

A Memorandum on the Organisation of the Hydrographic Department, Admiralty.

1.—All hydrographic work is performed in a Special Department of the Admiralty under the Hydrographer of the Navy who is assisted by an Assistant Hydrographer and other specialist Naval Officers, and a civilian technical and clerical staff.

2.—The main functions of the Hydrographic Department can be summarized as follows :-

- (a) Organisation and direction of nautical and oceanographical surveys.
- (b) Compilation, reproduction, printing and publication of nautical charts with world-wide coverage.
- (c) Preparation and publication of Sailing Directions, Light Lists, Lists of Radio Signals and Tide Tables for all parts of the world.
- (d) Construction, production, printing and publication of air, oceanographical and meteorological charts.
- (e) Maintenance and correction of the publications referred to in paragraphs 2 (b), (c) and (d).
- (f) Promulgation by Notice to Mariners or other suitable means of all information as to dangers to navigation and important changes affecting navigation which it is essential to bring to the notice of mariners.
- (g) Ensuring that adequate supplies of charts and ancillary publications are available for the use of mariners.
- (h) Supply of specialised instruments and equipment for the execution of hydrographic surveys.

3.—The conduct of day-to-day work of the office is governed by the experience gained over a period of more than 150 years rather than by printed regulations. Office procedure is in accordance with Admiralty instructions supplemented by such internal orders as are found necessary to implement the functions outlined above. Work afloat is covered by the Admiralty Manual of Surveying.

4.—The organisation of the Hydrographic Department comprises two separate establishments, namely (a) a Headquarters Establishment which includes the Directorate and subsidiary branches and (b) a Supplies Establishment where the main functions consist of the reproduction of charts and the arrangements for their sale and issue.

The staff of the Department may be broadly grouped into five divisions, i. e. :-

- (a) Naval Staff consisting of active service and retired naval officers. This part of the staff includes the Hydrographer, Assistant Hydrographer, Superintendent of Charts and the Superintendents of Branches and Sections which deal with Corrections to Charts, Notices to Mariners, Light Lists, Tides, Sailing Directions, Air Information, and Surveying Instruments and Equipment.
- (b) Civilian Executive and Clerical Staff. This part of the staff includes the Chief Civil Superintendent whose duties include overall superintendence of the civil staff and responsibility for the general direction of the Supplies Establishment, a deputy Chief Superintendent and Superintendents of the Production and Issues divisions of the Supplies Establishment.
- (c) Civilian Cartographic and Drawing Office Staffs under the general direction of a Superintending Cartographer.
- (d) Oceanographical Staff.
- (e) Technical Grades employed in the various technical and mechanical processes connected mainly with the reproduction of charts.

5.—The functions of the various branches and sections of the Department and the personnel employed are as follows :-

(a) *Chart Branch*.—The functions of this headquarters branch comprise the examination of original surveys received from surveying units, harbour authorities, etc.; and from the international exchange of hydrographic information, and the conversion of all this material into a form in which it can be used by the mariner, either by embodying it in new charts and ancillary publications or by amending the charts, etc., already in existence. It keeps a record of areas requiring surveys or resurveys to which reference is made when instructions are issued to the ships of the Royal Naval Surveying Service.

Under the direction of the Superintendent of Charts, a Superintending Cartographer and an Assistant Superintending Cartographer, the branch is made up as follows :-

- (i) Six geographical sections, each with a Chief Cartographer and a staff of cartographers and draughtsmen. These sections are responsible for the construction and compilation of navigational charts covering the world.
- (ii) A section under a Chief Cartographer with a staff of cartographers and draughtsmen, whose duties cover the construction and compilation of lattice charts (Loran, Decca, etc.), cable and meteorological charts and the compilation and maintenance of a comprehensive list of Radio Signals which exist for the benefit of mariners.
- (iii) A section under a Chief Cartographer to deal with all geodetic work. This section also includes the curator and his staff who are

responsible for the indexing and safe custody of all original survey material which reaches the Department and of record copies of all editions of British and foreign charts.

