## THE HYDROGRAPHIC SERVICE OF INDONESIA

by Mr. Tardana Surahardja Hydrographer

### **Brief History**

During the Netherlands' administration, the hydrographic affairs of Indonesia were handled by a branch of the Netherlands' hydrographic establishment, working in Indonesia under the Department of Shipping. Many surveys were carried out during this period. Data and reports concerning these surveys and other expeditions are all in the possession of the Netherlands.

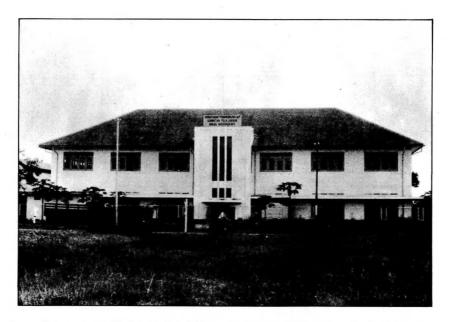
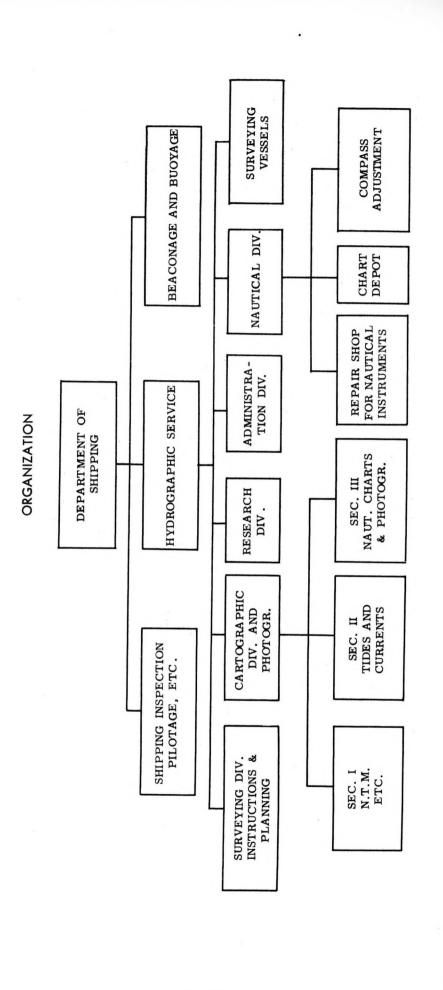


Figure 1. — Hydrographic Office, situated at Djalan Banda 6, Priok, Djakarta

After the Republic of Indonesia achieved independence, the Department of Shipping was taken over by the Indonesia Government, and the Hydrographic Service automatically became a part of the governmental body, separate from the Indonesian Navy.

However, the Indonesian Hydrographic Service remained in close cooperation with the Netherlands Hydrographic Department. All plans and instructions for survey and resurvey were drawn up in the Netherlands



where all reports on surveys and expeditions, and resulting chart compilations were also effected.

Publications consisted of about 400 nautical chart sheets of Indonesian waters, including other nautical documents containing the periodical small corrections and additions carried out by the Netherlands Hydrographic Department.

In short, the Hydrographic Service of Indonesia was then only an intermediate office, but with full authority.

In addition, two surveying vessels and two wire-drag launches were taken over. The writer was then one of the very few persons who joined the surveying vessels for practical training.

Preparations were made for taking over all these responsibilities from the Netherlands, and activities were first headed by Mr. J.P.J. de Groot, and later by the writer after his assignment as Head of the Hydrographic Service.

At the end of 1959, in accordance with the terms of a letter dated 18 July 1959 from The Hague, hydrographic cooperation between Indonesia and the Netherlands ended. Since then Indonesia has been reorganizing its Hydrographic Service.

#### Organization

### A. Surveying Division, etc., --- Responsibilities:

- 1. Planning and instruction for surveys;
- 2. Checking of all reports and originals received from surveying vessels and other sources, distribution of these originals to other divisions in this office;
- 3. Keeping up to date of one complete set of all nautical documents before publication of the Notices to Mariners (for office use only);
- 4. Maintenance of complete hydrographic archives;
- 5. Study and plans for tracing and locating newly reported wrecks and other navigational dangers;
- 6. Supplying of the surveying vessels.

Most of the items mentioned above were, up to the end of 1959, the responsibility of the Netherlands Hydrographic Department.

Owing to a shortage of specialists, this division has not yet been established and the Hydrographer himself deals with these matters.

### B. Cartographic Division and Photography: divided into three sections:

- (a) Notices to Mariners, etc.;
- (b) Tides and currents;
- (c) Nautical charts and photography.

