

ORGANIZATION OF THE SPANISH HYDROGRAPHIC INSTITUTE

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In July 1957, the new installations of the Navy Hydrographic Institute in Cadiz were inaugurated. The general structure of this organization is outlined below.

GENERAL ORGANIZATION

The Navy Hydrographic Institute is a military centre designed for the pursuit of hydrography and navigation from the scientific and practical point of view. Its primary task is to provide the mariner with the nautical information necessary to make navigation easy and safe. On the hydrographic side, it deals with the study and execution of hydrographic surveys.

The main functions of the Institute are as follows :

(a) Hydrographic surveying of coasts; exploration of submarine features; study, from the navigational aspect, of physical marine phenomena in home and Spanish overseas waters;

(b) Supplying mariners with scientific and cartographic data and other required information;

(c) Contributing to the advancement of the geodetical, geophysical and nautical sciences in collaboration with other national and foreign organizations;

(d) Technical and industrial research covering nautical and hydrographic instruments;

(e) Navigational safety in its broadest sense, particularly checking of nautical coastal installations;

(f) Constructing, drawing, engraving and printing hydrographic, meteorological, magnetic and oceanographical plans and charts for navigation;

(g) Training of specialized personnel in all sections.

The Hydrographic Institute consists of the following branches : Directorate, Nautical Section, Hydrographic Section, Hydrographic Expeditions, Hydrographic School, Chart and Publication Stores, Administrative Office and Secretariat.

Hydrographic surveys are carried out according to any one of the following procedures :

(a) Directly by the Hydrographic Section — generally basic geodetic

and geophysical work, and such other work as may be ordered by the Director;

(b) By hydrographic expeditions (with vessels specially designed for the purpose) : second-order geodetic work; topographic, hydrographic, geophysical and oceanographic work specifically ordered by the Directorate, after having been planned by the Hydrographic Section;

(c) By naval vessels — generally : individual assignments which do not require special facilities or methods.

The Nautical Section is responsible for :

(a) The study and publication of methods and tables for navigation;

(b) The construction, drawing, engraving, printing and reproduction of nautical, meteorological, magnetic and oceanographic charts for navigation;

(c) The publication of charts and nautical documents (Sailing Directions, Lists of Lights, Lists of Radio Signals and Notices to Mariners);

(d) Proposals concerning the siting and characteristics of lighthouses and other maritime signals;

(e) Participation in the advancement and safety of navigation in collaboration with other similar national or foreign organizations;

(f) The study, purchase, development and, in certain cases, construction of the Navy's nautical, hydrographic and meteorological instruments;

(g) The supply, on request, of certificates guaranteeing nautical, hydrographic and meteorological material of Spanish manufacture;

(h) The supply, within the limits of its competence, of all technical and instrumental assistance requested by navigators.

In order to carry out the above functions to the best of its ability, the Nautical Section is divided into the following subsections : Navigation, Cartography and Nautical Instruments.

The Hydrographic Section is responsible for :

(a) The direction and execution of basic geodetic and geophysical work;

(b) The programming, direction and checking of the work carried out by hydrographic expeditions;

(c) Contributing to the advancement of the geodetic and geophysical sciences in collaboration with other national or foreign organizations;

(d) The collection and publication for navigational use of magnetic and meteorological data and of tide and current prediction data;

(e) Maintaining close collaboration with the San Fernando Institute and Observatory and Spanish Oceanographical Institute regarding questions in their field;

(f) Plotting from photographs of aerial surveys;

(g) Keeping in touch with the Spanish Meteorological Office for weather forecasts applicable to maritime navigation.

The Secretariat is responsible for :

(a) Distributing the mail and the Director's instructions to the various sections;

- (b) Keeping the archives and record books up to date;
- (c) Compiling data supplied by the various sections for drawing up the Annual Report;
- (d) Translating of significant foreign publications (except Sailing Directions and Notices to Mariners);
- (e) Administration of the personnel attached to the Institute.

The library and printing shop of the Institute are attached to the Secretariat.

HYDROGRAPHIC EXPEDITIONS

Hydrographic expeditions are organized on ships specially equipped for this purpose. They are required to carry out the programme of work ordered by the Director of the Institute. These consist chiefly of topographic, magnetic, hydrographic, oceanographic and second-order geodetic work required in hydrographic surveying.

Such auxiliary survey vessels as are considered necessary are placed at the disposal of the expeditions.

