

SECTOR 4

THE GULF OF TONKIN

Plan.—This sector describes the Gulf of Tonkin and includes the port of Hai Phong, the shipping port for Hanoi, the capital of Vietnam. The arrangement of the sector is N from **Jiaowei Jiao** (20°13'N., 109°55'E.) and along the coast of Leizhou Bandao, then W to the Chinese border. The SW and NW shores of the Gulf of Tonkin, from **Mui Lay** (17°05'N., 107°07'E.) to the Chinese border, including Archipel des Fai Tsi Long, are then described.

General Remarks

4.1 The Gulf of Tonkin is bordered S and W by the coast of Vietnam, and E by Hainan Dao and Leizhou Bandao, which are Chinese territory. The entrance to the gulf is more than 120 miles wide between the SW extremity of Hainan Dao and the mainland SW. Numerous islets and shoals lie at the head of the gulf, and several small islands lie near the W shore. In the NW part of the gulf is the extensive delta plain of the Red River, with its many waterways. This region is densely populated.

General depths in the gulf are comparatively shallow, with depths of 101m being found in the middle of the entrance; the depths decrease toward the shores, and average less than 55m in the N part of the gulf. The bottom is generally soft and suitable for anchorage. Large patches of muddy water, resembling banks, are seen at times, but invariably are found to have deep water when examined.

The NE part of the gulf is quite shallow, depths of 18m and less being found 25 miles from the land.

For the most part, sunken dangers are within or near the 20m curve, with the exceptions of the banks and shoals fringing the W and N shores of Hai-Nan Tao.

Pilotage.—Pilotage is compulsory for all foreign vessels when entering, leaving, shifting, mooring or unmooring within the limits of a Vietnamese port. Request for pilotage services is required 24 hours prior to departure from a port or for any movement within a port.

Vessels must send their ETA message at least 48 hours before arrival at any Vietnamese port, followed by intervals of 12 hours, 7 hours, and 2 hours. Vessels' messages are tendered through their local agents to the office of the port authorities. The port authorities should be immediately informed of any unforeseen delay occurring during the above stipulated period.

Anchorage.—A vessel awaiting a pilot on arrival shall anchor in the designated waiting area until further notice. Vessels carrying explosives or flammable cargo shall anchor in the area as designated.

Regulations.—In the approaches to Vietnamese ports, vessels must follow the tracts recommended by the port authorities. From the time of such an approach, the Vietnamese flag must be kept hoisted at all times until departure from a port or a pilot station.

Port entry is controlled by the port authorities, pending berth availability, weather, etc.

Requests for port entry are made by vessels to the port authorities on VHF channel 16 or by radio telephone, or by means of visual International Code of Signals.

A vessel shall not enter a harbor until the signal granting entry is shown from the signal station, or from the pilot boat.

When refused entry, the vessel should immediately reduce speed, alter course to stay clear of the fairway, stemming the tide if possible, or anchor in the area recommended to avoid obstructing traffic flow.

Inbound vessels should give way to outbound vessels, as vessels leaving port maintain priority over inbound vessels.

Caution.—Vessels wishing to enter the ports or approach the coasts described in this chapter should do so only with the prior permission of the respective authorities, well before the vessel's arrival. Vessels not having the approval of the proper authorities should give the coast a wide berth.

Fishing stakes are frequently encountered at distances of 25 to 30 miles offshore. They consist of several long bamboo poles, anchored by large stones, and marked by a flag; a sampan is usually attached to them, and vessels should not pass between the sampan and the bamboo.

Very large fleets of fishing junks may be met off the coast of China. The large trading junks have five masts, with two small sails aft. Chinese junks do not carry the regulation lights.

Steel pipe and wellheads are reported in the following approximate positions:

- a. 20°35'N, 108°33'E.
- b. 20°46'N, 108°38'E.
- c. 20°45'N, 109°02'E.
- d. 20°17'N, 109°17'E.
- e. 20°46'N, 108°59'E.
- f. 20°46'N, 109°00'E.

Dao Bach Long Vi

4.2 Dao Bach Long Vi (20°08'N., 107°44'E.) lies 42 miles SE of Xuy Nong Chao (Iles Norway), and serves as a good mark for vessels approaching Hai Phong. The summit of the island is a plateau, 58m high, the slopes of which are precipitous in places, and in others, covered with trees. It is fringed by reefs, and a rocky bank with depths of less than 10m up to 1.3 miles NE, 0.8 mile W, 1.3 miles SW, and 2 miles S of the island. The island should be given a berth of at least 2 miles. Dao Bach Long Vi can be seen on radar at a distance of 18 miles.

Shoals of fish are plentiful in the vicinity and have been mistaken for breakers.

Pilotage.—Pilotage is compulsory. Vessels calling at any port in the Gulf of Tonkin, or at Hai Phong, must continue to **Hon Dau** (20°40'N., 106°49'E.), where pilots are available.

Anchorage.—Small vessels may find anchorage during the Northeast Monsoon, in a depth of 6.4m, off the S side of the island.

Caution.—A depth of 10.9m lies 26 miles WNW of Dao Bach Long Vi.

A pinnacle depth of 29m has been reported in approximate position 18°49'N, 106°35'E.

A dangerous wreck lies about 27 miles NW of the island.

Northeast Side of Gulf of Tonkin

4.3 Jiaowei Jiao (Chiao-Wei Chiao) (Denglou Jiao) (20°13'N., 109°55'E.), the SW extremity of a sandy islet, 12m high, lies on the N side of the W approach to Chiung-chou Hainan (Hainan Strait). Jiaowei Jiao was described in [paragraph 3.30](#).

Dongchang Wan lies between Jiaowei Jiao and Shuiwei Jiao, a low point, 11 miles NNW. The shores of the bay are level and cultivated, with sandy beaches in places, and groups of trees. There are numerous fishing stakes about 5 miles NW of Jiaowei Jiao. A rock, with a depth of less than 1.8m, lies about 1 mile S of Jiaowei Jiao.

Liusha Wan, entered N of Shuiwei Jiao, is unsurveyed, but is reported navigable by large vessels for a distance of 2 or 3 miles, and by small craft for several miles further. The river enters the Gulf of Tonkin through a wide lagoon, and is reported to provide good shelter during typhoons.

The coast in this vicinity is low and wooded, rising gradually to a summit, 186m high, about 11 miles NNE of Shuiwei Jiao. Approaching from W this summit is the first land to be seen.

The coast between Shuiwei Jiao and Guantou Jiao, 77 miles NW, has not been surveyed. Numerous banks exist offshore and there are many fishing stakes. Several bays indent the W side of Leizhou Bandao.

An extensive bay lies in the NE part of this section of coast. The large estuaries of **Tieh-shan Chiang** (21°35'N., 109°35'E.) and Ying-lo Chiang discharge into the N and E sides, respectively, of the bay. The bay and estuaries are encumbered with numerous shallow banks and fishing stakes.

Guantou Jiao (Kuan-tou Chiao) (21°27'N., 109°02'E.) is the W extremity of a low peninsula. A ridge of hills rises close behind the point and attains an elevation of 114m at its summit, about 0.5 mile NE of the point. The ridge of hills appears as an island from a distance. Nautilus Hill, 111m high, is the summit of Guantou Jiao.

A light is shown from a conspicuous white tower situated on Guantou Ling. A conspicuous white fort stands on a hill about 0.9 mile NE of the light.

There is an L-shaped oil pier close NE of Guantou Jiao; an L-shaped jetty lies 0.2 mile farther NE.

4.4 Off-lying Islands.—**Weizhou Dao** (Wei-chou Tao) (21°03'N., 109°07'E.) lies 23 miles S of Guantou Jiao. From the sea, the island is seen rising abruptly on its W and S sides and sloping gradually on its SE side. A light is shown from a stone tower situated on its SW side.

