

THE HYDROGRAPHIC SERVICE OF THE ROYAL SIAMESE NAVY

HISTORICAL INFORMATION

AND

REGULATIONS GOVERNING THE ORGANISATION OF THE HYDROGRAPHIC DEPARTMENT.

The Hydrographic Service of the Royal Siamese Navy has undergone remodelling in major points during recent years, which largely contributes to the smoothness of its working in the line of progress. Commander LUANG SAMRUAT VITHI SMUDH, the Director of the Hydrographic Service at Bangkok, has forwarded to the Bureau the following information concerning the new development of the Service.

I. — HISTORICAL INFORMATION.

The present Hydrographic Office is the logical result of progressive steps necessitated by modern needs. It was formerly a mere Depot of charts and instruments, intended to supply ships of the Navy with same.

The difficulties that were experienced in maintaining an adequate supply of charts, all of which were purchased from foreign countries, early led to a recommendation from the Naval General Staff Department that means for providing charts should be installed at the depot. It also became apparent that charts should be constructed by our own people in this country itself.

Early Survey-Work.

The survey-work in Siamese waters was begun in the year 1856 by Master John RICHARDS, R.B.N., with the assistance of Mr. G. H. INSKIP and Mr. J. W. REED, R.B.N., on board H.B.M.S. *Saracen*. Hence there were many foreign surveying parties in different parts of the Siamese waters (See: Survey-work in Siamese waters from its beginning until the creation of the Hydrographic Department in the year 1922).

Up to 1912 Danish Naval Officers were the instructors and chiefs of surveying.

In 1914 two survey divisions were formed and directed by Danish Officers.

In 1915 both survey divisions were directed by Siamese Naval Officers, under the general supervision of a Danish Officer up to 1926.

Although the survey of Siamese waters has been carried on for more than 50 years, it was not until the present century that it became necessary to concentrate the work under the management of a special authority.

Early Charts.

Since the Navy formed the parties to survey in the Siamese waters, it has always been the practice of our Office to send those working charts to be drawn and reproduced at Copenhagen. The first sheet was published in 1914.

In 1915 two Siamese Officers were sent to Denmark, where they were attached to the survey work of the Hydrographic Department (Kongelige Søkort Arkiv, Copenhagen) to study drawing and the construction of charts. Upon their return to Siam in 1917 a drawing-school was created at the Hydrographic Office, to instruct students in the art of chart drawing and chart reproduction.

In 1921 the first sheet of charts ever printed in Siam was published, and since that date the Hydrographic Service takes charge of all construction of charts.

Early Hydrographic Work.

The hydrographic work in the Navy was begun in 1908 and in 1913 a Hydrographic Office was created, under the administration of the Naval Science Department, for the purpose of promoting surveying, and also of providing the Navy with charts, instruments and nautical books.

In 1919 an International Hydrographic Conference was held in London, to which the British Admiralty invited delegates from countries interested in hydrographic work. Siam was one of those countries to join the Conference. One of the important results of the deliberations of the Conference was the formation of an International Hydrographic Bureau which was to serve as a link between various Hydrographic Institutions all over the world and thus to facilitate and further uniformity in the communications sent to navigators. The International Hydrographic Bureau, with its seat at Monaco (at present at Monte-Carlo), was established with the adhesion of 24 States (at present 20 States), including Siam.

Early Notices to Mariners.

As soon as Siam became a member of the Bureau, the "Siamese Notices to Mariners" were published both in Siamese and English, in April 1920 up to the present day, also Zone-Time (7 hours in advance of G.M.T.) was adopted.

The mission of the Hydrographic Service of the Navy is to collect, study and issue timely information calculated to afford the maximum possible navigational safety and facility to the ships on the seas or to mariners on the whole.

In 1922 the Hydrographic Office was formed as a Hydrographic Department. Its organisation is the following.

II. — HYDROGRAPHIC DEPARTMENT.

- (1) Administration Division.
- (2) 1st Surveying Division.
- (3) 2nd Surveying Division.

- (4) Section of Cartography.
- (5) Section of Lighthouse Service.
- (6) Section of Notices to Mariners.
- (7) Section of Printing Office.

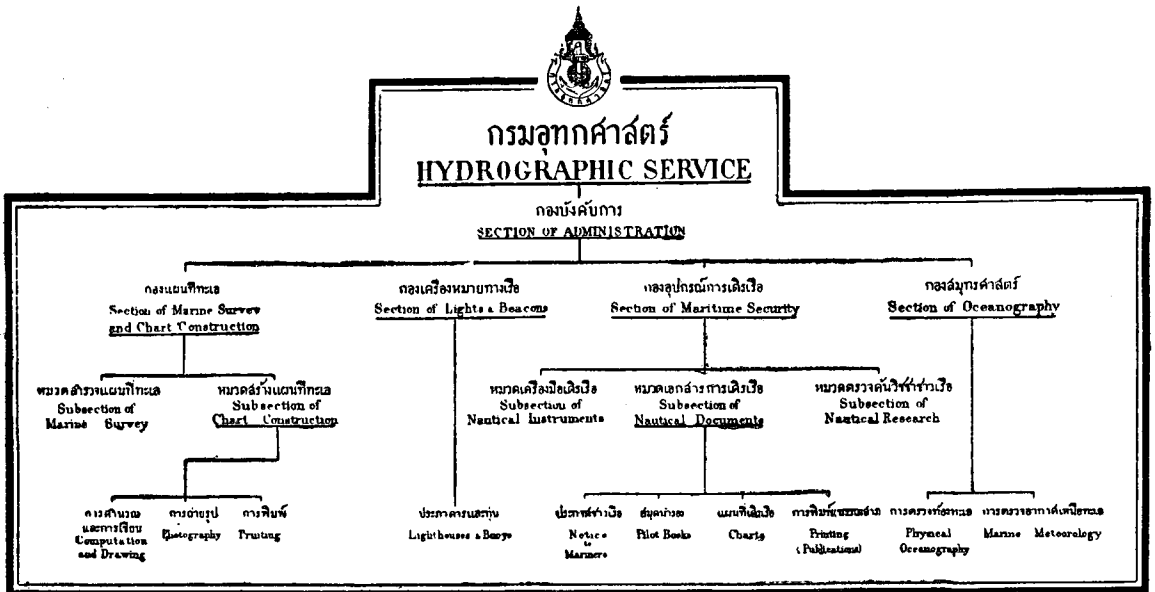
In the mean time difficulties were experienced in the technical correspondence relating to the proper knowledge between the Hydrographic Offices and Scientific Institutes of the States Members.

