

JAPAN

Japan

Japan is an island nation facing the Pacific Ocean at the east end of Asia and consists of four main islands, Honsyu, Hokkaido, Kyusyu and Sikoku, together with other smaller islands. These comparatively mountainous islands lie within the subarctic, the temperate and the subtropical zones, extending about 3,600 km from lat. 20°25'N to 45°33'N and from long. 122°56'E to 154°00'E. Japan has a total land area of about 378,000 km², a total coastal length of about 34,000 km and a population of about 126 million. The capital city is Tokyo.

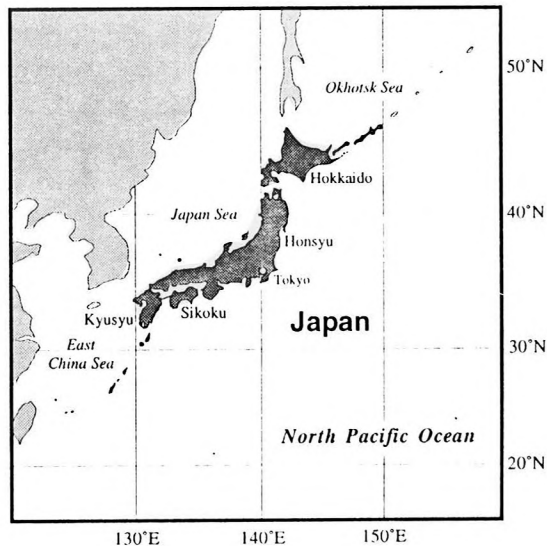


FIG. 1.- Japan.

As an island country in the Asian monsoon area where rice-growing is the standard, Japan traditionally based her economy on agriculture and fishing, which together supplied most of the nation's food. This pattern, however, has been gradually changing with the development of the industry and overseas trade progressing from the Meiji era in 1960s to a light industry nation, and after that to heavy industry. Today the number of persons engaged in the tertiary industry is the

largest in Japan. Lacking natural resources, Japan depends on trade to maintain itself as an industrial country and to keep an adequate standard of living. Trade has been the most important element in national policy, and national effort has been continuously channeled into it. As Japan is completely surrounded by sea, the maritime transportation to and from her ports has always been very active. Consequently, the routing of marine traffic has been gradually complicated owing to traffic congestion and increase in the size and speed of ships.

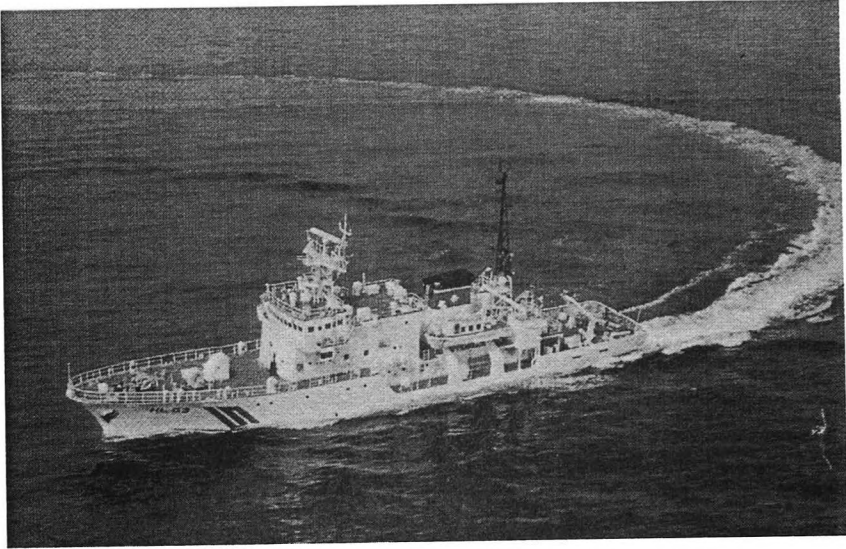


FIG. 2.- Survey Vessel MEIYO.

The Hydrographic Service

In 1871, the Hydrographic Bureau was established under the Navy. The first official nautical chart was published in 1872. Progress continued steadily, and by 1917, the survey of the coast of Japan was almost completed. After that the renewal surveys in the districts of the old survey, topographic investigations of the sea bottom, and surveys of newly opened ports and harbours were carried out. The distribution of charts and publications has been also maintained.