Wan-t'ou Ling (21°02'N., 109°07'E.), the summit of the island, 70m high, rises near the SE extremity of the island.

A reef extends 1 mile from the N side of the island and 0.3 mile from the SW and E sides of the island. At night the island should not be approached within depths of less than 20m.

Discolored patches of small area, with the appearance of shoal water, are very common between Weizhou Dao and

Guantou Jiao; they are only detached mud whirls or weed patches.

Nam Wan (Nan Wan), the small bay on the S side of the island, affords anchorage in 7.3 to 9.2m in its outer part. It is sheltered from all winds except those between SSE and ESE; apart from the chance of a typhoon, S winds are seldom very strong. A bank, with a depth of 4.5m at its outer end, extends 0.8 mile SE from the W entrance point of the bay; a sunken rock, with a depth less than 1.8m, lies 0.4 mile SE of the same point. Depths of less than 5.5m extend 0.5 mile offshore between the E entrance point of the bay and a point located 0.8 mile WNW. A rocky islet, 29m high, lies 0.8 mile W of the E entrance point.

4.5 Xieyang Dao (Hsieh-yang Tao) (20°54'N., 109°13'E.) lies 9 miles SE of Weizhou Dao Light. The steep cliffs on its W side rise up to a height of 140m where a 15m high triangular light structure stands.

Weizhou Marine Terminal is a floating process, storage, and off-loading vessel, Nan Hai Xi Wang, permanently moored to an SPM in position 20°49'54"N, 108°36'48"E. A production platform situated 1 mile SSE of the SPM is connected to it by pipeline. Vessels of up to 100,000 dwt with a maximum length of 270m may be accommodated at the terminal. The terminal requires a minimum dwt of 30,000 and length of 100m. Draft requirements are given in the accompanying table.

Vessel size	Draft	
	Forward	Aft
Up to 32,000 dwt	4.9m	7.3m
32,000 to 45,000 dwt	5.5m	7.9m
45,000 to 60,000 dwt	5.8m	8.2m
60,000 dwt and over	6.7m	8.5m

Vessels must be in accordance with MARPOL (The International Convention for the Prevention of Pollution from Ships) regulations.

Restricted areas encircle both the platform, with a radius of 1 mile, and the SPM, with a radius of 2 miles.

Beihai Gang (Pei-hai Anchorage) (21°29'N., 109°04'E.)

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4.6 Beihai Gang, situated NE of Guantou Jiao, affords anchorage for vessels of moderate draft. The anchorage is protected by sand banks on its N side and is open SW. Working cargo is often difficult during the Northeast Monsoon. The major cargoes are fertilizers, grain, steel products, coal, ore, and timber.

Tides—Currents.—The tidal rise at Beihai is 4.7m at MHHW.

The tidal currents set through the anchorage area at velocities of 0.5 to 2.5 knots, proportional to the range of tide. The NE flood begins 1 hour after LW; the SW ebb begins 1 hour after HW.

Depths—Limitations.—Beihei channel extends from the pilot and quarantine anchorage to the lightening anchorage. The channel has depths of 6 to 10m, a width of 0.2 to 1 mile, and can be transited by vessels of up to 38,000 dwt at HW. Vessels of up to 180m in length, 35m beam, and 10m draft can be accommodated.

The channel to Shibuling harbor is marked by lighted buoys and extends from the central part of Beihei channel. The channel is 90m in width and has a depth of 6.3m. There are two deepwater berths capable of accommodating general cargo vessels of up to 30,000 dwt at Shibuling, with a combined berthing length of 340m and an alongside depth of 9.5m.

The Waisha harbor channel extends from the end of Beihai channel to Waisha harbor. The channel is 60 to 80m wide and has depths of 2.5 to 3.8m. Waisha inner harbor has a 463m long quay wall with alongside depths of 2 to 4m.

Aspect.—The coast for a distance of 1.2 miles NE of Guantou Jiao consists of cliffs about 21m high.

Ti-chiao, a fishing village, lies 2.7 miles NE of Guantou Jiao. The town of Pei-hai lies 2 miles farther E; a conspicuous custom house is situated in the E end of the town.

Pilotage.—Pilotage, available during daylight only, is compulsory for foreign vessels entering, leaving, and moving within the port. Requests for pilotage are sent 24 hours in advance. Vessels are boarded at the pilotage and quarantine anchorage centered 4 miles S of the light on Guantou Jiao. Vessels should send their ETA with draft and cargo description 72, 48, and 24 hours in advance of the arrival at the anchorage, and amended as necessary.

Regulations.—Local harbor regulations are in force as follows:

1. Before adjusting ballast, lowering lifeboats, inspecting the main engine, testing/using radio, or painting the outer hull, vessels should apply to the harbormaster in writing.
2. When taking bunkers or welding, in addition to first obtaining permission from the harbormaster, the work must also be done under the harbormaster's supervision.
3. There must be crew available at the top of the gangway to adjust the gangway as required. A safety net must be securely rigged under the gangway.
4. The master must arrange for a duty officer to be available to solve any potential problems during the vessel's loading and discharging and said officer should liaise closely with shore personnel.
5. While at anchor, a duty officer must maintain a VHF watch on the nominated channel.

All vessels must use a Chinese State agent. A separate, locally appointed agent is responsible for all dealings with the state agent.

Signals.—Storm signals are displayed from a flagstaff situated 1 mile SE of Ti-chiao. Radio services are available on VHF channels 16 and 14.

Anchorage.—The pilot and quarantine anchorage, centered 4 miles S of the light on Guantou Jiao, has a radius of 800m, and depths of 8 to 10m, sand and mud.

Three lightening anchorages are situated off the port, in depths of 5 to 9m, mud and sand. The Northeast Monsoon makes cargo operations at these anchorages difficult.

Directions.—From a position located 5 miles W of Weizhou Dao, proceed as safe navigation permits to the pilot and quarantine anchorage, then be guided by the buoys to the cargo anchorage.

Caution.—An area prohibited to fishing and anchorage extends NW from Guantou Jiao. Fishing stakes are reported to lie in the SE portion of the pilot and quarantine anchorage, as well as several other positions in the approaches to the port that are best seen on the appropriate chart.

Danshuisha Qiantan, the bank between Guantou Jiao and **Dijiao** (21°29'24"N., 109°04'24"E.), extends 0.2 to 0.8 mile offshore and has depths of 2 to 3m. The NW and N stretch of the bank is marked by lighted buoys to a distance of 1 mile NE of **Wai Sha** (21°29'N., 109°05'E.).

4.7 Between Guantou Jiao and **Wu-lei Chiao** (20°36'N., 108°44'E.), 20 miles WNW, a large shallow bay, with depths of less than 1.8m, indents the coast. Several rivers discharge into the bay. Tai-mei Tun (Tai-mao Chou), an islet, lies 0.7 mile S of Wu-lei Chiao. A hill, 111m high, rises 1.5 miles N of Wu-lei Chiao.

A 1.8m patch and a 5.5m patch were reported to lie 7.2 and 8.5 miles S, respectively, of Tai-mei Tun, but their existence is doubtful.

Qinzhou (Ch'in Chou Wan) lies between Tai-me Tun and **Hu-tieh Ling** (21°33'N., 108°26'E.), 17 miles WSW. Hu-tieh Ling, an islet, 36m high, lies close to the coast, connected by a sand bank. The bay is encumbered with shoals, many of which dry. Depths in the bay are mostly less than 5.5m. A narrow channel, obstructed by a bar lying 6.5 miles E of Hu-tieh Ling, leads N into the bay. Only vessels with local knowledge should attempt to enter the bay.

