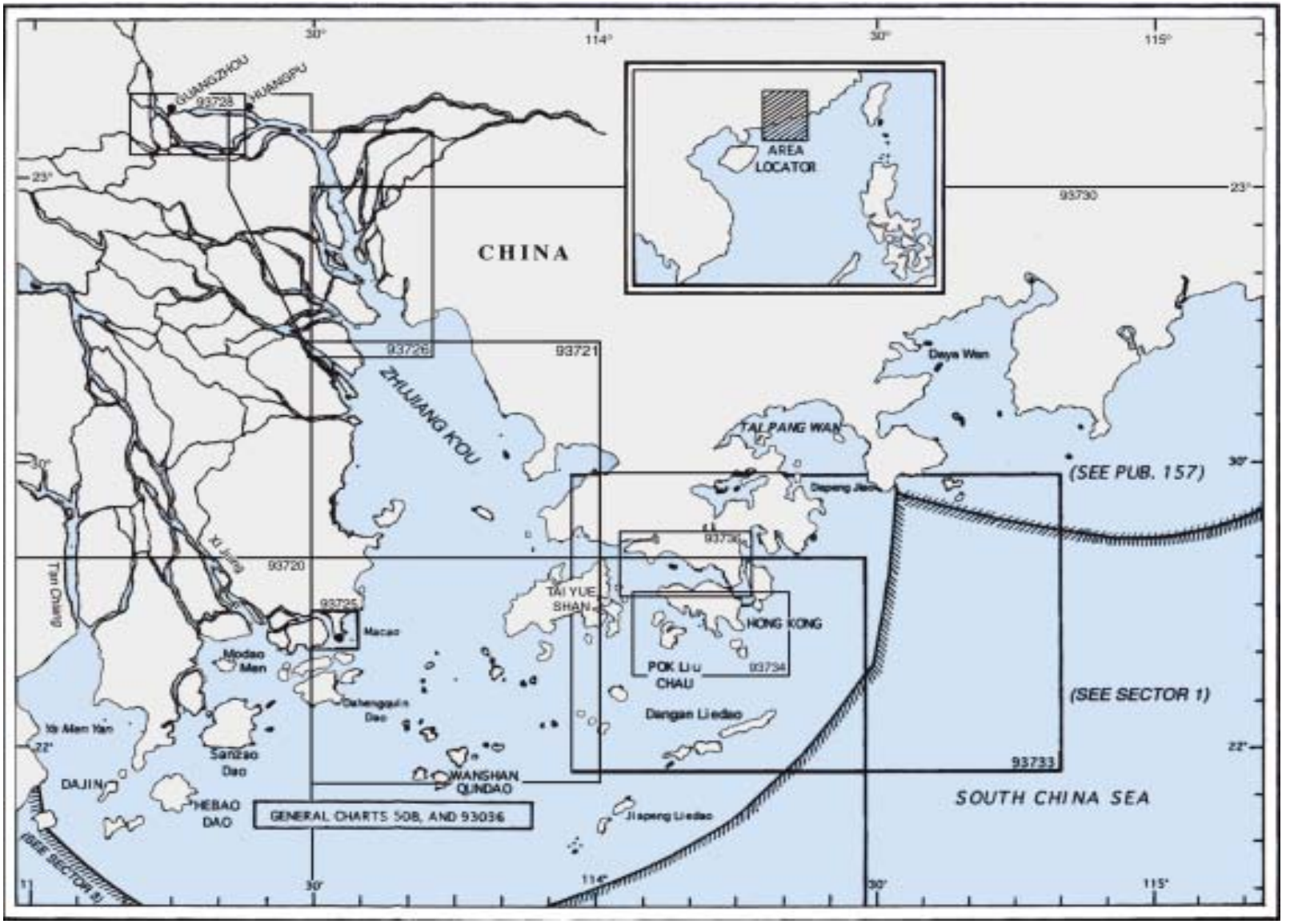
Click on "See Sector" to be hotlinked to that Sector.




Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR **2** — CHART INFORMATION

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# SECTOR 2

## COAST OF CHINA—DAPENG JIAO TO DAJIN

**Plan.—**This sector describes the SE coast of China between Dapeng Jiao (Ta P'eng Chio), to the E of Hong Kong, and Dajin. The description is ENE to WSW including Hong Kong, Macau, the Zhujiang (Chu Chiang), the Xijiang (Hsi Chiang), and the T'an Chiang.

### General Remarks

**2.1 Winds—Weather.—**The region covered by this sector has distinct seasonal changes due to the effect of monsoonal transition. The Northeast Monsoon blows from the N through E from as early as September to as late as May, but is strongest from October to March. The Southwest Monsoon is usually felt from April to September. The transition months occur during spring and fall.

During the winter, the area is subject to frequent outbreaks of cold, dry air caused by the dominant Asian continental anticyclone. Between January and March, temperatures fall quite low and have reached freezing in the upper reaches of the rivers and in the higher elevations of Hong Kong and the mainland. December is generally the driest month of the year.

Spring marks the transition from the Northeast Monsoon to the Southwest Monsoon. Temperatures fluctuate widely from day to day bringing cloudiness and increased precipitation, along with coastal fog and drizzle. To the SW of Hong Kong, the wind reaches Force 7 or more three or four days a month in April and May.

Summer comes with the onset of the Southwest Monsoon. Extensive precipitation and hot, humid weather prevail. June is the wettest month of the year. Typhoons occur mostly between July through September. These storms bring gales, high winds and heavy rains. Squalls, including arch squalls, have been reported as violent at times off the deltas of Hsi Chiang and the Chu Chiang.

Autumn is usually sunny and dry. In the area to the E of the deltas of Xi Jiang and Zho Jiang the wind reaches Force 7 or more six or seven days per month from October through January. Autumn brings the transition from the Southwest Monsoon to the Northeast Monsoon

**Tides—Currents.—**Offshore of the deltas to the Hsi Chiang and the Chu Chiang, as well as seaward of Hong Kong, the tidal current on the raising tide is governed principally by the prevailing wind. With strong E winds, it sets WNW; with SW winds it sets N. The tidal current on the falling tide sets mostly in a SW direction.

The principal ocean currents are also caused by the monsoons. The SW current caused by the Northeast Monsoon is more persistent than the NE current of the Southwest Monsoon.

At their strongest, these currents average about 1.5 knots. During the transition of the monsoons, the currents become quite variable in both speed and direction.

Local winds will also affect the currents. When a moderate or strong wind has been blowing steadily in any general direction for a day or more, a change in current speed and direction can be expected. The effect of the wind in generating a current is not immediate, nor does a reduction in wind speed or change of wind direction result in an immediate cessation of current. Although the wind may have ceased in one region, the current may continue to flow as the result of winds in nearby areas.

The coastline between Dapeng Jiao and Tung Lung Island, 17 miles SW, is extremely irregular and indented by numerous bays and coves. Inland, lofty hills and rugged mountains predominate throughout. With few exceptions, the mountains rise abruptly from a shoreline whose near shore areas are largely steep-to. At the head of several of the larger inlets, wide margins of drying mud flats extend well off the coastline. Offshore, the area is generally deep and largely clear of dangers to navigation. Tai Pang Wan (Mirs Bay), with its several inlets, is the largest body of water within the E portion of the sector. Leung Shuen Wan Hoi (Rocky Harbor) and Ngau Mei Hoi are smaller indentations in the coastline. These three areas comprise the E portion of the Hong Kong New Territories which extend to the N and E shores of Tai Pang Wan.

Between Tung Lung Island and Dajin Island, 73 miles WSW, are the approaches to Hong Kong, the Zhu Jiang Kou, and the Xijiang. This area is encumbered with numerous islands and dangers which lie up to 22 miles seaward of a line joining Tung Lung Island and Dajin Island. Victoria Harbor and Macau are the two ports closest to the sea, while Huangpu and Ts'ang-wu can be reached by lengthy river transits of the Zhu Jiang Kou and Xijiang, respectively.

The Zhu Jiang Kou is entered to the E of Tai Yue Shan, (which is located to the W of Hong Kong) or from sea via the recommended route W of Wenwei Zhou, as is shown on the chart. The proper clearances must be obtained from Chinese authorities before attempting to navigate the river. The Xijiang, whose branches form a common delta with the approaches to the T'an Chiang, is entered from seaward between Dahengquin Dao and Sanzan Dao. Modao Men, on the E side of the delta, is the principal entrance. In its lower reaches, the W side of the Xijiang is connected by several creeks with the T'an Chiang. Yamen Wan is the entrance channel to the T'an Chiang.

**Oilfield Development Areas.—**Numerous structures usually carrying lights and associated unlit objects and submerged obstructions, sometimes marked by buoys, exist in the Oilfield Development Areas enclosed by pecked lines on the charts. As these installations are not all charted, special caution should be exercised by vessels navigating in the vicinity. The authorities have established a 500m safety zone around each installation. Vessels should not enter these zones.

**Mine dangers.—**The danger to surface ships from mines of the 1939-45 war is almost nonexistent. The risk to surface navigation from these mines is now considered no greater than normal navigational hazards. Despite the years, these mines still continue to constitute a risk to ships anchoring, trawling, or conducting seabed operations.

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**Caution.—**Numerous acts of piracy have been reported, usually by small gangs of armed men in fast boats. Laden vessels with low freeboard are particularly vulnerable.

On most banks fronting the shores of the coastal areas covered in this volume, fishing stakes and enclosures are encountered in depths of 5 to 10m, and sometimes in greater depths, particularly near a tributary. These enclosures are constructed of trees firmly driven into the banks, and interlaced with branches, etc., and form a hazard to vessels navigating at night in the area. These enclosures last for many years, and to those with local knowledge are good landmarks.

Mariners are advised that these features are numerous off the coast of Borneo and may also be encountered off any coastline covered by this volume.

## Dapeng Jiao to Tung Lung Island

**2.2 Dapeng Jiao** (22˚27'N., 114˚30'E.) is a reef-fringed, steep-sided point which, fronted by a low off-lying rock, rises to a lofty summit close inland. It is the E entrance point of Tai Pang Wan (Mirs Bay).

**Anchorage.—**Tai Pang Wan (Mirs Bay) (22˚32'N., 114˚23'E.) is a large, sheltered body of water whose regular E shoreline contrasts sharply with the W shore, which is composed of extensive inlets and islet sheltered anchorages. Vessels seeking shelter from winds of the Northeast Monsoon season anchor, in 12.8m, within Ping Chau Hoi, a roadstead, encumbered by fishing stakes, which lies between the mainland and Ping Chau, a hilly, well-populated island. A dangerous goods anchorage has been established in the center of Tai Pang Wan, 1.5 miles NNE of Chek Chau.

**Caution.—**A number of uncharted marks and buoys are moored in the bay.

**Gau Tau** (22˚28'N., 114˚25.5'E.), a 26m high rock, lies in the middle of the entrance to Tai Pang Wan 2.25 miles NE of Tuen Tsui. A light is shown from Gau Tau.

A spoil ground, approximately 0.75 mile square, lies 1.5 miles N of Gau Tau Light.

Breaker Reef, which dries 1.5m at the center where the sea generally breaks, lies 0.5 mile SW of Gau Tau Light. South Gau, a detached islet 18m high and surrounded by foul ground, lies 1.5 miles SW of Breaker Reef. A lighted beacon stands on the edge of the rocks N of South Gau.

**Tai Tan Hoi Hap** (Long Harbor) (22˚27'N., 114˚21'E.) and Chek Mun Hoi Hap (Tolo Channel) are two well-sheltered inlets approached through deep-water channels passing NW and S of Chek Chau (Port Island).

**Caution.—**A boom restricts Chek Mun Hoi Hap. The boom lies about 0.5 mile W of Heung Lo Kok, the S entrance point of Chek Mun Hoi Hap.

Chek Chau is a high, steep-sided island 6 miles NNW of Tai Lom Tsui, the rocky, steep-to W entrance point of Tai Pang Wan. Vessels anchor in 9.2 to 14.6m within Tai Tan Hoi Hap, where they are sheltered from all but N winds which send in a heavy swell. Vessels also enter Chek Mun Hoi Hap and, passing NW of low-lying mid-channel dangers, proceed to the entrance to **Sha Tin Hoi** (Tide Cove) (22˚26'N., 114˚13'E.) where they anchor in 5.9 to 7.4m, sheltered from all winds.

**Double Haven** (22˚32'N., 114˚18'E.) and Crooked Harbor are two small deep-water roadsteads which, lying NW of the entrance to Chek Mun Hoi Hap, are sheltered from most winds by the high, steep-sided hills of the mainland and by a series of hilly, steep-sided off-lying islets. Crooked Harbor is conveniently entered from the N. Double Haven is entered from Crooked Harbor or through Wang Mun Hoi (Deep Pass), a narrow, deep-water passage in the NE part of the roadstead. Vessels anchor in 11 to 12.8m, mud, in either Double Haven or Crooked Harbor. Care must be taken to avoid the submarine cable and pipeline crossing the channel connecting the two.

**Yantian Harbor** (22˚35.5'N., 114˚16'E.) is located near Sha Tau. There are four berths, three of which can accommodate vessels of 1,000 dwt; a vessel of 3,000 dwt can be accommodated at the fifth and last remaining berth. Two additional berths to handle tankers of 10,000 and 100,000 dwt are planned for construction in Yantian Harbor.

There are depths in the channel of 16 to 22m. The depth of water available in the harbor is 20m. The deep water approach to these berths is along the recommended track, 262˚, to the vicinity of No. 3 lighted buoy.

**Pilotage.—**Pilots can be requested by calling Yantian Port Control on VHF channel 16. The pilot boards about 1 mile E of Lighted Buoy No. 3.

**2.3 Leung Shuen Wan Hoi** (Rocky Harbor)(22˚20'N., 114˚19'E.) is a deep-water, well-sheltered area whose principal seaward entrance lies between Sha Tong Hau Shan and Tiu Chung Chau. Vessels seeking shelter from winds of the Northeast Monsoon season anchor in mud in a position N of Wok Tuk Pai, an isolated pinnacle rock about 1 mile N of Sha Tong Hau Shan. During the Southwest Monsoon season, they anchor in mud in a position N of Chi Chau, a small, steep-sided islet close E of Tiu Chung Chau.

**Aspect.—**The coastline between the W entrance point of Tai Pang Wan and Tung Lung Island is extremely irregular and indented by a large island-cluttered embayment which contains the mostly landlocked water areas of Leung Shuen Wan Hoi and Ngau Mei Hoi.

**Pilotage.—**Pilots for Leung Shuen Wan Hoi, Ngau Mei Hoi, and Tai Pang Wan and its environs can be obtained at Victoria Harbor, Hong Kong.

**Ngau Mei Hoi** (Port Shelter)(22˚20'N., 114˚17'E.) is a convenient roadstead lying within a large, islet-cluttered body of water which, having its principal entrance between Tiu Chung Chau and the mainland coast SW, recedes well inland in the shelter of surrounding steep-sided lofty hills.

Ngau Mei Chau lies just within the entrance, while Kiu Tsui Chau lies near the head. Vessels seeking refuge within Ngau Mei Hoi anchor, in 14.6 to 16.4m, mud, in a position about 0.8 mile WNW of the N extremity of Ngau Mei Chau. They anchor in 11 to 12.8m, mud, within the N part of Sai Kung Hoi, a largely landlocked roadstead between Kiu Tsui Chau and the mainland to the W. Vessels having a moderate draft proceed through the passage E of Kiu Tsui Chau and anchor in 7.4m, mud, in a position close N of the N extremity of the island.

**Caution.—**A Firing Danger Area exists N of 22˚16'N, and E of Fo Shek Chau. When in use, the limits are marked by buoys with red flags and the perimeter is patrolled by small craft.

**2.4 Victor Rock** (22˚18'N., 114˚26'E.) is an isolated pinnacle rock with a depth of 5.5m and constitutes a danger to vessels proceeding S and SW from Tai Pang Wan. The summit of Tung Lung Chau aligned with the NW extremity of Hok Tsai Pai lying close N of Pak Kwo Chau, bearing 245˚, leads 0.5 mile NW of the rock. The summit of Nam Kwo Chau, bearing 242˚, leads clear of Victor Rock to the SE by 0.2 mile.

**Kwo Chau Kwan To** (Ninepin Islands) (22˚16'N., 114˚21'E.) is a group of steep-to islands and reefs just N of the E approach to Hong Kong. Pak Kwo Chau and Nam Kwo Chau are the largest of the islands, with the latter being slightly smaller, but of higher elevation with a height of 116m. The islands are separated by Hoi Tam Hua, a channel 0.2 mile wide. North Rock, an islet with a rock which dries 2m close N of it, lies to the NE of Pak Kwo Chau.

Tung Kwo Chau, 66m high and appearing like a sugarloaf from the NW or SE, lies 1.2 miles E of Pak Kwo Chau. Islets lie off the NE, W, and NW shores of Tung Kwo Chau.

North Rock and Tung Kwo Chau are covered by the red sector of the light on the N end of Pak Kwo Chau, bearing between 212˚ and 299˚.

**One Foot Rock** (22˚15'N., 114˚22'E.), with a depth of 0.3m, lies 0.7 mile S of Tung Kwo Chau. Fat Tong Point, the tip of the peninsula 0.5 mile SW of Yi Bluff (22˚16'N., 114˚18'E.) and in line with the S extremity of Nam Kwo Chau, bearing 278˚, leads S of One Foot Rock.

Soundings are of little use in locating these dangers. Caution is advised when approaching them, especially in adverse weather.

## Approaches to Hong Kong

**2.5 Regulations.--**Several IMO-approved Traffic Separation Schemes have been established in the waters of, and adjacent to, Hong Kong.

A mandatory Vessel Traffic Service is in effect for all vessels over 300 tons navigating within Hong Kong waters. See paragraph 2.19, "Hong Kong--Regulations" for details and reporting points.

Special regulations are in effect for vessels entering Hong Kong. See paragraph 2.19 "Hong Kong—Regulations" for details.

**Directions.—**The entrance channels normally used by vessels calling at Hong Kong are approached from the E or SE. Vessels approach through Lam Tong Hoi Hap (Tathong Channel), which is the main channel leading into Hong Kong harbor from SE, and extends from TCS No. 1 Lighted Buoy (22˚13.2'N., 114˚14.0'E.) to **Lei Yue Mun** (22˚17.1'N., 114˚14.3'E.).

Approach can also be made through the channel between Po Toi Group and S of Hong Kong Island entering East Lamma Channel; or an approach from Lema Channel (22˚06'N., 114˚14'E.) leads into either East Lamma or West Lamma Channel.

It is recommended that vessels stay at least 5 miles SE of Jiapeng Liedao and Dangan Liedo, then pass the NE end of Dangan Liedo keeping the same distance. When within 3 miles S of Po Toi Island, proceed NW into East Lamma Channel.

The W approach is through Lantau Channel (22˚08'N., 113˚54'E.), leading ENE into West Lamma Channel. The NW approach into the same channel is made from N of Lantau Channel.

**2.6 Po Toi Group** (22˚11'N., 114˚16'E.) is a group of islands and rocks centered 2 miles SE of Hong Kong.

**Waglan Island** (Wang Lan Island) (22˚11'N., 114˚16'E.), the easternmost island of the group, consists of two rocky islets separated by a narrow boat channel. Waglan Island lies within a restricted area. The island is 30m high at its N end, and is covered by green shrub or moss on the W face of its S end. The cliff face, on the N side of the island, has been painted white and the mark can be seen from W through N to E. The island is reported be a good radar target from distances of up to 30 miles.

A signal station is situated on Waglan Island. The station may be contacted via VHF, or visual signals may be exchanged. Storm signals are displayed here.

A dangerous wreck, marked by a lighted buoy, lies 3.5 miles SE of Waglan Island Light.

Sung Kong, steep and covered with small bushes, lies 0.9 mile W of Waglan Island. An islet, 27m high, lies close off the NE end of Sung Kong. Fury Rocks, the highest being 4.5m, are a group of rocks lying 0.3 mile NW of Sung Kong, with depths of 12.8m to 24m in the fairway between. Foul ground extends up to 0.1 mile off the rocks.

**Waglan Island from N**

**2.7 Po Toi Island** (22˚10'N., 114˚16'E.), the southernmost and largest of the group, is barren and rock fringed in places, rising to 238m high at its NE part. The SE extremity of the island was reported to be a good radar target at 25 miles.

Lo Chau Pak Pai (Castle Rock), 15m high and surrounded by a narrow rocky ledge, lies 1.5 miles NW of the light on the S extremity of Po Toi Island.

Lo Chau Island (Beaufort Island), off the NW end of Po Toi Island, is the closest of the group to Hong Kong. It is steep-sided, rock-fringed in places, and rises to a flat 272m summit.

**Caution.—**An explosives dumping ground, best seen on the chart, is located in the passage between Lo Chau Island and Po Tai Island.

In addition to the dangerous wreck already described above, three other dangerous wrecks lie at the E end of Lema Channel. One is marked by a lighted buoy moored 4 miles ESE of Po Toi; two are unmarked and lie 5 miles SE of Po Toi.

**2.8 Dangan Liedao** (Tan-Kan Lieh-Tao) (22˚01'N., 114˚12'E.) is a chain of islands and rocks extending 14 miles in a NE-SW direction. The four major islands of the chain are separated by relatively deep, narrow channels.

**Dangan Dao** (Tan-Kan Tao) (22˚02'N., 114˚12'E.) is the largest and northeasternmost island of the group. The E face of the island was reported to be radar conspicuous at 30 miles. A watch tower stands near the W end of the island, and some prominent brick buildings stand on the NW side. Eddies are charted off the NW end of the island.

Tan-Kan T'ou Wan is entered on the N side of Dangan Dao, 1.5 miles W of the island's NE extremity. The bay affords anchorage for small vessels in 14.6m, good holding ground, and affords shelter during the Northeast Monsoon. Er Zhou (Erh Chou), 475m high, is the highest and most central of the group. It lies close SW of Dangan Dao, and appears flat-topped from most directions.

Round Island, 40m high, lies close N of the NE end of Er Zhou. The island has four distinct peaks, the highest of which rises to 377m.

**Xidan Dao** (Hsi-tan Tao) (21˚58'N., 114˚08'E.), 133m high at its E end, is the southwesternmost island of the group. Mosquito Rock, which breaks, lies 0.15 mile S of the SW end of the island. Danuei Jiao (Iroquois Rock), a pinnacle with a depth of 10m, lies 1.2 miles NW of the same point.

**Taitami Channel** (21˚57'N., 114˚06'E.) separates Dangan Liedao from Jiapeng Liedao. The channel is about 4 miles wide and 33 to 37m deep, with the exception of Lih-Sin P'ai, a rock which breaks occasionally.

**Jiapeng Liedao** (Chia-P'eng Lieh-Tao) (21˚52'N., 114˚00'E.) is a chain of rocks and islands extending 10 miles SE from O-yen Shih to Wenwei Zhou.

**O-yen Shih** (21˚56'N., 114˚03'E.), 39m high, is a small islet lying about 1 mile N of **Beijian Dao** (Pei-Chien Tao) (21˚53'N., 114˚02'E.). On the SW end of Beijian Dao are two conspicuous peaks that rise almost perpendicularly to a height of 300m, and are known as Ass's Ears. Several coves indent the NE and S coasts of the island. Islets lie off the N, NE, E, and S shore of the island. A high, white rock known as Kuei-T'ou Shih lies off the E side of the island, and a rock awash lies midway between it and the shore.