In 1945, after World War II, the Hydrographic Department was transferred from the Navy to the Ministry of Transport. When the Japan Maritime Safety Agency (JMSA) was established in the Ministry in May 1948, the Department joined the Agency, which is responsible for the safety of navigation and maintenance of security at sea.

Japan has been a Member State of the International Hydrographic Organization (IHO) since its inception in June 1921 (then IHB) except during the War. The Department is now playing a role of the permanent secretariat of East Asia Hydrographic Commission (EAHC), Coordinator for INT Charting scheme Region "K" and for NAVAREA XI. For the developing countries, the Hydrographic Department

has been conducting three training courses: hydrographic survey, physical oceanographic survey and nautical charting.

In order to ensure the safety of navigation, while also contributing to other maritime activities and oceanic sciences, including preservation and management of marine environment, the Hydrographic Department has been engaged in hydrographic surveys and oceanographic, geodetic and astronomical observations and their related R&D. As results of these surveys, observations and other investigations, the Department publishes 902 nautical charts, Sailing Directions, Tide Tables, and other nautical publications and issues Notices to Mariners and Navigational Warnings.

Today, the Department is proceeding with the production of electronic navigational Charts (ENC) covering areas in and around Japanese waters in accordance with IHO S-57. The first official ENC on a CD-ROM was released in March 1995. Two more CD-ROMs were issued in the fiscal year 1995 and another one is to be issued in the fiscal year 1996. These provide coverage for all the sea areas around Japan at small and medium scales and will be followed by large scale ENCs to be released from fiscal year 1997.

To cope with the UN Convention on the Law of the Sea, the Department has been conducting surveys to produce a series of Basic Maps of the Sea in continental shelf areas in and around Japanese waters and another series of Basic Maps of the Sea in coastal waters and outlying islands under the jurisdiction of Japan. The Department will publish a total of 828 maps, which are categorized in two types; the Basic Maps of the Sea in Coastal Waters and in Continental Shelf Areas. One set of Basic Maps of the Sea in Coastal Waters is composed of Bathymetric and Submarine Structural Charts, and a set of Basic Maps of the Sea in Continental Shelf Areas is composed of Bathymetric, Submarine Structural, Magnetic Anomaly and Gravity Anomaly Charts. The Department has also been carrying out geodetic surveys for extending marine geodetic networks to connect the mainland of Japan and its isolated islands by satellite laser ranging technique using Japanese geodetic satellite "Ajisai" and GPS, and the delineation of the straight baselines and the limits of the territorial seas has been done. The results of these surveys using the latest equipment such as narrow multi-beam echo sounders and phase measurement GPS receivers are utilized as basic data and information for research on submarine structure and predictions of earthquakes and submarine volcanic activities.

Since 1965, the Department, also functions as the Japan Oceanographic Data Center (JODC), in accordance with a resolution adopted by the Intergovernmental Oceanographic Commission (IOC), JODC fulfills the role of a Responsible National Oceanographic Data Centre (RNODC) which processes data from international projects such as WESTPAC (IOC Sub-Commission for the Western Pacific Region), IGOSS (Integrated Global Ocean Services System) MARPOLMON (IOC Marine Pollution Monitoring Programme) and those data obtained by ADCP (Acoustic Doppler Current Profiler).

The main office of the Hydrographic Department is located in Tokyo, which is an integral part of the JMSA. The JMSA also has regional Hydrographic Department in each of its subsidiary bodies of the 1st to 11th Regional Maritime Safety Headquarters. Under three Regional Maritime Safety Headquarters, four

Hydrographic Observatories are operated to carry out geodetic, geomagnetic and astronomical observations. The Hydrographic Offices, including the Regional Maritime Safety Headquarters, have a total of 660 personnel. Five large/medium survey vessels from 2,600 to 430 GT, and 2 tide stations are currently operated by the Hydrographic Department in Tokyo and additionally seven survey launches (10 to 25 tons) and 28 tide stations are operated by the Regional MSA Headquarters.

The present Chief Hydrographer, Director General of the Department, is Dr. Shoichi OSHIMA, who was appointed to this post on 1st April 1996.