- (iv) A section under a Chief Cartographer with a staff of cartographers and draughtsmen who compile miscellaneous non-navigational charts and diagrams.
- (v) A section under a Chief Cartographer with a staff of cartographers and draughtsmen who compile air charts and diagrams for air publications.
- (vi) Three sections, complemented by naval staff and civilian draughtsmen, who are responsible for immediate corrections to charts, preparation of Notices to Mariners, Light Lists and Wreck records. One of these sections is also responsible for the maintenance of chart histories and correction of stock copies of charts.

(b) *Sailing Directions Branch*.—This branch is responsible for the writing and correction of 74 volumes of Sailing Directions, covering all the coasts of the world, and for the preparation of annual supplements to them. New editions of each volume of Sailing Directions are issued at intervals of about 12 years. The work is mainly carried out by retired naval officers.

(c) *Tidal Branch*.—Under the superintendence of a retired naval officer, this branch, which contains both naval and civilian elements, is responsible for the production and provision of tidal information, the preparation of Admiralty Tide Tables, the prediction of tides and tidal streams and the analysis of observations.

(d) *Air Information Branch*.—This branch, which is composed of naval and civilian elements, is responsible for the collation of information on air fields and air navigation facilities and supervises the work of the Chart Branch Section employed in the compilation of air charts (para. 5 (a) (v)).

(e) *Oceanographical Branch*.—This branch, consisting of suitably qualified scientists, is employed on the study of ocean currents, the characteristics of sea water, etc., and in the preparation of special charts and atlases dealing with oceanographical features.

(f) *Equipment Section*.—Under the direction of a naval officer, the equipment section is responsible for the purchase, supply and repair of surveying instruments and specialized equipment used by surveying ships.

6. HYDROGRAPHIC SUPPLIES ESTABLISHMENT.—The above establishment is housed in a separate building to the branches and sections listed under para. 5 and forming the headquarters establishment. The Supplies Establishment is divided into two main sections, the functions of which are described below :-

(a) *Production Division*.—The duties of this division consist in the making of copper-plate engravings or finished reproductions on enamel-coated zinc plates from chart compilations prepared in the chart branch at headquarters and in progressing these reproductions through various stages to final

printing and the provision of the printed copies of the charts to the Issues Division (see below). Separate sections of the Production Division carry out at the respective stages such services as copper-plate proofing, litho transferring and proofing, letter press compositing, litho or photo drawing, photography, etc., and the finished reproductions on copper or enamel zinc plates become the basic originals of the charts which are kept corrected and used for reprints as required.

The staff of this division consists of a number of industrial grades which include such a variety of occupations as engravers, copper-plate printers, camera operators, litho and photo draughtsmen, compositors, grinders, grainers, transferrers, machine minders and feeders, etc., together with the necessary works supervisory staff.

(b) *Issues Division*.—The main duties of this division consist in organising the distribution and sale on a world-wide basis of navigational charts and publications, the distribution of air, meteorological and other special types of charts, and correctional matter for all these. It also initiates printing orders as necessary to maintain appropriate stocks.

To perform the above functions the Issues Division is subdivided into branches covering Issues and Sales. The Issues Branch has three sections dealing with issues to ships, replenishment and maintenance of stocks respectively, whilst the Sales Branch has sections dealing with invoicing, accounting, packing and despatch of sales charts and publications. The staff consists mainly of executive and clerical grades with the addition of draughtsmen and assistants for the correction of current stocks of charts, and a group comprising paper keepers and sales hands.

7. **SECRETARIAT, COMMON SERVICES, etc.**—In addition to the staff employed on the various executive, administrative and technical functions outlined in paragraphs 5 and 6, the work of the department involves the inclusion of the staff necessary for any similar organisation, i. e. to deal with secretarial work, typing, accounts, transport, costing, works orders, personnel questions, wages, salaries, etc., at headquarters and at the Supply Establishment.

