

Hong Kong is fortunate in having a sheltered natural harbour, which provides good access and a safe haven for vessels calling at the port from around the world.

The port has always been a key factor in the development and prosperity of Hong Kong, which is strategically located on the Far East trade routes and is in the geographical centre of the now fast-developing Asia-Pacific Basin.

In terms of tonnage of shipping using its facilities, cargo handled and the number of passengers carried, Hong Kong is one of the major ports of the world.

Administration: Responsibility for administering the port is vested in the Director of Marine. The Port Operations Committee advises the director on all matters affecting the efficient operations of the port of Hong Kong, except those under the purview of the Pilotage Advisory Committee and the Local Vessels Advisory Committee.

The Marine Department ensures that conditions exist to enable ships to enter the port, work their cargoes and leave as quickly and as safely as possible. It is concerned with many aspects of safety and pollution prevention standards for all classes and types of vessels, from the largest container vessels to the smallest passenger-carrying sampans. It also maintains aids to navigation and mooring buoys for sea-going ships, manages two cross-boundary ferry terminals and administers six public cargo working areas. The Department's website (<http://www.mardep.gov.hk>) provides a wide range of information on the port and the Hong Kong Shipping Register.

The Hong Kong Maritime and Port Board was established on April 1, 2016. Chaired by the Secretary for Transport and Housing, the Board provides a high-level platform for closer collaboration among the Government, the industry and relevant stakeholders to set the direction for the long-term development of Hong Kong Port and the respective maritime services.

Shipping: Hong Kong continues to flourish as a hub port serving the South Asian Pacific region and acting as an entrepot for the Mainland of China. Leveraging on our competitive edge, Hong Kong Port has gradually become a transshipment hub in the region. At present, transshipment cargo accounted for around 60% of our container throughput. During 2016, a total of 370 990 sea-going vessels and river-trade vessels arrived in and departed from Hong Kong.

Containerisation: The Kwai Tsing Container Terminals, located in the north-western part of the harbour, has nine container terminals with 24 berths of about 7 694 metres of deep water frontage. It covers a total terminal area of about 279 hectares which includes container yards and container freight stations. The nine container terminals have a total

handling capacity of over 20 million TEUs (20-foot equivalent units) a year which helps maintain Hong Kong as one of major ports of Southern China.

Hong Kong handled 19.8 million TEUs in 2016, making it one of the world's busiest container ports. Of the total container throughput, some 15.2 million TEUs were handled at Kwai Tsing Container Terminals, while about 4.6 million TEUs were handled in mid-stream and other wharves. To enable ultra large container vessels to access the container terminals at all tides, we have completed a dredging project to deepen the approach channel to Kwai Tsing Container Terminals from the navigation depth of 15 metres to 17 metres.

Cross-boundary Ferry Services: In 2016, the Hong Kong-Macau Ferry Terminal in Sheung Wan, the China Ferry Terminal in Tsim Sha Tsui and the Tuen Mun Ferry Terminal in Tuen Mun provided ferry services to Macao and 11 ports in the Mainland. About 100 vessels, mostly high-speed passenger craft such as jetfoils and catamarans, operated from these terminals. In 2016, 24.91 million passengers passed through the terminals, comprising 20.66 million passenger travels to/from Macao and about 4.25 million passenger travels to/from Mainland ports.

Government Fleet: The government fleet, with more than 800 vessels, serves 14 government departments such as the Hong Kong Police Force, the Customs and Excise Department, and the Fire Services Department. Of these, the Marine Department manages 75 vessels for its port operations and serves other government departments which do not have their own fleets. These vessels include patrol launches, purposely built conveyance launches, pontoons and some specialised vessels such as hydrographic survey launches and explosive carriers. Apart from the above Government vessels, in 2016, the Marine Department has also deployed 27 vessels provided under contract by private operators to provide conveyance launches and tugboat services.

The Government Dockyard is responsible for the design, procurement and maintenance of all vessels owned by the Government. It occupies a site of 9.8 hectares on Stonecutters Island and has an 8.3-hectare protected water basin as an operational base for vessels operated by the Marine Department. The dockyard has 10 docking covered sheds, four movable canopies and over 30 open-yard docking spaces for repair and maintenance of vessels. The dockyard also has a ship-lift system and three ship travel hoists capable of dry docking vessels of up to 750 tonnes. An on-line computerised information system is employed to co-ordinate the maintenance activities and support services to maximise maintenance efficiency and vessel availability.