An-pu-k'ou Kang (An-fou-k'ou Chiang), a shallow bay encumbered with drying banks, is entered between a point, 3 miles W of Hu-tieh Ling, and Pai-lung Wei, 10 miles farther WSW. A bank, with depths of less than 1.8m, extends 3.5 miles SW of the E entrance point of the bay. An islet, 7.9m high, and a rock that dries 0.9m, lie 1.5 miles WSW and SSW, respectively, of the E entrance point.

Fangcheng Gang (21°45'N., 108°21'E.)

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4.8 Fangcheng Gang, a deep water port at the mouth of the Fangcheng River, is open to foreign shipping, and primarily handles cement, ore, timber, grain, fertilizer, and general cargo. The port borders the provinces of Yunnan, Guizho, and Sichuan to the NW, and Beibu Gulf to the N.

Winds—Weather.—The prevailing winds are NE and SW. Fog is most frequent in the morning or at night in the early spring and late winter.

Tides—Currents.—The average tidal range is 3 to 4m.

The current attains a velocity of 1.7 knots at flood tide and 3.1 knots at ebb tide.

Depths—Limitations.—The approach channel leading to the port is 7.5 miles long, with a minimum width of 80m, and depth of 7.5m at LW. Maximum permissible draft is 9.5m. It is marked by lighted buoys and lighted range beacons.

Vessels of up to 69,550 dwt having a maximum length of 225m and beam of 32m can be accommodated.

The port has eight berths. Berth Nos. 1 and 2 are general cargo berths which can accommodate vessels of up to 10,000 dwt, each having a length of 180m and an alongside depth of 8.5m.

Berth Nos. 3 through 5 are heavy cargo, grain, and cement berths, which can accommodate vessels of up to 15,000 dwt, each having a length of 180m and an alongside depth of 9m.

Berth No. 6, with a length of 180m and an alongside depth of 10m, is a bulk cargo berth, which can accommodate vessels of up to 25,000 dwt.

Berth No. 7, with a length of 210m and an alongside depth of 10.5m, is a coal and ore berth, which can accommodate vessels of up to 25,000 dwt.

Berth No. 8, with a length of 220m and an alongside depth of 10.5m, is a bulk cargo berth which can accommodate vessels of up to 30,000 dwt.

The cement factory has a berth with a length of 165m and an alongside depth of 7.5m, which can accommodate vessels of up to 10,000 dwt.

The swinging basin near the berths has a 360m diameter.

Aspect.—A light is shown from the E side of the entrance to the bay of An-pu-k'ou. The approach from seaward to the quarantine anchorage is clear of dangers. The hilly coastline provides a good radar return.

Pilotage.—Pilotage is compulsory. Pilots board vessels from a tug, 1 mile S of the quarantine lighted buoy.

Fangcheng Radio monitors VHF channels 9 and 16 around the clock.

Anchorage.—A quarantine anchorage is established between the parallels of 21°21'30"N and 21°28'00"N, and the meridians of 108°20'00"E and 108°26'00"E.

The pilot anchorage is a circular area with a radius of 0.5 mile centered at the quarantine lighted buoy (21°27'54"N., 118°21'12"E.).

Anchorage Area No. 1, consisting of berths for large vessels waiting to enter the harbor, are situated NW and NE of the pilot anchorage. There are 10 berths, designated B1 through B10, in this area, each with a 450m radius, in depths exceeding 10m, sandy mud and clay. Anchorage for vessels carrying dangerous cargo may be taken in designated areas B9 and B10.

Anchorage Area No. 2, intended for vessels engaged in lightening, awaiting berth, or taking shelter from inclement weather, has four anchorages, designated C1 through C4. Each anchorage has a radius of 300m in depths of 6 to 13m, sandy mud and clay.

Additional berths for large vessels waiting to enter the harbor are situated 2 miles W of Paotai Jiao on a continuation of the initial leg of the approach channel.

Directions.—The channel entrance to Fangcheng is marked by a pair of lighted can buoys in position 21°30'N, 108°21'E, which is 3 miles N of the pilot boarding place. The channel then extends N for a distance of 2.5 miles to the first pair of leading lighted beacons. After crossing over the unmarked bar and passing E of two red can lighted buoys, vessels should align the lighted beacons and steer into the range bearing 303°15'.

The next pair of lighted beacons align on a bearing of 326°45' and lead a short distance through the turn into Niutou Hangdao. Leading lights bearing 350° ahead, and an additional

set to be kept bearing 170° astern, lead a distance of 2 miles through this reach. When the next pair of lighted beacons is aligned bearing 339°15', steer on this range for a distance of 0.8 mile until a lighted can buoy is on the starboard beam, then head NNE for the berths.

4.9 Bailong Wei (Cap Pak Loung) (21°30'N., 108°13'E.), 88m high, is the SW extremity of a hilly peninsula projecting from the mainland.

Bailong Wan is entered close W of Bailong Wei. Nearly all the N and NW portions of the bay are occupied by drying sand banks, on which lay the islands of Man-wei tao and Wu-t'ou. Outside the entrance to the bay there is a bar with depths of 7m. From a position lying 0.8 mile W of Bailong Wei, for a distance of 2 miles NNE, there are depths of 7 to 11m in the fairway, and anchorage with good holding ground. The bay should not be entered without local knowledge.

West Side—Gulf of Tonkin—Mui Lay to Archipel des Fai Tsi Long

4.10 Mui Lay (Cap Lay) (17°05'N., 107°07'E.) is rocky and covered with vegetation. The cape is 21 to 30m high, and a small group of rocks extends a short distance from it. On the S side of the cape are some yellowish-brown cliffs, at the N end of which is a small bay. On the N side of the cape there are red and yellow cliffs.

Hon Co (Hon Gio) (Ile du Tigre), 70m high, lies 13 miles ENE of Mui Lay, from which it is separated by a deep and clear channel. A conspicuous tower is situated on the summit of the island. The N and S ends of the island slope steeply towards the sea.

Rocks fringe the N and W sides of the island, and detached rocks lie close to its E and S extremities. The bottom around the island is rocky and uneven. A depth of 14m lies 2 miles N of the island.

Aspect.—Abreast Hon Co, in fine weather, the inland range of mountains from **Dong Ngai** (16°21'N., 107°14'E.), 1,774m high, to the peaks in the vicinity of Rau Nhat Le can be seen. The most prominent mountains are: Dong Voi Mep (Dent du Tigre), 1,739m high, rising 30 miles SW of Mui Lay; Dong Chan, 1,254m, about 10 miles farther N; Nui Da Mao, 734m high, standing 9 miles SW of Rau Nhat Le; and Co Roong (Grand Sommet), 1,623m high, located 15 miles WSW of Nui Da Mao.

Mui Lay to Mui Ron

4.11 The coast between Mui Lay and Rau Nhat Le, 37 miles NW, is low and sandy, with villages and a few palm trees in places.

Rau Nhat Le (Ron Nhat Le) (17°29'N., 106°38'E.) is fronted by a bank with depths of less than 1.8m extending more than 0.5 mile offshore. The charted depths of about 3m in the entrance to the river are subject to change. Entry should not be attempted without local knowledge.

The town of Dong Hoi stands on the W bank of the river. A church, with a tower, surmounted by a dome, rising above the sandhills, stands on the W bank about 0.8 mile within the entrance and is prominent from seaward.

A rock, which dries 1.8m, lies nearly 1 mile offshore, 2 miles N of Rau Nhat Le.

Anchorage.—There is good anchorage off Rau Nhat Le, outside the bar, during the Southwest Monsoon. Within the entrance, small vessels may anchor off the church and tower in a depth of 4m.