**2.9 Miaowan Dao** (Miao-Wan) (21˚56'N., 114˚01'E.), an island 240m high, lies close SW of Beijian Dao. Two islets, the highest being 62m high, lie close off the S end, and two sunken rocks, of which the outer one breaks, lie off the NE end of Miaowan Dao. Bai Pai (Pai-P'ai), 24m high, lies about 1 mile off the W side of the same island.

Between Miaowan Dao and Wenwei Zhou lies a square area encompassing six islands and islet clusters. These islands are Ch'an Chou, 90m high, located at the NW of the square; Huang-mao Chou, 66m high, 0.75 mile farther SW; P'ing Chou, 27m high, 0.75 mile SE of Huang-mao Chou; Hung-sha Chou, 66m high, about 0.5 mile NE of P'ing Chou; and Shih Chou, 35m high, fringed with rocks. Shih Chou lies about 1 mile off Hung-sha Chou.

**Wenwei Zhou** (Wen-wei Chou) (21˚49'N., 113˚56'E.), 29m high, is the southwesternmost island of the Jiapeng Liedao group. Several sunken rocks lie up to 0.1 mile off the islet. A light is shown and a racon transmits from the light on Wenwei Zhou.

**Wailingding Dao** (Wai-ling-Ting) (22˚06'N., 114˚02'E.)is a rugged island that rises to 343m near its center. A natural boat harbor indents the W side of the island. Needle Rocks, 1.5m high, lie close together about 0.15 mile SW of the NW end of the island. Vessels should give a wide berth to the dangerous rocks lying 0.8 mile E of the N extremity of this island.

Sanmen Liedao (San-men Lie-tao) is a group of islands and rocks centered 3 miles SSW of Wailingding Dao.

A spoil area is charted 3 miles N of Wailingding Dao.

**Henggang Dao** (Heng-Kang Chou) (22˚02'N., 114˚01'E.), the southernmost island, has a rounded hill, 145m high, at its S end, and a small drying reef on its E end. Chu-wan-t'ou, 72m high, lies close N of Henggang Dao. A rock lies close N of Chu-wan- t'ou.

**Sanmen Dao** (San-men) (22˚03'N., 113˚59'E.), 20m high, lies 0.7 mile NW of Henggang Dao. A small bay indents the W side of the island and affords anchorage to small vessels in depths of 11 to 18.3m, mud. Rocks lie off the N and NE coasts of Sanmen Dao, between it and Sanmen Chou, about 0.5 mile to the NE.

Hei Zhou (Hei Chou) is 100m high and the northwesternmost island of the group. It lies 0.5 mile NW of Sanmen Dao. A group of islets and rocks, the highest called Yuangang, 45m high, lies within 0.3 mile NW of Hei Zhou, and a sunken rock lies close SE of Hei Zhou.

**Toulu Zhou** (22˚04'N., 113˚56'E.), located 2 miles W of Yuangang, is quite high and surrounded by rocks.

**Ai Zhou** (22˚03'N., 113˚55'E.) is comprised of two islands, separated by a narrow channel with a depth of 7.3m, that lie about 2 miles SW of Toulu Zhou. To the W of the W island is a rock that dries 1.2m, and to the N of the same island lies a sunken rock. The E island rises to a height of 226m and has a rock that dries 1.5m close off its N extremity.

## Hong Kong Island

**2.10 Hong Kong Island** (22˚16'N., 114˚12'E.) reverted to the People's Republic of China and is no longer under British jurisdiction as of July 1, 1997. Hong Kong is now considered a Special Administrative Region of the People's Republic of China.

The island is 9 miles long and 6 miles wide at its greatest dimensions. It rises steeply from the sea to a central ridge of hills with a height of over 549m in the NW part. The N shore of the island is relatively smooth and forms the S shoreline of Victoria Harbor while the W, S, and E sides of the island are indented by numerous bays of varying sizes. As the island is mountainous and rugged, land for building purposes is obtained largely by reclaiming the surrounding bays or by leveling hills. The natural vegetation is mostly grass and bushes, with small trees in sheltered places.

**Hok Tsui** (22˚13'N., 114˚16'E.) is the SE extremity of Hong Kong Island. It is marked by a light and has two conspicuous

radio towers situated about 0.8 mile NW on Hok Tsui Shan (d'Aguilar Peak). Close off its SE side lies a green islet, Kau Pei Chau. Between Hok Tsui and Hak Kok Tau, a point 3.2 miles N, the island is indented with several small bays and fronted by a few islets. These bays are rock-fringed and suitable for use only by small craft.

**Chai Wan** (22˚16'N., 114˚15'E.), a bay with three bights, extends between a position about 0.3 mile NW of Hak Kok Tau light and Pak Sha Wan at the SW of Lei Yue Mun 1.7 miles farther NW. Portions of the bights within Chai Wan are relatively shoal and foul. Numerous areas of construction and reclamation are in progress in this area.

**2.11 Tai Tam Bay** (22˚14'N., 114˚14'E.) extends N into Hong Kong Island about 2.5 miles between Hok Tsui and Wong Ma Kok (Bluff Head). The bay is clear of dangers to 0.1 mile offshore and has depths of 11 to 14.6m in its outer part, while gradually shoaling toward its head. Vessels anchor within the bay in 11m, mud, off the village situated at the head of the bight at the NW part of the bay. Caution is advised when anchoring within the bay, as numerous fishing stakes obstruct the N part of it.

To the E of the light on Wong Ma Kok stands a satellite tracking station with conspicuous dish aerials and radio masts. About 0.2 mile N of the SW entrance point of the bay stands a supplementary storm signal station.

**Chek Chue Wan** (Stanley Bay) (22˚12'N., 114˚12'E.) is the bight indenting the island to the W of Stanley Peninsula. Chung Hom Kok is the W entrance point of the bay and is a rocky barren promontory 128m high with a conspicuous boulder at its summit. A prominent yellow mast, from which storm signals are shown, stands at Chek Chue (Stanley), the village at the head Chek Chue Wan.

Anchorage, sheltered during the Northeast Monsoon, can be taken in 11m about 0.5 mile from the head of the bay.

Chung Hom Wan, to the NW of Chek Chue Wan, is fronted by the island of **Ngan Chau** (Round Island) (22˚13'N., 114˚11'E.). This island is fringed by a rock ledge with a few drying patches and depths of less than 5.5m up to 0.2 mile offshore. A light is shown from the S end of the Island.

**Tsin Shui Wan** (Repulse Bay) (22˚14'N., 114˚11'E.), a bay entered 1 mile NNE of Ngan Chau, provides anchorage in 10m SW of the island of Tong Po Shan (Tung Ku Chau).

Sam Shui Wan (Deep Water Bay) is entered between Tong Po factory standing with some conspicuous chimneys near it. A small landing pier is situated at the head of the bay.

**Caution.—**Due to the existence of submarine cables in Sam Shui Wan, anchoring is not advisable.

**2.12 Heung Kong Tsai** (Aberdeen Harbor) (22˚15'N., 114˚11'E.) provides good shelter from a typhoon. From the E side of Western Breakwater, reclaimed land forms the N shore as far as Deep Pass Point, about 1 mile E. There are three power cables which span overhead across the W entrance with a vertical clearance of 27m, close E of the breakwater. A submarine pipeline is laid 0.2 mile SW from the coast W of Western Breakwater, from which a light is shown.

Three artificial islands are situated 0.3 mile S of the Deep Pass Point; submarine cables lie between each island and connect to the coast E.

Heung Kong Tsai Hoi Hap (Aberdeen Channel) leads N to Heung Kong Tsai, between Hong Kong Island and Ap Lei Chau. The channel is narrow and dangerous and is not recommended.

The islands of Ap Lei Chau and **Ap Lei Pai** (22˚14'N., 114˚09'E.) fill most of a bight indenting Hong Kong Island, that extends from Sham Shui Kok to the NW entrance of Shek Pai Wan, about 2.3 miles NW. Ap Lei Chau is steep and barren, rising to 195m at Yuk Kwai Shan (Mount Johnston) at its S-central part.

Assistance Rock, covered 2.7m, lies about 0.1 mile SW of the bight on the SE extremity of Ap Lei Pai.

Heung Kong Tsai (Aberdeen Harbor) is entered through a channel bound from the S by Fo Yeuk Chau, an island with an arched roof building near its summit, and on the N by Hong Kong, W of Pollux Rock.

The small harbor is well-sheltered, but used mostly by small vessels and fishing craft, as the breakwater extending SSE into the harbor from the N of Fo Yo Kok and the overhead cables (vertical clearance 26.8m) E of the breakwater limit access to Aberdeen Docks. Supplementary storm signals are shown from the police station in Aberdeen.

Anchorage can be taken off the harbor entrance in a depth of 9.2m, about 0.2 mile NNW of Fo Yo Kok.

Between Shek Pai Wan and Shek Tong Tsui, the W extremity of Hong Kong Island 2 miles NW, the main island is indented by Waterfall Bay, Kong Sin Wan (Telegraph Bay), and Sandy Bay. The latter bay is almost completely reclaimed. The coast is fringed with rocks within 0.3 mile of the shore.

**2.13 Lamma Island** (Pok Liu Chau) (22˚12'N., 114˚08'E.) is a very irregularly shaped island with bays indenting it on all sides. It is relatively steep-to and rises to about 350m high, giving good radar returns from 12 miles. The hills on the island present a barren appearance. Most of the fringing dangers lie within 0.15 mile of the shore, the outermost being two rocks that dry 0.6 and 2.1m off the NW extremity of the island.

Of the three large bays that indent the E coast of Pok Liu Chau, only the southeasternmost is not used for anchoring, as it is open to the swell from seaward.

Sok Kwu Wan (Picnic Bay), which nearly bisects the island on its NE side, affords good anchorage for small vessels in 11 to 12.8m. The bay is clear of dangers in its outer part. A concrete jetty, 60m long with a depth of about 5.8m at its head, projects NW from the S shore about 0.2 mile from the head of the bay where a ferry landing is situated.

A prohibited area, marked by buoys, lies within the bay.

Luk Chau Wan indents the NE side of Pok Liu Chau to the NW of Luk Chau, a small island about 68m high. The bay provides good shelter during the Southwest Monsoon.

Anchorage can be taken in Luk Chau Wan in 9.2 to 11m, good holding ground.

A submarine power cable crosses Luk Chau Wan between positions 0.2 mile SSW and 0.6 mile WNW from the summit of Luk Chau.

**Ha Mei Wan** (22˚13'N., 114˚06'E.) is the largest bay on the W side of Lamma Island.

A powerplant, with two conspicuous chimneys, stands on reclaimed land E of **Po Lo Tsui** (22˚13'N., 114˚06'E.). A jetty, 320m long, is situated W of the powerplant where coal carriers

berth. Hong Kong Electric Co, can accommodate vessels of up to 100,000 dwt with a maximum length of 264m. The dock has a depth alongside of 16.5m. Approach to the berth is made through a channel, 260m wide with a dredged depth of 15.7m, entered 1.75 miles S of Po Lo Tsui. The channel is marked by lighted buoys. Anchoring off the jetty and the turning area is prohibited.

A passenger jetty lies close NE of Po Lo Tsui.

**2.14** **Tsing Chau** (Green Island) (22˚17'N., 114˚07'E.) lies off the NW extremity of Hong Kong Island across Sulphur Channel. The island is 91m high, rock fringed, shows a light from its SW part. Green Island Cement Company operates a facility having a pier able to accommodate vessels of up to 55,000 dwt, with a dredged depth alongside of 10m.

**Ngong Shuen Chau** (Stonecutters Island) (22˚19'N., 114˚08'E.) is the S extremity of a peninsula created by extensive and continuous land reclamation. A large basin containing several jetties lies at the E end of Ngong Shuen Chau. The basin has a least depth of 4.4m and is protected by two lighted breakwaters which form the entrance on its NE side. The basin is approached via Yau Ma Tei Fairway, which leads N from Central Fairway at 22˚18'N, 114˚09'E and passes W of Kowloon, then NW to the NE of Ngong Shuen Chau.

**Tung Lung Island** (22˚15'N., 114˚17'E.) lies across Tai Miu Wan to the S of the mainland and E of Hong Kong Island. It is over 230m high and very steep on its seaward side. A white mark has been painted on the steep black cliffs of Lam Tong Mei at the tip of the peninsula extending S from Tung Lung Island. Nga Ying Pai, 3.7m high, is the outermost of a group of rocks extending about 0.1 mile SW from the island. A light is shown from this rock.

**Tai Miu Wan** (Joss House Bay) (22˚16'N., 114˚17'E.) is a small bay bounded on the S by Tung Lung Island and on the N by the mainland. Fat Tong Mun is the E entrance to the bay, but is only usable by small craft as the W entrance is much more accessible. Although anchorage is foul in the outer part of the bay, small vessels can find good anchorage in 10.1m in its inner part, with the N extremity of Tung Lung Island bearing 121˚ and the SE side of Tit Cham Chau, the larger of the two islands in the NW entrance of the bay, bearing 238˚.

Fat Tong Chau (Junk Island), 98m high and covered with grass and a few scattered trees, is located about 1 mile NNW of Tit Cham Chau in the SE part of Tseung Kwan O. The island is joined to the mainland by an extensive area of reclaimed land. There are three islets off its S extremity, the largest of which is marked by a light.

A shoal, with depths of 3m, lies between 0.2 and 0.4 mile ESE of Fat Tong Chau light. A submarine power cable crosses the W entrance to Fat Tong Mun.

**Tseung Kwan O** (Junk Bay) (22˚17'N., 114˚16'E.) is a large indentation of the mainland that is entered between Fat Tong Chau and Lei Yue Mun Point, about 1.4 miles NW. This bay shoals gradually toward its head where a considerable amount of reclamation is being done.

**Caution.—**Depths in Tseung Kwan O are considerably less than charted N of a position 1.5 miles within the entrance. A shoal, with a least depth of 3m, exists between 0.1 and 0.2 mile NE of Lei Yue Mun Point.

A disused spoil ground extends about 0.1 mile seaward along this part of the coast.

This bay provides good shelter during typhoons, and in addition to the charted Dangerous Goods Anchorage, vessels may anchor in 8.2m and 7.3m N and NE, respectively, of Fat Tong Chau.

## Hong Kong Entrance Channels

**2.15** Lam Tong Hoi Hap (Tathong Channel) is the main channel leading to the E entrance of Victoria Harbor. When entered from seaward, the channel leads S of Tung Chau Lung Island, NW between Lam Tong Mei and Hok Tsui, and NNW between Hong Kong Island and the mainland to Lei Yue Mun.

A Traffic Separation Scheme has been established in Lam Tong Hoi Hap, and is best seen on the appropriate chart. This traffic scheme is IMO-adopted and Rule 10 of the International Regulations for Preventing Collisions at Sea (1972) applies. For details on Vessel Traffic Service Reporting Points, see paragraph 2.19, "Hong Kong—Regulations."

Tai Long Pai, a group of rocks, lies 1 mile SW of Nga Ying Pai. Shoal water extends up to 0.1 mile off the light structure situated on the rocks.

**Bokhara Rocks** (22˚13'N., 114˚16'E.) lie 1.3 miles S of Tai Long Pai, on a bank with a least depth of 4.4m.

**Lei Yu Mun** (22˚17'N., 114˚14'E.) is the short, narrow pass leading from the N end of Lam Tong Hoi Hap to the E entrance of Victoria Harbor. It is about 0.2 mile wide, with depths of over 18.3m lying 137m and 82m from the N and S sides, respectively. It is well-marked by lights and clear of dangers.

**Sheung Sz Mun** (22˚12'N., 114˚15'E.) is a deep pass leading between the mouth of Tai Tam Bay and the island of Lo Chau. After passing Hok Tsui, W-bound vessels should round Wong Ma Kok, remaining N of Oliver Shoals and clear of Chesterman Rock.

**Chesterman Rock** (22˚11'N., 114˚12'E.), marked by a lighted buoy, has a least depth of 13.7m and lies 0.7 mile WSW of Bluff Head.

**Caution.—**Mariners are advised to keep a safe distance from Chesterman Rock and Oliver Shoals; rapids and irregular shoals form in the area.

A wreck, with a least depth of 16.4m, lies in the inbound lane of Tathong Channel TSS, 0.6 mile S of Tathong Point Light.

**2.16** **Tung Pok Liu Hoi Hap** (East Lamma Channel) (22˚14'N., 114˚08'E.) leads between Hong Kong Island and Lamma Island in a NW direction to the W entrance of Victoria Harbor. It is the most convenient route to the mooring buoy berths in Victoria Harbor when approaching Hong Kong Island from the E or SE. The channel has fairway depths of over 18m.

A Traffic Separation Scheme governs traffic movements in East Lamma Channel, which is best seen on the appropriate chart.

**Lamma Patch** (22˚15'N., 114˚07'E.), with a depth of 7.5m, lies to the NE of Pak Kok on the Traffic Separation Line and is marked by buoys. A 14.6m patch lies in the outbound lane of the scheme, 0.5 mile SE of Lamma Patch.

**Caution.—**Large concentrations of fishing vessels frequent the approaches to Tung Pok Liu Hoi Hap.

Dangan Shuidao (Lema Channel) is entered from the E between Dangan Liedao and the Po Toi Group, or from the SW between Dangan Liedao and Sannen Liedao. The channel has depths of 18.3 to 36.6m, and is clear of dangers.

**Caution.—**This channel has been closed to foreign shipping by China.

**2.17 Sai Pok Liu Hoi Hap** (West Lamma Channel) (22˚11'N., 114˚03'E.) is entered between the islands of Cheung Chau on the W, and Lamma Island on the E. An extensive bank, with a least charted depth of 6.4m, extends across the islands mentioned above and is best seen on the chart.

**Shek Kwu Chau** (22˚12'N., 113˚59'E.) is the southwesternmost island bordering West Lamma Channel. It has two peaks, the higher one being on the NW end of the island and 183m high. A group of drying rocks lie off the NW shore. In 1993 shoal depths were reported 1 mile SSE and 1.8 miles SE of Shek Kwu Chau.

Cheung Chau, 2.5 miles ENE of Shek Kwu Chau, consists of two hilly areas joined by a narrow neck of land that supports a large fishing village. The hill to the N is about 109m high. A conspicuous meteorological observatory and storm signal station stand 0.3 mile NE of the S extremity of the island. Storm signals are also displayed from another mast 0.5 mile NE. The cliff face at the NE end of the island has been painted white.

Cheung Chau Rock, which dries 2.1m and is marked by a light, lies about 0.3 miles E of the E end of Cheung Chau.

Hei Ling Chau and **Chau Kung To** (22˚16'N., 114˚03'E.) are two islands lying 3 miles N of Cheung Chau Rock. The former is 188m high near its center with three rocks, the highest 3.7m high, lying about 0.2 mile offshore abreast the S part of the W coast of the island, while the latter is 105m high at the cliff on its E side. Supplementary storm signals are shown at the NW extremity of Hei Ling Chau. A conspicuous pavilion stands on the NW extremity of the island. Construction of a typhoon shelter on the island began in 1995.

A shoal, with a depth of 3.5m, lies about midway between Chau Kung To and Datum Rock to the NE.

**2.18 Kau Yi Chau** (22˚17'N., 114˚04'E.) rises steeply to 117m and is rock-fringed. It is the northernmost island on the W side of West Lamma Channel. The area between this island and Douglas Rock, which is awash at LWS and Siu Kau Yi Chau (Sui Kau Island) about 1 mile W, is a dumping ground.

In 1984, a depth of 5m was reported to lie 0.4 mile N of Douglas Rock.

An exposed wreck has been reported to lie off the E coast of Kau Yi Chau, and a second wreck showing masts above water lies 0.1 mile farther SE.

**Peng Chau** (22˚17'N., 114˚02'E.) and Tai Pak, close W, lie between the previously-mentioned islands and Tai Yue Shan. Peng Chau is crescent-shaped and rises to a height of 46m in the N and 107m in the S. These parts are joined by a low isthmus that contains a lime works. The cove on the E coast is shoal. A radio mast is conspicuous from the NE end of the island.

West Lamma Channel continues N of a line between Kau Yi Chau and Tsing Chau (Green Island) to Tsing Yi or Kap Shui Mun. Pun Shan Shek (Bunsansiak Rock) is the northwesternmost danger in the channel.

## Victoria Harbor (Hong Kong) (22˚18'N., 114˚10'E.)

World Port Index No. 57840

**2.19** Victoria Harbor lies between the N side of Hong Kong Island and the mainland of China. The harbor has an area of about 23 square miles, with complete facilities for ocean-going vessels of up to 110,000 dwt, including shipbuilding and repairs. The limits of Victoria Harbor are defined on the E by a line between the lights marking the NW end of Lei Yue Mun and on the W by a line from Shek Tong Tsui to the W coast of Tsing Chau (Green Island), to the SE side of Tsing Yi, then to the NW extremity of Tsing Yi and due N to the mainland.

### Winds—Weather

The Northeast Monsoon normally begins during September. It prevails from October until mid-March, but can persist until May. The early winter is generally dry and sunny, with cloud cover and rainfall becoming more prevalent after January. Coastal fog and drizzle occur about 4 days a month in early spring during breaks in the monsoon. Vessels can, on occasion, find fair visibility in Lema and East Lamma Channels when Lam Tong Hoi Hap is fog-bound.

The Southeast Monsoon can occur from mid-April until September, but is not as strong as the Northeast Monsoon. This season is generally rainy, hot, and humid.

Gales and typhoons can occur from May to November, but typhoons are most likely to occur between July and September and vessels should be prepared to seek shelter during this period. Special moorings are equipped to handle vessels within Victoria Harbor during typhoons.

### Tides—Currents

The tidal rise is 2.2m at springs, and 1.6m at neaps.

Tidal currents in the fairway and harbor between Lei Yue Mun and Tsing Chau set W with a rising tide and E with an ebb tide, changing direction at LW and HW.

### Depths—Limitations

Tung Pok Liu Hoi Hap provides the deepest approach from seaward to Victoria Harbor, and provides access to the deep-water berths at Tsing Yi Chau. Aside from Lamma Patch, which has already been described in paragraph 2.16, the channel shows a least charted depth of 16.5m to a point about 0.8 mile SSW of Tsing Chau (Green Island). From this point, the channel traverses Kellett Bank, which will be described later.

The controlling depth in Victoria Harbor is 11m through the Northern Fairway and Lam Tong Hoi Hop.

Northern Fairway is the principal fairway for all merchant ships entering Hong Kong harbor from W approaches; it has a

least depth of 10.1m. The channel connecting East Lamma with Northern Fairway runs W of the Western Quarantine Anchorage, then E along the N limits of Dangerous Goods Anchorage on the N section of Kellett Bank.

Anchoring is prohibited in this passage. The channel is marked by Kellett, Quarantine, and Northern No. 4 lighted buoys; the latter marks the W limit of Northern Fairway. The channel then leads SE between Northern No. 2 and No. 3 lighted buoys for a distance of 1.5 miles and enters into Central Fairway.

Rambler Channel, located between Tsing Yi Chau and the mainland E, provides access to some of the principal deep-water berths of the port. The N end of the channel is obstructed by a bridge with a vertical clearance of 17m; passage N of the bridge is not recommended for ocean-going vessels.

Tsing Yi, the area N of Tsing Yi Chau, is reached by passing W and N of Tsing Yi Chau. Several oil berths are situated here.

The channel is dredged to a depth of 11.5m as far as the oil terminal at the NE end of Tsing Yi.