Dry Docks and Slipways: There are extensive facilities for repairing, maintaining, dry-docking and slipping of all types of vessels. Three floating dry docks are located off the west coast of Tsing Yi Island. The largest has a lifting capacity of up to 46 000 tonnes. There are also a number of smaller shipyards, which carry out repairs to vessels.

Port Facilities and Services: The Marine Department operates and maintains 16 mooring buoys for sea-going vessels. Of these 12 are suitable for ships up to 183 metres in length and four for ships up to 137 metres. Among all these mooring buoys, five of them are typhoon mooring buoys to which ships can remain secured during tropical cyclones. This improves efficiency and reduces operational costs of vessels through elimination of unnecessary movements.

In addition to the three Immigration and Quarantine Anchorages designated for visiting vessels to complete port formalities, there are eight dangerous goods and 13 general-purpose anchorages providing temporary berthing spaces for vessels. The areas and water depths of the anchorages are diversified to accommodate different sizes and draughts of ships calling at Hong Kong.

There are 554 modern marine aids to navigation scattered throughout Hong Kong waters to guide mariners to and from their berths. The aids to navigation are constantly being improved to ensure greater safety. All fairway buoys are lit and fitted with radar reflectors. Traffic Separation Schemes operate in the East Lamma Channel and Tathong Channel.

The Marine Department's VHF radio network provides comprehensive marine communication coverage throughout the harbour and its approaches. The department's Maritime Rescue Co-ordination Centre (MRCC) maintains direct contact with emergency response services, which include the Government Flying Service, Marine Police and Fire Services Department. The MRCC operates 24-hour a day throughout the year and is equipped with advanced Global Maritime Distress and Safety Systems for maritime distress alert monitoring. It co-ordinates assistance to any vessels found in distress within the Hong Kong Search and Rescue Region in the South China Sea.

A comprehensive Vessel Traffic Service (VTS), with radar surveillance and tracking capabilities as well as a fully integrated data handling sub-system, covers all navigable waters of Hong Kong used by sea-going vessels and ferries. The VTS offers advice on the activities of other vessels and gives navigational information to mariners through a sectorised VHF network. This ensures the safety standard and traffic efficiency of the port. The VTS system can track 10 000 targets in real time. It comprises the latest VTS technology such as AIS, ECDIS, CCTV, new VHF-direction finders and modern communications systems to further improve navigation safety and operation efficiency.

Marine Department patrol launches maintain a watch on anchorages, traffic separation schemes, fairways, navigational channels, typhoon shelters and public cargo working areas. They provide on-scene support to the Vessel Traffic Centre (VTC) and are in continuous radio contact with the VTC and local marine traffic control station located at Kwai Chung Container Port, which enable the VTC to

promptly initiate and co-ordinate actions required to facilitate safe navigation in the port.

Vessels conveying dangerous goods in the waters of Hong Kong are to strictly comply with related provisions in the International Maritime Dangerous Goods Code. Their submitted dangerous goods manifests as required are recorded in Marine Department's Dangerous Goods Information System.

Fire-fighting and rescue vessels operated by the Fire Services Department are kept in a state of operational preparedness at all times. The pollution control vessels provided by the Marine Department's contractor are on 24-hour standby to deal with oil spills.

To facilitate transfer of cargoes between vessels and shores, and cargoes to and from Pearl River ports, the Marine Department provides and manages six public cargo working areas in various parts of Hong Kong with a total berth length of 4 852 metres.

Bulk handling facilities for coal and oil are provided at the power generating stations at Tap Shek Kok in Castle Peak and at Po Lo Tsui on Lamma Island.

To ensure safe navigation within the busy port, the Hydrographic Office (HO) of the Marine Department is responsible for surveying Hong Kong waters and producing nautical charts for mariners. Complied fully with the International Hydrographic Organization standards, the HO promulgates fortnightly Notices to Mariners to update the bilingual nautical charts as well as the Electronic Navigational Charts. It also broadcasts continually on 289 kHz Differential Global Positioning System (DGPS) correction signal for mariners using DGPS receiver to more accurately fix the position. Tidal Stream Prediction Service for Hong Kong waters and the real-time tidal information of several different tide gauges along the coastline are available on HO's website at <http://www.hydro.gov.hk/eng/services.php>.