4.12 The coast between Rau Nhat Le and Pointe Da Nhai, 12 miles NW, is sandy, backed by sandhills, and has low cliffs in places. The first of these cliffs lies 2.3 miles NW of Rau Nhat Le. Another cliff, 2 miles farther NW, is red in color, stands at the entrance to a small river, and rises to a wooded summit on which stands a pagoda.

Cua Lyhoa lies 11 miles NW of Rau Nhat Le. A rocky point lies 1 mile SE of the river entrance. A fishing village is situated on the N side of the entrance. A dredged channel to Cua Lyhoa, suitable for small craft, has a depth of 1.5m at HW.

Pointe Da Nhai (17°40'N., 106°30'E.) consists of two rocky spurs, close together and bordered by sand. A small white pagoda stands at the foot of the N spur. The mountains approach the coast here and form a promontory, 74m high, rendering the point prominent. Ru Hon Bong, 233m high, rises 2 miles WSW of the point.

Cua Giang, 3 miles NNW of Pointe Da Nhai, is fronted by a steep-to bar. It was reported that vessels with a draft of less than 1.8m could cross the bar at half-tide. The bar is subject to frequent change and should not be attempted without local knowledge. Song Giang is reported to be deep as far as the mountains inland, where timber is floated down to the mouth.

Between Cua Giang and Cua Ron, 10 miles N, the coast is low and sandy. A rocky bank extends about 2.3 miles E of Cua Ron. Hon No, a coral reef, which dries 0.9m, lies near the outer end of the bank. The bank extends N and connects with the reefs extending W of Hon Nam, which is 61m high.

4.13 Mui Ong (17°56'N., 106°31'E.) rises to an elevation of 154m about 1 mile inland, and can be recognized by a pagoda and large red patches on it. Ba Coc, 1,006m high and Hoanh Son, 1,022m high, are two prominent wooded summits, about 4 and 11 miles, respectively, WNW of the cape. A shoal with a depth of 0.6 mile lies 0.4 mile S of Mui Ong.

Hon Co and Hon La lie close to, and about 0.7 mile ESE, respectively, of Mui Ong. Hon La is the higher of the two.

Hon Gio, 109m high, is a rugged and steep-to islet, lying 9 miles E of Mui Ong.

A bank, with a depth of 18m, was reported to lie 29 miles ESE of Mui Ong. The bank was unsuccessfully searched for, and its position and existence are doubtful.

Vung Chua, a bay lying SW of Hon La and Hon Co, is the only place on this section of coast offering protection during the Northeast Monsoon. The bay affords good holding ground, but is exposed to the swell. Small vessels can anchor in 5.5 to 9.2m depths in the shelter of the above islets. Larger vessels anchor farther offshore, keeping Hon Gio open S of the S extremity of Hon La.

Mui Doc rises to an elevation of 264m about 0.7 mile W of Mui Ong. Good anchorage, during the Southwest Monsoon, can be found N of Mui Ong, or off Mui Doc.

The coast is rocky between Mui Doc and Mui Dao, a low point lying 2.5 miles NNW, and another low point, located 0.5

mile farther NNW. The coast is then low and sandy for a distance of 7 miles NNW.

4.14 Mui Ron (18°07'N., 106°26'E.) is a rocky, steep-to headland, rising to an elevation of 230m. Nui Can Son, 368m high, is conspicuous about 3.5 miles SW of Mui Ron. Mui Ron Ma is the NE point of the cape.

Hon Son Duong, 145m high and wooded, lies 1.5 miles SE of Mui Ron. From the E it has the appearance of three pointed summits, with a perpendicular cliff towards its N end, and sloping highlands towards the SW end. A reef, with a depth of 1.8m, and steep-to on its N and S side, extends about 0.3 mile WSW from the W extremity of Hon Son Duong. A reef, with a rock which dries about 3m at its outer end, extends 0.4 mile SE from the SE extremity of the islet.

Hon Con Chim, 25m high and rocky, with two pointed peaks, lies 1.5 miles ENE of Hon Son Duong.

Anchorage.—Good anchorage can be taken in a depth of 11m, mud, about 0.5 mile S of Hon Son Duong, which is steep-to, with its W extremity bearing 325°, and with Hon Con Chim bearing 055°. The anchorage is sheltered by the islet and the reefs extending from its extremities, but during the Northeast Monsoon the swell is considerable.

Mui Ron to Mui Falaise

4.15 The coast between Mui Ron and Mui Ga, 60 miles NW, consists of sandy beaches, backed by sandy plains. Inland, the mountains, which approach the coast at Mui Ong, curve W, then NW, following to some extent the curve of the coast.

Rao Co (18°10'N., 105°25'E.), 2,286m high and the most prominent peak, lies 58 miles W of Mui Ron and 35 miles inland. From N, this peak presents a remarkable double summit, but is often hidden by clouds. There are prominent isolated peaks on the plains near the coast.

Vung Han, the bay W of Mui Ron, affords shelter from E and S winds, but is open to winds from NE to W, and is therefore available only during the Southwest Monsoon. The head of the bay is low and sandy, and can be approached according to draft.

Cua Khau, the narrow outlet of a large lagoon, lies close W of Vung Han and is obstructed by a bar that dries. Nui Ban Do, two prominent peaks, 441m high, lie 5 miles NW of Cua Khau.

Cua Nhuong (18°16'N., 106°08'E.) has a narrow entrance, obstructed by a shallow bar. Hon Buc, a group of gray rocks, 4 to 5m high, and many rocks, some of which dry, lies 1 mile N of the entrance. Hon En, a precipitous rectangular-shaped islet, 41m high, lies 3.5 miles NE of the E entrance point of Cua Nhuong. Hon Man, a ridge of rocks, 7m high, lies 0.3 mile E of Hon En; the sea has been observed to break a short distance SE of these rocks.

Cliffs extending 1.8 miles E of Cua Nhuong are high and precipitous. Ru Cua, 458m high, lies 1.7 miles ESE of the E entrance point of Cua Nhuong.

4.16 Ru Cum, 108m high, with a pagoda on its E slope, lies close to the coast, 2 miles WNW of Cua Nhuong.

The coast between Ru Cum and Nui Nam Giai, 13 miles NW, is low, sandy, and bare of vegetation. Nui Nam Giai,

375m high, is the summit of a ridge terminating 1.8 miles N in Mui Sot, a high, cliffy headland, 57m high, which is connected to the coast by a narrow, low, sandy isthmus. A rock, 2.4m high, lies about 137m N of Mui Lo, the N extremity of Mui Sot. Cua Sot, entered W of Mui Lo, has an entrance with a least depth of 1.8m over the bar; within the bar the depths increase, but the channel narrows.

Between Cua Sot and Cua Hai, 20 miles NW, the coast is sandy. Bong Son, 213m high, lies 3 miles W of Mui Lo, nearly 1 mile inland. Nui Ong, consisting of four peaks, the highest of which is 700m high, lies 6.5 miles NW of Bong Son, and 2.5 miles inland; it is the highest range in the vicinity.

Between Cua Hoi and the mouth of Song Cua Lo, about 5 miles NW, the coast is low and sandy. Mui Rong, the N entrance point of Song Cua Lo, is cliffy and a hill, 102m high, rises 0.3 mile W of it; drying rocks extend up to 0.8 mile E of the point. Roche Cua Lo, high, black and prominent, lies 1 mile S of Mui Rong, about 0.1 mile off a small projection on the coast.

Mui Ga (18°51'N., 105°43'E.), comprised of cliffs, lies 0.8 mile N of Mui Rong. Ru Than Vu, 441m high, standing 7 miles W of Mui Ga, is the summit of a range of mountains.