The main container berths for the port are situated on the E side of Rambler Channel, at the Kwai Chung and Stonecutter's Island Container Port which consists of eight private terminals. Each berth has a length exceeding 300m and alongside depths of 12.2 to 14.5m. There are a total of 19 container berths for ocean-going vessels in Victoria Harbor.

A bulk coal berth, situated on the W shore of Pok Liu Chau, is approached from West Lamma Channel via a fairway dredged to a depth of 15.5m in 1981. The jetty reportedly will accept vessels up to 290m in length, with drafts of 13m.

Tuen Mun, a utility company terminal having facilities for the handling of coal, can accommodate vessels of up to 140,000 tons with maximum drafts of 17m.

China Cement Co., has three berths at Tap Shek Kok. The main jetty can accommodate vessels of up to 60,000 dwt, has a length of 270m, with an alongside depth of 14m. The auxiliary jetty is 275m with an alongside depth of 14m. The third jetty is for lighters and has a depth of 4.5m.

There are grain terminals at Kennedy Town and Kwun Tong.

The bulk terminals at Po Lo Tsui and Tsing Chau have already been described.

There are eight tanker berths, with lengths of 61 to 250m and alongside depths of up to 18.3m. Vessels of up to 110,000 dwt can be accommodated at the terminal situated on Tsing Yi Island. The Shell terminal at Ap Lei Chau can accommodate vessels of up to 100,000 dwt with a maximum draft of 18.3m. Special regulations are in effect for vessels proceeding to berths at Tsing Yi or Kwun Tong.

Numerous wharves and piers intended for break bulk vessels line the shores of Victoria Harbor. Depths alongside the various piers vary between 5.3 and 10.5m.

Ocean Terminal consists of two passenger vessel berths, each having a length of 380m, and a depth of 11.5m at the outer berth and 9m at the inner berth.

There are ship repair and dry-docking facilities for vessels of up to 150,000 dwt.

**Caution.—**Depths of up to 2m less than charted have been reported (1996) in Northern Fairway.

Southern Fairway is entered through Sulphur Channel, which also merges into Central Fairway from the W, where Northern Fairway joins in from NW.

A rock, which uncovers 1.2m, lies 0.1 mile S of **White Point** (22˚19.0'N., 114˚08.4'E.). Another rock, with a depth of 1.8m, lies 0.1 mile WSW of the same point.

Central Fairway and Hung Hom Fairway, which connect with Eastern Fairway, pass through the central portion of Victoria Harbor. Hung Hom Fairway shows a least charted depth of 10m, while the other fairways possess greater depths.

The fairways in Hong Kong are usually very congested. Particular caution should be exercised when navigating at the junctions of fairways, particularly in the vicinity of position 22˚19.0'N, 114˚05.5'E, where traffic may converge from all directions.

Special regulations are in effect for Central Fairway. See "Regulations" for more information.

A bridge is being constructed in the channel (1995) close S of Tsing Tsuen Bridge.

## Aspect

Victoria Harbor is widest along its W harbor limit and narrows gradually E until the Kowloon Peninsula, projecting from the mainland toward Hong Kong Island, where it reduces its width to about 0.7 miles. Farther to the E, it widens slightly until beyond Tsat Tsz Mui (North Point) where it narrows again up to the E harbor limit at Lei Yue Mun. The N shore of Hong Kong Island and the shores of the Kowloon Peninsula are fronted by high buildings and backed by steep hills. Numerous piers project into the harbor from the shores of the mainland as well as from Hong Kong, Tsing Yi, and the other islands within the harbor limits. The W portion of the harbor contains most of the shore berths and mooring buoys, while the E portion is filled by dockyards, a few piers and and wharves, the former runway of the old international airport, and the Eastern Fairway.

The highest point overlooking the harbor is Victoria Peak, 551m high, with a tower near its summit, located 0.8 mile SSW of the Vessel Traffic Center (22˚17.4'N., 114˚09.0'E.). The S side of the harbor is indented by Victoria Basin, Tung Lo Wan (Causeway Bay), Quarry Bay, and Aldrich Bay, while the N shore is indented primarily by Kowloon Bay, Hung Hom Wan, and the Sam Shui Po area to the NE of Ngong Shuen Chau.

Chimneys at the power plants on the S side of Tsing Yi and about 0.5 mile WSW and 0.9 mile NNW, respectively, of North Point are conspicuous. The white spire of St. Andrew's Church is situated close W of the Royal Observatory on the Kowloon Peninsula. Close to the observatory stands a framework mast, 78m high, marked by a fixed red obstruction light.

**Caution.—**Dredging, reclamation, and construction works are continuously underway throughout the harbor.

Do not confuse the obstruction light on the tower at the Royal Observatory with the storm signals shown at that station.

The Macau Ferry Terminal is situated close NW of the signal station. Vessels may not enter or maneuver in the close vicinity, marked by buoys, of the terminal. Four sets of Traffic Control Lights are shown near the W extremity of Outer and Inner Piers at the ferry terminal, two on each pier. An outfall pipe extends 0.2 mile NNE from a position 0.2 mile W of the terminal. Positive identification of charted landmarks may be difficult at night due to the fact that the shores of the harbor are ablaze with light.

## Pilotage

Pilotage in Hong Kong is compulsory for the following vessels:

1. Vessels of 3,000 grt or over.
2. Vessels of 1,000 grt or over proceeding to or from a wharf (as specified in Part 1 of the First Schedule) or container terminal (as specified in the Third Schedule of the Dangerous Goods (Shipping) Regulations).
3. Vessels of 1,000 grt or over carrying dangerous goods (as specified in IMO categories 1, 2, and 5).
4. Vessels of 1,000 grt or over proceeding to or from a government mooring buoy.
5. Vessels of 300 grt or over, as follows:
   a. Vessels unable to proceed under their own power, maneuver with their own steering gear, or work with their own anchors.
   b. Vessels that have any part of the hull structure removed or under repair which may affect the watertight integrity of the vessel.
   c. Vessels at risk of causing injury to persons or damage to property, any other vessel, or the environment by virtue of the condition of the vessel or the nature or condition of the cargo.
6. Gas carriers as defined in Regulation 2 of the Merchant Shipping (Safety) (Gas Carriers) Regulations.
7. All vessels 5,000

Pilot services are available 24 hours throughout the year.

Pilots embark and disembark at the N end of the traffic separation scheme (TSS) in East Lamma Channel; near Ngau Chau (Round Island), in East Lamma Channel, for vessels of 20,000 grt and over; off the turning buoy in Tathong Channel; or off Lau Kok Tsui (Black Point) in Urmston Road. Vessels are also met off the entrance to Chek Mun Hoi Hap (Tolo Channel). The pilots monitor VHF channel 11.

Vessels using the South Western Approach requiring a pilot, shall embark or disembark their pilot at Ngan Chau Pilot Boarding Station.

Oil tankers anchoring in the Kau Yu Chau Dangerous Goods Anchorage and hampered vessels entering and leaving through Weat Lamma Channel shall embark and disembark their pilot in the vicinity of Tsing Chau (Green Island).

Vessels may proceed directly to or from a pilot boarding place or a specified anchorage, provided the arrival information is delivered as required.

Vessels should adjust their speed to arrive at the pilot boarding station at the allocated boarding time and conform to the speed of other vessels in the channel, not overtaking vessels ahead unless directed to do so by the Vessel Traffic Center.

## Regulations

All owners, agents, and masters or persons-in-charge of ocean-going and river trade vessels over 300 grt are required to report their arrival and movements of their vessels to the Vessel Traffic Center (VTC), call sign "MARDEP", when entering, leaving, or moving in the waters of Hong Kong.

The owners, agents, or masters of these vessels shall apply for permission to enter the waters of Hong Kong by providing pre-arrival notifications to the Director of Marine through Hong Kong coast radio station or by telex, not less than 12 hours before the intended entry into the waters of Hong Kong from the sea or river trade waters or immediately after leaving their last port of call if the intended entry into the waters of Hong Kong is less than 12 hours after leaving such port.

The pre-arrival notification for all vessels should state the following information:

1. Vessel's name.
2. Call sign.
3. Flag.
4. Type.
5. GRT.
6. LOA (in meters).
7. Number of crew including master.
8. Purpose of call in Hong Kong.
9. Estimated maximum draft of vessel in meters upon arrival.
10. Any defects affecting maneuverability of seaworthiness, or special conditions of the vessel or its cargo.
11. Quantities and categories of dangerous goods on board including radioactive materials (insert "None" if applicable).
12. a. Name of agent in Hong Kong (insert "None" if no agent appointed and indicate whether an agent is to be appointed or whether the master is to act as agent).
    b. Name of master of vessel.
13. Intended pilot boarding station if pilot is required (**Note.—**Pilots should be requested, through the agent, from Hong Kong Pilots Association).
14. ETA (expressed as "YY/MM/DD/hh/mm") at intended pilot boarding station.
15. Last port of call (state name of port and country or territory).
16. Height to highest point of vessel in meters above waterline on arrival.
17. Any other relevant information (if applicable).

Tankers should state the following information:

1. Vessel's name.
2. Call sign.
3. Flag.
4. LOA (in meters).
5. Maximum draft.
6. Present dwt.
7. Date keel laid.
8. Cargo type; quantity (in tons); and whether for loading, discharging, transshipment, or transit.
9. ETA at intended pilot boarding position, special anchorage, or berth in the waters of Hong Kong.
10. ETD from intended berth in the waters of Hong Kong.
11. Intended berth.
12. In the case of a vessel carrying liquefied gas in bulk, details of any certificate of fitness with respect to that cargo, including number, name of person or body issuing the certificate, date of issue, date of latest survey and date of expiration, and type of liquefied gas carried.
13. In the case of a vessel carrying more than 2,000 tons of oil in bulk, details of any certificate of insurance, insuring against risk of pollution with respect to that cargo, including number, name of person or body issuing the certificate, date of issue, and date of expiration.

14. In the case of a vessel carrying (or to carry) any noxious liquid substances in bulk, details of any International Pollution Prevention Certificate with respect to that cargo, including number, name of person or body issuing the certificate, date of issue, date of latest survey and date of expiration, and indicating whether for loading, discharge, transshipment, or transit.
15. Whether a MARPOL surveyor is required.
16. Whether a fixed inert gas system is fitted in the vessel.
17. Whether a fixed tank washing system is fitted in the vessel tanks.

When permission to enter the waters of Hong Kong has been granted, the master of the vessel shall provide initial reports to the VTC on VHF channel 12 when the vessel is in the vicinity of the seaward limits of the Vessel Traffic Service.

**Vessel Traffic Service.—**A Vessel Traffic Service, mandatory for all vessels over 300 tons, is in effect for the waters of Hong Kong. Vessels 300 grt especially those participating in the VTS, are required to submit a Pre-Arrival Notifications (PANs) to the Vessel Traffic Center 24 hours prior to entering Hong Kong waters. Non-convention vessels entering or transiting the waters of Hong Kong are requested to send their notification by fax to the Harbor Patrol Section (HPS) of the Marine Department, not less than 24 hours before entry into Hong Kong water, or before leaving the last port of call. Vessels are required to contact MARDEP on the following VHF channels:

| | |
|---|---|
| VHF channel 12 | When entering the Eastern Approaches |
| VHF channel 67 | Upon entering the Western Approaches |
| VHF channel 14 | Within the harbor limits. |

Once contact has been made and permission to proceed granted, vessels should relay the following report when passing the appropriate reporting points listed below:

1. Vessel's name.
2. Reporting point.
3. Time of passing point.
4. Speed.

The schemes established on W approach are, as follows:

1. North West Siu A Chau Traffic Separation Scheme between Fan Lau Lighted Buoy and Siu A Chau Lighted Buoy (22°12'00"N., 113°54'12"E.).
2. Precautionary Area No. 2, enclosing the junction of North Cheung Chau Traffic Separation Scheme and South Cheung Chau Traffic Separation Scheme, extends 1.25 miles E from Siu A Chau Lighted Buoy.
3. North Cheung Chau Traffic Separation Scheme extends from Precautionary Area No. 2, passing N of Cheung Chau to a position 2 miles WSW of Tsing Chau (Green Island). The separation line is marked by Southeast Lantau Lighted Buoy, Adamasta Rock Lighted Beacon and Hei Ling Lighted Buoy.
4. South Cheung Chau Traffic Separation Scheme extends between the same points as North Cheung Chau Traffic Separation Sheme, but passes S of Cheung Chau. The separation line is marked by Shek Kwu Chau Lighted Buoy (22°10'48"N., 113°59'24"E.) and Cheung Chau Lighted Buoy (22°11'48"N., 114°03'12"E.).
5. Precautionary Area No. 1 extends from the NE extremities of North Cheung Chau Traffic Separation Scheme and South Cheung Chau Traffic Separation Scheme 1 mile NE to Southeast Kau Yi Chau Lighted Buoy (22°16'42"N., 114°05'30"E.).

All vessels with masthead or superstructure heights exceeding 30m above sea level must contact MARDEP Hong Kong when passing TCS1 Lighted Buoy and state the following:

1. Vessel name.
2. ETA at Lei Yue Mun.
3. Maximum height of mast or superstructure above sea level.

All vessels transiting the Western Approaches of Hong Kong, N and S of Lantau Island, should contact MARDEP on VHF channel 67.

All vessels should contact MARDEP on VHF channel 12 when passing Waglan Island and confirm the information in 1, 2, and 3 above.

All vessels should report when passing TCS4 Lighted Buoy to confirm ETA at Lei Yue Mun and request permission to proceed.

All outbound vessels should establish contact with MARDEP on VHF channel 14 prior to departure and provide the following information:

1. Vessel name.
2. ETD.
3. Maximum height of mast or superstructure above sea level.
4. Estimated time of singling up.
5. ETA at Lei Yue Mun.

Ten minutes prior to arrival at Lei Yue Mun, vessels should contact MARDEP and obtain permission to proceed. If the ETD or ETA Lei Yue Mun varies from that reported to MARDEP, that vessel should immediately contact MARDEP and obtain permission to proceed. Any vessel lacking VHF capability should enter and depart via East Lamma Channel.

In order to reduce the risk of collision in the dredged cut N of Tsing Yi Chau, the following regulations are in force:

Vessels entering from seaward and proceeding to Tsing Yi shall inform MARDEP at least 1 hour in advance of the vessel's ETA at parallel 22°21'N. A vessel departing another berth for Tsuen Wan shall inform MARDEP at least 1 hour before departing the berth, as well as the vessel's ETA at the parallel mentioned above. An outbound vessel shall notify MARDEP at least 1 hour before departing the dock. If a vessel's arrival at the latitude stated or departure from the dock at Tsuen Wan varies more than 15 minutes from the ETA given to MARDEP, priority may be given to another vessel.

Ocean-going vessels are advised not to transit Central Fairway. Vessels having a valid reason to transit Central Fairway should seek permission from the Vessel Traffic Center (VTC).

Vessels intending to proceed directly to a berth from sea, or to depart from a berth directly to sea, shall enter or leave through the approach that is closest to its berth, as follows:

1. Lam Tong Hoi Hap (Tathong Channel)—berths to the E of Macau Ferry Terminal Buoy MFT1.
2. Tung Pok Liu Hoi Hap (East Lamma Channel) or Sai Pok Liu Hoi Hap (West Lamma Channel)—berths to the W of Macau Ferry Terminal Buoy MFT1.

Ocean-going vessels of less than 3,000 grt, which have obtained permission to transit Central Fairway from the VTC, are strongly recommended to employ a pilot.

The VTS Reporting Points are:

1. Eastern Approaches—Lam Tong Hoi Hap (Tathong Channel):
   a. Lighted Buoy TCS1.
   b. Hak Kok Tau (Cape Collision).
   c. Lei Yeu Man.
2. Southeastern Approaches—Tong Pok Liu Hoi Hap (East Lamma Channel):
   a. Waglan Island Light.
   b. Lighted Buoy LCS1.
   c. Lamma Patch.
   d. Tsing Chau (Green Island).

**Note.—**Vessels contacting MARDEP from Waglan Island Light or the LCS-1 Lighted Buoy are to call on VHF channel 12.

Vessels contacting MARDEP from Lamma Patch or Tsing Chau (Green Island) are to call on VHF channel 14.

3. Southeastern Approaches—Sheung Sze Mun:
   a. Waglan Island Light.
   b. Chesterman Lighted Buoy.
   c. Lamma Patch.
   d. Tsing Chau (Green Island).
4. Southwestern Approaches—Siu Pok Liu Hoi Hap (West Lamma Channel):
   a. Cheung Chau Lighted Buoy.
   b. Shek Kok Tsui.
   c. Tsing Chau (Green Island).
5. Western Approaches—Adamsta Channel:
   a. Fan Lau Kok.
   b. Adamsta Rock.
   c. Shek Kok Tsui.
   d. Tsing Chau (Green Island).
6. Western Approaches—N of Tai Yue Shan:
   a. Sha Chau.
   b. Lighted Buoy CP1.
   c. North West Ma Wan Traffic Light (southbound only).
   d. Lighted Buoy MW (northbound only).
7. Northwestern Approaches:
   a. Urmston Road pilot boarding position.
   b. Lighted Buoy CP8.
   c. Lighted Buoy CP1.
   d. North West Ma Wan Traffic Light (southbound only).
   e. Lighted Buoy MW (northbound only).
8. Kwai Chung Container Terminals.

**Kwai Chung Marine Traffic Control Station** (KCCS), a sub-station of the Vessels Traffic Center. The KCCS monitors, regulate, and coordinates all marine traffic within the Kwai Chung Basin. The basin area consists of waters bounded on the N by the Tsing Yi Bridge, on the S by a line joining the SW tip of Stonecutters Island to the SE tip of Tsing Yi Island, and on the E and W by the shoreline.

When vessel is to the W of Kwai Chung Container Terminal No. 8 it is required to contact "Kawi Chung Control" on VHF channel 74, which is monitored 24 hours a day.

While vessel is in the KCCS service area VTS—participating vessels or vessels engaged in special operations are required to: maintain continuous listening watch on VHF channel 74; report to KCCS on VHF channel 74 before getting underway, leaving their berth, when berthed or cease to be underway and when entering or leaving the KCCS service area.

Vessels not transiting the KCCS should avoid passing close to its boundaries. Local craft and river trade vessels of less than 300 grt are not required to report to the VTC or KCCS, however, while navigating in the KCCS service area, should as far as practicable keep a listening watch on VHF channel 74, give consideration to the safe navigation of other vessels, and not impede the safe navigation of deep draft vessels underway in the Kwai Chung Basin. Anchoring (except in emergency) and fishing are prohibited in the KCCS service area.

For the purpose of directing traffic, guiding small vessels in particular, a patrol launch is stationed in the KCCS service area. In inclement weather the patrol launch may be suspended.

Vessels leaving or preparing to move within Hong Kong waters should report the following information at least 1 hour in advance, or, if subject to compulsory pilotage, then at least 3 hours in advance of departure:

1. Vessel's name and nationality.
2. Type and grt.
3. Length and draft.
4. Status of machinery and steering equipment.
5. Whether pilot is required.
6. ETD.

MARDEP should be informed of the time and location of pilot boarding or discharge; time, location, and estimated time of next movement upon the vessel's anchoring; time of casting off or weighing anchor.

Vessels experiencing any of the stated conditions below are required to send an immediate report:

1. Any condition affecting navigation of the vessel, including fire on board, defective propulsion or steering equipment, excessive list, inoperative VHF.
2. If any tow which vessel is towing cannot be controlled or can be controlled only with difficulty.
3. Concentrations of fishing vessels.
4. Reduced visibility or other adverse weather conditions.
5. Floating logs or other obstructions to navigation.
6. Any defect in a navigation aid.
7. Any defect on another vessel, likely to affect its navigation.

**Dangerous cargo.—**The following extracts concern dangerous cargo regulations:

1. It shall not be lawful for the master of any vessel carrying explosives to anchor within 500m of any other vessels or of any Government Explosives Depot without the permission of the Director of Marine. Vessels engaged in the transshipment of explosives shall show the International Code of Signals flag B by day, and shall by night show an

all-round red light not less than 6m above the uppermost deck. If engaged in the transshipment of petroleum products having a flashpoint of less than 65.5˚C, in lieu of the International Code of Signals Flag B, shall fly by day a red flag of not less than 1m square, with a white circular center 0.15m in diameter, at the foremast, and the International Code of signals hoist "SU7." The above signals are to be displayed until the Director of Marine is satisfied that the holds are clean and ventilated

2. Vessels carrying dangerous goods, on arrival at Hong Kong, must anchor in one of the prescribed Dangerous Goods Anchorages, and must obtain permission from the Director of Marine before going alongside or shifting berth.

3. Except with the permission of the Director of Marine, no vessel carrying dangerous goods in category 5, classes 1, 2, or 3 shall enter or remain in that part of Hong Kong Harbor which is bounded by:

i. To the E—by a line drawn from a position on Hong Kong Island near **Pak Kok** (North Point) (22˚17'42"N., 114˚11'54"E.) in a 334˚ direction to Kowloon Peninsula.

ii. To the W—

a. from a position on Hong Kong Island 22˚16'36"N, 114˚06'48"E, in a 329˚ direction to the W side of Tsing Chau (Green Island) and then on a bearing of 026˚ to the W side of Ngong Shuen Chau (Stonecutters Island.)

b. from a position on the E side of Ngong Shuen Chau 22˚19'24"N, 114˚08'42"E, on a 000˚ bearing to the mainland.

4. Except with the permission of the Director of Marine, upon the hoisting of any local storm signal other than No. 1 or No. 3, every vessel having dangerous goods in categories 1 or 5 on board, shall proceed outside the harbor and remain outside until such signal is lowered.

5. The oil wharves at Kwun Tong, Ap Lei Chau, and Tsing Yi shall be berths to which vessels carrying dangerous goods may proceed with the permission of the Director of Marine; otherwise, such goods must be discharged or loaded in one of the dangerous goods anchorages.

6. All vessels, with keels laid on or after April 12, 1972, which are carrying chemicals in bulk, must be in possession of a Certificate of Fitness, in accordance with the IMO-adopted Code for the Construction and Equipment of Ships carrying dangerous chemicals in bulk, before such vessels enter or leave Hong Kong waters.

**Storms.—**The following extracts concern storm regulations:

1. Every person in charge of a vessel shall comply with the requirements of the Director of Marine, who may order such vessel to anchor or secure in any place he may direct, or prohibit anchoring or securing in any place, and who may order the vessel to be removed to another place within the region.

2. Anchoring without the permission of the Director of Marine is prohibited in the approaches to the airport in Kowloon Bay, except when a Typhoon Signal, other than Nos. 1 and 3, is hoisted.

3. Except with the prior permission of the Director of Marine, no dead ship shall be anchored, moored, or secured at any place within the waters of Hong Kong nor except with such permission, shall any repairs be undertaken upon any ship which is so anchored, moored, or secured which will result in such ship becoming a dead ship. The expression "dead ship" means any ship exceeding 50m in length, other than a laid-up ship, which is unable to proceed under its own power; unable to maneuver with its own steering gear; unable to work its own anchors; or unable to maintain the watertight integrity of the ship.

4. Upon a local storm warning signal being hoisted, vessels at government buoys shall clear away anchors and cables, and bring main engines to a state of readiness for full power, and shall leave such buoys, if so directed.

5. Upon a local storm signal, other than No. 1 being hoisted, vessels at government buoys not being special typhoon moorings shall, within 2 hours, move to a typhoon anchorage or to a special typhoon mooring. The Director of Marine may at his discretion order a vessel to leave a special typhoon mooring.

