

The volume includes a list of names of authors, arranged alphabetically.

For each country, one person (a specialist) is entrusted with the task of the preparation of the bibliographic cards and sending them to the Secretariat of the Association, which assembles them, finally classifies them and assures their publication, reducing to uniformity the information upon them. Articles which have appeared in periodicals are also mentioned, and for each country the Association has drawn up a list of the periodicals of geodetical interest. In order not to divide up the publication into too many parts, the Secretariat of the Association proposes to issue a fresh volume every three years. The present volume comprises 219 pages and gives a list of about 1430 articles.

Volume 2 (1931-1934) and Volume 3 (1935-1937) of this Bibliography are in hand. It is intended to publish one volume every three years to appear at the period of the triennial General Assembly of the International Association of Geodesy.

Geodesians and topographers will welcome the successive volumes of this Bibliography which will be for them a working instrument of great value.

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## HYDROGRAFIA

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(THEORETICAL AND PRACTICAL MANUAL FOR HYDROGRAPHIC SURVEYS)

by

GEORGE MAXIMOV, HYDROGRAPHIC AND GEODETIC ENGINEER.

Published by the Hydrographic Section of the Department of Maritime Routes in the Northern Part of U.S.S.R.

16 × 26 cm. — 503 pp. 328 fig. — Leningrad 1935 — Price : R. 10.50.

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The author of this important work had already collated in 1918 considerable material for a work entitled : *Lectures on Hydrography*. The plan of the present work, begun in 1921, was brought up to date in 1934 in so far as concerns new matter of interest to hydrography.

In the introduction the author discusses the different stages in the development of hydrography and gives some general information with regard to surveying ships.

The first part is devoted to the general theory of hydrographic operations and a description of the instruments :—

Chapter I. — Location of signals and buoy-marks in the waters to be surveyed, in particular by means of the automatic signal buoy invented by Hydrographic Engineer A.I. NEELOFF. This chapter also contains a theory on the degree of accuracy and the sensitiveness of the ranges.

Chapter II discusses the degree of accuracy to be obtained in hydrographic surveys and the disposition of the boats available for this work. In this chapter are given the plans of the Russian surveying boats, which are generally equipped with a steam motor with three radial cylinders. There is also a description of the Malminen indicating counter which allows the boat soundings to be regularly spaced.

Chapter III reviews the different types of sounding apparatus, hand sounding, mechanical and echo sounding.

Chapter IV describes the bottom samplers and the nature of the bottom.

In Chapter V are given descriptions of the methods of position finding for the surveying vessel. In this chapter are given also a theory of the LUGEOL micrometer and of the telemeter of BARR and STROUD, and a description of the various devices employed in fixing the position of the ship by means of sound ranging.

The second part is entitled *Systematic Surveys*, and includes :

Chapter VI, which treats of the measurement of bases and 3rd Order triangulation; compensation; and the laying out of the projections for the field sheets.

Chapter VII. — Different methods of hydrographic surveying including the particular case of surveying on ice.

Chapter VIII. — Examination of banks; search for inshore and offshore shoals.

Chapter IX is devoted to dragging; the utilisation of various drags — in particular the *Kotelnikoff* drag (1906) and the *Routchkine* drag (1930).

Chapter X: Reduction of Soundings. Locating of the tide pole. Determination of the level for the reduction of soundings. Determination of mean level. Method of Interpolation of soundings by Professor N. MATOUSEVITCH. Convention adopted for drawing up the field sheet for soundings. Data concerning the tides to be inserted on charts. Arrangement of system for running sounding lines.

The Third part is devoted to running surveys.

Chapter XI. — The measurement of a base line. Determination of the azimuth. Surveys underway by various methods. Construction of the survey on the Mercator projection. The Givry correction. Conversion of astronomic azimuths into loxodromic azimuths for high latitudes, according to the VILKITSKII method. Determination of distances by angular altitudes.

Chapter XII. — Special requirements for hydrographic reconnaissance in the polar regions. Methods of observing tides through the ice. Study of the changes in level of the ice.

The work ends with a comprehensive list of Russian and foreign treatises having to do with hydrography.

H. B.

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## HANLEDNING I SJÖMÄTNING

(MANUAL FOR HYDROGRAPHIC SURVEYS).

Published by the Kungl. Sjökarteverket, Stockholm, 1936.

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This volume replaces the previous edition of the same work dated 1923. The arrangement of the chapters has been revised with respect to the previous edition. The first chapter gives a description of the instruments and apparatus; there is given especially a description of the pentagonal prismatic sextant and the apparatus for verification of the station pointers; soundings with the fish-lead and the different methods of dragging used in Swedish waters.

Chapters II deals with triangulation — Methods followed in the Swedish Hydrographic Service and the methods of performing the calculations.

Chapter III deals with the levelling operations.

Chapter IV deals with the manner of establishing the projection sheets.

Chapter V, entirely revised, concerns the study of the sea-level, gives a description of the Swedish tide-gauges and a synoptic chart showing the location of the various tidal stations in Swedish waters.

Chapter VI is concerned with the preliminary work for hydrographic surveys.

Chapter VII deals with coastal surveys: the erection of signals; methods of fixing the position of the controls; determination of boat soundings; plane-table methods of surveying; coastal topography; the taking of the soundings; fixing the position of the boat; the examination of shoals; dragging; echo-soundings from boats with or without recording apparatus.

Chapter VIII. — Soundings at sea. Echo Sounding. Search for shoals with the aid of echo sounding.

Chapter IX. — Fixing the sectors for lights.

Chapter X. — Study of magnetic anomalies.

Chapter XI. — Completion of the sheets on the surveying ship.

Chapter XII. — Views of the coast.

In the appendix there is given an example of the field sheet, the list of equipment for the surveying boats, tables of conversion for Swedish measures into metres and fathoms, and a table of distances for the visible horizon.

H. B.