The hydrographic expeditions receive general and detailed instructions from the Institute concerning the work to be done. An additional branch of the Institute is responsible for maintaining contact with the expeditions.

PERSONNEL

The following table shows the personnel organization of the Hydrographic Institute :

<i>Duties</i>	<i>Number of persons</i>
Director : Rear Admiral or Captain	1
Heads of Sections : Hydrographic Engineers, Captains or Commanders	2
Head of Health Service : Health Officer in charge	1
Head of Administrative Services : Superintendent in charge	1
Secretary : Commander or Lieutenant Commander	1
Heads of Subsections : Hydrographic Engineers, Comman- ders or Lieutenant Commanders	6
Assistant Subsection Officers	9
Assistant Administrative Officer	1
Assistant Health Service Officer	1
Cartographers	32
Engravers	10
Hydrographic petty officers	17
Personnel of nautical instrument shops and drafting rooms	48
Seagoing personnel	113

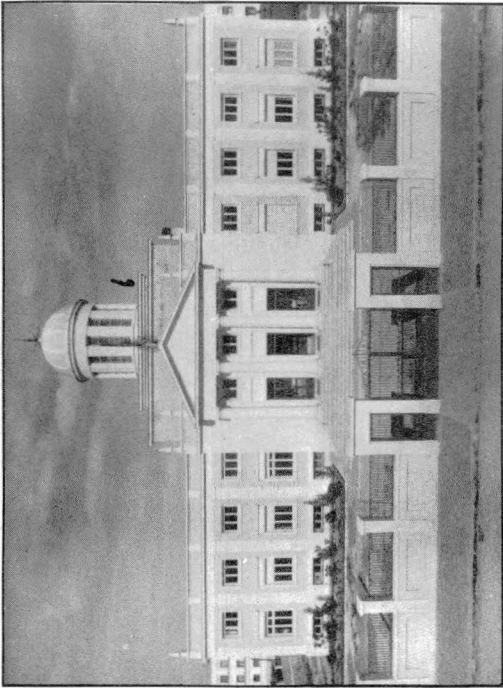


Fig. 1. — Front of Hydrographic Institute's office building.

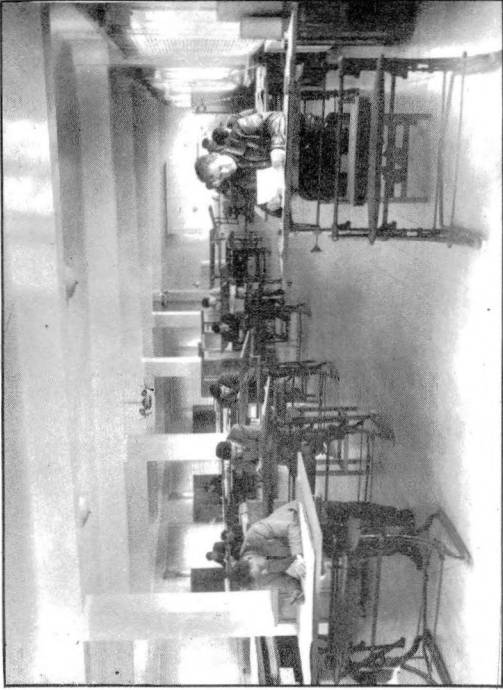


Fig. 2. — Partial view of chart room.

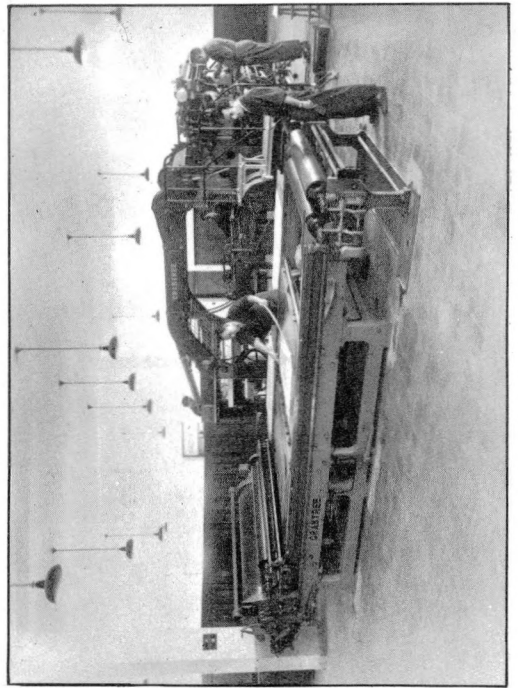


Fig. 3. — Partial view of photomechanical workshop.