6. Any ship within the waters of Hong Kong shall have on board at all times such number of crew as, in the opinion of the Director of Marine, is capable of carrying out all the duties which may reasonably be required to ensure the safety of the ship having regard to the circumstances pertaining thereto. Masters or agents requesting a buoy are advised to ascertain whether it is considered safe for use in typhoon conditions.

7. Nothing in these regulations shall prevent any vessel which is already at a typhoon buoy from shifting to an anchorage if such is preferred.

Vessels may be directed to secure to designated mooring buoys in the event of severe weather. The majority of the mooring buoys are established in the vicinity of Kellett Bank, however, several mooring buoys are established E of Northern Fairway, close S of Yau Ma Tei Anchorage; N of Wan Chai and Causeway Bays; and in the central portion of To Kwa Wan. Class A buoys are painted white with black numbers, and are usable by vessels up to 183m in length. Class B buoys are black with white numbers, and are suitable for vessels up to 137m in length. Class A buoys are moored in depths of 5.1 to 12m; Class B bouys are moored in depths of 4 to 8.5m.

Vessels are required to moor using the ship's anchor cable. vessels may drop an anchor underfoot to lessen severe sheering. The anchor should be so placed as not to impair the efficiency of the mooring. Vessels must obtain permission to moor through the Marine Department Port Formalities and Dangerous Goods Office.

Reclamation projects, such as those in work in Central and Wan Chai (1997), may displace the mooring buoys from their charted positions.

**Hei Ling Chau Typhoon Shelter** (22˚14'N., 114˚02'E.), located W of Hei Ling Chau, is marked by lights and beacons at its entrance. The E boundary is marked by dolphins. Vessels are advised to stay to the W of the boundary dolphins and not to use them for mooring. Fifteen mooring dolphins are located inside the shelter area.

**Pollution.—**The depositing of oil, rubbish, or other substances on the waters or the port is prohibited.

No vessel shall emit smoke in such quantities as to be a nuisance.

Reception facilities have been established on Tsing Yi Island for oily and chemical wastes as required under the Inter-

national Convention for the Prevention of Pollution from Ships.

**Speed restrictions.—**Vessels shall not exceed a speed of 10 knots within the harbor limits; the speed limit for vessels 60m in length or over is 8 knots.

When underway in the entrance to or within a typhoon shelter, the speed restriction for all vessels is 3 knots.

**Search and rescue.—**The coastal radio station of the Global Maritime Distress and Safety System serves as the Maritime Rescue Coordination Centre for the waters of Hong Kong. Maritime search and rescue operations are coordinated by the Marine Department for Hong Kong and the area of the South China Sea N of latitude 10˚N and W of longitude 120˚E, excluding the immediate coastal waters of neighboring states.

## Signals

Traffic signals, consisting of three red lights disposed vertically, are shown from signal towers situated on Ha Pong, NW Ma Wan, and Hoi Mei Wan. These signals are designed to control traffic when a vessel constrained by draft is transiting Ma Wan Channel. There is a local traffic control station at Ma Wan for the surveillance and control of traffic in the Ma Wan channel.

Signal stations offering full communications facilities to vessels transiting the waters of Hong Kong are located on Waglan Island and at the Marine Department Headquarters. They may be contacted via radio or visual signals, 24 hours a day. Weather signals are also shown from these stations.

Vessels entering/departing the port are required to identify themselves to the signal station on Waglan Island or Tsing Chau (Green Island). Initial contact with VTS may be made on VHF channel 12. Vessels switch to VHF channel 14 at Lamma Patch.

Vessels underway in any portion of the port shall identify themselves to any government vessel or warship if challenged.

While underway by day, a vessel shall display its national ensign, call sign, and well clear of any other hoist, the appropriate berthing signal (listed below).

Any vessel to which the letters L or K is made, via sound signal, flashing light, or signal hoist shall stop immediately and shall not proceed until authorized to do so.

**Hong Kong Berthing Signals.—**Vessels are required to fly a signal by day indicating destination.

| Hong Kong Berthing Signals | |
|---|---|
| **Signal** | **Meaning** |
| KC3 | The wharf at Kwai Chung (Lot No. 3) belonging to Sealand Orient Ltd. |
| KC4 | The wharf at Kwai Chung (Lot No. 4) belonging to Hong Kong International Terminals Ltd. |
| KC5 | The wharf at Kwai Chung (Lot No. 5) belonging to Modern Terminals Ltd. |
| KC6 | The wharf at Kwai Chung (Lot No. 6) belonging to Hong Kong International Terminals Ltd., S side. |

| Hong Kong Berthing Signals | |
|---|---|
| **Signal** | **Meaning** |
| KB | Kowloon Bay, when approaching from W. |
| PS | The anchorage off NE coast of Tai Yue Shan known as Pun Shan Shek Dangerous Goods Anchorage. |
| WE | Western Dangerous Goods Anchorage. |
| WQ | Western Quarantine Anchorage. |
| YT | Yau Ma Tei Anchorage. |
| OA | Yam O Bay Anchorage. |
| TA | Tolo Harbor Anchorage. |
| SA | Sham Shui Po Anchorage. |
| JA | Junk Bay Anchorage. |
| SM | Sham Shui Po Hard. |
| RH | Rocky Harbor Anchorage. |
| NB | Naval Base. |
| MW | The wharf at Connaught Road West, known as Hong Kong-Macau Ferry Terminal. |
| A with a number | "A" class buoys. |
| B with a number | "B" class buoys. |
| N with a number | Naval buoys. |
| TY | Floating Docks at Tsing Yi Island. |
| KW | The wharves at Tsim Sha Tsui belonging to the Hong Kong and Kowloon Wharf and Godown Co. Ltd. |
| OT | The Ocean Terminal at Tsim Sha Tsui belonging to the Hong Kong & Kowloon Wharf & Godown Co. Ltd. |
| KT | The wharf at Kwun Tong belonging to the Shell Co. of Hong Kong Ltd. |
| AP | The wharf at AP Lei Chau belonging to the Shell Co. of Hong Kong Ltd. |
| TW | The wharf at Tsuen Wan belonging to the Hong Kong Oil Company Ltd. |
| TW | The wharf at Tsuen Wan belonging to Caltex Oil Hong Kong Ltd. |
| SW | The wharf at Sham Tseng belonging to Hong Kong Breweries Ltd. |
| KD | The wharves at Hung Hom belonging to Hong Kong United Dockyards Co. Ltd. |
| TD | The wharf at Quarry Bay belonging to Hong Kong United Dockyards Co. Ltd. |
| TS | The wharf at Quarry Bay belonging to the Taikoo Sugar Refining Co. Ltd. |
| NY | The wharf at Ngan Ying Chau belonging to China Resources Co. Ltd. |
| MO | The wharf at Tsing Yi Island belonging to Mobil Oil (Hong Kong) Ltd. |

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| Hong Kong Berthing Signals | |
|---|---|
| **Signal** | **Meaning** |
| ET | The wharf at Tsing Yi Island belonging to Peninsula Electric Power Co. Ltd. |
| PO | The wharf at Tsing Yi Island belonging to Caltex Oil Hong Kong, Ltd. |
| EO | The wharf at Tsing Yi Island belonging to the Esso Oil Company Ltd. |
| GO | The wharf at Tsing Yi Island belonging to The Gulf Oil Company Ltd. |
| FO | The wharf at Tsing Yi Island belonging to the China Resources Co. |
| KC1 | The wharf at Kwai Chung (Lot No. 1) belonging to Modern Terminals Ltd. |
| KC2 | The wharf at Kwai Chung (Lot No. 2) belonging to Hong Kong International Terminals Ltd. |
| CW | China Resources Wharf, Chai Wan. |
| CM | China Merchants Wharf, Kennedy Town. |
| FE | Cement Wharf, Pok Liu Chau. |
| CO | Caltex Wharf, Tsing Yi. |
| BA | Kellett Bank Anchorage. |
| PA | Sok Kwu Wan Anchorage. |
| LA | Laid-up ship anchorage, N of Tai Yue Shan. |
| SD | Lok On Pai desalination plant. |
| LE | Hong Kong Electric Co. Wharf, Po Lo Tsui. |
| TE | China Light and Power Co. Wharf, Tap Shek Kok. |
| AD | Apple Floating Dock, Tsing Yi. |
| TC | China Cement Co. Wharf, Tap Shek Kok. |
| WD | Whampoa Floating Dock, Tsing Yi. |
| TD | Taikoo Floating Dock, Tsing Yi. |
| YD1 | Yiu Lian No. 1 Floating Dock, Tsing Yi. |
| YD2 | Yiu Lian No. 2 Floating Dock, Tsuen Wan. |

**Coastal Visibility Broadcasts for Hong Kong Waters.—** When visibility in any part of Victoria Harbor or the approaches thereto is restricted by fog or mist to less than 2 miles, visibility reports are broadcast over Hong Kong Port Radio on VHF channel 12 at 15 minutes after every hour until such time as visibility has improved to more than 2 miles in all areas. The VHF broadcasts may be supplemented by TTT messages in some circumstances, particularly when visibility conditions in the E and W approaches differ significantly.

Visibility reports cover the following areas:

1. Waglan and Po Toi Islands (Wang Lang Island and Po Toi Groupe).
2. Tathong Point (Lam Tong Mei).
3. Tathong Channel (Lam Thong Hoi Hap).
4. Kowloon Bay.
5. Bluff Head, Stanley Peninsula (Wong Ma Kok).
6. Victora Harbor.
7. East Lamma Channel.
8. Tsing Chau (Green Island).
9. West Lamma Channel.
10. Cheong Chau Island.

The reports are broadcast in plain language in the following manner:

| Visibility | Report |
|---|---|
| Less than 0.1 mile | Thick fog |
| Between 0.1 and 1 mile | Restricted visibility |
| Between 1 and 2 miles | Visibility in miles and tenths of a mile (e.g. 1.6 miles) |
| Between 2 and 5 miles | Moderate visibility |
| Over 5 miles | Good visibility |

Lam Tong Hoi Hap and Lei Yue Mun provide access to Victoria Harbor from the E. Lam Tong Hoi Hap has a least charted depth of 11.5m off Fat Tong Chau, while Lei Yue Mun is deep and clear of dangers. Caution is advised in Lei Yue Mun, as the tidal currents within it may reach 3 knots. Vessels navigating this route to Victoria Harbor are restricted in masthead height, and are governed by special regulations due to the operations of the airport charted about 3 miles NE of Lei Yue Mun.

The W approaches to Victoria Harbor are obstructed by Kellett Bank, which has depths of less than 5m in places. This extensive shoal is crossed by three fairways, two of which are dredged.

The S end of Kellett Bank is traversed by Southern Fairway, which has a least charted depth of 7.3m.

There are mooring buoys situated over Kellett Bank. The channel is entered via Lau Wong Hoi Hap (Sulphur Channel) or North Green Island Fairway, which pass SE or N, respectively, of Tsing Chau (Green Island). North Green Island Fairway, which leads between Southern Fairway, close N of Kennedy Town, and Western Quarantine and Immigration Anchorage, should be used by shallow draft vessels only, as it has a least charted depth of 5.4m.

## Anchorage

**Quarantine.—**Vessels may request advance clearance and quarantine services by radio. These services are available around the clock at the Western Quarantine Anchorage. Services are provided at the Eastern Quarantince Anchorage from 0600 to 1800 daily. There are several additional quarantine anchorages which are best seen on the chart.

The two quarantine anchorages are situated within the waters of the port. Eastern Quarantine Anchorage is situated S of the airport, and has charted depths of 9.1 to 12.4m, mud, sand, and gravel. Western Quarantine Anchorage is centered about 1 mile S of Tsing Yi Chou, and offers depths of 7 to 18.7m, mud and shells.

A disused explosives dumping ground close W of the SW tip of the Tsing Yi extends into Ma Wan Fairway. The W side of the fairway is bordered by Ma Wan Anchorage with depths of 10.4 to 32.5m. Vessels with an air draft of greater that 41m are

not permitted within the designated anchorage areas located S and W of Ma Wan Channel. A 6.8m shoal lies close N of Ma Wan Anchorage.

**Dangerous Goods Anchorage.—**Six dangerous goods anchorages are situated throughout the port area for vessels carrying commodities listed as dangerous by the Director of Marine. Western Dangerous Goods Anchorage adjoins the Western Quarantine Anchorage, and has depths of 6.3 to 9.2m, soft mud and shells. The anchorage is studded with mooring buoys.

Kau Yi Chau Dangerous Goods Anchorage extends S through W from the S shore of Kau Yi Chau. Reserved Dangerous Goods Anchorage lies 1 mile E of Kau Yi Chau. Both are best seen on the chart.

Tsuen Wan Dangerous Goods Anchorage is situated at the E end of that channel, N of Tsing Yi Chau. Depths at the center of the anchorage are 10 to 14.8m, but shoal patches lie at the SE corner of the area, and shoal banks extend from the shore on all sides. A Prohibited Anchorage Area lies at the S end of the anchorage.

Tseung Kwan O Dangerous Goods Anchorage is situated 0.9 mile NW of Fat Tau Chau. The least charted depth here is 12m, soft mud.

Rocky Harbor Dangerous Goods Anchorage (22˚20'N., 114˚20'E.) is situated in Leung Shuen Wan Hoi, which has already been described. The anchorage has charted depths of 7m, mud and requires local knowledge for its use.

**Naval Anchorage.—**A naval anchorage is charted just S of Central Fairway and is best seen on the chart. Large naval units often anchor N of Tsing Chau (Green Island), between the Prohibited Anchorage and Kellett Bank.

**Typhoon Anchorage.—**Anchorage on the N side of the harbor is preferable during typhoon season as Kowloon Peninsula offers protection from NE winds. Along with the mooring buoys described below, shelter for small craft during severe weather is afforded by specially constructed Typhoon Shelter Harbors situated throughout the Hong Kong area. The Director of Marine should be contacted for details on these havens.

**General Anchorage.—**General anchorage is available in Sham Shui Po Anchorage which is situated between the N shore of Ngong Shuen Chau and Lai Chi Kok to the N and NE. Yau Ma Ti Anchorage, SE of Ngong Shuen Chau, has depths of 4.6 to 5.5m, but is available only to vessels up to 91.5m long.

Anchorages for vessels waiting to enter Hong Kong harbor are designated at:

1. Southeast Lamma Anchorage—1.25 miles SE of Yuen Kok Light (22˚11'N., 114˚09'E.).
2. South Lamma Anchorage—1.25 miles SSW of Yu en Kok, for vessels carrying dangerous goods.
3. Southwest Lamma Anchorage—SW of Yuen Kok.

All the above anchorage offer a least charted depth of 20m, soft gray mud with rocky bottom.

**Prohibited Anchorage.—**A prohibited anchorage fairway has been designated on the W side of the harbor. It leads from the N end of Tung Pok Liu Hoi Hap (East Lamma Channel) along the W side of Kellett Bank to Tsing Yi. Its limits are charted.

A prohibited anchorage area for vessels with an air draft of more than 41m has been established in the vicinity of Ma Wan as follows:

1. West limit—a line joining Ha Pang Light and Tai Yue Shan at 114˚01.7'E.
2. South limit—a line joining SW corner of Tsing Yi and Tai Yue Shan at 22˚19.6'N.
3. East limit—a line joining Ting Kau and Tsing Yi at 114˚04.6'E.

Many other prohibited anchorage areas are situated throughout the harbor; the charts are the best guide to their limits and locations.

## Directions

The entrance channels normally used by vessels calling at Hong Kong are approached from the E or SE. Waglan Island Light, steered for on a bearing between 243˚ and 330˚ leads from seaward to a position where the Traffic Separation Schemes through Lam Tong Hoi Hap or Tung Pok Liu Hoi Hap (East Lamma Channel) may be reached.

If approaching Hong Kong from S of the usual shipping lanes, vessels should keep at least 5 miles seaward of Jiapeng Liedao and Dangan Liedao.

If bound for Lam Tong Hoi Hap from E, steer for the appropriate lane of the Traffic Separation Scheme, keeping a good lookout for traffic near the lane entrance.

If bound for Tung Pok Liu Hoi Hap (East Lamma Channel) from the SE, round the N end of Dangan Liedao at least 5 miles off, taking care to avoid the dangerous wrecks charted about 6.7 miles E and 4.4 miles ESE of the light on Poh Toi Island. Keeping a sharp lookout for traffic, pass no more than 1.5 miles S of Poh Toi Island, and proceed to the appropriate traffic lane.

If bound for Tung Pok Liu Hoi Hap (East Lamma Channel) from the E, proceed as directed above, passing S of Waglan Island and Poh Toi Island.

If bound for the bulk berth in Sai Pok Liu Hoi Hap (West Lamma Channel), steer as directed for Tung Pok Liu Hoi Hap (East Lamma Channel) until S of Poh Toi Island. Keeping an eye out for traffic, steer to pass within 1 mile of Lamma Island. Round the island's S end, and proceed to the dredged channel off the island's W side. Except for a 10m patch located 0.2 mile off the island's SW extremity, the S end of Lamma Island is generally clear of fringing dangers, with deep water close off. The dredged cut to the dock is well-marked.

The channels traversing Kellett Bank in the W approaches to Victoria Harbor, though congested with moorings, are well-marked. The E approach through Lei Yue Mun has a greater concentration of local craft, coupled with a narrow channel and special regulations for passing the airport. A conspicuous chimney bearing 299˚ serves as an excellent steering mark when passing through Lei Yue Mun. Local authorities recommend anchoring outside the fairway in the event of reduced visibility, as passage through Lei Yue Mun is difficult in adverse weather.

**Cautions.—**Two wrecks, withr eported depths of 19.9m and 23.5m, lying respectfully 0.8 mile and 0.5 NNW of Waglan Light.

## Channels Leading from Hong Kong to Zhujiang Kou

**2.20** Kap Shui Mun, and Ma Wan Fairway, to the E of it, are two of the channels leading to the Zhujiang Kou from the NW of Victoria Harbor. Kap Shui Mun is entered between Pun Shan Shek and Tsing Yi and leads between the NE end of Tai Yue Shan on the W and Tang Lung Chau and Ma Wan on the E. This channel has depths exceeding 18.3m and even though narrow, is used by local traffic as it is the shorter route leading to the passage between the N of Tai Yue Shan and the mainland.

The Kap Shui Mun Bridge, linking Ma Wan and Tai Yue Shan, crosses Kap Shui Mun, with a maximum safe vertical clearance of 41m. Vessels with an air draft of more than 41m will not be allowed to transit the channel. Ma Wan Fairway also has depths of over 18.3m and leads between the E sides of Tang Lung Chau and Ma Wan and the W side of Tsing Yi.

A lighted buoy marks a 6.4m depth 0.5 mile ENE of Tang Lung Chau Light. Attention is drawn to the existence of less than charted depths extending up to 0.2 mile NW of the lighted buoy.

The Tsing Ma Bridge, which links Ma Wan and Tsing Yi, crosses Ma Wan Fairway. The maximum safe vertical clearance is 53m. Vessels with an air draft of more than 53m will not be allowed to transit the area between Ma Wan and Tsing Yi.

The passage along the N shore of Tsing Yi from Tsuen Wan continues W and is intersected by Ma Wan Fairway NE of Ma Wan and by Kap Shui Mun NE of the N extremity Tai Yue Shan. The passage then leads W about 10 miles, bordered on the N by the mainland and on the S by the islands off the N shore of Tai Yue Shan where it becomes part of the Zhujiang Kou.

**Caution.—**Traffic may converge from all directions in the vicinity of the junction of the N end of Western Fairway, the SE end of Kap Shui Mun Fairway, the SE end of Ma Wan Fairway, and the W end of Northern Fairway. Particular caution should be exercised when navigating in this area.

Ma Wan and Tang Lung Chau are fringed with drying rocks, some of which lie as far as 0.3 mile E of the E side of Ma Wan. Foul ground connects Tang Lung Shun with Ma Wan, and extends up to 0.2 mile off the S point of the former.

From the mainland opposite Ma Wan, a pier extends into the strait. Caution is necessary in this portion of the channel, as docking or undocking may occur at the wharf at all hours.

A light is shown from a framework tower standing on Ngau Lan Tsui, the NE extremity of Ma Wan. Another light is shown from a tower standing on **Gemini Point** (22˚21'48"N., 114˚04'12"E.); the white sector of this light leads through Ma Wan Fairway. Both lights are shown day and night when a vessel constrained by its draft transits Ma Wan Fairway.

A bridge, with a vertical clearance of 53m, is under construction, connecting a point lying 0.5 mile ENE of Gemini Point and the NW extremity of Tsing Yi.

Ma Wan Traffic Control Center is located on Gemini Point. The positions of the restricted areas in Ma Wan Fairway are best seen on the chart.

Traffic signals, consisting of three red lights, disposed vertically, are shown day and night from towers situated at Ha Pang; Kau Po, the NW extremity of Ma Wan; and Hoi Mei Wan, 0.1 mile NE of Gemini Point. Traffic restrictions will also be passed via VHF and through patrol craft.

Waiting Areas have been established, as follows:

| Area | Location |
|---|---|
| Waiting Area 1 | 0.8 mile WSW of Ha Pang Light and N of the deep water channel. |
| Waiting Area 2 | 1.25 miles SW of Ha Pang Light and S of the deep water channel. |
| Waiting Area 3 | 0.4 mile E of Hoi Mei Wan Light. |
| Waiting Area 4 | 0.5 mile E of Tang Lung Chau and between Kap Shui Mun and Ma Wan Fairway. |

When Ha Pang and NW Ma Wan signals are shown, a vessel is about to transit or is transiting Ma Wan Fairway westbound or northbound. On seeing the signals, all traffic approaching Ma Wan eastbound, except vessels of less than 20m in length and passenger ferries issued with a Speed Restriction Permit (SRP), should either proceed to Waiting Area 1 or 2 or, when considered safe to do so, to continue their passages by making use of Kap Shue Mun.

Vessels should avoid waiting in the zone between Waiting Areas 1 and 2 above, as this will obstruct the passage of large vessels following the deep water route.

When Hoi Mei Wan signals are shown, a vessel is about to transit or is transiting Ma Wan Fairway eastbound or southbound. On seeing the signal, all vessels approaching the restricted area from N of Tsing Yi, except vessels of less than 20m in length and passenger ferries issued with a Speed Restriction Permit (SRP), should wait at Waiting Area 3, taking care not to encroach upon the deep water channel close to the N shore of Tsing Yi. Vessels approaching the area from the S should wait at Waiting Area 4 or continue their passage by following Kap Shui Mun. If they prefer to wait, they should keep clear of Ma Wan Fairway and Kap Shui Mun.

Vessels that have entered the restricted area before the signal lights are shown should proceed with extreme caution and observe directions given by the patrol launch.

The tidal currents in the vicinity of Kap Shui Mun are strong, and at the sides of the channels cause eddies that are of sufficient strength to make navigation of small craft difficult.

## Tai Yue Shan

**2.21** **Tai Yue Shan** (Lantau Island) (22˚16'N., 113˚57'E.) is the largest of the islands in Hong Kong and extends NE to SW between the W side of Sai Pok Liu Hoi Hap (West Lamma Channel), and the E side of the outer Zhujiang Kou. The island is rather barren and rugged, with numerous peaks in excess of 250m high. The summit of Tai Yue Shan, in the S central part, is Lantau Peak, which rises to a height of 935m. Fishermen frequent the many bays and inlets along the jagged coastline of Tai Yue Shan as well as the islands off its shores.