The Director of Marine is the Pilotage Authority. Pilotage is compulsory for ships of 3 000 gross tonnage or over in general and gas carriers of any tonnage.

Quarantine and immigration facilities are available on a 24-hour basis. Advance immigration clearance and radio pratique may be obtained by certain vessels on application.

Hong Kong Shipping Register: Hong Kong is a marine centre in Asia. Its mature legal system, open business environment, readily available financial supports and multicultural society are cohering factors that make Hong Kong what it is today.

The establishment of many shipping companies in Hong Kong has its historic reasons. As a result, Hong Kong is able to attract local and international shipping companies to establish their bases over the past 170 years. Today, Hong Kong is still considered to be the gateway to China.

The Hong Kong Shipping Register (HKSR) also prospers under this strong maritime background. Its popularity is growing. In just one year in 2016, registered gross tonnage rose by 5.38% amounting to an increase of 5.5million gross tons. By December 31, 2016, 2 516 ships have registered under the HKSR with a total gross tonnage of 107.7 million.

The HKSR is an independent shipping register from the Mainland. The Special Administrative Region of Hong

Kong (HKSAR) owns and administers it independently. All maritime policy and administrative decisions are made in Hong Kong.

As a quality shipping register, Hong Kong adopts all major international conventions promulgated by the International Maritime Organization (IMO) and the International Labour Organization. The HKSAR Government ensures that the quality standards of ships registered in Hong Kong are maintained to these international conventions while they are flying the Hong Kong flag.

Almost all the certification duties of the Hong Kong-registered ships are delegated to nine prominent classification societies recognised by the Marine Department. A systematic ship quality control system known as the Flag State Quality Control (FSQC) System was developed in 1999 for monitoring and maintaining the quality of ships under the HKSR. The FSQC System is a quality system to effectively monitor ships after they have joined the HKSR. All Port State Control Inspections and incidents related to Hong Kong-registered ships and their companies are monitored and recorded in the FSQC System. Any Hong Kong-registered ships whose quality standard appears to be doubtful will be subject to FSQC inspections by Marine Department's surveyors of ships. Recommendations to the possible improvement measures will be made to the ships or the management companies after the inspections to help them to do better in keeping the quality of the ships.

For the assessment of the quality of ships before they join the HKSR, a Pre-Registration Quality Control (PRQC) System was introduced in 2003. All ships to be registered under the Hong Kong flag are subject to quality assessment prior to their registration. Ships found to have dubious qualities will be inspected by Marine Department's surveyors of ships before they are recommended for registration. Only those ships that pass the quality checks are registered.

Port State Control (PSC) Inspection: The Marine Department has a responsibility to ensure that non-Hong Kong registered ships visiting Hong Kong comply with the requirements of various international maritime conventions for the seaworthiness of vessels, the safety of crew and passengers, and the prevention of damages to the marine environment. To discharge this function, officers of the Department carry out PSC inspections on ships visiting Hong Kong in accordance with the provisions of IMO Resolution A.1052(27) and Tokyo Memorandum Of Understanding Port State Control Manual.

Hong Kong Local Shipping: About 18 500 vessels are licensed to operate locally and/or in the Pearl River Delta Region. While the Marine Department sets the safety standards for these vessels, the government inspectors and the recognised competent persons/authority are authorised to carry out the safety inspections of these vessels.

Seafarers: The Mercantile Marine Office registers local seafarers, regulates their employment terms and conditions on board ships of all flags and supervises the

employment and discharge of seafarers on Hong Kong ships. Today, Hong Kong has 1 408 local officers and ratings serve on board on 167 sea-going and river-trade ships of three different marine nations.

Certification of Seafarers: Hong Kong carries out examinations and issues certificates of competencies to seafarers working on Hong Kong-registered ships and local vessels. Examinations are held regularly to suit the demand. Certificates of competencies are issued to those candidates who have passed the master, coxswain, deck officer and engineer examinations to operate ships trading locally and internationally.

Licences are also issued to seafarers whose certificates of competencies are issued by countries on the STCW white list to serve on Hong Kong-registered ships.

Marine Industrial Safety: Inspection and advisory services are provided to promote safe working practices in ship repairing, ship breaking, marine construction, cargo handling on ships and safety afloat.