## EXTRACTS AND REVIEWS OF BOOKS

## GENERAL INSTRUCTIONS FOR THE HYDROGRAPHIC SURVEYORS OF THE ADMIRALTY

(24×15 cm. - 123 pages. - 10 plates. — 7th Edition). H. M. Stationery Office, London 1933.

During the year 1932, the Hydrographic Department of the British Admiralty revised the *General Instructions for Hydrographic Surveyors*, and the 7th Edition of this manual has been issued describing standard methods of rendering results of observations and hydrographic surveys. The necessity of establishing in a standard form all returns and records prepared in the field, which will in due course be consulted in finally drafting the survey, cannot in fact be too strongly emphasised.

The edition under review is divided into nine sections: Instruments; Books and Stationery; the Survey; Draughtsmanship; Sailing Directions; Correspondence and Returns; Surveying Assistants; Surveying Recorders; Miscellaneous.

I. In SECTION I the hydrographic instruments supplied are detailed, and the Normal Establishment of Hydrographic Instruments is shown; the method of drawing up demands is indicated and separate paragraphs are given on the care of instruments, the establishment of an Instrument Account and the procedure to be followed in case of loss or repairs. One part of this section is specially devoted to a description of surveyors' floating beacons and mention is also made of oceanographical and sweeping gear.

2. SECTION II deals with the establishment of the surveying libraries of surveying vessels; this list, which is not reproduced here, will be found on pp. 25-26 of the handbook. A list of personal books to be kept by each Assistant Surveyor is given :

Field Book; Sounding Books; Surveying Sketch Book; Main Angle Book; Deck Book; Deep-sea Sounding Books; Surveying Data Book; Chronometer Comparison Book & Chronometer Journal; Orthography Book; as well as various books for recording tidal observations, standard forms for harmonic analysis, etc.

This Section also gives rules concerning transmission to the Hydrographic Department of fair sheets, note-books, original documents and all other matter connected with the survey. A list of articles of stationery supplied to surveying vessels is given, with a list of books, forms and diagrams for transmitting hydrographic information. (See pp. 35-37 of handbook).

3. SECTION III gives indications relating to the operation of the survey, with references to the more complete text-books in which the various subjects are treated. The various sections include, in particular: Rendering of Triangulation Data; Soundings and their accuracy; Correction of Echo Soundings; and the Reduction of Soundings in general. Rules are given for the establishment of a new datum and mean sea level. Paragraphs are devoted to coastlining and topography, the establishment of sketches for views of the coast and the use of photography. A special paragraph deals with methods for observing tidal streams and currents, for measurements of variation on shore and afloat, for astronomical observations; rules are given for the designation of geographical positions and observation spots. Another paragraph is devoted to deep-sea sounding, the collation of oceanographical information, etc.

4. SECTION IV gives details concerning the preparation of the fair sheet; various sections relate to the following subjects: Survey Limits; Selection of the Scale; Graduations; Meridians; Colours to be used on the fair sheet; Styles of Lettering; Conventional Symbols and Abbreviations; Information to be printed in Titles; Memoir including remarks necessary for establishing the chart; Tracings to be forwarded to the Hydrographic Department, etc. 5. SECTION V sets forth the information which it is necessary to include in the Sailing Directions either for the preparation of directions corresponding to new surveys, or for the correction of existing directions or those referring to existing charts. Rules are given for the drafting of Sailing Directions: General Description of the Coast; Detailed Description of the Coast; Descriptions of Seaports; Units of Measurement; Nomenclature; definitions of Geographical Terms to be used.

6. SECTION VI deals with the rules to be followed for correspondence and returns forwarded to the Hydrographic Department, namely, weekly and monthly general accounts of proceedings from officers in charge of surveys; reports on searches for shoals, etc.; reports to be made to Commanders-in-Chief; annual and periodical returns to be made to the Hydrographer (see pp. 93-94 of manual); various contingent accounts.

7. SECTION VII describes the programme for the training of Surveying Assistants; training and advancement to the different classes, 3rd class - 2nd class - 1st class, (pp. 98 to 100 of manual); mention is made of special courses in meteorology, the gyro-compass and echo sounding which are delivered periodically at some of the Naval establishments. This section also includes the drawing up of annual returns to be rendered stating the qualifications of each Surveying Officer below the grade of 1st class Assistant with a view to his advancement.

8. The selection and training of surveying recorders is described in SECTION VIII.

9. Miscellaneous questions are treated in SECTION IX such as Notices to Mariners concerning surveying operations, the promulgation of positions of floating beacons, cooperation between aircraft and surveying vessels, rewards to fishermen and others for information leading to the discovery of rocks, and the various signals to be used by surveying ships at anchor.

The book contains a large number of blank pages for inscribing personal notes and is completed by an alphabetical index.

From the above outline of the various paragraphs it will be seen that although not, properly speaking, a text-book of hydrography, this manual nevertheless provides the necessary foundation for developing the detailed results of surveys in a methodical form which is to be standardized among the various hydrographic surveyors; such a form renders it possible to group systematically, to check and to compare, operations carried out by different surveying parties.

## ANALES HIDROGRAFICOS

Vol. I, 1932.

Published by the Naval Hydrographic Service of Uruguay, Calle Sarandi, 122, Montevideo

27×18 cm., 408 pp.

Commander J. A. GÜIMIL, Director of the Hydrographic Office, outlines the object of this publication in a foreword in which he says:

"This volume initiates the publication of the Anales Hidrográficos of this Service.

"The principal aim of this first number is to make known the work carried out by this Institute and primarily to collate into a single volume everything which may be of use to the Officers who do hydrographic work, such as the description and handling of the appliances used, methods of work, calculations, etc.

"In succeeding volumes the subjects dealt with in this one will be amplified and completed and, also, notice will be given of work and research which have been carried out up to the dates of their publication.

"The Officers of the Navy may collaborate in the preparation of these Anales by publishing therein theses dealing with Hydrography in general. Such collaboration will be heartily welcomed by the special Section which is charged with this work".