The NE face of Tai Yue Shan forms the W side of Kap Shui Mun, previously described in paragraph 2.20. The coves indenting the E coast, which is about 8 miles long, have depths of generally less than 5.5m. Depths of less than 5.5m also extend S from the NE end of the island to the N side of Hei Ling Chau and Chau Kung Island.

An islet and several rocks, one of which dries and another sunken, encumber the very shoal channel between the NW end of Peng Chau and Tai Yue Shan.

A submarine power cable is laid from the NW point of Hei Liug Chau leading NW to Lantau.

A lighted buoy is moored close offshore on the S side of Ngan Kwon Wan, about 0.8 mile NW from **Castle Rock** (22˚15'N., 114˚01'E.).

A fresh water pipeline stretches from the NE entrance point of Ngan Kwang Wan to Hei Ling Chau, to Chau Kung, to Peng Chau, and then W to Lantau.

The SE extremity of the island lies 0.5 mile off the N end of Cheung Chau Island. The channel between Cheung Chau Island and Tai Yue Shan has depths of 3m in the fairway.

**2.22 Adamasta Rock** (22˚13.5'N., 114˚01.2'E.) is marked by a lighted beacon. The rock dries 1.2m and lies in the separation zone at the NE end of the channel. Adamasta NW lighted buoy and Adamasta SE lighted buoy mark the extent of the shoal water surrounding the rock. There is a depth of 3.9m lying 0.2 mile WNW and a 5.5m depth lying 0.5 mile NE of the rock.

Submarine cables, including a power cable and a water pipeline, are laid across Adamasta Channel. Southeast Lantau lighted buoy is moored at the SW end of the channel.

The S side of the island is indented by two shoal bights separated by a hilly promontory. The E side of the E bight is formed by a rugged peninsula which extends to the SE extremity of the island.

Rocky Islet, 29m high, lies 0.8 mile E of the W entrance point of the E bight. Mid Rocks, which dry 1.2m, lie about 1 mile NE of Rocky Islet.

The cliff at the SW extremity of Tai Yue Shan, from which a light is shown, is whitewashed for ease of identification.

Between the SW extremity of Tai Yue Shan and Peaked Hill, a small islet connected to Tai Yue Shan by a sandspit, about 1.2 miles N, with depths of less than 5.5m extends over 0.3 mile offshore. A 1m rock lies about 1 mile NNW of Peaked Hill.

Two shallow coves indent the island between Peaked Hill and Bluff Point about 2.5 miles to the NNE. Near the S end of Bluff Point there is a conspicuous police station and flagstaff. A pier about 52m long with a depth of 2.7 m to 3m along its inboard side extends SW from the shore near the flagstaff.

Supplementary storm signals are shown from the police station when local signals are displayed in Victoria Harbor.

**Caution.—**Dangerous wrecks lie 1.8 miles ESE, 2 miles NNW, and 4 miles N, respectively, of Bluff Point.

**2.23 Soko Islands** (22˚10'N., 113˚55'E.) are a group of islands and rocks located toward the S end of a shoal with depths of less than 9.2m that extends 3.5 miles S from the S central part of Tai Yue Shan.

Tai A Chau, the southwesternmost of the group, rises steeply to 153m. A rock, that dries 1.5m, lies about 0.2 mile N of the N end of the island and an islet, 40m high, with a rock off its S end, lies about 1 mile ESE of Tai A Chau Light.

Siu A Chau, 122m high and the northernmost of the group, lies about 0.5 mile N of Tai A Chau. A shoal with depths of less than 5.5m, extends about 2 miles W from the W side of Siu A Chau. Four rocky islets, the highest 36m high, lie between the W ends of Siu A Chau and Tai A Chau.

Between Bluff Point and a small projecting point that forms the NW extremity of Tai Yue Shan 3.2 miles NE, the coast is indented by a shoal irregular bight.

## Zhujiang Kou—North of Tai Yue Shan

**2.24** Chi Shuimen is the fairway between Urmston Road and Kap Shui Mun which is bordered on the N by the China mainland and on the S by Tai Yue Shan and the islands off its N coast. The channel is part of the Zhujiang Kou and more than 1 mile wide with depths in excess of 12.5m in mid-channel.

**Kwai Shek** (22˚21'N., 114˚03'E.), at the W side of the N end of Kap Shui Mun, is the northernmost point of Tai Yue Shan. The coast, for about 1 mile SW of this point, is indented by two small bays separated by a narrow peninsula to the E of which is a conspicuous red cliff, 88m high. Immediately SW of these bays is a bight, at the W entrance of which lies Lu Keng Island. This island separates the bight from another small bay to the W.

Sui Mo To (East Brother) is an islet, 59m high, located 2.2 miles W of Lu Keng Island. There are depths of less than 5.5m within about 0.4 mile of the W and E sides of this islet. Tai Mo To (West Brother), an islet 65m high, lies 1 mile SW of Sui Mo To and has depths of less than 5.5m extending 0.6 mile W, 0.1 mile N, and 0.4 mile E of its shores. Both islands provide good radar returns at 13 miles.

Reef Islet, 9m high, lies 0.3 mile S of Sui Mo To and has a bank with a depth of 2.7m extending over 91m E.

**2.25 Chek Lap Kok Island** (Chu Lu Kok Island) (22˚19'N., 113˚56'E.) lies with Red Point, its N extremity, 1.2 miles WSW of Tai Mo To. The island is barren, 124m high, about 1 mile wide at its greatest breadth and extends 2.1 miles S from Red Point to within 0.3 mile of the entrance to Tung Chau Bay on Tai Yue Shan. Red Point has a remarkable rocky appearance.

Anchorage can be taken in the fairway E of Red Point and S of Reef Island in depths of 10 to 15m.

The 5m curve extends ESE from Red Point nearly to Tai Yue Shan, leaving shoal depths in the bay enclosed by Chek Lap Kok Island and the NW coast of the larger island.

**Sha Chau** (22˚21'N., 113˚53'E.), 53m high, lies to the SE of a group of small islands and drying and submerged rocks which form the SW limit of Urmston Road. Lung Kwu Chau, marked by a light on its NW extremity, is two rocky islets connected by a drying spit that lies about 1.5 miles N of Sha Chau at the NW of this group of islets, on rocks. White Rock, Tree Islet, and Dulley Rock, about 1.5 miles SW of the light on Tung Kwo, mark the W limits of these dangers.

The NW coast of Tai Yue Shan from Lu Keng for about 6 miles WSW to Tung Chung Bay is steep. Between this bay and the NW point of the island is an islet 46m high, about 1 mile offshore.

**Caution.—**The actual depths across the bank between Sha Chau and Chu Lu Kok Island have not been verified. Less water than charted has been reported (1995) NW of Lung Kwu Chau.

A height restricted area has been established in the vicinity of the Tung Chung bridges, with a maximum permitted vertical clearance of 8m.

Restricted areas, designated 1 through 8, have been established around Chek Lap Kok Airport (22˚18.5'N., 113˚55.0'E.), Lung Kwu Chau (22˚18.5'N., 113˚53.0'E.), and Siu Mo To (22˚20.2'N., 113˚58.9'E.). Vessels are prohibited from entering or passing through areas 1 through 4 without the permission of the Director of Marine. Vessels with air drafts greater than 15m and 30m are prohibited from entering or remaining in areas 5 or 6 and 7 or 8, respectively, without the permission of the Director of Marine. The areas are marked by buoys and lights and are best seen on the chart.

**2.26** Between **Brothers Point** (22˚21'N., 114˚01'E.) and Black Point, the mainland coast trends W about 4.5 miles to Mong Hau Shek (Pillar Point), then 3.2 miles NW to Black Point. Tai Lam Chung and another small bay indent the shore to the W of Brothers Point and about 2 miles further W is Tsing Shan Wan.

A tank and a white building from which storm signals are displayed stand on the W shore of Tai Lam Chung, from which a jetty projects. The jetty has a length of 40m and alongside depths of 4.9m. A submarine cable extends from the shores of the bay to Tai Yue Shan; the cable landing is marked by beacons. About 1 mile N of the bay, two conspicuous chimneys stand near a wharf with alongside depths of 6.1m.

**Anchorage.—**Tuen Mun Immigration Anchorage, with depths of 4.8 to 7m and a mooring buoy at the NW corner, lies 1.5 miles ESE of Mong Hau Shek. The anchorage is for the clearance of river trade vessels operating between Pearl River Delta Ports and Hong Kong.

Tsing Shan Wan (Castle Peak Bay) is 2.5 miles across its mouth from Mong Hau Shek to the opposite shore. Pak Kok Point, on which stands an obelisk, lies 1 mile ENE of Mong Hau Shek. This shallow bay is fronted by a bank with a depth of 5.8m; two rocks are charted off the bay's E shore. A light marking a sewer outfall lies 0.1 mile SSE of Pak Kok Point.

The coast trends SE from Tsing Shan Wan to Pillar Point, then NW to Black Point. The coast is reef-fringed in places, with depths of less than 5.5m extending up to 0.7 mile off the shore N of **Tap Shek Kok** (22˚23'N., 113˚55'E.).

A power plant and cement plant stand about 1.5 miles NE of Pillar Point, and are approachable through a marked channel dredged to a depth of 18.5m.

There are two conspicuous chimneys in the area; the NW chimney has an elevation of 220m and the SE chimney an elevation of 255m.

Urmston Road is the area between the latter coast and Tung Kwu. It affords anchorage for vessels proceeding upriver, but the tidal currents are strong.

Anchorage is available in the charted area W of Black Point, in charted depths of 11.2 to 17.4m, over a sandy bottom. Depths shoal rapidly W of the anchorage, and a wreck is charted about 0.2 mile W of the anchorage's W boundary.

## Zhujiang and Zhujiang Kou

**2.27** The **Zhujiang Kou** (Zhujiang Estuary) generally encompasses the area between **Tuwu Chio** (22˚05'N., 113˚33'E.) on the W, the SW extremity of Tai Yue Shan on the E, and the numerous islands fronting the coast to the S, including Wanshan Quindao (Wanshan Ch'un-tao). The two main channels leading to the Zhujiang through the estuary are Lantau Channel from the E, and Tan-hsi Shui-tao from the SW. The Portuguese province of Macau lies on the NW side of the estuary on the China mainland. The major Chinese ports within the Zhujiang are Huangpu and Guangzhou, which lie 60 and 77 miles, respectively, upriver from Macau.

**Pilotage.—**Pilotage for the Zhujiang (Pearl River) is compulsory and vessels are required to send their ETA 24 hours and 12 hours prior to arrival. Pilots for both Zhujiang and Macau board 1.7 miles W of Guishan Dao (paragraph 2.29), where the Quarantine Anchorage area is centered. Chinese customs, immigration, health, and other port officials usually board the vessel with the pilot.

Cargo activities are carried out at the quarantine anchorage. The depths are 9m and 15m with good holding ground, mud. Sichi Yan, a rock, awash, lies 2.3 miles W of Guishan Light.

**Regulations.—**Vessels are required to obtain permission of the proper authorities well in advance to enter the People's Republic of China. Chinese authorities prohibit foreign vessels navigating, anchoring, or fishing within territorial claimed waters.

**Directions.—**Vessels entering Zhujiang and Macau are to follow the directions given below:

1. From a position about 8.2 miles S of Wenwei Zhou Lighthouse (21˚49'N., 113˚56'E.), a vessel steers 318˚ to position 21˚47'45"N, 113˚49'32"E; then sets a course of 013˚ to position 22˚00'00"N, 113˚52'34"E from which course is altered to 334˚ to position 22˚05'36"N, 113˚49'36"E. Finally, steer 311˚ to the pilot boarding area (Quarantine Anchorage) keeping clear of the dangerous wreck in position 21˚59'06"N, 113˚52'00"E.

   From SW, a vessel should steer to arrive at position 21˚47'45"N, 113˚49'32"E. and follow the directions as above.

2. Vessels sailing from Hong Kong to Zhujiang may follow a route through West Lamma Channel to a position 22˚08'44"N 113˚55'30"E, then proceed through Lantau Channel, as safe navigation permits, on a course of 295˚ to arrive at 22˚12'04"N, 113˚47'41"E. Steer 204˚ to 22˚10'36"N, 113˚47'00"E and then S to the Quarantine Anchorage. In 1989, it was reported that vessels could pass S of Guishan Dao, thus avoiding the shoal water extending NW from Niutou Dao.

3. When departing Macau or Zhujiang Kou, the courses listed above should be followed in their reverse order. However, the directions given above are subject to change and any variation or changes are directed by the local authorities and broadcast by radio.

**Caution.—**Vessels should have little difficulty entering the estuary by day, however, in thick weather caution is necessary because the off-lying islands in the approaches are steep-to and soundings give insufficient warning.

Fish stakes have been established throughout the Zhujiang Kou and the Zhujiang (Pearl River) and must be avoided. Additionally, the channels, aids, and depths in the river are constantly changing. For these reasons, excessive reliance should not be placed upon the charted depths or features in this area.

No vessel should enter any of the channels, creeks, or tributaries of the Tan Jiang, Xijiang, and Zhujiang without a pilot. Permission to enter these waters must be obtained from the government of the People's Republic of China.

In the narrow channels, creeks, and tributaries of the Tan Jiang, Xijiang, and Zhujiang vessels should proceed at such a speed that the waves caused by their motion through the water do not damage the river banks and shore installations. This is especially true in passing the numerous villages on both sides of the channels. Speed should be reduced when passing tows and heavily-loaded junks. A careful lookout must be kept for tows and junks hauling out from the river banks or coming out from the various tributaries or reaches.

Care must be taken in approaching the river banks because of a number of small groins extending out. Barriers have been built in some places, leaving only a narrow navigable channel.

Overhead telegraph cables, at varying heights above the level of the river, span the narrow channels, creeks, and tributaries. They are erected or removed without notice.

Reports indicate that vessels anchoring or transiting areas claimed by the People's Republic of China without prior permission, and/or outside of the recommended routes risk seizure and detention.

A restricted area has been established and is bounded by lines joining the following positions:

a. 22˚25'N, 113˚49'E.
b. 22˚23'N, 113˚50'E.
c. 22˚23'N, 113˚51'E.
d. 22˚25'N, 113˚51'E.

Foreign vessels are prohibited inside the line connecting the islands of Xiaowanshan Dao, Dawanshan Dao, Jiapeng Liedao, and Dangan Liedao.

**2.28** Wanshan Quindao are the southernmost group of the numerous islands contained within Zhujiang Kou.

**Dawanshan Dao** (21˚56'N., 113˚43'E.), the outermost of Wanshan Quindao, is steep, bold, and rocky and features a conspicuous dome-shaped mountain in its NW part that rises to 447m. At the SW end of the island is a small inlet known as Wanshan Wan.

**Aspect.—**Xiowanshan Dao, with several rocks lying off its shores, rises to 254m WNW of Dawanshan Dao. A rock with a depth of 1.8m lies about 0.7 mile NW of the island's SW end. Yamu Pai, a steep-to rock which dries 1.8m, lies 0.5 mile N of the island's NE end. Xiaoputai, a small islet, together with two other islets form the W extension of Wanshan Quindao. Xiaoputai, 58m high, lies 5 miles NW of Dawanshan Dao. A racon transmits from Xiaoputai.

Huangmao Dao lies to the E of Xiaoputai and features a peaked hill rising to 99m. Bai Pai, an islet, lies 0.4 mile off the island's W side, with a drying rock close SE of it. Across a narrow channel to the E of Huangmao Dao lie two islands known as Dalie Dao and Xiaolie Dao, which are themselves separated by a narrow, foul channel.

A drying rock lies 0.2 mile N of the N island, and a 4m patch lies 0.8 mile N of the same island.

Dongao Dao, 172m high, lies 1.2 miles ESE of Huangmao Dao. Nan-Sha Wan indents the SW side of the island, and affords shelter in Northeast Monsoon, but rocks with depths of less than 2m lie in the approaches to the bay. A dangerous wreck lies close W of Dongao Dao. Tung-ao Wan, a rock-fringed inlet, indents the NE side of the island. A rock with a depth less than 1.8m and another with a depth of 5.5m lies in the entrance to the bay. A rock, with a depth of 2.7m, lies 0.8 mile E of the NE extremity of the island.

Bei Yan, awash and steep-to, lies 0.3 mile NE of the same point.

**Anchorage.—**Anchorage, in 22m, mud, can be taken by small vessels off the entrance to the inlet.

**2.29 Baili Dao** (21˚59'N., 113˚45'E.) lies 1.5 miles SE of Dongao Dao, and rises to a height of 302m, with a conspicuous conical hill, 225m high, on its' NE portion. The hills on the S part of the island are studded with black rocks. Baili Dao is rock-fringed in places and indented with several small inlets. About 2 miles N of the island lies Shagou Pai, which breaks, and about 0.5 mile N of the island's NW extremity lies Clio Rock, with a depth of less than 1.8m. House Islet, 33m high, and close E of which lies a sunken rock, lies 0.2 mile N of Baili Dao's N end.

Gui Zhou, 86m high, lies 0.75 mile E of Baili Dao, and has a rock, which dries 1m, close off its NW extremity.

Heng Zhou, 117m high, and Zhu Zhou, 175m high, lie 2 and 3 miles, respectively, E of Baili Dao. Zhu Zhou, which is marked by a light, is indented on its N side by a small inlet, and has a steep, rocky islet, 54m high, known as Chou-Tzu, off its SE side.

Anchorage, in a depth of 19m, may be taken in the S part of the channel between Heng Zhou and Zhu Zhou, with the light on Zhu Zhou bearing 095˚, and about 0.1 mile distant.

Dongtou Shi, a rock which dries 1.8m, lies about 3.2 miles N of Heng Zhou. Sanya Pai, a group of rocks marked by a light, lies 5 miles N of the same island. Xiaozhizhu Pao and **Dazhizhu Dao** (22˚07'N., 113˚53'E.) are two islands at the SE end of Dahao Shuidao, which stretches 6.5 miles NW of the latter named island. Xiaozhizhu Dao is 109m high while Dazhizhu Dao is 265m high, with rocks, awash, off its E and SW extremities.

**Guishan Dao** (22˚08'N., 113˚49'E.), 234m high and inhabited, lies 2 miles WNW of Xiaozhizhu Dao. A light is shown from the islet, and a signal station is situated on the island's summit. A pilot station for Zhujiang Kou pilots is situated on the W side of Guishan Dao.

**Caution.—**A Prohibited Anchorage lies S of the island, and is best seen on the chart.

Zhenxiangwei, 64m high, lies 0.75 mile off Guishan Dao's SE side, several dangers encumber the channel between them. The channel between Zhenxiangwei and Xiaozhizhu Dao is clear of dangers, and is sometimes used by vessels entering Lantau Channel from the S.

Zhongxin Zhou, 133m high, lies close N of Guishan Dao, with depths of less than 5.5m between them.

**Niutou Dao** (22˚10'N., 113˚48'E.), 141m high at its N end, lies NW of Zhongxin Zhou and is separated from it by Niutou

Men, a passage about 0.2 mile wide. A rock with a depth of 5m lies about 0.2 mile off Niutou Dao's SW side, encumbering the W entrance of the passage. A 64m high islet lies close off the island's NW extremity.

A light is shown from the NW extremity of Niutou Dao.

**Caution.—**A dangerous wreck lies in the passage between Zhongxin Zhou and Niutou Dao.

**2.30 Lantau Channel** (Tai Yue Hoi Hop) leads into the central part of the Zhujiang Kou between the Soko Islands and Tai Yue Shan on the NE and Dazhizhu Dao to the SW. The channel is nearly 2 miles wide at its narrowest portion, deep, and clear of dangers.

Daxi Shuidao is a channel which leads into Zhujiang Kou, and leads off the W side of the estuary. The E side of the channel is the deepest, with shoaling reported on the W side. The fairway has charted depths of 7m, and is entered between **Dawo Shan** (22˚05'N., 113˚33'E.) on the NW, and Xiaoputai on the SE.

The islands on the W side of the channel are described with the W side of the estuary.

**Datou Zhou** (22˚06'N., 113˚42'E.) lies 5.5 miles NE of Xiaoputai. Dalu Dao, 97m high with a prominent rock on its summit, is a rocky islet lying 0.5 mile N of Datou Zhou. Dalu Pai, with a depth of less than 0.9m close NE, is an exposed rock 15m high, lying 0.8 mile NNE of Dalu Dao. Jishiling Pai, a 14m high islet, lies 0.2 mile E of Dalu Pai.

Anchorages have been established 2 miles NW and 3 miles SE from Datou Zhou.

Sanjiaoshan Dao, 150m high and rugged, with a 1.5m rock close off its S side, lies 0.8 mile N of the islet of Xilu. Depths of less than 5.5m extend up to 0.8 mile N of the island. Qing Zhou, 104m high and the northernmost island of the group, lies 0.8 mile NNE of Sanjiaoshun Dao.

**Chitan** (22˚07'N., 113˚46'E.), 72m high, with a rock close off its NW side, lies 3.2 miles E of Dalu Dao.

**Sichi Yan** (Four Feet Rock) (22˚09'N., 113˚46'E.), a rock awash, lies 1.5 miles NNE of Chitan. This obstruction lies quite near the pilot, quarantine, and cargo handling anchorages. Another foul area exists 0.7 mile E of Sichi Yan.

The tidal currents are not very strong around the outer islands, but are variable and stronger in the channels leading into the Zhujiang Kou.

In Daxi Shuidao, the ebb current sets strongly S along the islands on the E side of the channel. The flood current sets mostly N to NW.

In Lantau Channel, the ebb current sets SE through the fairway. Strong eddies form, particularly in July and August, when the current attains a spring rate of 4.5 knots. The flood current sets NW, following the axis of the channel.

Freshets flowing out of the Zhujiang through Daxi Shuidao have an almost constant set from **Dahengqin Dao** (22˚06'N., 113˚33'E.), cross-channel, then along the islands to the W. The currents at this time attain a rate of 1 or 2 knots, particularly with E winds. At times there may seem to be a surface current setting to the E, but during freshets the undercurrent continues to set to the W.

The W side of the outer estuary is very shoal between Tu-Wu Chiao and Tung-Ku Chiao, about 18 miles N. Depths of less than 5.5m extend over 4.5 miles offshore, and probably farther. Reports indicate that this area has shoaled so much that charted depths of the area may be inaccurate.

The islands of Tapia and Coloane, which are part of the Portuguese province of Macau, lie in the S approach to that harbor, on the W side of Zhujiang Kou.

**Ilha de Coloane** (22˚08'N., 113˚34'E.), 171m high on its SW part, is the southernmost island of the province. A causeway connects the island with Ilha de Taipa, and shows navigational lights from its shores.

**Ilha de Taipa** (22˚10'N., 113˚33'E.), with an 11m high rock of its E extremity, lies 1 mile N of Ilha de Coloane. The island rises to a height of 158m and is joined to Macau by a bridge and causeway.

The channel W of these islands consists of drying mud flats which are navigable by small craft only. Ilha de Taipa and Xiaohengqin Dao to the W form the S side of a boat passage which connects the port of Macau and the Xijiang.

There is a deepwater port in the vicinity of Ponta de Ka-Ho comprising a 40m long container wharf and an oil terminal for tankers up to 1,200 dwt.

