic Games; 5.5 Wind Tunnel Turbulence; 6 Aerodynamics Comes of Age; 6.1 How Aerodynamics Became Institutionalized at Technical Universities; 6.2 Glider Flight  
6.3 Karman and Junkers: The Beginnings of Industrial Consulting in Aeronautics 6.4 Profile Measurements; 6.5 Airfoil Theory; 7 New Applications; 7.1 Gas Dynamics; 7.2 Cavitation; 7.3 Meteorological and Geophysical Fluid Dynamics; 7.4 The Scope of Fluid Dynamics by the Early 1930s; 8 Prandtl, Fluid Dynamics and National Socialism; 8.1 Preparing for War: Increased Funding for Prandtl's Institute; 8.2 Aeronautical Science as an Instrument of Nazi Propaganda; 8.3 Goodwill Ambassador; 9 New Centers; 9.1 Aachen; 9.2 Pasadena; 9.3 Zurich; 10 Fluid Dynamics on the Eve of the Second World War  
10.1 Airfoil Theory 10.2 Turbulence; 10.3 Gas Dynamics; 11 Epilogue; Appendix; Abbreviations; References; Author Index; Name Index; Subject Index

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Sommario/riassunto

This is the first publication to describe the evolution of fluid dynamics as a major field in modern science and engineering. It contains a description of the interaction between applied research and application, taking as its example the history of fluid mechanics in the 20th century. The focus lies on the work of Ludwig Prandtl, founder of the aerodynamic research center (AVA) in Göttingen, whose ideas and publications have influenced modern aerodynamics and fluid mechanics in many fields. While suitable for others, this book is intended for natural scientists and engineers as well as his

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