Author's Preface

This publication is the translation of the 6th edition (1987, Nauka Press, Moscow) of my monographical textbook "Mechanics of Liquids and Gases" which was extensively revised and augmented as compared with the 2nd edition (1957, Nauka Press, Moscow) translated into English and published by Pergamon Press in 1966. The 6th edition incorporates significant advances towards the solution of the problems of the boundary layer theory, dynamics of viscous fluids and theory of turbulence. Moreover, this English edition is augmented with the 16th Chapter on computational hydrogasdynamics written by my colleagues at the Department of Hydroaerodynamics of the Leningrad Polytechnic Institute: Prof. Yu. P. Golovachev and Ass. Prof. S. B. Koleshko to whom, taking this opportunity, I wish to express my gratitude. I also wish to thank the Joint Soviet-American Enterprize "TEMPO" in the persons of its founders Mr. W. Begell and Corresponding Member of the Byelorussian Academy of Sciences O. G. Martynenko and also staff-members of the USSR Editorial Office of the International Journal of Heat and Mass Transfer G. R. Malyavskaya and N. K. Shveyeva who has taken the trouble to translate my book into English.

The textbook is intended for students, postgraduate students, engineers, and research workers specializing in the field of mechanics.