4.17 Off-lying Islets and Dangers.—Hon Mat (18°48'N., 105°58'E.), 218m high, lies 13.5 miles ESE of Mui Ga. Roche des Pecheurs, with a depth of 1.5m, lies about 1.5 miles NW of the NW end of the islet. A rock awash lies close off its SE extremity.

Hon Truan, 43m high, lying 1.2 miles E of the S extremity of Hon Mat, is the easternmost of the islets off this part of the coast. A rock, above water, with a rock drying 0.9m close E, lies about 300m NW of Hon Truan.

Rocher Nom, 13m high, and fringed by rocks on its SW and SE side, lies in the E approach to Cua Hoi, 7 miles WSW of Hon Mat. Rocher Lap, 4m high, lies 1 mile NW of Rocher Nom. Rocky patches, with depths of 3.7m, lie about 0.5 mile SSE and 0.2 mile W of Rocher Lap.

Hon Nieu (18°48'N., 105°46'E.), 4 miles SE of Mui Ga, lies in the N approach to Cua Hoi. It is comprised of two hills, separated by a low neck; the E and higher hill is 123m high. A rock, with a depth of less than 2m, existence doubtful, is charted 1.2 miles NNE of Hon Nieu.

Plateau du Large, a group of rocks, one of which is about 0.6m high, lies 3 miles E of Mui Ga. It is generally visible or can be distinguished by the sea breaking over it. Rocher St. Ann, which dries 0.3m, lies 1.2 miles WSW of Plateau du Large.

Anchorage.—Small vessels can obtain shelter, during the Northeast Monsoon, on the SW side of Hon Mat, in a depth of 20m. There is good anchorage, sheltered from NE winds, for vessels with local knowledge, on the SW side of Hon Nieu, in a depth of 8m. This anchorage is useful to vessels unable to enter Cua Hoi.

Ben Thuy (Nghe Tinh) (18°39'N., 105°42'E.)

World Port Index No. 57660

4.18 Cua Hoi is the mouth of Song Ca. Vessels able to cross the bar can ascend to Ben Thuy, about 10 miles from the

entrance. Ben Thuy is the port for Vinh, the capital of the province of Nghe An.

Tides—Currents.—The tidal rise at MHHW at Hon Nieu is 2.7m.

With large tides the flood current lasts about 6 hours, and the ebb for 18 hours. With small tides there is no flood. During periods of high river, the currents can be very strong. Slack water at Ben Thuy occurs about 1 hour 45 minutes after that at Cua Hoi, or about 1 hour after high and low water.

Depths—Limitations.—A bank, with depths of less than 2m, extends from both entrance points of Cua Hoi, which are low and sandy. The bar is composed of hard sand and subject to frequent change. No vessel should attempt to cross the bar without a pilot.

Vessels drawing up to 4.5m can reach Ben Thuy. Vessels of deeper draft anchor NW of Hon Nieu and discharge their cargo into lighters.

Ben Thuy Pier (18°39'00"N., 105°42'00"E.) can accommodate vessels with a maximum draft of 4m.

Cua Lo Pier (18°49'30"N., 105°42'00"E.) can accommodate vessels up to 100m long with a draft of 5m.

Xuam Hai Pier (18°40'48"N., 105°42'00"E.) can accommodate vessels with a maximum draft of 4.5m.

Aspect.—A lighted beacon is shown from the N entrance point of Cua Hoi.

The channel over the bar is buoyed.

Pilotage.—Vessels requiring a pilot should give 24 hours notice. The pilot will then meet the vessel outside the bar or off Hon Nieu. Messages should be sent through Da Nang or Hai Phong coast radio stations.

Anchorage.—Anchorage can be obtained off Ben Thuy in a depth of 8m. A vessel drawing 3m can anchor 100m from the outer ends of the piers.

There are several mooring buoys established off the port area.

Vung Thu Dien (Vung Phu Dien) (Baie du Brandon) is entered between Mui Ga and Mui Falaise, located 15 miles N. The bay affords inadequate shelter as it is open NE; during the Southwest Monsoon, the winds are SE. Le Pate, an isolated peak, 149m high, lies 12.5 miles NW of Mui Ga, and 5 miles inland.

Mui Falaise to the Delta of the Red River

4.19 Mui Falaise (19°06'N., 106°44'E.) rises to an elevation of 189m about 0.5 mile inland. The cape has a broad, light-colored stripe on its N face. Lach Quen, about 1.5 miles W of Mui Falaise, has an entrance restricted by banks. Nui Ky, 117m high, lies 0.2 mile W of the W entrance of Lach Quen.

The coast between Mui Falaise and Cap Bouton, 7 miles N, is low and sandy. A group of rocks, some of which are sunken, lie 2.5 to 3.5 miles N of Mui Falaise, and close offshore; two of these rocks are prominent and the highest is about 79m high.

Cap Bouton (19°13'N., 105°45'E.), 139m high and wooded, is the E entrance point of Cua Can, a shallow estuary. Two rocks, the S of which dries 1.5m, lie close together, 1 mile ENE of the cape, and about 0.3 mile offshore.

Shoals, the existence of which is doubtful, with depths of 5.8m and 7m, are charted 7 miles ESE and 4 miles SE, respectively, of Cap Bouton.

Mui Ta Lus (Cap Ta Lus), 4 miles NNE of Cap Bouton, is joined to the mainland by a narrow neck of sand. About 0.7 mile N of Mui Ta Lus is the S extremity of Hu Truong, a steep cliff the summit of which, nearly 1 mile N, is 171m high.

Dao Bien Son, 2 miles NNE of Mui Ta Lus, is an island, 162m high at its N end, and joined to the mainland by a drying bank. There is a conspicuous vertical rock, almost detached at the SE extremity of the island. Foul ground, drying 1.5m at its outer end, extends about 0.3 mile S from the island. A rock, with a depth of 4m, lies 2 miles N of Dao Bien Son.

Abreast Dao Bien Son, the coast is bordered by a range of hills, which attain an altitude of 431m in Nui Xuoc, about 4 miles inland.

Off-lying Islets and Dangers

4.20 Hon Me (19°22'N., 105°56'E.), the largest and north-easternmost of a group of precipitous islets, which shows a light, lies 5.2 miles ENE of the N end of Dao Bien Son. The islets are uninhabited and only frequented by fishermen in summer. Hon Me has several wooded peaks, the highest rising to a height of 251m. Hon Vat, 127m high, lies close SSE of Hon Me, with an islet and rocks between. Hon Vong, 58m high, lies 0.3 mile W of the W extremity of Hon Me.

Anchorage can be taken off the SW side of Hon Me, between Hon Vat and Hon Vong in depths of 7.3 to 8.2m, with local knowledge.

Hon Dot, 115m high and conical, lies 1.5 miles SW of Hon Me. Hon Tio, 28m high, lies close off the SE end of Hon Dot.

Hon Men, 36m high, is the highest of a group of rocks, 0.7 mile SW of Hon Dot. Hon Sap and Hon Neu are groups of rocks, the highest reaching heights of 16m and 50m high, respectively, 0.8 mile and 1.5 miles SE, respectively, of Hon Men. A 9.5m patch lies 2 miles S of Hon Sap.

Hon Bong, 65m high, is the NW of a group of islets lying 2.3 miles WSW of Hon Me. A ledge of rocks, some of which dry, extends 0.4 mile WSW from Hon Bong. A bank, with depths of less than 9m, extends 1.3 miles S of Hon Bong.

Mui Bang (Cap Bang) (19°26'N., 105°49'E.), 92m high, lies 7.5 miles WSW of Hon Me, and has a summit, in the shape of a finger, dominating the sand hills.

