**WORLD HYDROGRAPHY DAY – MEDIA FACT SHEET**

## The International Hydrographic Organisation

The International Hydrographic Organisation (IHO) was established in 1921 as an inter-governmental consultative and technical organization, to support safety of navigation and the protection of the marine environment. The objectives of the IHO are to bring about:

- The coordination of the activities of national hydrographic offices;
- The greatest possible uniformity in nautical charts and documents;
- The adoption of reliable and efficient methods of carrying out and exploiting hydrographic surveys; and
- The development of the sciences in the field of hydrography and the techniques employed in descriptive oceanography.

The IHO is headquartered in Monaco and currently has 76 member States, including Singapore (joined on 1 July 1972). Further information on the IHO is available on its website: www.iho.shom.fr

## Brief History of Hydrography in Singapore

Singapore also has an established history in hydrographic development which spans more than 40 years. The Singapore Hydrographic Office was first established in 1964 to take over the functions of surveying and nautical charting of Singapore's waters from the British Royal Navy.

Singapore's first hydrographic vessel was commissioned in 1964, and it was named the *Buaya*. It was a 25-feet wooden-hulled boat, with one surveyor and four assistants to carry out hydrographic surveys.

In 1975, Singapore produced its first nautical chart, SP1, with a chart scale of 1:50,000 covering Singapore's waters.

When the MPA was formed in 1996, the Singapore Hydrographic Office became MPA's Hydrographic Department. The Department continues to play a significant role in the promotion and enhancement of navigational safety in Singapore. It has the national responsibility to conduct hydrographic surveys, chart Singapore's waters and provide and maintain aids to navigation such as beacons and buoys.

## MPA's Hydrographic Vessels

The MPA currently has five hydrographic vessels in operation. They are the *Mata Ikan*, *Discovery*, *Investigator*, *Illuminator* and buoy tender vessel *Panduan*.

- ***Mata Ikan***

The *Mata Ikan* was commissioned in June 2000 and deployed to conduct hydrographic surveys, monitor the water quality and provide support to maintain and operate our lighthouses and other aids to navigation. The vessel also doubles up as an On-scene Command and Control Centre (OSCC) during maritime emergencies, such as oil spills and search and rescue operations.

- ***Discovery* and *Investigator***

The *Discovery* and *Investigator* are both custom-built, 15-metre, aluminium-hulled survey launches. Their task is to carry out hydrographic survey of the seabed. Each of these launches is equipped with state-of-the-art survey equipment, namely the Multibeam Sonar Survey system (MSS), integrated with real-time Differential Global Positioning System (DGPS). The MSS enables highly accurate mapping of the sea floor and allows us to visualise the seafloor in three dimensions. The system has increased our survey productivity by three to four times as compared to the earlier single beam sonar system.

**Some Recent Hydrographic Milestones**

- **Launch of Singapore ENC**

In March 1998, we launched the Singapore Electronic Navigational Chart (ENC) and became one of the first in the world to release large scale ENCs for commercial use. The ENCs consist of 14 cells covering Singapore's waters and its approaches. They are fully compliant with international specifications, and are available from 15 appointed ENC distributors located around the world.

- **SHARED Programme**

To promote the use of ENCs and the Electronic Chart Display and Information System (ECDIS), the MPA and the UK Hydrographic Office (UKHO) initiated a programme in December 1996 to demonstrate the practical use of ECDIS with integrated raster and vector charts. The first ECDIS sea demonstration was launched in March 1997, and was called Singapore Hong Kong Admiralty Raster ENC Demonstration (SHARED) Programme. The demonstration covered the shipping route between Southampton and Hong Kong via Singapore.

With the success of the first demonstration, we extended the project globally. We partnered the Republic of Singapore Navy's *RSS Endurance* for this project, and it became the first vessel in the world to demonstrate navigating around the world using ECDIS with official ENCs and Raster Charts.

- **ENCs for South China Sea**

To further increase ENC coverage covering major shipping routes in the region, Singapore worked closely with members States of the East Asia Hydrographic Commission (EAHC) to produce small scale ENCs covering the South China Sea. The member States included China, Indonesia, Japan, Korea, Malaysia, Philippines and Thailand. The South China Sea ENCs were released commercially in March 2005.

- **MOU on Marine Electronic Highway (MEH)**

In September 2005, Singapore signed a Memorandum of Understanding (MOU) with Indonesia, Malaysia, the IHO, and the International Maritime Organisation (IMO) to develop the Marine Electronic Highway for the Malacca and Singapore Straits. The MEH utilises a network of official ENCs together with the Differential Global Positioning System (DGPS) and Automatic Identification System (AIS) to provide vital navigational information to ships, such as real-time tide and current readings.

- **ENCs for Malacca and Singapore Straits**

The first official Malacca and Singapore Straits ENCs were jointly produced by the hydrographic offices of Indonesia, Malaysia and Singapore, and supported by Japan, under the Four Nations Joint Survey project. The ENCs were officially released in December 2005.