

## THE KINGDOM OF SWEDEN

### The Kingdom of Sweden

The Kingdom of Sweden occupies the eastern part of the Scandinavian Peninsula. It has land boundaries with Norway and Finland and a 2,700 km long coastline. Along the coast are situated about 35,000 islands of all sizes.

Sweden is a constitutional monarchy, the present sovereign being King Carl XVI Gustaf. The capital city is Stockholm, which is also the seat of the government. The form of government is virtually unchanged since 1809.



FIG. 1.- Sweden.

Elections to the Riksdag (Parliament) are held every fourth year. Every Swedish citizen of 18 years of age or older is entitled to vote. At the moment, six Parties are represented in the Riksdag. The largest one is the Social Democracy Party which also holds the Prime Minister's post.

The population of Sweden is about 8.5 M, 80% of which live in the southern third of the country.

Because of its location with no land connection to the European continent, Sweden has a long tradition as a seagoing nation which dates back to the Viking traders and explorers a thousand years ago. The traditional export goods from Sweden, such as forestry, pulp, paper, ore and machinery, as well as import of oil, etc. are all shipped by sea.

A bridge is now under construction linking Malmö with the Danish capital Copenhagen. This bridge will be one of the longest in the world.

The domestic shipping between coastal harbours has declined in favour of land transport. Today, the Swedish merchant fleet includes about 250 vessels of 3.9 million tonnes GRT and 2.3 million DW.



FIG. 2.- HSwMS JOHAN NORDENANKAR.

### **The Hydrographic Department**

The oldest chart of the Scandinavian waters is the Dutchman Cornelis ANTHONISZON's "Carte van Ostlandt", from 1543. The first Swedish produced description of its own waters is the "Siöbook" (Sea Book) for the Baltic Sea, by Johan MANSSON. It was published in 1644. To this book was added a chart of the Baltic. The book remained a standard work for over a hundred years, printed and reprinted in many editions and languages.

A Navigation Office under the Admiralty Board was formed in Karlskrona in 1684. In this Office, charts were drawn and matters concerning Masters and Pilots were dealt with. The nautical surveys were kept secret from the very beginning. An atlas of 10 sheets "Nautical Charts of the Baltic" was published in 1695 under the

management of Captain Petter GEDDA. These were replaced during 1782-1797 by a set of 11 charts based on the latest geodetic and hydrographic surveys. In 1849, the Hydrographic Bureau was founded under the Administration of Naval Affairs. It was directly responsible to the Minister of Naval Defense. By this time, the number of Swedish charts had increased to 64.

After much re-organizing, the Bureau was separated from the Navy in 1956. The Swedish Maritime Administration was established as a civil administration, including a Hydrographic Department and several other departments, for Pilotage, Inspection, Ice-Breaking, etc. Since 1975, it has been situated in Norrköping, 160 km southwest of Stockholm. Since 1 July 1987, the Administration gets no funds from the State. It is now self-supporting, basing its activities on its income from pilotage, fees from harbour and fairway traffic, ice-breaking and sales of charts and nautical services.

The Hydrographic Department owns three fully equipped survey ships as well as several smaller vessels. The most active survey period is between April and October. The ships have double crews. Each crew is divided into two shifts. This makes it possible to conduct surveying from early in the morning till late at night, seven days a week. Since only a small part of the Swedish territorial waters is surveyed with modern equipment (about 15-20%), the areas in need of new surveying are almost limitless.

Hydrographic data is collected by three different methods :

1. By multi-beam echo sounder for deep sea surveying;
2. By airborne laser sounder "Hawkeye" in coastal waters down to a depth of 20-30 metres. This work is carried out from helicopter.
3. By bar-sweeper (echo and mechanical) in harbours and fairways with extra high demands of accuracy.

Processing of the survey data is carried out by automated methods. The aim is to evaluate and document each year's survey result before the next year's results are received.

Correction by hand of printed charts was abandoned many years ago. All corrections are now made directly onto the originals. Most charts are reprinted in new editions twice a year.

Today the number of Swedish charts is 122. For the small craft owner 12 different sets of pleasure craft charts are published. About 3 or 4 new charts are produced every year, thus making it possible to withdraw old ones. All new charts are digitally produced from data bases. As a complement to charts on paper, the Hydrographic Office will, in a few years, be able to offer charts in digital form to the general public.

The Hydrographic Department runs its own printing office for its production of charts and other publications. When printed in a new edition, all unsold copies of the chart in stock at the sales agents are returned. This is a guarantee that the buyer always gets the latest edition of each chart.

Because of the extensive archipelago along the coast of Sweden and the unique law of "Everyman's right" to walk on privately owned land, Sweden has developed a large leisure - time sector. About 1 million Swedes own some sort of boat. About 200,000 of these are big enough for family vacationing. Of the total sales of 110,000 charts and 30,000 sets of yachting charts per year, 80% of the charts and all of the yachting charts are sold to private people for use in their small boats. The remaining part is sold to the merchant fleet and to the Navy for peace-time use.

Swedish charts are sold by appointed sales agents all over the country and a few abroad. A typical sales agent is the local book shop, ship supplier or small-craft marina. To meet the demand for charts, the number of appointed agents is constantly increasing. Today, there are 203 agents in Sweden and 13 abroad.

Even if the Hydrographic Department nowadays is separated from the Navy, there are still many ties between the Navy and the Department. The surveying fleet is manned by the Navy. Many surveys for defence needs are made and a lot of defence charts are produced.