A range of mountains lies within this section of coast. Nui Tu Vi, 560m high and cone-shaped, lies at the S end of the range, 6 miles W of Mui Bang. Nui Cac, 507m high, rises 4 miles N of Nui Tu Vi, and stands at the N end of the range. Nui Bom, 307m high, lies 4 miles NE of Nui Cac and 2 miles from the coast.

Northward of Nui Cac is the plain of Thanh Hoa, through which flow Song Yen and Song Ma. The plain is also watered by numerous canals and is wooded. It is cultivated near the coast and studded with villages. Nui Dau Lon, 304m high, lies on this plain, 13 miles NW of Nui Tu Vi.

Lach Yapp, the mouth of Song Yen, lies 9 miles N of Mui Bang. Within the mouth of Lach Yapp a bank of mud nearly obstructs the river.

4.21 Mui Chao (Cap Chao) (19°43'N., 105°54'E.) is 78m high, and can be recognized by a pagoda on its N slope that is visible from sea.

Lach Chao (Song Lach Chao), 4 miles NNE of Mui Chao, is the mouth of Song Ma. There is a depth of 3.7m between the entrance points in the fairway, although drying banks extend from both points. The bar close off the banks has a depth of about 1.2m, but is subject to change.

Lach Truong Giang is entered about 6.5 miles N of Lach Chao. Nui Truong, 201m high, steep and isolated, lies 1 mile SW of the S entrance point. Hon Bo, 26m high, lies near the extremity of a drying bank that extends 0.3 mile ENE from the S entrance point; two drying rocks lie close E of the islet.

Lach Truong Giang is accessible at HW to vessels drawing 3.4m, but the depths are subject to change. No vessel should enter without local knowledge.

Hon Ne (19°55'N., 106°01'E.), 79m high, lies 3 miles NE of Hon Bo.

Delta of the Red River

4.22 Located 7 miles N of Hon Ne is the SE extremity of a range of serrated mountains that extend NW for a considerable distance. Northeast of this range is an extensive plain watered by the Red River, the Song Thai Binh, and their tributaries. The mouths of the different branches of these rivers form a vast delta extending from the above-mentioned range of mountains to **Lach Huyen** (20°46'N., 106°55'E.), the NE mouth of Song Thai Binh, 70 miles NE.

Shallow banks of mud front this section of coast, and the coast is flat with trees here and there which appear to rise out of the sea. Vessels approaching the coast should continuously employ sound signals, and should not attempt the river mouths without a pilot. During restricted visibility, the proximity of the coastal bank is noticed by the reddish color of the water and the breakers.

The branches of the Red River and Song Thai Binh are connected by creeks and canals, and a considerable trade is carried on within the interior.

4.23 Hanoi (21°02'N., 105°50'E.) ([World Port Index No. 57670](#)) can be reached by shallow draft vessels. Vessels drawing 2.7m can reach Hanoi by Song Day and the Red River, except when the river is low.

Tides—Currents.—Tidal currents in the approaches to the Red River normally set N on the flood and S on the ebb. Strong currents have been noted near Cua Lach Giang and Cua Ba Lat.

The Red River is at its lowest from December to May. Around May, the melting of the snows causes the river to rise rapidly, frequently washing away the banks. The annual rise at Hanoi is 4.9 to 6.1m. The current in the lower reaches of the river is often 2 or 3 knots. In the upper reaches, above Hanoi, 4 to 5 knots is common in the high-river season. In the narrows during freshets, 7 or 8 knots may be reached.

Depths—Limitations.—The wharves provide 850m of berthing space with alongside depths of up to 6m.

Smaller vessels can proceed about 200 miles above Hanoi when the river stages permit.

Hai Phong, 13 miles inland, is situated on the S bank of the Cua Cam, a mouth of Song Thai Binh.

Cua Day to Presqu'île de Do Son

4.24 Cua Day (Cua Dai) (19°58'N., 106°06'E.), the mouth of Song Day, lies 8 miles NE of Hon Ne, and is fronted by drying banks extending 4 miles S of the entrance. The narrow channel between the banks is subject to frequent change.

Cua Lach Giang, 6 miles ENE of Cua Day, and Cua Ba Lat, 26 miles farther NE, are impracticable for ocean-going vessels. They are fronted by drying mud banks for a considerable distance, and muddy waters, having the appearance of banks of mud, extend a considerable distance offshore. Vessels passing should give these mouths a wide berth due to the strong crosscurrents in the vicinity, and the scarcity of landmarks.

A light is shown 5.5 miles NE of the entrance to Cua Ba Lat.

Cua Tra Ly, 11.5 miles N of Cua Ba Lat, appears easy of access, but the depths within decrease rapidly.

Cua Thai Binh (20°36'N., 106°38'E.) and Cua Van Uc, 5 miles NE, are among the shallower mouths of Song Thai Binh. The bars that obstruct their entrances have depths of less than 1.5m. Three buoys are moored 6 miles SE of the river entrance. A stranded wreck lies 1.2 miles to seaward of the middle buoy.

Presqu'île de Do Son is a hilly peninsula with Petit Mirador, 70m high, at its SE extremity. The peninsula attains an elevation of 129m at Grand Mirador, located 2.5 miles NW of Petit Mirador.

Approaches to Hai Phong

4.25 Hai Phong is approached between Presqu'île de Don Son and Xuy Nong Chao (Iles Norway), 18 miles E. Dao Cat Ba (Ile Cac Ba), 7 miles NNW of Xuy Nong Chao, lies on the N side of the approach.

Two channels lead to Hai Phong. Cua Cam, a mouth of Song Thai Binh, NE of Presqu'île de Do Son, and Cua Nam Trieu, 3 miles NE, and separated from Cua Cam by Ile de Dinh Vu. Deep draft vessels use Cua Nam Trieu, which is entered by a dredged channel across the bar. Cua Nam Trieu is connected to Song Cua Cam by Dinh Vu (Canal Maritime), which has been cut through Ile de Dinh Vu. Hai Phong lies on the S bank of Song Cua Cam, 4 miles above Dinh Vu.

Hon Dau (20°40'N., 106°49'E.), which shows a light from which a radio beacon transmits, lies 0.5 mile SE of Presqu'île de Do Son.

Xuy Nong Chao (Iles Norway) consists of two groups of high and inaccessible islands and rocks, separated by a channel about 1.5 miles wide. Rocher Est, 75m high and the largest island of the E group, is a natural landmark for vessels calling at ports in the NW part of the Gulf of Tonkin. Several islets and rocks extend 0.3 mile ENE of Rocher Est and La Tour, a pointed rock surrounded by depths of 4.7m, lying 0.3 mile N of the island.

4.26 Grande Norway (20°37'N., 107°10'E.), 83m high, is the largest of the W group. A light, from which a radio beacon transmits, is shown from the SE part of the island. A small group of islets lies 0.5 mile SE of Grande Norway; Le Menhir, a rock, lies 0.1 mile SE of the group.

Ile Ouest, 64m high and lying 1.5 miles WSW of Grande Norway, is the W island of Xuy Nong Chao.

Caution.—A depth of 11m lies 21.8 miles distant bearing 162° from the S extremity of Grande Norway.

Numerous junks may be encountered in the approach to Hai Phong and in the vicinity of Xuy Nong Chao. Most of these vessels display no navigational lights at night.

Ta Lao Pai (Rocher de Large), 17m high, lies 3.5 miles NW of Ile Ouest, and shows a light. Basse du Passage, with a depth of 8.5m, lies 1.7 miles WNW of Ta Lao Pai.