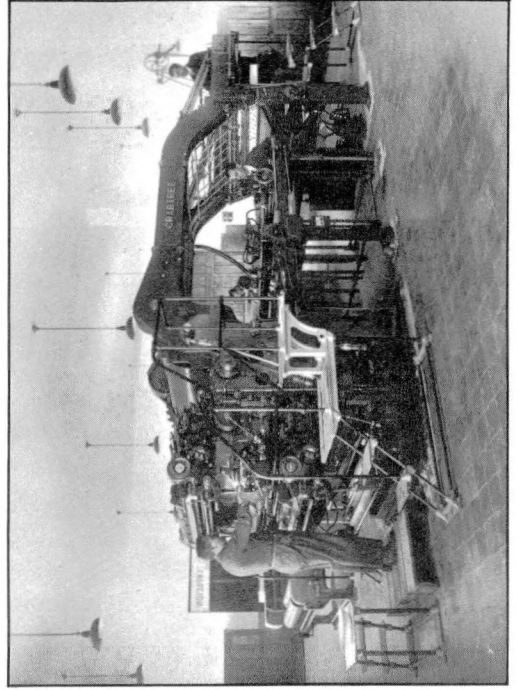
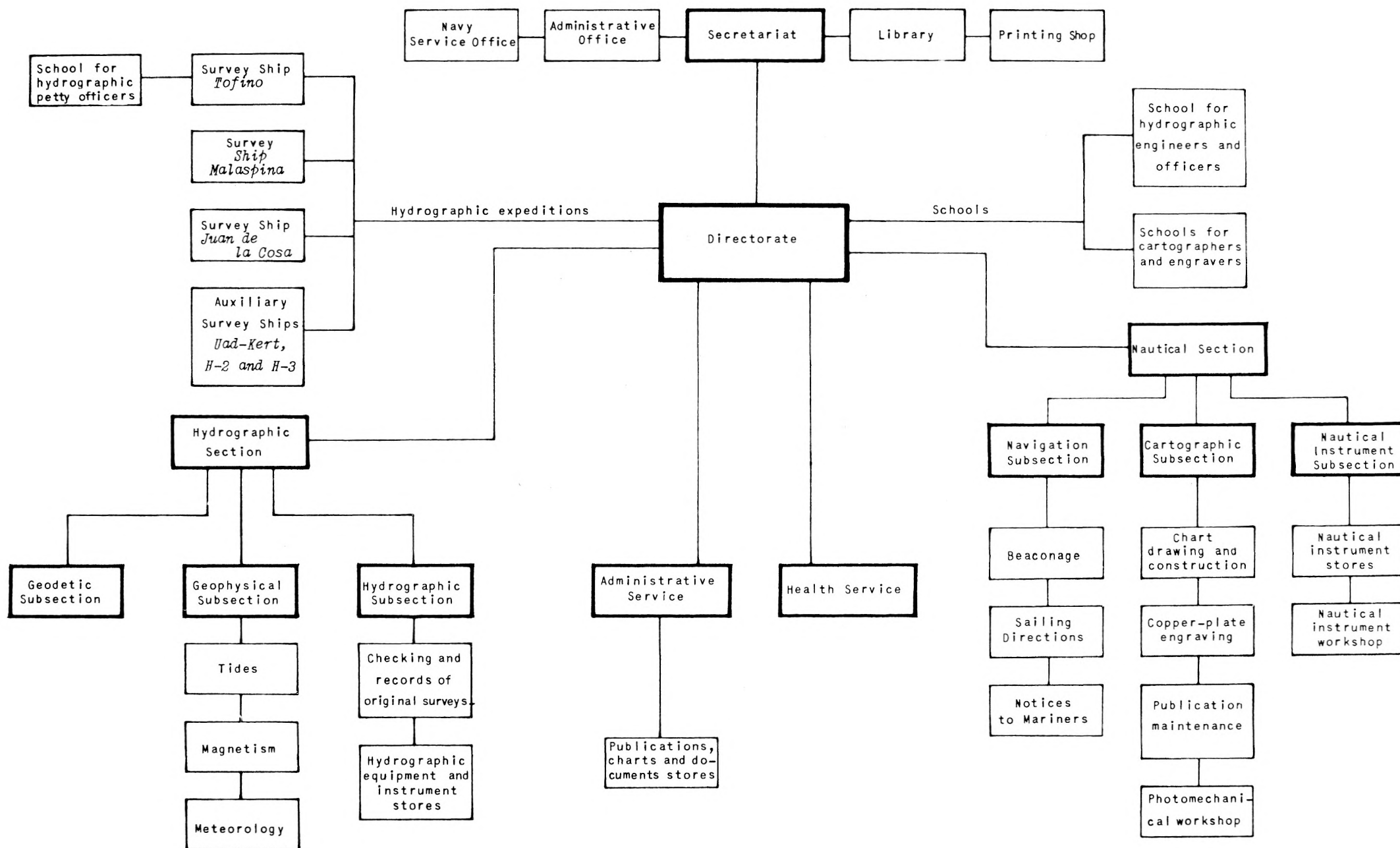


