

BOOKS IN REVIEW

TIDAL COMPUTATIONS IN RIVERS AND COASTAL WATERS

by J. J. DRONKERS

North-Holland Publishing Company, Amsterdam, 1964
518 pages; 93 figures; 16 × 23 cm; price 55 guilders (\$ 15.40)

Tidal studies in the Netherlands have received a great impetus from the research work, instigated by the Zuyder Zee Committee, for the vast undertakings carried out there during the last few years and which are always in progress.

This book is devoted to those tidal computations in rivers and coastal waters which are of great use in the planning and construction of engineering works in tidal waters.

The book contains 12 Chapters.

In Chapter I, the reader will find a historical review of the development of the theory of tides. The other chapters are divided into four parts.

Part one deals with the theory of the generation of the tides in an ocean. Harmonic analysis is then discussed as a method of representing the observed tide mathematically and for predicting the tides.

Part two refers to the basic hydrodynamic and hydraulic theories which provide the principles for the study of the propagation of the tides in coastal waters and rivers.

Part three deals with the various methods of tidal computation in rivers and estuaries proper; the harmonic method, the use of characteristics and numerical methods are considered.

Finally, in Part four, the reader will find practical considerations and applications for tidal motion : measurements, schematization of a river system, practical results of tidal computations, and also concerning the closing of gaps, storm surges, etc.

It must be emphasized that, because tidal waves belong to the extensive group of long waves, most mathematical methods dealt with in Part three may also be applied to long waves, e.g. high tides and flood waves.

The mathematical methods, which are the basis of tidal computations, are introduced in the beginning of each chapter by means of the solution of the simplified equations.

At the beginning of each part the reader will find a short description and justification of the contents, and whenever useful the contents of a chapter or section are also summarized.

A list of symbols and definitions used throughout the book and an index of terms are added.

In short, this is a book of great value not so much to the hydrographer, as a treatise on tides, as to the engineer for the solution of his special problems.

NEW HORIZONS — TOPMOST DAMS OF THE WORLD

Published by the Japan Dam Association, Tokyo, October 1963
318 pages; illustrations; figures; 21 × 29.5 cm

This sizeable brochure is a companion publication to "Japan's Dam Skill at World's Top Level" published in 1958.

It is the fruit of an unceasing ten-year endeavour to promote the idea of dam construction to help Japan in her post-war reconstruction plan. Today Japan is second only to the U.S. in the number of dams of more than 50 metres in height. It is the hope of the President of the Japan Dam Association that this book will prompt these who read it to inspect Japanese dams in action.

The publication contains about 60 technical articles written by leading world specialists and dealing with problems or information regarding existing dams the world over. The articles are grouped into large geographical regions: North America, Latin America, Europe, U.S.S.R., Africa, Oceania, Asia and the Near East.

This is a truly exhaustive review and is of considerable interest to those engaged in the construction of river dams.

SOVIET ANTARCTIC EXPEDITION

Elsevier Publishing Company, Amsterdam, 1964

Volume I: 404 pages; 105 illustrations; 53 tables; 15 × 23 cm; price Dfl. 19.50
Volume II: 318 pages; 108 illustrations; 64 tables; 15 × 23 cm; price Dfl. 40

The Soviet Antarctic Expedition was organized in 1955 in connection with Russian participation in the antarctic program of the International Geophysical Year. It was not a single expedition but rather a continuing effort of exploration and scientific investigation that is still in progress several years after the close of the IGY. Enormous amounts of new and interesting data have been collected by the expedition within relatively short periods of time, and it was clearly impossible to present the information to the scientific public in organized and analyzed form without a considerable time lag. To remedy this situation to some extent, preliminary reports by the field investigators in all scientific disciplines were published as they became available in a series of Information Bulletins that appeared at irregular intervals. These bulletins have been translated into English and are published here.

Translation was commenced at the University of Wisconsin under the supervision of Dr. George P. WOOLLARD and Mr. Samuel SORGENSTEIN. The work was continued and final editing was done by the staff of Scripta Technica, Inc. The project was sponsored by the Geophysical and Polar Research Center of the University of Wisconsin with grant support from the National Science Foundation.

The subjects discussed in the two volumes concern: General Information, Auroras, Geodesy, Geography, Geology, Geomagnetism, Glaciology, Meteorology, Navigation, Aerial Navigation, Oceanography, Radio Communication, Seismology, Transport over Ice, and Biology.