



THE HYDROGRAPHIC OFFICE OF THE ESTONIAN REPUBLIC

The Bureau has received the following letter in reply to a request for information concerning the organisation of the Estonian Hydrographic Office :

“ ...I have the honour to inform you that on the 10th of April 1919, during the War of Independence, the Estonian Republic organised a Hydrographic Section placed under the orders of the Commander-in-Chief of the Navy and directed by Colonel PREY.

During the period 1919-1920, the Section was reorganised several times, namely :

On November 24th, 1919, the Hydrographic Section was incorporated with the Lighthouses and Pilotage Section under the name of the “*Hydrographic, Lighthouses and Pilotage Service*”; Colonel PREY was appointed head of this Service.

On the 1st of March 1920, the Lighthouses and Pilotage Section was separated from the Hydrographic Section and placed under the authority of the Ministry of Ways and Communications under the name of “*Lighthouses Service*”. From this date, the functions of the Lighthouses Service included buoyage and the publication of Notices to Mariners.

On 15th October, 1920, the IVth. Section : “*Topo-Hydrographic Section of the General Staff*”, was founded. It is directed by Colonel PREY and is under the authority of the Chief of the General STAFF.

The Chief of the Topo-Hydrographic Service has under his orders : surveyors, hydrographers, cartographers, geodesists, a triangulator, a secretary and several employees ; several draughtsmen, a chart-depôt employee, a caretaker for material and several auxiliary employees.

The Hydrographic Office assumes the duty of drafting charts and of keeping them up to date by means of information extracted from the work of a hydrographic mission. The mission consists of four hydrographers and two surveyors placed under the direction of a Chief. It has at its disposal three rowing-boats and a motor-boat. The crew is composed of 23 men.

During the period 1921-1924, the mission worked on the Lake Peipus.

The old coastal charts of Estonia, dating back nearly eighty years, no longer fulfil the requirements of navigation. The depths, as well as the coast, are subject to variations, principally near the mouths of rivers ; therefore, a new and more complete revision of our charts became necessary. In 1925 a new reconnaissance of the Estonian coasts was undertaken, principally near harbour approaches, along difficult tracks formerly little frequented, and in areas of special interest to the Navy and the Merchant Marine.

The charts of the Estonian Coast are based on the 1st order triangulation made by General SCHUBERT in 1829-1839. The result of these works was published in 1872 at St Petersburg, in three volumes. This triangulation, performed by the staff of General SCHUBERT, appears to have been hurried and meant to apply only to practical nautical needs. In these places trigonometrical signals had been erected, the centres of which were not recorded. *Now* the majority of the signals are destroyed. The two bases were measured on ice, so that the two extremities have disappeared. The longitudes of the lighthouses and of other objects, as determined by two chronometric missions, contain such errors that the longitudes do not correspond to nautical requirements. The greater number of the lighthouses surveyed by SCHUBERT have been built again and often transferred elsewhere; whilst the positions of the lighthouses so transferred were shown on Russian charts according to the data obtained by SCHUBERT.

The defects of this triangulation, on which the preparation of charts depended, were becoming more and more noticeable.

In 1924, the coastal states of the Baltic met in order to establish a chain of 1st order triangles around the Baltic in conformity with a common programme. This complete net of 1st order astronomical-geodetic triangles including the coasts of the Baltic will extend through Finland, Estonia, Latvia, Lithuania, Poland, Germany, Denmark and Sweden.

The States which took part in this meeting drew up a geodetic convention in order to 'push forward upon a uniform basis and according to uniform methods, the execution of geodetic works, principally 1st order triangulation, measurements of bases, astronomical determination of positions and gravity measurements'.

The Service publishes charts for the requirements of the Navy and Merchant Marine and the charts issued at present amount to 34 in number. The scale of these charts varies according to the importance of the navigation in the areas represented on the charts. Track charts have a scale of from 1:1300000 to 1:378000. Coastal navigation charts are founded on scales varying from 1:200000 to 1:65000. Plans of anchorages or of approaches to ports are made on rather variable scales from 1:20000 and 1:3000.

In addition to works relating to hydrography proper, the Hydrographic Service has organised a magnetic expedition. A sailing ship has been specially designed for this service and fitted up for this purpose. The ship, commanded by the Chief of the expedition, is fitted with modern magnetic instruments. The total crew is composed of seven men, among whom there are three observers trained to magnetic observations. The results deduced from these operations are published in the Estonian Hydrographic Annuals. Charts and nautical documents issued by the Department are printed by the National Printers and are kept up to date by means of Notices to Mariners published in the Estonian and English languages by the Lighthouses and Pilotage Service.

Sailing Directions published by the Hydrographic Service include:

- (1) Information for navigating along the Estonian Coast.
- (2) Information concerning lighting by lighthouses, lightships, light-buoys, buoyage, signal-stations and life-saving stations, etc.

All the topo-hydrographic work carried out by the Hydrographic Service is published in the Annual.

Charts, documents and instruments are kept in the chart-depôt. The depôt is charged with keeping ready for issue to the fleet and to topo-hydrographic expeditions a sufficient supply of charts, documents and instruments. In addition, the depôt has charge of the library. The library contains works on geodesy, hydrography, navigation, nautical astronomy, general astronomy, physical and mathematical sciences, etc. The Hydrographic Service purchases, is given, or exchanges, works referring to questions which are of direct interest to the Service."

The address of the Hydrographic Office in Estonia is the following :

SõJAMINISTEERIUM KINDRALSTAAP IV
Topo-hydrografia osakond,
TALLINNA (Estonia)

The address of the Lighthouses and Pilotage Service is the following :

TULETORNIDE OSAKOND
TALLINNA (Estonia).

The address of the Bureau in charge of hydrographical and hydrological researches in inland waters is the following :

Head : Engineer WELLNER,
Teedeministeerium,
Sisevete Büro, TALLINNA (Estonia).