## Macau Harbor (22˚11'N., 113˚34'E.)

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**2.31** Macau Harbor and the city of Macau occupy the peninsula at the SE end of Aomen Dao (Macau Island). The port consists of two parts; the outer port is protected by breakwaters on the E side of the peninsula and the inner port on the W side of the peninsula is sheltered on the W by La-pa Shan. The port is frequented by small vessels, ferry boats, and local craft, while larger cargo vessels work freight from the anchorages rather than enter the harbor.

**Tides—Currents.—**The mean tidal range is about 1.8m. The tidal currents set strongly across the harbor entrance.

**Depths—Limitations.—**The 5m curve lies about 3 miles E of, and the 2m curve lies in close proximity to, the outer ends of the breakwaters. The channel to the outer harbor which leads between the breakwaters has a dredged depth of 4.4m on the range line. The channel leading S of the W breakwater and around the peninsula to the inner harbor is dredged to a depth of 3.5m up to the piers. The latter channel leads under a bridge in the causeway between Macau and Ilha de Taipa which has a vertical clearance of 30m.

**Aspect.—**Fortaleza da Guia, a prominent fort, stands on the summit of a hill overlooking the city of Macau from the E. A light, a signal station, and several yellow buildings are situated at or near the fort. Four radio masts, three of which are painted red and white, stand on a hill about 0.5 mile NE of the fort.

At the observatory, situated about 0.1 mile SW of the fort, is a luminous time signal. The signal, consisting of 37 lights on a post, indicates the exact local times of 2400, 0300, 0600, and 2100 hours by extinguishing the lights. The signal commences 4.5 minutes before the time.

The channels to both the inner and outer ports are marked by lighted and unlighted beacons and buoys. Range lights, aligned 305˚, mark the dredged channel to the outer harbor.

**Pilotage.—**Pilotage is compulsory, and the pilot boards at the Pilotage, Quarantine, Loading, or Unloading Anchorage in Zhujiang Kou. Vessels should not attempt to proceed past the

pilot station without a pilot on board due to the regulations in force in this area by Chinese authorities.

**Signals.—**Vessels using the Macau channels by day shall carry at the mast, two black spheres vertically arranged, and by night two green lights on the yard arm, similarly arranged.

The local storm signal code used in Macau is the same as used in Hong Kong.

**Anchorage.—**Anchorage in the fairways of the port is prohibited. Large vessels may anchor, in a depth of 7.3m, mud, in a position 7 to 8 miles SE of Fortaleza da Guia or on the main entrance range 1.5 to 2 miles from the breakwater heads, in depths of 4.1m and 4.2m, respectively. Cargo is worked at these anchorages by lighters.

**Directions.—**If proceeding from Hong Kong to Macau, or vice-versa, vessels should use the appropriate Traffic Separation Scheme, as seen on the area chart.

**Caution.—**Mariners are advised to obtain the latest and largest scale charts of the area before proceeding to Macau. However, even though these charts may be held, they may not reflect the correct depths throughout the area due to the continuous river estuary silting and lack of reports containing corrective information.

**2.32 Chiwan Harbor** (22°28'N., 113°52'E.) (World Port Index No. 57777) is situated on the E side of Zhujiang Kou and SW of the Nantou Peninsula. Chiwan, once a fishing village has now developed into a modern deep water port. The port can be regarded as an important gateway of sea transportation in S China.

**Depths—Limitations.—**The approach channel has a depth of 12.5m. The maximum allowable draft for the port was 11m in 1993. There are six berths with depths of 7 to 11m. The longest berth is Supply Boat Jetty, 520m in length with a depth of 7m alongside.

The Kaifeng container terminal has two berths, with a combined length of 610m and an alongside depth of 14m.

The Chiwan Petroleum Service Base has seven berths totalling 515m of berthing space with alongside depths of 6.6 to 7.1m.

Mawan, a port for general cargo is situated close NW of Chiwan Gang. There is a 230m long berth with a depth of 11.4m alongside for vessels up to 30,000 dwt.

Shekou Gang, a general cargo port and offshore oil support base is situated 1.2 miles ENE of Mawan. Shekou has six berths, with depths alongside of 6 to 11m. Berth No. 3, the longest and deepest berth, is 180m long and has an alongside depth of 11m.

**Pilotage.—**Pilotage, available during daylight only, is compulsory for foreign vessels entering and leaving port. The pilot boards in position 22°23.7'N, 113°53.7'E. Pilotage is provided by Hong Kong and Shekou Pilots. Vessels should send their ETA 72 hours, 48 hours, and 24 hours in advance of their arrival at the port. Chiwan Harbor is equipped with VHF facilities and a coastal radio station. The port can readily contact incoming and outgoing vessels. In addition, a dispatch network has been set up to provide wireless telephone and telex services to offshore drilling rigs.

**Anchorage.—**Anchorage can be obtained in designated areas with depths of 7 to 13m, mud and sand bottom with good holding ground. The designated anchorage areas lie S of Chiwan and are best seen on the chart.

**Caution.—**Lesser depths than charted have been reported (1996) in the S end of the designated anchorage area.

A wreck is reported (1997) to lie in position 22°26'19"N, 113°52'35"E.

**2.33** Between Macau and Tonggu Jiao point about 7.5 miles N, the coast is indented by two small, shoal bays. Xiangzhou Wan, the southernmost of the two has a group of islands off its S entrance point. Taipei (White Rock), the outermost danger fronting the bay, lies 2 miles NE of the bay's S entrance point, and is surrounded by drying rocks. Yeli Shan, a small islet, 71m high, lies 0.8 mile WSW of Bai Pai. A drying rock lies 0.7 mile W of Bai Pai.

Several small islets lie within 0.8 mile of **Changkeng Ding** (22°19'N., 113°36'E.), the point separating the two bays. The N bay is shoal.

**Tonggu Jiao** (22°23'N., 113°37'E.) is a rock- fringed point at the N extremity of the N bay. A 1.5m patch lies 0.5 mile SSE of the point. An islet and a drying rock located on a bank with depths of 1.5m lie about 0.5 mile NNW of the point.

The inner part of the estuary extends about 22 miles N of a line connecting Lan Kok Tsui (Black Point) on the E, and Tonggu Jiao on the W. The estuary above this point is up to 15 miles wide, constricting to the N. This body of water is encumbered with numerous shoals and banks which dry, and leave only narrow, shoal, and shifting channels toward the center of the estuary. Although small, shallow-draft, vessels navigate the maze of rivers and channels connecting the Zhujiang and Xijiang to the W, ocean-going vessels are confined to the reaches of the river.

**Tides—Currents.—**During the Northeast Monsoon, the night tide will be about 0.2m higher than the daytime tide; during the Southwest Monsoon the reverse is found.

Winds from the NW have been known to reduce depths by as much as 0.6m, while fresh SE winds have increased depths by the same amount.

The level of water in the estuary is likely to be highest in summer, especially after a heavy rainfall.

**Directions.—**Pilotage is compulsory for vessels proceeding N of the Pilot, Quarantine, Loading, or Unloading Anchorage. Vessels following the buoyed channel should navigate the lower reaches with particular caution as fishing stakes, dangerous wrecks, and other obstructions are charted in the reach between a point W of Peaked Hill, and Neilingding Dao. North of Neilingding Dao the channel has a charted width of about 0.4 mile, to a point 5.2 miles SSE of **Sanban Zhou** (22°43'N., 113°39'E.), then the channel widens.

**Caution.—**The lower reaches of the Zhujiang and Huangpu port areas contain military and naval installations.

**Neilingding Dao** (22°25'N., 113°48'E.) rises to a height of 339m in a conical peak. The E side of the island shows wooded slopes while the W side has a customs station situated on it. Several buildings are situated on the island. A light is shown from the NW point of Neilingding Dao. Nan Shazui, with depths of less than 1m, extends S of the island, while Fanshi Qiantan, with depths of 2.5m, extends up to 19 miles N of the island.

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## Inner Zhujiang Kou—West Side

**2.34** Between Tonggu Jiao and Dajiaotou Dao, 22 miles N, the estuary is encumbered by drying banks extending from the shore and the islands that front them. Several channels available to shallow-draft vessels only, lead through the banks, W to the Xijiang and N to Guangzhou. Junk Fleet Entrance and Lung-hsueh Hai-Kou (Lankit Entrance) are the most transited.

**Qi'ao Dao** (22˚25'N., 113˚38'E.), an island rising to 184m at its SW end, lies 1 mile N of Tonggu Jiao. A light is shown from the island, and the fishing stakes off its NE side are usually marked by lights. Several rocks fringe the S side of the island.

Jinxingdan is the channel between the island and Tonggu Jiao. Small vessels may find anchorage in a depth of 9.2m mud, about 1.5 miles NW of Tonggu Jiao, but depths at the anchorage may be less than charted. Half-Tide Rock, awash and fringed with sunken rocks, lies 2.2 miles NW of Tonggu Jiao, and an islet surrounded by foul ground, lies 0.8 mile NW of the point. A shoal with a dangerous sunken rock at its NW end, extends about 1 mile WNW of the islet.

**2.35** **Junk Fleet Entrance** (22˚24'N., 113˚41'E.), lying off the NE extremity of Qi'ao Dao, is a narrow, shoal, and unmarked channel leading through the mud banks fronting the W side of the estuary. From Qi'ao Dao the channel leads about 12 miles NNW to the entrance of Tan-Chou Shui-Tao, about 2 miles NE of Hengmen Dao, and is joined from the W by Hengmen, another tributary, at the same point.

Dajian Feng, 301m high, stands on the mainland about 1.2 miles WSW of Hengmen Dao. **Hengmen Dao** (22˚34'N., 113˚35'E.), 97m high, lies close NE of Dajian Feng.

**Longxue Dao** (Lankit Island.) (22˚42'N., 113˚38'E.) is 61m high near its SW extremity, where a small temple and some trees stand. The island lies at the SE terminus of a drying bank extending from several islands about 2.3 miles WNW of it.

**Shanban Zhou** (22˚43'N., 113˚39'E.) two small islets separated by a drying bank, lie 1.5 miles NE of Longxue Dao. The SE islet, which resembles an overturned boat, shows a light. Detached reefs lie up to 0.3 mile SE, E, and N of the N islet. A drying bank extends up to 0.3 mile NW, and SSW of the same island, off the island's W shore.

**Caution.—**Due to the lack of current information, the shoal nature of the channel, and the need for local knowledge as well as the restrictions placed upon foreign vessels in Chinese waters, vessels should not attempt any of the channels mentioned above without prior permission and a pilot aboard.

## Inner Zhujiang Kou—East Side

**2.36** **Lan Kok Tsui** (Black Point) (22˚25'N., 113˚54'E.) on the E side of the estuary, is the W extremity of a large, high peninsula, rising to a height of about 138m. A dangerous wreck, marked by a lighted buoy, lies in position 22˚31'05"N, 113˚48'56"E.

**Hau Hoi Wan** (22˚28'N., 113˚57'E.) is entered between Lan Kok Tsui and Mawan Xiajiao, about 4 miles NNW. The bay is mostly shoal, and studded with fishing stakes.

**Dachan Wan** (22˚33'N., 113˚53'E.), a shoal bay, indents the mainland on the N side of the peninsula forming the N shore of Hau Hoi Wan. Several islands lie off the mouth of the bay, the largest being Dachan Dao, 121m high, and the farthest W being Xiya, located about 6 miles NW of Mawan Xiojiao.

**Huipeng Jiao** (22˚30'N., 113˚50'E.), two islets close together on a drying sandbank, lie 0.8 mile S of Dachan Dao. The NW island is the higher of the two.

Dachan Dao, located 3.2 miles NW of Mawan Xiajiao, has a signal station situated at the NW end of the island. Xiaochan Dao lies 1.5 miles N of Dachan Dao, and is nearly connected to it by a spit with depths of less than 1m.

Bai Shi (White Rock) and Fanshi Yu, 8m and 17m high, respectively, are two exposed rocks lying close together, 4.5 miles WNW of Mawan Xiajiao. Both rocks lie on the E extremity of Fanshi Qiantan (Fanshek Bank). This bank is over 21 miles in extent, about 4.5 miles wide at its widest part, and has a least charted depth of 1m S of Neilingding Dao. Fanshi Shuidao, the channel E of the bank, should only be attempted by shallow-draft vessels possessing local knowledge.

Between the N entrance point of Ta-ch 'en Wan and Ch'uan-Pi Chiao about 14 miles NW, the E side of the estuary is fringed by a drying bank. Depths of less than 5.5m lie up to 5 miles offshore.

## Zhujiang Entrance to Huangpu

**2.37** The Zhujiang is navigable by ocean-going vessels to Guangzhou (Canton), about 17 miles above Huangpu (Wampoa). The main channel was reportedly dredged to a depth of 8.5m as far as Huangpu and has a depth of 9m at HW. Two channels, the South and the East, lead from Huangpu to Guangzhou. The South channel is the main channel and has a depth of 6m at HW. The channel is marked by beacons, buoys, and ranges, but depths within it are subject to change, and several dangers lie adjacent to it.

An extensive network of side channels permeate the Zhujiang delta, used mainly by fishing craft, junks, and other local traffic. Because of the restrictions placed on foreign vessels in Chinese waters, the shallow nature of the fairways, and the need for local knowledge, only the main fairways will be considered.

The passage from Pilot Quarantine Anchorage to Huangpu covers 63 miles through seven major channels. **Lingding Shuidao** (22˚25'N., 113˚45'E.) is the channel between Fanshi Qiantan shoal and the banks on the W side of the estuary. The channel is marked by lighted buoys.

**Chuanbi Shuidao** (22˚42'N., 113˚41'E.) lies at the Zhujiang entrance.

**Humen Shuidao** (22˚46'N., 113˚38'E.) is marked by lighted buoys.

**Caution.—**In 1995 construction of a bridge spanning the channel in the vicinity of Jinsuo Pai (22˚47.5'N., 113˚36.2'E.) began.

**2.38** **Nizhau Shuidao** (22˚54'N., 113˚34'E.) and **Lianhuashan Shuidao** (22˚58'N., 113˚32'E.) channels are marked by leading lights and lighted buoys.

**Caution.—**A stranded wreck lies close W of the charted track, about 0.8 mile W of the S extremity of La Sha.

**Chisha Shuidao** (23˚02'N., 113˚30'E.) extends 3 miles upriver from Dong Jiang, a tributary that flows into Zhujiang

from NE, where Huangpuxingang is located. There are several mooring buoys and anchorages. The channel has reportedly been dredged to a depth of 8.5m.

**Dahaozhou Shuidao** (23˚05'N., 113˚28'E.) is marked by leading lights and lighted buoys from 2 miles ESE of Huangpu. This channel is the narrowest of all major ship channels, 70m wide, and has a least depth of 7.8m. Loaded ships of 20,000 ton can pass through this channel on a flood tide. However, a vessel requires a vertical clearance of 60m to pass under a hanging power cable.

**2.39 Huangpuxingang** (23˚03'N., 113˚30'E.) (World Port Index No. 57825) is situated close NW of Dong Jiang creek and the E bank of Zhujiang. Huangpuxingang is a new port complex of Huangpu, situated 4.5 miles NW. This port complex has a total quayage of 1500m.

Wharf No. 1 through Wharf No. 8 can accommodate vessels between 20,000 and 35,000 tons, and have depths of 11.9m alongside. Additional berths are under construction close N of the wharves. Conspicuous silos stand W of the berths. Facilities are available for the handling of bulk solid, bulk liquid, break-bulk, and containerized cargoes.

A container and ro-ro terminal has two berths, with a total length of 471m and depths of 12m alongside. The terminal can accommodate vessels of up to 25,000 tons.

Tanker piers are situated 0.8 mile NW of the port area. Facing the port at midstream, there are anchor berths and several mooring buoys.

The port signal station stands in position 23˚03'48"N, 113˚30'00"E.

**Tides—Currents.—**During the winter months of the Northeast Monsoon, a high tide at night rises an additional 0.3m higher than a daytime high tide. During the Southwest Monsoon, this occurrence reverses. During the Southwest Monsoon, the rise of the river is visibly higher than during the Northeast Monsoon by 0.3m.

Wind effect on the water level in the region is significant. A fresh SE wind can increase the depth by 0.6m and decrease it by an equal amount during NW wind.

Tide gauges, showing the water level measured above the LLWS, are established, as follows:

1. Off Nizhou Shuidao (22˚54'N., 113˚34'E.).
2. Huangpu main wharf and dockyard.
3. At a jetty situated in position 23˚04.5'N, 113˚15.3'E. (2 miles S of Guangzhou).
4. At a jetty situated 0.2 mile N of Guangzhou Harbor.

The flood current usually reaches a velocity of 2.5 to 3.5 knots, and the ebb current a velocity of 2.5 to 4.5 knots, but may vary during freshets or drought conditions.

**Aspect.—**Chuanbi Shuidao, at the N end of Zhujiang Kou is the river entrance. From the river mouth, the fairway passes between the anchorage berths situated off the E bank at the river entrance, E of the islands in the lower reaches of the fairway, and over several shoal areas via a channel approximately 137m wide to the new port complex. The channel widens considerably at this point, but narrows again for vessels proceeding to Guangzhou. Huangpu port area is entered by a short reach off the main channel, marked by range lights.

**Caution.—**There have been extensive changes in the shoals encumbering the river, the channels traversing it, and the aids to navigation marking the channels. In addition, several sets of power cables span the channel to Guangzhou from a point over the Huangpu port area to Guangzhou itself. Local authorities should be consulted for the latest information on channel depths and vertical clearances before attempting passage to Huangpu or Guangzhou.

**2.40 Ch'uan-Pi Chiao** (22˚45'N., 113˚40'E.) is the S extremity of Chueen-Pi Island, and marks the S extremity of Chuanbi Shuidao. About 1 mile N of the point stands Tower Hill, on which a signal station stands. Nearly 2.4 miles W of Tower Hill lies Tai-Chiao Shan (Bower Point), on which stands a fort. The point is backed by a hill, 49m high, about 0.5 mile further W.

**Anchorage.—**In the Zhujiang, anchorages are used for pilots embarking or disembarking, quarantine, awaiting tide or for swinging a vessel around, or in the cases of draft restraint or terminal congestion. Anchorages are used also for working cargo. In addition to the anchorage W of Guishan Dao (paragraph 2.29) in the Zhujiang estuary, there are anchorage areas established in the river off **Xiaohu Jiao** (22˚50'N., 113˚34'E.), **Lianhuashan Shuidao** (22˚58'N., 113˚32'E.), and off Dahao Zhau.

The area off Shanban Zhou has 15 anchorage berths, numbered Berth S1 through Berth S15, in depths of 9.5 and 15m, mud and sand bottom. A rock, with a depth of 10.5m, lies near the center of Berth S14. A dangerous wreck lies close SW of anchor Berth S14 and Berth S15.

The area off Dahao Zhou has anchorage berths D1 through D8 for handling dangerous cargo.

There are anchorages and mooring berths established around and in the port area, in depths of 7 to 12m, sand and mud bottom, with swinging areas of 330m and 740m in diameter.

Permission to anchor must be obtained from the proper authorities at least 24 hours in advance, but vessels seeking typhoon shelter are permitted temporary anchorage with no prior notice.

**Caution.—**An area extending 0.5 mile E, and 1 mile N and S of Tai-Chiao Shan is reported to be prohibited to all merchant and fishing vessels.

Two islands named Shanghengdang and Xiahengdang lie 4.5 miles and 4.2 miles, respectively, N of Ch'uan-Pi Chiao. The islands and various dangers extending from or lying off them divide the river into two channels. Hu Men, the E channel is used by ocean-going vessels while the W channel is used only by local traffic. Foul ground, on which a small islet lies, extends between the islands, up to 0.2 mile E, 0.3 mile N, and 3 miles SE of those islands. Jinsuo Pai, which shows a light, lies 0.2 mile SE of Shanghengdang, and is surrounded by foul ground. A 6.5m patch and a rocky islet lie 0.2 mile SE and 0.3 mile S, respectively, of Jinsuo Pai.

**2.41 Dahu Dao** (22˚50'N., 113˚35'E.), 179m high, lies on the SW side of the channel, about 2 miles N of Shanghengdang. The N end of the island rises to a remarkable rounded mass of granite with sheer sides. A 3.7m patch lies 1 mile SE of the island.

About 4.5 miles N of Dahu Dao the channel traverses a heavily shoaled area where the fairways reduced to a width of about 137m. The fairway meanders across the river channel for about 15 miles to its terminus, 1 mile S of the Huangpu New Terminal complex, and is marked by lighted beacons, range lights, and buoys.

**Second Bar Pagoda** (23˚00'N., 113˚30'E.)and Linfo Fort close N of it, stand on a hill 108m high, on the W bank of the river. Conspicuous silos stand 3.5 miles NNW of the pagoda.

## Huangpu (Wampoa) (23˚05'N., 113˚25'E.)

World Port Index No. 57820

**2.42** Huangpu is the major port in S China devoted to foreign trade and is the largest transhipment terminal S of Shanghai. It is situated about 10 miles E of Guangzhou.

The harbor is divided into two sections, Dongji and Xiji. There are 45 berths totalling 5,000m of berthing length with alongside depths of 8.5 to 9m. In addition, cargo is handled at several anchorages, in the mid-current of Huangpu Shuidao (Whampoa Channel), in depths of 8 to 10m, mud and sand.

From 0.5 mile SSE of the N point on Dahaozhou, Chisha Shuidao leads NW into Tiezhuang Shuidao and branches NNW through Dahaozhou Shuidao into Huangpu Shuidao, where the two channels are separated by four sand banks or flat islands: Hongsheng, Longchuan, Daji, and Diancao. Huangpu channel runs N of these and Tiezhuang channel runs S. These channels meet again at **Honan-chou Tsui** (23˚06'N., 113˚14'E.) off the city of Guangzhou (Canton). The distance to Honan-chou Tsui from the dividing point at Chisha channel through Tiezhuang channel is 16 miles. Huangpu channel is 13 miles. However, vessels do not proceed beyond the port of Huangpu when using the N channel, because low bridges cross this channel on the approach to Guangzhou.

A spit with depths of less than 5m extends about 0.4 mile ESE and 0.2 mile NE from Diancao Zhou, the easternmost flat island of the four mentioned before. From Huangpu, an overhead power cable spans across to Diancao Zhou and S over Tiezhuang channel with a vertical clearance of 60m above water.

Yuzhu Qiantan, part of which dries, extends 0.3 mile close N of Daji Sha, a flat island W of Diancao. The navigable channel, Huangpu Shuidao, lies between this bank and the port of Huangpu.

**Winds—Weather.—**This area is dominated by long summers and short winters. The highest temperatures recorded are in July (39˚C), and the lowest in January (0˚C). Rainfall is heaviest between April and August. Fogs develop occasionally during the early morning hours in winter, but are generally short lived, dissipating soon after sunrise.

Winds, under the monsoon influence, are generally S and SE from April to July, and NE the rest of the year.

Typhoons occur in the summer and autumn, with winds generally of force 6 to 9, gusting to force 11.

**Tides—Currents.—**Tides are affected by a large diurnal inequality. The average rise of spring tides ranges from 2m in January to 3m in June and July. Tidal currents attaining velocities of 2 to 3 knots on the flood, or 2.5 to 4 knots on the ebb, may be experienced.

**Aspect.—**The main port area is fronted by several flat islands, separating it from the main river channel. A signal station stands about 1 mile NW of the new port complex, and a second stands on a 65m hill about 0.8 mile NW of **Yuchu** (23˚06'N., 113˚26'E.).