With a view to filling this gap, the Navy sent two Officers to the United States to study Hydrography and allied subjects such as Geodesy, Tide Harmonic Analysis, Oceanography, Meteorology, modern information and instruments of this branch in U.S. Navy in 1929, and to visit the International Hydrographic Bureau for a week.

In 1932 the Officers came back and with their Chief set to work on remodelling the organisation of this Office so as to cope, technically and financially, with the awkward situation caused by the general depression.

The following organisation was adopted in 1933.

THE HYDROGRAPHIC SERVICE AT PRESENT. (See diagram).



For the convenience of the administration the following sections have been formed :

- (1) Section of Administration.
- (2) Section of Marine Survey and Chart Construction.
- (3) Section of Lights and Beacons.
- (4) Section of Maritime Security.
- (5) Section of Oceanography.

In order to carry out this work systematically each section is subdivided into the following Sections, viz :

I. SECTION OF ADMINISTRATION.

Activity.

- (a) Nautical and General Documents.
(Personnel, Technical and General Correspondence and Archives).
- (b) Store.
(Maintenance and supply of all kinds of Materials for the Hydrographic Service except Navigational instruments).
- (c) Finance.
(All routine expenditures and financial matters of the office).

Personnel.

There are a Director, an Assistant Director, a technical Secretary (all of them are Naval Officers), a Paymaster, and a Store-Keeper.

The Director is the Chief who is responsible for all kinds of work of the Hydrographic Service.

The Assistant Director, as the word implies, assists the Director in every way, and is the Chief of the Section of Administration.

2. SECTION OF MARINE SURVEY AND CHART CONSTRUCTION.

Activity.

- (a) Subsection of Marine Survey.
(Field Work).
- (b) Subsection of Chart Construction.
 - (1) Drafting and Computing.
(Construction of charts from original surveys, projections, and drawings).
 - (2) Photography, Lithography, and Printing.
(Reproduction from the drawing plates and printing charts and Hydrographic Publications).

Personnel.

There is a chief of this Section (Naval Officer), mostly to be in the office. Ten other naval officers are surveyors. Any senior officer is to be the commander of the surveying ship when they work in the field.

There are two lighters as surveying ships; they are also used for the work of lights and buoys service.

3. SECTION OF LIGHTS AND BEACON.

Activity.

Mostly all kinds of aids to navigation.

Personnel.

There is a chief of this Section (Naval Officer) and one Naval Officer as the Assistant.

4. SECTION OF MARITIME SECURITY.

Activity.

(a) Sub-section of Nautical Documents.

(Notices to Mariners, Charts, Sailing Directions and Nautical Books, as well as maintenance and supply of same, including correction, compilation, preparation of manuscripts for printing).

(b) Sub-section of Nautical Instruments.

(All kinds of instruments for the use of Navigation, Surveying, Meteorology and Oceanography as well as maintenance and supply of same, including the compilation of hand-books of those instruments and taking observation of the time for Siam).

(c) Sub-section of Nautical Research.

(Study and research in Hydrography and allied subjects, for instance, Hydrographic work, Navigation, Astronomy, Oceanography, Marine Meteorology, Cartography, Light and buoy service from different sources. In order to keep every section well informed in hydrographic work, this sub-section has to distribute such subjects from the *Hydrographic Review* as are of interest to the sections concerned).

Personnel.

There is a chief of this section (Naval Officer) and five Naval Officers for the sub-sections.

5. SECTION OF OCEANOGRAPHY.

Activity.

(a) Physical Oceanography.

(Research in physical oceanography in the Siamese Waters and study of all oceanographic concerns from the different sources of the world).

(b) Marine Meteorology.

(Study and research regarding the condition of the air above the Siamese Water and its vicinities). There will be established a Meteorological station at the Naval Academy in Bangkok for Naval cadets and officers (in the same building as the Navigation Hall) and at some places along the coast.

Personnel.

There is a chief of this section (Naval Officer) and two Naval Officers for the sub-sections.

NOTE. — As a matter of fact, Siam has a very small Navy and for this reason the Hydrographic Service has to undertake such work as that relating to Astronomical Observatory, Marine Meteorological Observatory, Bureau of Lighthouses.

Every Section and Sub-section has to prepare or revise publications assigned to them such as *Text-Book of Navigation*, *Nautical Astronomy*, *Marine Surveying*, *Meteorology* and so on, so as to have them up to date for the use of Naval cadets and officers. The Navigation Hall is also under the direction of this office.

Some officers from this Office are occasionally sent to the Naval Academy as instructors for the purpose of giving lectures relating to this branch.

BUDGET.

From 1922 to 1931 the budget of the Hydrographic Service amounted to 280,000 ticals yearly. Owing to the general depression the 1932 budget was reduced to 147,043 ticals, the same amount being allowed for 1933.