Dao Cat Ba (Ile Cac Ba), a large irregularly-shaped island, has a range of mountains rising to a summit over 340m high near the W part of the island. A peninsula at the S end of the island has a summit 144m high, with a prominent fort on it, 0.8 mile NE of the S extremity of Dao Cat Ba.

4.27 La Quille (20°41'N., 107°03'E.), a 41m high rock, lies 1.3 miles S of Dao Cat Ba. Les Oreilles, an islet, and Ile H, 98m high, lie 0.1 mile N and 0.8 mile NNW, respectively, of La Quille.

Rocher Trident, with a depth of 1.8m, lies 1 mile W of La Quille; a stranded wreck lies on the N side of the shoal. A wreck, with a depth of 1.5m, lies 0.8 mile W of Rocher Trident.

In the approaches to Hai Phong the tides are subject to a large diurnal inequality. Only one high and one low tide occurs in 24 hours. The lowest tides occur about 3 days after the moon has crossed the equator. At this period the ordinarily diurnal tides are observed. High water occurs at Hai Phong about 1 hour after HW at Presqu'île de Do Son. Highest tide occurs about 5 hours after the moon's upper transit when the moon has a N declination, and about 5 hours after lower transit when the moon has a S declination. The tides are higher during the Northeast Monsoon than during the Southwest Monsoon.

The tidal rise at Cua Nam Trieu is 3.1m and 2.7m at Xuy Nong Chao at MHHW.

Tidal currents off the entrance to Cua Nam Trieu generally set NE and follow the channels on the flood. As the tide rises, the flow becomes less restricted to the channels and sets across them in a northerly direction, at the same time attaining its maximum rate. At HW locally, the flow turns counterclockwise and decreases. The flow sets SSW on the ebb tide, attaining a velocity of nearly 0.8 knot with small tides and 1 knot with large tides. The flow becomes very weak 2 hours before LW, and reverses at LW. The flow is stronger on the flood tide than on the ebb tide, and in the dredged parts of the channel over the shallows.

Hai Phong (20°52'N., 106°41'E.)

World Port Index No. 57680

4.28 Hai Phong, the shipping port for Hanoi, has the appearance of a European town. The city and wharves lie on the S bank of the Cua Cam. Moorings are laid in the river to provide berths for deeper draft vessels, and cargo is worked by lighters.

Hai Phong port limits cover the Vinh Ha Long (paragraph 4.35) and Hon Gai (Hon Gay) (paragraph 4.36) areas.

Winds—Weather.—The climate of Hai Phong is primarily tropical. However, during the months of January, February, and March the weather is cold and damp.

Squalls are a probability at any time of the year, those of particular violence being the "arch squall" that occurs in this area. This type is preceded by clouds rising in the form of an arch, attended by heavy rains and high winds.

Tides—Currents.—In Song Cua Cam the current may attain a velocity of 2.5 knots. In Cua Nam Trieu, the flow reverses 2 hours 30 minutes after HW and 1 hour 30 minutes after LW at Cua Cam. With large tides, the velocity of the ebb current exceeds 3 knots.

At Hai Phong during the low-river season (October to February), the ebb current begins 2 hours after HW at Hon Dau and the flood current begins 2 hours 30 minutes after LW at Hon Dau; the maximum velocities are 1.5 knots and 1 knot, respectively. With large tides, the ebb current begins 3 hours 30 minutes after HW at Hon Dau and the flood current begins 6 hours 30 minutes after LW at Hon Dau; the maximum velocities are 2 to 4 knots and 2 to 3 knots, respectively.

At Hai Phong during the high-river season, which occurs in summer, the flood current is reduced and the ebb current is increased in both speed and duration; there is no flood current at all if the tidal range is less than 0.3m. The ebb current has been observed to reach 4 to 5 knots after heavy rain and vessels frequently drag anchor.

The flood current becomes established slowly; for the first 0.5 hour the velocity does not exceed 0.5 knot and this is followed by a slack water period of 1 hour to 1 hour 30 minutes before the current is properly established. The ebb current starts rapidly, beginning in the middle of the river; it attains a velocity of 1 knot within 1 hour of commencement.

Depths—Limitations.—Dinh Vu (Canal Maritime) has a least depth of 7.9m. The depths decrease to 4.6m in Cua Cam on the range line, about 0.5 mile farther WNW.

The maximum size vessel permitted to cross the bar and enter the dredged channel in Cua Nam Trieu is 200m in length, 26m breadth, and 7m draft. Vessels of lesser size may have an allowable draft of 7.6m to berth alongside. Vessels of lesser draft may also lighter in Nihtiep (20°51.3'N., 106°46.0'E.), and Bachdang (20°52.4'N., 106°45.4'E.) anchorages. Vessels exceeding this draft are lightered in Ha Long Bay (Vinh Ha Long) anchorage.

There are 11 berths with depths of 8m alongside for general, bulk, and container cargo, and passenger vessels. Additionally, the longest berth is located in Doanxa berthing area, which has two berths for ro-ro and container vessels, and has a total length of 300m.

The tanker berth in the Thuongly area can accommodate vessels of up to 5.8m draft.

The Cua Cam berthing area harbors three berths for general cargo vessels. The Thuysan area has an additional two berths for fishing vessels and general cargo vessels. Chauve provides a berthing area for two general cargo vessels.

If maximum draft exceeds port limitations, vessels anchor in Baie d'Halong and discharge into lighters.

The harbor has a total of 15 marine moorings which are capable of accommodating vessels of the 15,000 dwt class, with maximum drafts of 7.6m. Mooring berths in the river have depths of 5.7 to 7.8m.

Large vessels usually swing upstream, beyond the wharf area, and then dock with their bows downstream.

It was reported in 1990 that it was not uncommon for vessels with a draft of 5.3m or more to touch bottom. In 1993 it was reported that because of the absence of dredging in the approach channel, the controlling draft at the port was 3.1m, increasing to 5.6m at high tide.

Vessels bound for Hai Phong should seek up to date advice regarding draft limitations prior to arrival.

Pilotage.—Pilotage for merchant vessels is compulsory. Pilots are stationed at Hon Dau and board 2.5 miles E of Hon Dau Light (20°40.0'N., 106°48.7'E.).

Vessels should radio their expected time of arrival at the pilot station at least 48 hours in advance. The notice should also include the last port of call and their estimated draft at arrival. Vessels are generally taken upriver by day only. Pilots may be contacted on VHF channels 9 and 16.

The pilot boat has a red hull. Pilots embark in the vicinity of No. 0 lighted buoy.

Regulations.—A customs officer and police officer usually board vessels at Lighted Buoy No. 0 and accompany the vessel to Hai Phong.

During poor visibility vessels should maintain constant radio watch, and should notify the port authorities of the time of departure from Lighted Buoy No. 0 and their speed. Vessels with a draft of less than 3m must navigate outside the channel, NE of the line of starboard hand lighted buoys.

Passage at night is possible, but daylight hours are preferred.

When two vessels are approaching Dinh Vu from opposite directions, the one from Cua Nam Trieu must wait, and anchor if necessary, until the vessel from Cua Cam has passed through.

Signals.—When dredges are at work, vessels must sound their whistles repeatedly. A dredge must not be passed until it displays the signal "Not under command" at half mast, indicating that the channel is clear, and one of the two following signals:

1. A cone, point up, by day, or two green lights, vertically disposed, by night—indicates that the dredge must be passed on the starboard side.

2. A cone, point down, by day, or two red lights, vertically disposed, by night—indicates that the dredge must be passed on the port side.

Vessels passing a dredge must do so as slowly as possible, and must stop if necessary.

A signal station is available in Hai Phong, from which storm signals are displayed.