**Signals.—**Signal stations are available 1 mile NW of the new port complex, and 0.7 mile N of the main portion of the harbor, from which storm signals similar to that flown at Hong Kong are displayed. Radio service is available.

## Huangpu to Guangzhou

**2.43** The main channel to Guangzhou continues with the river channel on the S side of the islands fronting Huangpu, trending SW, then NW, and finally N to the terminals at Guangzhou. Vessels having a maximum draft of 5m can berth in the harbor. Larger vessels are handled at Huangpu.

Several overhead power cables, some with unspecified vertical clearances, span the fairway. A power cable crossing the channel at the S end of the port restricts entering vessels to masthead heights of less than 26m.

Due to the nature of the channel, the need for extensive local knowledge, and the restrictions placed on foreign vessels in Chinese waters only general directions will be given.

From the Huangpuxingang to **Junk Rock** (23˚02'N., 113˚24'E.) the fairway has general depths of 5.6 to 13.4m, but several shoal patches with depths of 5.2m and less obstruct the channel. Concrete piles and fishing stakes obstruct the N half of the channel at the confluence of two streams charted about 5 miles WNW of the Huangpu new port complex. A concrete pile obstructs the S side of the channel about 0.8 mile NE of the fishing stakes mentioned above.

Junk Rock, with a depth of 1.2m, lies 0.2 mile NE of a point with conspicuous cliffs on it, 44m high. About 1.2 miles N and close S of the point, overhead power cables span the channel.

From Junk Rock to **Yuangangsha Zui** (23˚02'N., 113˚21'E.) the channel runs SW, then W, and NW between Shen-ching Chou and Nan-T'ang Chou, passing N of Hai-hsin-kang, an islet which shows a light. Comus Rock, awash, lies about 0.1 mile E of the island.

Lijiao Shuido lies between the islands, is marked, and has a least depth of 5.9m.

Vessels bound for Guangzhou pass S of Hsi-yu Chou, 6 miles W of Xiajiao, then N past Macau Fort to the port. An overhead power cable, with a vertical clearance of 26m, spans the channel close by Macau Fort.

## Guangzhou (Canton) (23˚06'N., 113˚14'E.)

World Port Index No. 57830

**2.44** Guangzhou port area encompasses an area on the N bank of the Zhujiang River with the main seaward approach coming from the S. The limits of the port are best seen on the chart.

**Tides—Currents.—**Spring tides rise 2.3m and neap tides rise 1.9m. The ebb current attains a rate of 3 to 4 knots abreast Macau Fort. A tide gauge is situated on a T-headed pier on the E bank.

**Depths—Limitations.—**Vessels having a maximum draft of 5m can be accommodated in the harbor, which has a total berthing length of 2,600m. Vessels of up to 6m draft can work cargo mid-stream. Vessels unable to enter must anchor out and discharge to lighters. A passenger service operates to Hong Kong. An overhead power cable, with a vertical clearance of 26m spans the channel close by Macau Fort. Bridges to the NE, N, and NW of the main berthing areas restrict vessels sailing beyond the port. Larger vessels are handled at Huangpu.

**Aspect.—Macau Fort** (23˚04'N., 113˚15'E.) is situated on a small island at the S end of the harbor area. Numerous wharves and T-headed piers line the river banks.

A large tract of alluvial land lies in the common delta of the Xijiang and the Zhujiang to the E of **Sanshui** (23˚11'N., 112˚50'E.) and S of Guangzhou. This tract of land is intersected by a web of creeks and waterways used for trade and communication.

The principal waterways connecting the two rivers intersect the Zhujiang between **Chin-Haing Men** (22˚23'N., 113˚37'E.) and the shoal area below Huangpuxingang. Since most of the passages are either extremely shallow or obstructed by underwater barriers and overhead cables, only shallow draft traffic, such as junks, travel them regularly. For the above reasons, further description of these waterways will not be given.

**Pilotage.—**The pilot boards in the quarantine anchorage.

**Regulations.—**Upon arrival vessels will be boarded by a berthing officer who will direct them to the proper berth.

**Signals.—**Storm signals, similar to those shown in Hong Kong, are shown at the yardarm of the custom house, 0.2 mile E of Honanchou Tsui and also from a mast atop the examination shed, 0.3 mile NNE.

There is a coast radio station.

**Anchorage.—**Anchorage is available in the port area, in depths of 5 to 6.5m, mud and sand. Local authorities and the pilot should be consulted before attempting to anchor in any of the areas mentioned above.

**Directions.—**Due to the nature of the channel, the need for local knowledge, and the restrictions placed on foreign vessels within Chinese waters, vessels are urged to contact local authorities before attempting any of the channels mentioned above.

## Dahengqin Dao to Dajin

**2.45 Dahengqin Dao** (22˚06'N., 113˚30'E.) lies at the SW portion of the entrance to the Zhujiang Kou and at the SE end of Modao Men, which is the main entrance of the Xijiang. Several islands lie off the river deltas between Dahengqin Dao and Dajin about 30 miles WSW. To the N of the latter island is a bay which leads to Ya Men Wan and the T'an Chiang.

**Aspect.—**Dahengqin Dao is a large irregularly shaped island. Naobei Shan (Adams Peak), 460m high and located near the middle of the E part of the island, is its summit. Shihlan Chou, two islets lying close together, is located about 0.3 mile S of the S extremity of Dahengqin Dao. Hsing Chou, a small islet, lies about 1 mile NW of Shihlan Chou. Close approach to the above islands is prevented by dangerous rocks and mud flats.

**Sanzao Dao** (22˚02'N., 113˚21'E.) lies 4 miles W of Dahengquin Dao across the entrance to the Hsi Chiang. Though larger than the latter island, it is not as high, its highest mountain peak rising to only 270m. Sanzao Dao is populated and has a few small piers in the bays which indent its perimeter. **Titao Tsui** (Red Cliff Head) (22˚05'N., 113˚24'E.) is the NE extremity of this island.

A group of small islands and islets extends in an arc from Heng Zhou (Ross Island), off Titao Tsui, S and SW to **Shih-wan** (The Stragglers) (22˚00'N., 113˚24'E.), off the SE side of Sanzao Dao. A narrow channel, bound on the E by mud flats, leads between Titao Tsui and Heng Zhou, but it is blocked at its N end by a causeway.

Anchorage can be taken NW of Heng Zhou. The anchorage is well-sheltered, but the holding ground is only fair and the tidal currents are strong.

**Caution.—**Shoals, with depths of less than 5.5m, have been reported to extend farther SE from Sanzao Dao than charted.

**2.46 Gaolan Dao** (21˚55'N., 113˚15'E.) lies about 4 miles SW of the SW extremity of Dahengqin Dao. It is 420m high and has a prominent sand slide on its NE side. The island is indented by many small, shallow bays. Sunken rocks fringe the SE side of the island. Small vessels with local knowledge can anchor in about 5m, mud, in the NW of the two small bays on the SW side of Gaolan Dao. The islets of Wen Zhou and Yuan Chou lie about 0.8 mile E of the island.

Hebao Dao is an irregularly-shaped island lying 3 miles SW of Gaolan Dao. Nan Wan, an exposed bay with depths of 5.5 to 10m in its middle part, indents the S coast of the island. A rock, 5m high, lies off the SW entrance to this bay. Hebao Dao is highest on its W side; anchorage may be taken in a depth of 9m a distance of 1.5 miles W of the coast.

A channel, which leads to the approach to the T'an Chiang, passes between Hebao Dao and Gaolan Dao. Depths of 5.5 to 9.2m are found in the channel up to about 6 miles NW of the E extremity of Niu-chiao Shan. Small vessels can find protected anchorage in this channel.

**Dajin** (21˚52'N., 113˚02'E.) a rocky island with four peaks more than 305m high, is located about 5.5 miles W of Hebao Dao. Its 393m high peak, which is dark in color with some red streaks, stands on the island's E side. A rock, 4m high, lies close off the S extremity of the Dajin. This rock is the northernmost of a chain of rocks and islets that extends S for about 4 miles. The southernmost rocks are called San-pei-chiu.

**Caution.—**Vessels should pass well S of San-pei-chiu as the vicinity has not been closely examined.

Dajin is separated from the mainland to the NW by a channel with depths of less than 3.7m.

**Tong Kwa** (21˚51'N., 112˚54'E.), on the mainland, is located 5 miles W of Dajin. The description of the mainland W of Tong Kwabegins in paragraph 3.2.

## Entrance to the Xijiang

**2.47** The delta of the Xijiang is formed by many islands which are separated from the mainland by numerous shallow channels and waterways. The principal entrance, Modao Men, passes to the W of Dahengqin Dao and leads NNW into the

river. Other entrances to the Xijiang are suitable only for small, local craft. Between the mouth of the Hsi Ching and San-shui Junction, about 75 miles NNW of Dahengqin Dao, the E side of the Xijiang is connected with the Zhujiang system by a large number of creeks. Although, these waterways will be mentioned as they join or leave the Xijiang, they will not be described, due to their restricted depths and lack of current information.

Modao Men is the E and principal chanel and is entered from seaward between the islets off the SW of Dahengqin Dao on the E, and a bank which partly dries and extends about 12 miles SE from Teng-lung Sha on the W.

**Tides—Currents.—**In the vicinity of the delta of the Hsi Chiang, the W current of the Northeast Monsoon occurs from October to May. In March, April, and May about one third of the currents set in an opposite direction. The E current of the Southwest Monsoon occurs from June to September. In June, July, and August this current attains its greatest rate and consistency.

Offshore of the delta of the Xijiang the tidal current on the rising tide is governed principally by the prevailing wind. With strong E winds it sets WNW; with SW winds it sets N. The tidal current on the falling tide sets mostly in a SW direction.

The mean range of the tide at Gaolan Dao is about 1.2m and the diurnal range is about 1.7m.

Within the river the tidal currents, which are strong, usually follow the direction of the channels. These channels are generally shallow and intricate. However, the depths are greatly affected by seasonal change. In June and July, the river is at its highest, and in December and January it is at its lowest. A high river brings with it strong currents, making navigation difficult at times.

**Caution.—**Permission to navigate the river must be obtained from the proper authorities well in advance of the vessel's arrival. The river and the ports it services have been reportedly closed to foreign shipping.

**2.48** From San-shui Junction, where the Pei Chiang joins the Xijiang, the Xijiang trends W past Wu-chou. Description of the river will terminate at Wu-chou, as only small craft proceed beyond to the upper reaches of the river .

The ports described with the Xijiang are Pei-chieh, Hsin-hui, San-shui, and Wu-chou.

**Ta-ching Chiao** (Morgan Point) (22˚06'N., 113˚28'E.) is the W extremity of Dahengqin Dao and lies 3.5 miles within the channel entrance on its E side. Vessels must avoid the rocks and islets between this point and Shih-lan Chou at the SE end of the entrance.

About 1.3 miles NW of Ta-ching Chiao on the E side of the channel is a drying rock marked by a beacon. A rock, awash, also marked by a beacon, lies on the mud flats about 1 mile W of the above mentioned drying rock.

Massie Point is the W extremity of Hsiao-heng-ch'in, a narrow island lying parallel to the N shore of Ta-heng-ch'in Tao. Mud flats fill the gap between these two islands. A bank that dries 0.2m at its N end, extends about 2.5 miles NW from Massie Point. Ta-kang (Mong Chau) lies on this bank in a position about 0.7 mile NW of Massie Point. A prominent white square tower stands on this islet. About 0.2 mile N of Ta-kang lies another small islet.

The island of **Hao Chou** (Pak Tank) (22˚09'N., 113˚24'E.) lies on the drying flat across the channel about 3 miles W of Ta-kang. The islands immediately NNW, W, and WSW of Hao Chou are joined by a causeway from the NE end of Ta-lin-Tao to Teng-lung Shan.

La-pa Shan lies about 1 mile N of Hsiao-heng-ch'in. A narrow boat channel separates the two islands and connects Modao Men with the Zhujiang Kou.

**2.49** **Yu-chi Shan** (22˚12'N., 113˚27'E.) is the summit of an unnamed island, 210m high, lying close W of La-pa Shan and is separated from it by a creek. The N side of this island and La-pa Shan are separated from Ao-men Tao by another narrow channel. Ma On Shan, a steep hill, is the W extremity of this nameless island. A rock with a depth of less than 2m lies close W of this point.

A narrow bank, with its S end about 0.3 mile SW of the above rock, extends NW for 4.8 miles to Chu P'ai Sha. This bank forms the W limit of the channel and is backed by Teng-lung Sha. On the E side of the channel extending NW from Ma On Shan, several creeks lead into Ao-men Tao and a long narrow, cultivated island parallels the aforementioned bank.

**Sheong Ma Kok** (22˚16'N., 113˚21'E.), located E of Chu P'ai Sha, is the SW extremity of a range of hills on Ao-men Tao. The main fairway leads between these two islands, then NW to Mo-Tao, a hilly island about 0.5 mile N of Chu P'ai Sha. Mo-Tao is separated from Ao-men Tao by a narrow channel. A fort stands on the island.

Lo-chou Men is a continuation of the main channel above Modao Men. Three islands which extend about 11 miles NNW from the N side of Teng-lung Sha form the W side of the channel. San Sha is the southernmost of these three islands. **Lo Chao** (22˚19'N., 113˚17'E.), the middle island, features Stripe Cliff on its SE side about 0.7 mile from the W bank of the river. Tree Point lies on the E side of the same island about 1.2 miles N of Stripe Cliff. Sunken rocks lie close off this point. Some white and red cliffs, fronted by rocks close offshore, stand a short distance inland on the NE side of Lo Chao

Red cliffs are found on the SE side and on the N end of Chuk Chau, the third of the three islands. A rock with a depth of less than 1.8m lies close offshore about 1.3 miles SE of the N end of Chuk Chau. A shoal extends off the N and NE of the N red cliff for up to 0.5 mile.

## Chuk Chau to Chau Lin Channel

**2.50** Lo-chau Ch'i is entered from N close W of the N end of Chuk Chou. Moorhen Creek is entered from SE between the same point and the S end of an island about 0.5 mile N. The entrances to these creeks, which are used by small craft, are very narrow.

The E side of the river from Mo-tao to abeam the N end of Chuk Chau is also formed by islands, the northernmost being Kwongfuksha. The creeks that separate these islands from each other and from Ao-men Tao to the E, lead to the entrance of Nemesis Creek. This latter creek connects Lo-chou Men with the Zhujiang system, but is suitable for use by small craft only.

The main channel leads close W of an island which lies nearly in mid-channel about 0.5 mile NE of the N end of Chuk

Chau. The W side of the channel, for a distance of about 9 miles NNW of this island, is formed by a number of low and cultivated islands. The E side of the channel is low and is intersected by a number of creeks. Some sunken rocks lie close off the NW end of Kwongfuksha nearly 2 miles N of the mid-channel island.

An islet lies in mid-river about 0.8 mile N of the NW end of Kwongfuksha. The main channel leads between this islet and the E bank of the river. A shoal spit and two groins project from the N part of the islet. A rock with a depth of less than 1.8m, existence doubtful, lies close off the E bank of the river abreast the islet.

**Kep Siang** (22˚29'N., 113˚14'E.), a narrow islet, lies on the E side of the channel about 1.5 miles NNW of the above islet. A spit, with a depth of less than 1.8m, extends a short distance N from the N end of the islet. A rock with a depth of less than 2m lies abreast the N end of Kep Siang, close off the W bank of the main channel.

Shih-ch'i Ch'i (Shekkei Creek) enters the main channel abreast the SE end of Kep Siang. This creek connects the Xijiang with the Zhujiang system. Lung-Kang Ch'i (Lung Kong Creek) a tributary of the main river, enters the main channel off the NE side of Kep Siang. Holmes Creek leads S from a position about 4 miles NNW of Kep Siang.

The NE end of the island separating Holmes Creek from the main channel of the Xijiang is fronted by shoals to a distance of 0.3 mile. Groins extend from both banks of the river, just below the junction.

The main channel trends 4 miles N from its junction with Holmes Creek. Gruning Shoal, an extensive sand bank, is the only known danger in this part of the channel. It extends about 0.7 mile SE and 0.3 mile E from the SE end of **Chau Lin** (22˚37'N., 113˚09'E.).

The Xijiang is divided into three branches in the vicinity of Gruning Shoal. The W branch, which leads off the SW side of the shoal, leads to Pei-chieh and Hsin-hui. The NW branch, which leads off the NE side of this shoal, is the main branch of the Hsi Chiang and is known as Chau Lin Channel. The N branch, which is entered N of the SE side of this shoal, is known as Sandpiper Creek. It is used by small craft.

Wai-hai (Ngaihai), a village, stands on the S side of the W branch, abreast the SE extremity of Chau Lin. A tower stands on the river bank, close N of Wai-hai.

Wu-chun Hill, 56m high, is located on the E side of the main river about 1 mile E of the SE end of Chau Lin.

Chau Lin Channel leads NW about 4.5 miles along the NE side of Gruning Shoal, then, between Chau Lin on the SW and Futong Island on the NE. Near the N end of Chau Lin, Bamboo Island lies in mid-river with the main channel between its SW shore and Chau Lin. Hall Point, 0.6 mile WNW of Bamboo Island, is the N extremity of Chau Lin. An overhead cable crosses the river at Bamboo Island. A spit, with a depth of 1.2m, extends 0.3 mile N from Hall Point.

A narrow island, separated from the SE side of Chau Lin by a narrow creek, extends about 1.6 miles NW from a position about 0.5 mile NW of the SE extremity of Chau Lin. The main channel leads off the NE side of this island. A sunken stone barrier, nearly awash at LW and usually marked by eddies, extends 0.2 mile E from the NW end of the narrow island. A shoal, with a depth of 0.9m, extends a short distance from the SW side of the channel, close NW of the barrier. To the SW of Chau Lin on the W banks of a creek known as Chiang-men Ch'i, are situated Pei-Chieh and Hsin-hui. These towns can be approached through the channel leading W along the S side of Chau Lin or from the N by sailing S along the W side of Chau Lin to the Chiang-men Ch'i.

Vessels using the channel on the W side of Chau Lin from Chau Lin Channel should give Hall Point a wide berth. The depth in this channel is estimated to be about 3m and reported (1960) to be buoyed.

The E entrance, off the SW of Gruning Shoal is very narrow. Edgell Island, 46m high, lies in mid-channel about 1.7 miles within the E entrance. It can be passed on either side. A rock with a depth of 0.9m, lies on the S side of the fairway about 0.8 mile E of the island.

There is a shoal area and a spit extending from the S bank where the N entrance, E entrance, and Chiang-men Ch'i converge.

The tidal current on the falling tide attains a rate of 4 to 5 knots during the high river season, and from 1 to 2 knots during the low river season.

**Pei-chieh** (Pakkai) (22˚35'N., 113˚06'E.) (World Port Index No. 57780) stands on the W bank, close N of the E entrance of the Chiang-men Ch'i. It consists of a custom house, a business section, and a few homes. All vessels bound for or leaving Hsin-hui must stop at the customs house. There are four wharves at Pei-chieh where cargo is transshipped to junks and sampans for carriage to Hsin-hui, 1.8 miles SW, on the NW side of the Chiang-men Ch'i.

## Chau Lin Channel to San-shui Reach

**2.51** The main channel leads N about 3.5 miles from Hall Point to Chai Tau Shan. A couple of villages stand on the river banks in this portion of the channel and some rocky spits and shoals project up to 0.3 mile from shore. The NW end of Sandpiper Creek joins the Xijiang about 0.5 mile SE of Chi Tau Shan at the N end of Futong Island.

Chi Tau Shan (Plover Island) is a low, flat, narrow island lying in mid-river. A prominent house stands on a rocky mound, 12m high, on the N end of the island. The recommended channel is to the E of the island as rocks are reported to be in the W channel. A cable, with a reported clearance of 23m at LW, crosses the E channel. Vessels passing under it should keep well to the E bank.

The Xijiang widens somewhat as it trends NNW for 3 miles from Chi Tau Shan to Staunch Island. Heng-chiang, a village, stands near the W bank about 0.5 mile W of Chi Tau Shan. A temple stands on the same side of the river about 0.5 mile N of the village. A rocky point is located close N of the temple.

A rock, that dries 1.8m, lies close off the W bank about 0.5 mile S of the temple. A rock, that dries 2.4m, lies close off the same side of the river, about 0.2 mile N of the temple.

Short groins extend from the W side of the river in this area. The main channel leads along the W side of the river, off the groins.

Staunch Island is formed by a rocky patch that covers during periods of high river. A light is shown from a white hut erected on piles on the island. A rocky ledge extends 0.3 mile N from Staunch Island.

**2.52 Lo Sa Tau Point** (22˚46'N., 113˚05'E.), located about 0.5 mile E of Staunch Island, is a low projection. A drying shoal extends a short distance N and W from the point. A branch channel, entered between this point and First Cliffs, about 0.7 mile NE, trends in a SE direction for 2.5 miles to its intersection with three creeks. One of these leads S and rejoins the Xijiang and the others ultimately lead to the Zhujiang.

Fa Chiau, an island 36m high, lies on the E side of the main river in a position about 2.5 miles N of Staunch Island. Navigable channels lead on either side of the island. A rock, with a depth of less than 1.8m, lies close W of the S extremity of Fa Chiau. A spit extends nearly 0.5 mile NW from the NW extremity of the island. The main channel leads SE of the island and the spit. A high overhead cable crosses the main river at a position about 0.3 mile S of the island.

Kan-chu-Ch'i, a waterway which connects the Xijiang system with the Zhujiang system, is entered just to the E of Fa Chiau.

**Tam Kong Chau** (22˚49'N., 113˚02'E.), a small islet, lies on the S side of the Xijiang about 1.5 miles WNW of Fa Chiau. Kaukong Sa Hau, the port area of Kaukong Hu, is situated on the N side of the river abreast the islet.

Sha-tzu (Hok Shan Islands) lie from 0.7 mile W to 3.2 miles WNW of Tam Kong Chau. They consist of two low, flat islands which are separated by a narrow, partly drying channel. The main channel leads along the N shore of these islands between them and an extensive shoal that extends out from the N bank of the river. Perkins Rock, with a depth of 1.8m, lies near the SE end of this shoal, about 0.2 mile off the NE side of the E island.

Ku Lao and Ho-ch'ing, two small villages, are situated on the SW and NE banks, respectively, of the river about 1.5 miles NW of the NW end of the W island. A rocky ledge, parts of which are above water, extends halfway across the river at Ku Lao. Its outer edge is usually marked by eddies.

Anchorage can be taken in 13 to 16.5m about 1 mile upstream from Ku Lao.

About 3.7 miles NNW of Ku Lao a prominent seven-story pagoda, 57m high, stands on a point on the W bank of the river. Lo An Chau (Rattler Island), low, narrow, and flat, lies near the E bank, abreast of this pagoda.

The island of T'ai-p'ing Shan, which is rather large, flat, and wooded, lies NW of Lo An Chau and divides the river into two channels. An extensive sand bank lies N and W from the N end of the island. The E channel is the main channel and has greater depths on its E side. The W channel is not recommended as it is shallow at each end.

Anchorage can be taken in a depth of 4.9m off the prominent pagoda at the entrance to the W channel of T'ai-p'ing Shan.

Ho Kok Island lies parallel and close to the E river bank from 1.2 to 3 miles N of the N end of T'ai-p'ing Shan. Red Hills, 178m high, is located a short distance inland from the W bank, abreast Ho Kok Island.