# Section I: Notices to Mariners, etc. Responsibilities:

1. Compile and publish the weekly B.P.I. (Indonesian Notices to Mariners);

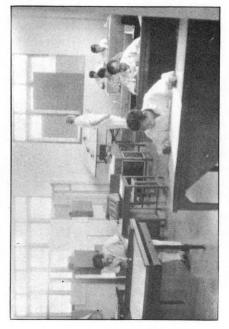


Figure 3. — A look at the Tidal Section

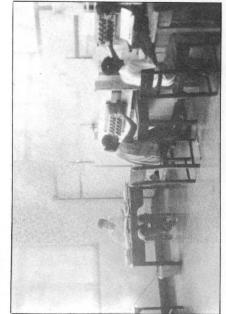
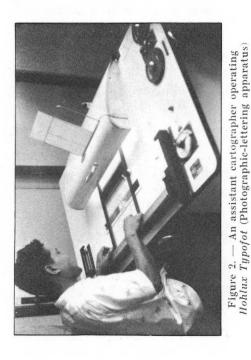


Figure 4. — A look at the Nautical Chart Section



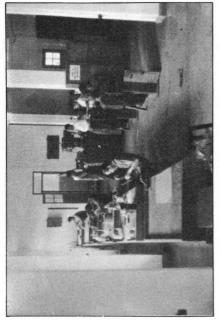


Figure 6. — A look at the repairing shop for nautical instruments

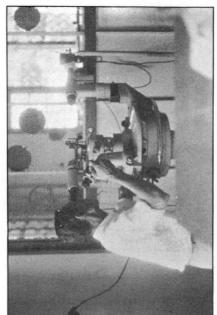
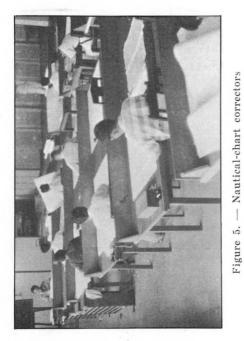


Figure 7. — Mr. Waridjo testing a sextant



- 2. Broadcast radio Notices to Mariners;
- 3. Maintain a complete and up-to-date set of charts and other nautical documents;
- 4. Compile and publish periodically the List of Lights and List of Buoys and Unlighted Beacons, the relevant supplements and replacement pages;
- 5. Compile and publish Pilots and their relevant supplements, and other nautical documents.

Items 1 to 4 are now running smoothly; as for item 5, the writer would like to make the following remarks:

- "We have at this moment a complete set (three volumes) of Pilots in Dutch, and we keep this up to date.
- "The intention is to have these books published in the Indonesian language.
- "The writer himself is now (and in fact has been since his return from abroad) dealing with this matter assisted by only one cartographic trainee with sufficient nautical knowledge.
- "This might take a considerable length of time, as we are now still seeking and forming a new Indonesian nautical terminology."

## SECTION II: Tides and Currents

This section is now headed by Mr. Lumanauw, Cartographer, who was trained for this purpose in the United States of America (United States Coast and Geodetic Survey). Yearly publications:

Tide Table for Indonesia:

Tidal Stream Table for Indonesia.

Periodical observations are only carried out about six times a year at six different stations during survey or resurvey by means of a tide pole.

The Hydrographic Service is not in possession of any permanent tide gauge: all efforts made during the last few years to obtain one have so far been fruitless.

## SECTION III: Nautical Charts and Photography

Heading this section is a German cartographer/hydrographer. We have now taken over the Astralon/master sheets of all Indonesian charts. Most of them are nearly worn out, and will have to be recompiled; our intention is to have all these in the Indonesian language.

Now in preparation:

- 1. Catalogue of nautical charts and other books;
- 2. Indonesian chart no. 1 in book form: Symbols and Abbreviations. All will be in conformity with the IHB standard sheet.
- 3. Indonesian charts nos. 2 and 3 : Small-scale charts of the western and eastern parts of Indonesia at the scale of  $1/4\ 000\ 000$ .

Owing to shortage of personnel, all preparations mentioned above may suffer some delay owing to more important daily tasks, namely, the need to have a sufficient stock of charts at every moment as the demand for this increases every day.

Only one printing establishment is now available.

- C. Research Division: No personnel just planned for the future.
- D. Nautical Division: divided into three sections:
  - (a) Repair shop for nautical instruments;
  - (b) Chart depot;
  - (c) Compass adjustment.

Note. — Repair shop: At this moment we only repair mechanical and optical instruments.

## E. Surveying Vessels:

Two surveying vessels in operation and two wire-drag launches. This is far from satisfactory as Indonesia covers such an extensive area; the total length of coastline is not less than 15 000 miles.

Report on work will be sent separately in due time.

### Training of Personnel

- 1. For practical surveying: persons with sufficient nautical knowledge are trained on board the surveying vessels.
- 2. Since 1957, persons are sent yearly to the United States of America at the expense of the ICA to study hydrography in general at the U.S. Coast and Geodetic Survey: subjects are, for instance;
  - Hydrographic surveying
  - Tides and currents
  - Cartography and reproduction
  - Nautical instruments.
- 3. Preliminary courses in cartography and draughtsmanship are given at the office in Djakarta.