

## MALAYSIA

### Malaysia

Malaysia is a rapidly developing country covering an area of about 329,293 km<sup>2</sup> (127,400 sq.miles), made up of Peninsular Malaysia and the States of Sabah and Sarawak in north-western Borneo. The two regions are separated by the South China Sea. Malaysia lies entirely within the tropics, between latitude 0° to 8° N and longitude 100° to 119°30'E. It is a hot and wet country, with temperatures ranging from 21°C to 32°C and the total annual rainfall averaging between 200 and 260 cm.



FIG. 1.- Malaysia.

The Federation of Malaysia consists of the States of Johor, Kedah, Kelantan, Labuan, Melaka, Negeri Sembilan, Pahang, Perak, Perlis, Pulau Pinang, Sabah, Sarawak, Selangor, Terengganu and Wilayah Persekutuan. Malaysia is a beautiful country, with people of many ethnic groups, each with their own cultural and social heritage; Malays, Chinese, Indians, Kadazans, Ibans, Bajaus and Penans, etc. The current population is about 17 million, with over 80% living in Peninsular Malaysia.

Malaysia is a parliamentary democracy and the YANG DI PERTUAN AGONG, the paramount ruler, is the Head of the States of Malaysia. The YANG DI PERTUAN AGONG is a constitutional monarch as well as the symbol of justice and unity. He is above politics.

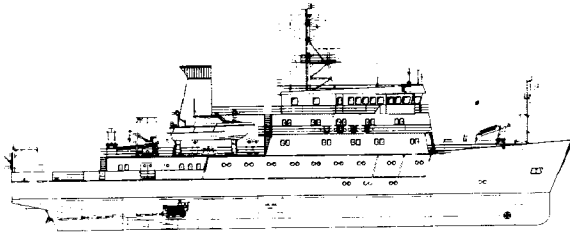


FIG. 2.- The KD PERANTAU under construction.

Malaysia is one of the world's largest exporters of rubber, palm oil, pineapples and tin as well as many manufactured goods. In addition, the exploitation of oil and gas off the coasts of Terengganu, Sabah and Sarawak contributed considerably to the national revenue.

Malaysia claims a territorial sea of 12 nm and an Exclusive Economic Zone which covers an area of 450,233 km<sup>2</sup>. This proclamation has helped to emphasize the nation's dependence on its maritime and hydrographic capabilities.

### **The Hydrographic Service**

From the late 19th century to 1967, the coastal areas of Malaysia were mainly surveyed by the British, before they withdrew their ships from the region. The earlier surveys by the British which dated back to about 1868 until about 1940 are now considered obsolete, and with the introduction of supertankers, even surveys up to about 1970 were also considered inadequate to meet modern standards in hydrographic surveying. Since 1964, when Britain indicated that she was unable to maintain her survey vessels in the Far East, the Royal Malaysian Navy began planning to build up its own hydrographic capability. The first Malaysian Hydrographer went for training in Australia in 1965 and since then the RMN Hydrographic Service (RMNHS) has developed to its present status. The RMN Hydrographic Department is located in Kuala Lumpur and forms part of the Royal Malaysian Navy Headquarters in the Ministry of Defense.

The Hydrographic Service has a total of 50 officers and 179 technicians, at present, only one purpose-built survey ship, KD MUTIARA (1905 grt) is still in service. KD PERANTAU (449 grt) was decommissioned on 2 October 1990, after 21 years of service with the Royal Malaysian Navy and has been replaced by KTD PENYU, an ocean-going tugboat which is being used temporarily as a platform for hydrographic and oceanographic operations. To upgrade capabilities of both surveying vessels the Desk Top Survey System - HYDRO and the Hydrographic Data Acquisition and Processing System - Racal 960 were installed in 1995. By the end of 1997, the Royal Malaysian Navy Hydrographic Service (RMNHS) is expecting a new hydrographic vessel to be named the new KD PERANTAU which is now being constructed by a local shipyard. This will increase the RMNHS's capability especially with the utilization of the latest state-of-the-technology equipment including the integrated multi-beam sonar system with echo sounders, sub bottom profiler, navigation and computer system, full sensors for marine weather and environmental profiling together with tailored data processing functionality.

The RMN Hydrographic Department began its chart production in 1984 and, to-date, 51 charts have been published which cover areas both in Peninsular Malaysia as well as Sabah and Sarawak. The Hydrographic Department, Taunton, UK, also published charts of Malaysian Waters (some 128 charts). A long term plan to produce a complete series of charts covering Peninsular Malaysia, Sabah and Sarawak will include 10 charts at a scale of 1:500,000 and smaller, 30 medium scale coastal charts and 68 charts at various larger scales. In the 1970s, Malaysia took part in the Four Nation Joint Survey (Indonesia, Japan, Malaysia and Singapore) of the Singapore and Malacca Straits which resulted in the publication of the common datum charts and also led to the implementation of IMO Traffic Separation Schemes which enhanced navigational safety in the area. This office was also the Implementing Agency for the ASEAN/Australia Regional Ocean Dynamic Project. Under this project five tide gauges and one current meter (ADCP) were set up in selected locations around the country to monitor and record simultaneously water level changes and current measurements.

In addition to the charts, other publications issued are the annual Malaysia, Singapore and Brunei Tide Tables (in 2 volumes) and the List of Tidal Benchmarks together with several other nautical publications.

The RMNHS is now seriously preparing the second Four Nation Joint Survey of critical areas in the Malacca and Singapore straits. This project was initiated in 1994 through the Tripartite Technical Expert Group (TTEG) by the three littoral states (Indonesia, Malaysia and Singapore). This project is expecting to commence very soon and will take 21 months to complete. The result of the surveys is of paramount importance for the alignment of the proposed extension of Traffic Separation Scheme (TSS) throughout the Malacca and Singapore straits for further enhancement of navigational safety. The total area to be surveyed is approximately of 780 km<sup>2</sup>.

Malaysia joined the IHO in 1975. Together with the other East Asia countries, Malaysia is also a member of the East Asia Hydrographic Commission (EAHC). The Hydrographer of the Royal Malaysian Navy, First Admiral Mohd Rasip bin HASSAN chaired the last EAHC Sixth Conference held in Kuala Lumpur from 28 to 31 March 1995.