Fig. 4. — Partial view of photomechanical workshop.

DIAGRAM SHOWING ORGANIZATION OF NAVY HYDROGRAPHIC INSTITUTE



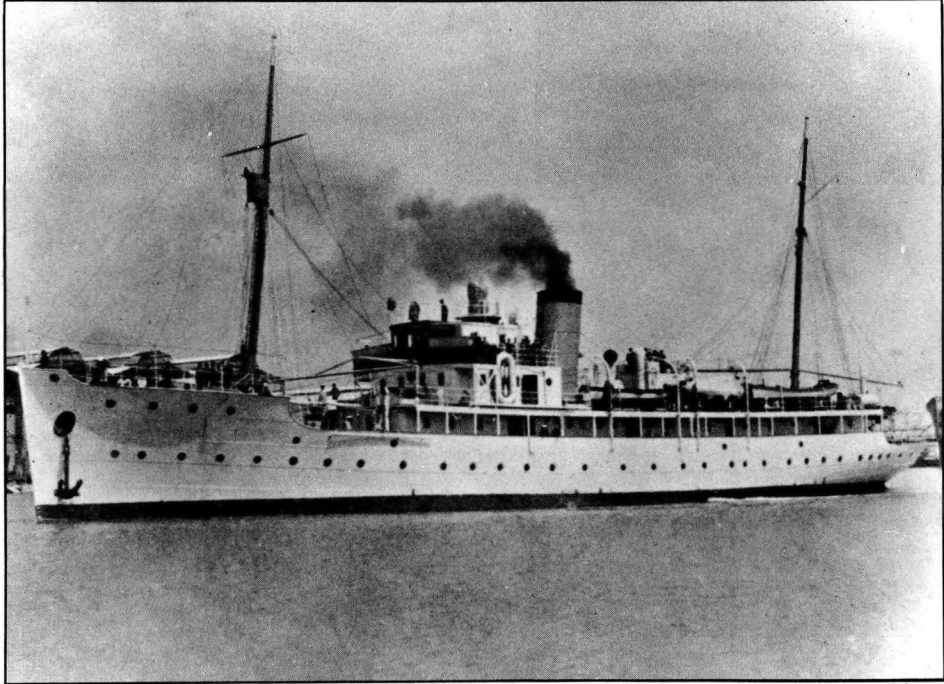


Fig. 5. — Survey ship *Tofiño*.

SURVEY SHIPS

Survey ships	Displacement (Tons)	Year of entry into service	Sounding equipment	Officers	Petty Officers	Crew
<i>Malaspina</i>	1220	1935	4 Hughes ultrasonic sounders 1 Hughes ultrasonic deep-sea sounder 2 Sounding machines 1 Deep-sea sounding machine	10	20	79
<i>Tofiño</i>	1220	1933	4 Hughes ultrasonic sounders 1 Hughes ultrasonic deep-sea sounder 2 Sounding machines 1 Deep-sea sounding machine	10	20	79
<i>Juan de la Cosa</i>	750	1935	3 Hughes ultrasonic sounders 3 Sounding machines	7	16	54
<i>Uad-Kert</i>	400	1910	1 Hughes ultrasonic sounder 1 Sounding machine	3	5	35
<i>H - 2</i>	256	1951	1 Hughes ultrasonic sounder 1 Sounding machine	1	4	18
<i>H - 3</i>	256	1951	1 Hughes ultrasonic sounder 1 Sounding machine	1	4	18