**2.53 Rocky Point** (23˚00'N., 112˚51'E.), located on the E bank about 1.8 miles NNW of the end of the above island, is rather steep-to. Fu Wan, a village, stands on a small point on the opposite side of the river, abreast Rocky Point. Some rocks lie close off the coast near the village.

Sik Lung Tsi, 18m high and very small, lies in the middle of the river in a position about 2 miles N of Rocky Point. The channel E of the island is clear. This reach of the river is lined with brick kilns.

Pai-ni Bank, which dries at low river lies close off the E bank in a position about 1.8 miles N of Sik Lung Tsi. The main channel leads W of this bank. A shoal bank, which extends up to 0.5 mile off the E side of the river, extends nearly 1.5 miles NNW and then a little over 1 mile N from Pai-ni Bank. The river is very narrow in this vicinity.

A low point, on which stands a temple, is located on the W side of the river about 2.5 miles NNW of Sik Lung Tsi. This point is fringed with rocks, some of which dry, and which are usually marked by eddies.

Mau Hau, a village, stands on the E bank, about 2.5 miles N of the low point. The river narrows in the vicinity of the village and flows through rocky headlands. To the N of the village it widens out somewhat. At San-shui Junction, located about 1.7 miles N of the village, the Xijiang trends NW and then W. San-shui Reach, which connects the Xijiang with the Pei Chiang, leads NE from the junction. The E end of the reach is connected with the system by Fo-shan Chih-liu and Hsi-nan Ch'i.

Mandarin Shoal lies in mid-channel off the SW entrance to San-shui Junction. It varies as to size and position and when considered dangerous is usually marked by a sampan displaying a red flag.

The main channel of the Hsi Chiang leads NW off the SW sides of Mandarin Shoal and Chin-sha (Kwong Sai or Fort Island), then W. This latter island is narrow, low, flat, partly wooded, and extends about 1.8 miles NW from a position about 0.3 mile NNW of the shoal. A spit extends 0.3 mile from the NW end of the island and a rock, with a depth of 1.2m, is reported to lie off the SW side of Chin-sha.

**San-shui Reach** (23˚10'N., 112˚50'E.) is entered from the Xijiang through San-shui Junction. The W entrance is between Entrance Point and Mandarin Point about 0.1 mile N. The former point is the middle of three points on the SE shore of the entrance; the latter point is marked by a light.

A shoal bank, with depths of less than 1.8m, extends halfway across the junction from its NW side. The depths in San-shui Reach change from year to year and during low-river season, only small craft can navigate the channel.

Kang Ken (Tweed Point) is located on the SE side of the NE end of San-shui Junction, 0.7 mile NE of Mandarin Point. A light is shown from the shoal ground fringing Kang Ken. A tide gauge, marked from 1m below zero to 3.9m above zero, is situated near Kang Ken.

Frasers Hill, 61m high, rises 0.5 mile NE of Kang Ken. A rock, with a depth of less than 1.8m, lies close N of the hill. A drying bank extends up to 0.1 mile offshore for nearly 1 mile to the E, beginning about 0.1 mile E of Frasers Hill.

**2.54 Lo Ah Chau** (Rattler Island) (23˚10'N., 112˚50'E.) lies in the middle of the entrance of the Pei Chiang and forms the N side of the W entrance of San-shui Reach. Fish Point, the SW extremity of the island, is located about 0.3 mile NNE of Kang Ken. A light vessel, which displays a red flag by day, is moored off Fish Point. Chow Wei (Low Point), the SE

extremity of the island, is located about 0.6 mile NE of Kang Ken. A beacon stands on Chow Wei.

A drying sandbank lies close off the SW side of Lo Ah Chau. A shoal bank, with depths of 0.6 to 1.8m, lies between the SE side of the island and the SE side of the reach in the vicinity of Frasers Hill.

A rock, 3.3m high and marked by a beacon, is located in mid-channel about 1 mile E of Chou Wei. A spit with a depth of 0.3m extends SSE to shore from close SE of this rock.

Sun Sha, a large island, lies in mid-channel. Its W end, which is fringed by a drying bank to a distance of 0.3 mile, lies about 0.5 mile E of the aforementioned rock. A wooded islet lies a short distance off the NE side of the island in a position about 0.2 mile NW of its E end. Lo Sha, a narrow island covered mostly by buildings, lies close E of Sun Sha. A narrow, drying bank separates the two islands. A chimney stands near the NW end of Lo Sha, and a tower stands near its SE end.

The channel, which passes S of the two islands, is reported to be the one used. Sand banks have been reported as extending from both sides of the W part of this channel.

A narrow spit, with a depth of 0.3m, extends 0.2 mile N from a position on the N side of Sun Sha, 0.5 mile W of the NW end of Lo Sha. A drying bank, the outer end of which lies close W of this spit, extends nearly halfway across the channel from the N side of the reach. A small drying patch lies in mid-channel, close E of the spit.

**2.55** **San-shui** (23˚11'N., 112˚50'E.) is located on the E side of the mouth of the Pei Chiang, about 0.5 mile N of Hokau. San-shui is a small port, with Hokau, its port area, situated outside the embankment. Hokau is flooded about 6 months of the year. The greater part of the waterborne traffic of San-shui is carried through to Hsi-nan, about 2.5 miles E of Hokau.

A small jetty, with a pipeline, lies at the oil depot on the N bank, about 0.8 mile E of Hokau.

Floods can be expected once or twice a year when there are freshets concurrently in the Xijiang and Pei Chiang. At these times, usually June and July, the rivers become turbulent, sweeping past like a mill race. Violent squalls usually accompany the freshets. River levels under these conditions have exceeded 8m at the bar.

**Signals.—**A black ball is displayed at the custom house at Hokau when the depth on the bar is less than 2.4m.

Storm signals are displayed at the custom house at Hokau.

| Day signal | Night signal | Meaning |
|---|---|---|
| One black ball | One red light | Bad weather is expected |
| Two black balls, disposed vertically | Two red lights | A typhoon or strong gale is expected |

**Anchorage.—**The anchorage outside the bar off Kang Ken is used by vessels unable to cross the bar between Lo Ah Chau and Frasers Hill. This anchorage is small and can accommodate about three vessels.

The anchorage off the custom house at Hokau has good holding ground, but is exposed to sudden, heavy squalls from the SE in summer. During the winter months it is obstructed by shifting sand banks which limit its use to vessels drawing less than 1.5m.

**Caution.—**Vessels without recent local knowledge should not attempt to enter San-shui Reach from the Xijiang as the charts are inadequate and the river is continually changing. Great attention must be paid to the steering due to the strong swirls and eddies.

Numerous native craft and large rafts are often met within the entrance and in San-shui Reach. The rafts are kedged and their progress is slow, thus impeding navigation.

The large rafts, up to 122m long and 46m wide, which sometimes transit the Pei Chiang three or four at a time, are a danger to navigation. Large stacks of pine tree branches, which are floated down two abreast on boats which are lashed together, also are a hazard. Sometimes 20 or more of these rafts and stacks are in close proximity and occupy almost the entire width of the river.

The Pei Chiang leads N from the W of San-shui Junction and San-shui Reach. It is suitable only for shallow draft vessels.

## Chin-sha to Ts'ang-Wu

**2.56** From a position SW of the NW end of Chin-sha, the river leads W about 7 miles to the island of Moyen Chou. The channel favors the N bank of the river for most of this stretch.

Ch'ing-ch'i-hsu (Ching Ki Creek) joins the Hsi Chiang from the N about 0.5 mile NW of Chin-sha. A group of drying rocks lies close off the S bank of the Xijiang opposite the mouth of the Ch'ing-ch'i-hsu. Red Banks and Kestrel Bank, which extend over halfway into the river, stretch about 2.5 miles W from the drying rocks.

Anchorage can be taken close off the steep-to banks of the river near the village of Sha Po which lies 3 miles W of Kestrel Bank.

Moyen Chou (Kwangli Island), a rather large island, lies in mid-river, 2 to 4.5 miles W of Sha Po. The main channel leads over the N shore of the island. Sandbanks lie close off the NE side and NW end of the island and a shoal spit extends about 0.8mile WSW from its W end. Some rocky patches lie close off the N bank, N of the E end of Moyen Chou.

The Xijiang trends about 4 miles SW from the W end of Moyen Chou to the N entrance of Ling Yang Gorge. First Bar, which has a depth of 1.8m at low river, lies about 2 miles N of the entrance to the gorge. The river continues SW about 4.2 miles through this gorge, passing between mountain ranges rising to 858m at Mount Parkes, 3.5 miles due S of the N entrance. Ling Yang Gorge is 0.1 to 0.15 mile wide in its narrowest part, and is deep in the fairway. Overhead cables span the river at both ends of the gorge. Vessels should stay to the middle of the channel.

At the S entrance of the gorge, the Xijiang continues 4 miles SW, then turns W a distance of 6 miles. Sandbanks and rocks lie close off the banks for most of this latter SW portion of the channel. As the river turns W, it passes the walled city of **Kao-yao** (Shiuhing) (23˚01'N., 112˚28'E.), a military station. A

sandbank, awash at LW, encumbers the S side of the river from abreast the city to 3 miles E. The Seven Stars, a marble range of hills, is located 2 miles inland, N of Kao-yao.

Anchorage can be taken off the S gates of Kao-yao about 1.5 miles E of a large pagoda.

Between Kao-yao and Narrow Island, the Xijiang winds through hilly country for a distance of 24 miles. The hills vary in height from 30 to 457m. They are mostly densely wooded, but many of them are cultivated. There are several villages along both shores of this portion of the river. Sandbanks and sunken rocks project from the banks, primarily near the bends in the channels.

Spike Hill rises on the N bank about 2.5 miles W of Kao-yao. A temple can be seen on the S bank opposite Spike Hill. Overhead cables span the river at this location which should be passed near the N bank during high river season.

A deep, narrow, and steep-to gorge is entered 4 miles upriver from Spike Hill. A prominent tower stands on the N bank of the gorge near its N end where the channel turns from W to NW.

**2.57 Lu-pu-hsu** (Lukpo) (23°08'N., 112°28'E.) stands on the N river banks where the channel takes a sharp turn from W to S. A bank extends from the SE side of the river abreast the village. From here, the channel winds generally SW about 8 miles to Tree Head on the S shore 0.7 mile S of Narrow Island.

Narrow Island lies in mid-river and is covered with bamboo. Extensive sand banks connect the island with the N bank of the river. Sandbanks, which are steep-to on their S side, extend 1.3 miles WSW from Narrow Island. These banks are usually marked by stakes. A small, steep projection juts out from the E bank about 0.4 mile NE of the NE end of this island.

Three prominent red cliffs are located a short distance W of Tree Head. Some dangerous rocks, marked by eddies, are found nearly in mid-channel abreast the middle cliff.

**Yueh-ch'eng** (Yutshing) (23°04'N., 112°'E.) a village, is situated on the NW side of a bend in the Xijiang, 3.5 miles W of Narrow Island. The Cock's Comb, a marble hill, stands near the N bank of the river, 4.7 miles W of the village.

From the Cock's Comb, the river trends W about 2.5 miles, then N 2 miles farther, before turning generally W again for about 14 miles to Steep Point on the S bank. The channel holds to mid-river for the most part. Some banks extend offshore in places along the passage, particularly where the channel turns from N to W above Cock's Comb and off Te-ch'ing (Takhing), about 3 miles E of Steep Point. A few drying rocks lie off the E shore opposite the former bank. These rocks are sometimes marked by buoys.

There are numerous villages and settlements on both banks of the river throughout this stretch. Several joss houses and pagodas can be seen on either shore along the way. Te-ch'ing, a walled city, is apparently the largest of the villages on this W heading. A nine-story pagoda stands on the N shore, slightly inland and 3 miles E of Te-ch'ing.

The Hsi Chiang turns SW for a short distance at Steep Point. Flat Rocks, which dry 0.3m, extend nearly halfway across the river from the NW bank, opposite the point. Strong eddies are found in their vicinity.

Yung Tong, a village on the N bank of the river, is situated 1 mile NW of Steep Point. Some rocks, that dry, lie close off the S bank, about 0.6 mile SW of the village. A buoy marks these rocks during winter. Shoals, composed of stones and shingle, fringe the N bank 0.7 mile to 1.8 miles W of Yung Tong.

Ta-li-Kou (Tai Lik Hau), a village, is situated on the S bank 2 miles WSW of Yung Tong. A shoal bank extends from the SW side of the river between the village and a point 2.5 miles NW. The SE side of this shoal extends into the middle of the river.

Rocky Spit is located on the NE side of the river, 1.5 miles NW of the village. A rock, marked by a buoy in winter, lies in mid-river off the spit. The channel lies between the rock and the spit. Two rocks, the existence of which are doubtful, lie a short distance upriver from this rock. Strong eddies exist in the vicinity of these rocks.

Ha Lok, a village, is situated on the N bank about 1.5 miles NNW of Rocky Spit. An extensive shoal bank fringes the N bank of the river up to 4 miles WNW of the village.

A prominent temple stands on the S bank, 1 mile WSW of the village. A reef, that dries 0.6m, extends about 150m from the S bank, 1 mile W of the temple. Some rocks lie off the S bank between the temple and the reef.

**2.58 Lo-p'ang** (Lu Pong) (23°10'N., 111°37'E.), a village standing on the S bank, is situated about 2 miles W of the temple. Rocks, that dry 4.3m, lie in the middle of the river, N of Lo-p'ang. The channel leads between these rocks and the S bank of the river. Rocks, the existence of which are doubtful, lie on the edge of a shoal bank that extends from the NE shore, about 0.5 mile NW of the drying rocks.

A single mass of granite, in the form of a thumb, rises perpendicularly about 91m high, on a range of hills 430m high. The formation is prominent and lies a short distance inland from the N bank, NE of the drying rocks.

A rock lies close off the SW bank, 1.7 miles NW of Lo-p'ang. A shoal bank fringes the E side of the river 2.5 to 3.8 miles NW of Lo-p'ang. A reef, with some rocks N of it, extends W from the N end of the shoal bank almost to the opposite side of the river. The W extremity of this reef is marked by a buoy. Some rocks lie close off the W side of the river, abreast the reef. The channel leads between these rocks and the W end of the reef.

Tu-ch'eng (Dosing), a small town, stands on the W bank of the river, 4.2 miles NW of Lo-p'ang. An overhead cable crosses the river at a position 0.8 mile upriver from Tu-ch'eng. Vessels should keep close to the E bank of the river in passing under this cable.

The W side of the river, between Tu-ch'eng and a point 2.8 miles NE, is fringed by an extensive shoal. The E side of this shoal is marked by buoys.

Ku-hsun (Pa Chung), a village on the SE bank of the river, is situated 1 mile E of Tu-ch'eng. Some rocks lie off the SE bank, 0.5 mile NE of the village and some rocks, which dry 1.8m, lie off the E bank, 2 miles NE of Ku-hsun.

Ch'ang-kang Hsu (Chong Kong), a village, stands on the E bank 1 mile N of the latter mentioned drying rocks. A shoal bank extends from the NE side of the river both abreast, and for some distance N, of the buildings. A joss house, possibly blocked from view until nearly abeam, stands near a hill on the SW bank of the river 1 mile N of the drying rocks. A rock lies close offshore and SW of the joss house.

**Caution.—**Second Bar lies abreast of the joss house. A reported depth of 1.8m was found over this bar; the channel over it is subject to shifting.

Shoal banks extend 5 miles along the NE riverbank upriver from Second Bar. Robinson Rocks, marked by a buoy and lying nearly in mid-channel, lie on the W side of the channel in a position 1.2 miles NNW of the joss house. Janus Rock, marked by a buoy, lies in a similar position, 1 mile farther upriver. Some rocks lie close off the W bank, 3.5 miles NNW of the joss house. A sunken rock lies 0.2 mile NNW of these rocks and over 0.1 mile from the W bank of the river. Another sunken rock lies 0.2 mile farther NNW.

Kok Heu, a village situated among the trees on the NE bank of the river, is located 3.2 miles N of the above joss house. Shoal banks, which dry 3.6m, extend halfway across the river abreast the village. The main channel leads between these shoal banks and the afore-mentioned rocks on the W side of the river.

**2.59 Feng-ch'uan** (Fungston) (23˚24'N., 111˚31'E.), a walled city, is situated on the E bank about 3.5 miles NNW of Kok Heu. A shoal bank extends into the middle of the river from the village. The Ho Chiang, a tributary of the Xijiang flows into the E side of the latter river in a position 2 miles N of Feng-ch'uan.

A shoal bank extends off the W side of the river for a distance of about 1 mile N and S, opposite the mouth of the Ho Chiang. A rocky ledge lies off the E bank a short distance N of the same river mouth. Rocks that dry 2.1m and that are marked by rips when submerged, lie in mid-river on the N side of the channel 2.5 miles N of the mouth of the Ho Chiang.

An islet, 6m high, lies on the S side of the fairway, 1.5 miles E of Wu-chou. There is a joss house on the islet. Rocks, some of which dry 2.7m, extend 0.3 mile W from the islet. A drying rock lies on the end of a drying shoal which extends 0.2 mile E from the islet. A small islet lies close E of this rock.

A reef that dries 3.3m extends a short distance from the S bank of the river, about 1.2 miles W of the 6m high islet.

**Caution.—**Some of the dangers in the Hsi Chiang between Tu-ch'eng and Wu-chou are marked by spar buoys, either on the danger itself or very near it, and by more conspicuous wooden triangular framework buoys moored near the spar buoys. The triangular buoys are sometimes swept away by tows, but the spar buoys usually remain in position. The triangular buoys are placed in position by the port authority at Wu-chou when the water level is about 2.1m at the city. These buoys are numbered from No. 1, off Sun Sin Kiu, to No. 14, in the Wu-chou Reach. Red buoys should be left to the starboard hand, and black buoys on the port hand, when proceeding upriver.

**2.60 Wu-chou** (Ts'ang-Wu) (23˚29'N., 111˚19'E.) stands primarily on the N bank of the Hsi Chiang at its junction with the Kuei Chiang to the W about 180 miles from the sea. It has several concrete and brick wharves equipped with light cranes, and several covered warehouses in the port.

**Tides—Currents.—**The rate of the current during high flood in the gorge is 5 to 8 knots, accompanied by heavy eddies. The average rate in winter is about 1.5 knots.

The Hsi Chiang has an irregular rise. In 1897, the lowest water was taken as a datum for the zero mark at Wu-chou. Since that time the river has fallen 0.8m below the datum and risen 21m above it. At the time of low river, a craft drawing over 2.1m runs the risk of grounding in several places in the river.

The period of low river appears to last from the start of December to the middle of March. Then the river rises rapidly, attaining its highest level in June, and falls again gradually from the end of September.

**Depths—Limitations.—**Vessels drawing up to 3.9m can proceed to Wu-chou at high river, and from 1.8 to 2.1m at low river.

**Aspect.—**The city stands on the SW side of a hill which is 336m high. The business center is in the SW part of the city. Some conspicuous barracks stand inland to the NE of the city and are backed by radio masts a short distance N. A tide gauge lies off the N shore 0.3 mile S of the barracks. The N bank of the Hsi Chiang at Wu-chou slopes and in summer when the river overflows its banks, the river is considerably wider opposite the city than it is in winter.

The hills on the S side of the river rise to a height of 259m. A prominent pagoda, which stands on a 150m hill on the S bank of the river, is situated 0.7 mile SSE of the barracks. There are some oil installations and a tide gauge on this side of the river.

The old British Consulate stands on the W bank of the Kuei Chiang, abreast of Wu-chou. A prominent building is situated 1 mile W of the consulate.

**Anchorage.—**The anchorage is close E of the city 0.3 mile SE of the barracks. It has been reported that in summer, when the Kuei Chiang is in flood, safe anchorage can be taken on the S side of the river, opposite the city.

**Caution.—**Overhead cables span the river to the E of the city near the anchorage. These cables are low and necessitate housing the topmasts. Vessels should keep to the N bank in passing under them during the high river season.

The Xijiang beyond Wu-chou is navigable only by small craft with shallow draft and will not be described.

## T'an Chiang

**2.61** The **T'an Chiang** (22˚26'N., 113˚04'E.) is approached from the S between **Hebao Dao** (21˚52'N., 113˚10'E.) and Dajin, then, into a large bay indenting the mainland through which vessels pass to reach Ya Men Wan. **Ya Men Wan** (22˚20'N., 113˚04'E.), in turn, joins the T'an Chiang at its mouth.

**Depths—Limitations.—**The channels to and through the T'an Chiang are shallow and intricate. The rise of the river is very irregular and fluctuates with the seasons. The river is highest in summer and lowest in winter.

**Aspect.—**The W shore of the inner approach to the T'an Chiang is well-defined and has a number of small villages along it. It is fronted by mud flats on which lie some small islets. The E shore is formed by reclaimed land and mud banks and is not well-defined.

Ya Men Wan, entered 20 miles N of Dajin, is 13 miles long. The Hu-t'iao Men, a very narrow and shoal tributary leading to the Xijiang from the W, is entered just to the E of the S entrance to Yai Men. Its entrance is narrow and leads between

shoals extending from both shores. The banks of the T'an Chiang beyond the N end of Ya Men Wan are low and flat. The land bordering the river is cultivated.

**Caution.—**Vessels are required to obtain the permission of the appropriate authorities before navigating the river, which has been reported to be closed to foreign shipping.

Damang, rounded and 263m high in its N part, and with a rocky peninsula extending 1.5 miles SW from its main part, lies with its S extremity 1.8 miles NNW of the NW extremity of Hebao Dao. A group of rocks, 1m high, lie 0.5 mile W of the middle of the island. Mang-tzu, 60m high, lies at the outer extremity of a group of rocks that extends 0.5 mile SSW from the SW extremity of Damang. T'a Chou, a rocky islet, 85m high, lies about 0.8 mile NW of the N part of Damang. A rock, 6.4m high, lies 0.2 mile SE of T'achou.

Sanjiaosan Dao, a rocky islet, 138m high, lies 1.2 miles NE of Damang. A rock, 3m high, lies 0.3 mile W of Sanjiaosan Dao.

**2.62 Nancy Dao** (22°00'N., 113°13'E.), a narrow island, 253m high, lies with its SW extremity 1.5 miles NE of Mang-tzu. It is joined to the mainland to the N by reclaimed land.

In addition to the above mentioned islands, several small islets lie close off both the E and W shores of the bay. One of these islets, Chi's-pi, lies about halfway up and in the middle of the bay. The channel passes close E of this islet.

**Depths—Limitations.—**A narrow, intricate, and unmarked channel with a least depth of 2.1m at LW leads up the bay between the drying banks to the entrances of Ya Men Wan and Hu-t'iao Men. Pilots with local knowledge are a necessity.

Yai Men channel is 13 miles long. Greater depths are found in this channel than in the approach channels.

**Aspect.—**A prominent white tower stands on the W side of the entrance of Ya Men Wan. A similar tower stands on the S end of the point separating the entrances of Yai Men and Hu-t'iao Men. A prominent, white building with a flagstaff stands close to the latter tower, but at a lower level. A ruined fort, with an overhead telegraph spanning the river in its vicinity, stands on the E side of the channel in a position about 1 mile NW of the tower.

**Caution.—**Vessels entering Ya Men Wan must depend on local knowledge. It may be necessary to lower the topmast at high river to clear the overhead cables.

The T'an Chiang is divided into two branches 3 miles NW of its entrance. The valley of the river is well-cultivated and there are several towns along its banks. The N branch of the river is wider and deeper than the preferred channel. Due to the need for local knowledge and for a pilot on board, no further description is given.

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