

## BOOKS IN REVIEW

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### THE DYNAMIC METHOD IN OCEANOGRAPHY

by L. M. FORMIN

Institute of Oceanology, Academy of Sciences of the U.S.S.R., Moscow

Elsevier Oceanography Series, Volume 2

XI + 212 pages; 57 illustrations; 23 tables; 22 × 14 cm

Published by Elsevier Publishing Co.

P.O. Box 211, Amsterdam, The Netherlands

Edited by Thomas Winterfield, National Oceanographic Data Center

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This work has been translated from the Russian by Scripta Technica Inc. Washington D.C., U.S.A. It contains a preface, six chapters, a resume, a bibliography and an index.

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The dynamic method of computing sea currents that was developed more than half a century ago remains to this day the only method of obtaining data on water circulation in many parts of the oceans of the world.

The main purpose of this book is to give a correct interpretation of the dynamic method on the basis of accumulated data. Theoretical studies of sea currents have disclosed the major causes of water circulation in oceans and the pattern of the vertical distribution of current velocities in an inhomogenous sea. These have elucidated the relationship between the velocity field and density distribution.

Today, we understand the advantages and shortcomings of the dynamic method. However, there are still many problems having a direct bearing on current velocity computations from density distribution in the sea which require detailed study. The author examines the most important aspects of the application of the dynamic method. Since many unsuccessful attempts have been made to develop methods for the indirect determination of the layer of no-motion in the sea, greatest attention is paid in the book to methods determining the "zero" surface, which is the basic problem in the practical use of the dynamical method.

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**OCEAN WAVE SPECTRA**  
**Proceedings of a Conference**

VIII + 357 pages; many figures and plates; 28 × 20.5 cm

Edited by Prentice-Hall, Inc., Englewood Cliffs, N.J.  
 for the National Academy of Sciences

“Ocean Wave Spectra”, with contributions by some 40 scientists and engineers who are the world’s leading authorities, presents for the first time a summary of the present state of the art in the several fields of ocean wave study. It examines the current research trends and future needs and the most recent techniques for ocean wave measurement and analysis.

The 1961 conference held under the auspices of the Earth Sciences Division, the National Academy of Sciences — National Research Council was specifically designed to focus attention on different theories and observations of real ocean waves and to promote a full exchange of ideas. The original impetus and financial support for this conference were provided by the U.S. Naval Oceanographic Office.

Understanding of ocean waves is of vital interest to scientists and engineers concerned with the sea.

The work is divided into 7 parts and has 3 Appendices :

1. Present status of wave research
2. One-dimensional gravity wave spectra
3. Two-dimensional spectra
4. Nonlinear aspects of the spectrum
5. Recent measurement and analysis techniques
6. Problems and applications
7. General discussion

Besides the papers presented by the members participating each part contains the proceedings of the ensuing discussion.

**LA MER ET LE VENT**  
**Météorologie nautique**

(The sea and the wind — Nautical Meteorology)

by R. CLAUSSE and A. VIAUT

95 pages; tables; figures and illustrations; 23 × 16 cm

Edited by Blondel La Rougery S.A., 7, rue St. Lazare, Paris (9<sup>e</sup>)

This little manual is a valuable handbook for the mariner. It is intended for all those needing to know how to make short-term forecasts by means of the locally observed elements, and to complete classic forecasts made by meteorologists and based on meteorological charts. Thus it should have its place amongst the nautical documents of a pleasure craft.

**SUBMARINE GEOLOGY**

Second Edition

by Francis P. SHEPARD

with chapters by

D. L. INMAN and E. D. GOLDBERG

XVII + 557 pages; 222 figures and illustrations; 24.5 × 18.5 cm

Harper &amp; Row, Publishers, 49 East 33rd St., New York 16, N.Y.

"Submarine Geology", the only up-to-date text in its field, has been almost entirely rewritten and greatly enlarged. Eighty percent of the material is new, stemming from data not available for the first edition. There is much new information on instruments and field methods, including the field of SCUBA diving from data supplied by R. F. DILL. The extensive explorations of the deep sea floor by Scripps, Woods Hole, and Lamont are described and discussed, and recent exploration of submarine canyons is included. Innovations include a good synopsis of marine geochemistry in the chapter by E. D. GOLDBERG, and the rather technical chapters on wave mechanics and mechanics of sediment transport by D. L. INMAN. The book concludes with an attempt to correlate recent and ancient sediments, with suggestions on the origins of the latter.

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**SERIAL ATLAS OF THE MARINE ENVIRONMENT**

In previous numbers of the International Hydrographic Review we drew attention to the issue of the first three folios of this Serial Atlas, but we omitted to mention that the series is a project of the American Geographical Society, which not only publishes these folios but was responsible for initiating the entire project.

Readers are therefore now informed that copies of this publication may be obtained through :

The American Geographical Society,  
Broadway at 156th Street,  
New York, N.Y.

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