Anchorage.—There are four anchorage areas, as follows:

Anchorage	Maximum draft
Ninhtiep	7.0m
Bachdang	6.0m
Halong	10.0m
Hongay	9.4m

Vessels awaiting the tide should anchor as near **Hon Dau** (20°40'N., 106°49'E.) as their draft will permit. If there is a

heavy swell, vessels with a draft of 5.8m can anchor in the entrance of **Baie d'Apowan** (20°43'N., 107°02'E.) in a depth of 7m. See also Vinh Ha Long for deep-draft anchorage, which will be described later in [paragraph 4.35](#).

Vessels anchoring in the vicinity and outer anchorages should beware of intruders. See also the cautionary remarks on piracy in [paragraph 2.1](#).

Directions.—Vessels bound for Hai Phong should steer for Xuy Nong Chao (Iles Norway). Approaching these islands in thick weather or at night, caution should be exercised in depths of less than 29m. The bottom E of the islands consists of gray mud. The radio should be manned continuously in thick weather.

A vessel approaching from S in thick weather should steer for Hon Dau. Approaching Hon Dau on a bearing of 343° the bottom consists of muddy sand, while to the W of this line the bottom is almost all mud, often mixed with shells. East of this line the bottom is white or gray sand, with black speckles.

In poor visibility, if a vessel considers itself too far W, it should anchor as soon as it is in depths of 15m. On ascertaining such is the case, it should steer E into a depth of 20m, and then N, into a depth of 11m, when it will have a better chance of sighting Hon Dau.

If the pilot boat is not sighted or it is too late to proceed to Hai Phong, excellent anchorage can be obtained in 12m, mud, good holding ground, with Hon Dau bearing W, and with No. 0 lighted buoy bearing N.

Due to the changing nature of the entrance channel, and the compulsory pilotage for the port, no further directions are given.

Caution.—Depths in the seaward approach channel are subject to change, and the buoyage is altered accordingly. The buoyage in the approach channel is reported to be unreliable or missing. In 1990, heavy silting in the Cua Nam Trieu was reported.

Song Bach Dang (20°51'N., 106°46'E.)

4.29 Above the E entrance of Dinh Vu the Cua Nam Trieu becomes the Song Bach Dang, and then the Song Da Bach. **Port Redon** (20°59'N., 106°46'E.) lies on the NE bank of Song Da Bach, about 8.5 miles above Dinh Vu; it is the terminus of a railway to mines and has a small jetty at which vessels can not berth.

Bancs de Ha Nam extend about 0.8 mile from the W bank of Song Da Bach, about midway between Dinh Vu and Port Redon. A narrow channel on its E side is marked by buoys. In 1990, it was reported that the dangerous rock on Bancs de Ha Nam was removed by explosives.

Pilotage.—Pilotage in the river is compulsory.

Anchorage.—There is anchorage above Bancs de Ha Nam, abreast the W entrance of Song Chanh, in depths of about 10m. This anchorage serves **Quang Yen** (20°56'N., 106°48'E.) and its zinc factory.

Port Redon Anchorage, about 3 miles farther N, has depths of 7 to 11m. Vessels load coal and other ores by lighters.

Lach Huyen (20°48'N., 106°55'E.), the NE mouth of Song Thai Binh, has a tower on its W entrance point. The bar lies 3 to 4.5 miles SE of the entrance. Vessels, with local knowledge, and a draft of 4.9m can cross the bar at HWS and proceed

upriver in deep water to the E entrance of Song Chanh. There are depths of not less than 4.9m in Song Chanh to within 2.5 miles of Quang Yen. Anchorage can be taken by vessels with a draft of 4.9m in Song Chanh, 4 miles SE of Quang Yen.

Archipel des Fai Tsi Long (20°50'N., 107°25'E.)

4.30 The NW shore of the Gulf of Tonkin, for a distance of 40 miles NE of **Dao Cat Ba** (20°48'N., 107°02'E.), is bordered by numerous, high, rocky islands and islets of limestone formation, known as the Archipel des Fai Tsi Long. These islands present varied forms with very distinct summits, some of which attain elevations of over 305m.

Xuy Nong Chao (Iles Norway) makes a good landfall in the approach from S. The fort on the S end of Dao Cat Ba, and **Dao Lai Tao** (20°43'N., 107°28'E.) 23 miles E, an island with a conical summit, are easily identified.

The archipelago consists mainly of steep rocks and islets of marble, 46 to 91m high, some of which have been worn away at the waterline and overhang the sea. From a distance, these islands appear as a compact mass, but on nearer approach the channels between them can be distinguished. Steep mountains run parallel to and back the coast NW of the archipelago.

Caution.—Vessels should not pass close to the limestone rocks as large pieces occasionally break off. Small islets should be given a wide berth to avoid the shoals in their vicinity.

Channels

4.31 Archipel des Fai Tsi Long provides anchorages for large vessels. The principal channels leading to these anchorages are:

1. Entree Profonde, leading from Baie de Lan Ha, through Rade du Crapaud, then through Chenal du Volta, or Passe de l'Arche, to Vinh Ha Long.
2. Entree Profonde, then through Passe Crochet into Passe Henriette and Vinh Ha Long to Port Courbet.
3. Passe Henriette, the best approach to Vinh Ha Long. Chenal du Ducouedic and Chenal del'Hamelin lead from Passe Henriette to Baie de Fai Tsi Long.
4. Passe de l'Aspic, leading into Baie de Fai Tsi Long, and through Chenal de la Saone and Chenal de Cam Pha to Cam Pha Port.
5. Passe de la Perouse, then through Passe du Casque into Chenal de la Saone. This is the most direct route to Cam Pha Port.

The above channels lead to sheltered anchorages where the working of cargo is generally uninterrupted and where vessels can go alongside one another. The holding ground is good and tidal currents attain a velocity of only 1 knot at spring tides. These anchorages offer fair shelter during typhoons as they are practically landlocked, and the islets are high enough to diminish much of the wind.

Pak Ha Mun (20°58'N., 107°34'E.) on the E side of the archipelago, has depths of 11 to 13m, and affords secure anchorage in a depth of 15m.

Winds—Weather.—From December to March fogs are frequent and persistent. Among the islands the heat in summer is greater than in the delta area SW or offshore. Temperatures reach 38°C in summer, and drop to 7° to 10°C in winter.

Pilotage.—Pilotage is compulsory to ports in the archipelago. Pilots for Hon Gai and Cam Pha Port are embarked in the vicinity of Lighted Buoy No. 0 (See paragraph 4.28). Vessels must arrive at the pilot boarding area before 1500 on weekdays and before 1200 on Sundays or festivals in order to enter these ports on the day of arrival. Once embarked the pilot will signal the time of arrival at the port concerned, after which the use of radio is forbidden.

There is also a pilot boarding place in the vicinity of L'Orange.

Approaches to Vinh Ha Long and Hon Gai

4.32 Baie de Lan Ha (20°45'N., 107°07'E.) is entered between the islets fronting the SE side of Dao Cat Ba and the SW extremity of **Ile de la Paix** (20°45'N., 107°07'E.). The E side of the bay, which is high and steep, is formed by Ile de la Paix, with several islets off its NW side, and Ile de l'Union, close N.

Ilots M (20°42'N., 107°05'E.), a group of three islets, lies 2.8 miles N of Hon Ta Lao Pai. Roche du Pecheur, with a least depth of 8.2m, lies 0.5 mile SE of Ilots M. Ilot Cornu, 37m high, lies 1.5 miles NE of Ilots M. Rocher Soulipai, which dries 3m, lies 0.8 mile S of Ilot Cornu; a rock, with a depth of 0.9m, lies 0.2 mile farther S.

Anchorage according to draft can be taken in several sheltered inlets formed by the islets on the W side of the bay.

Entree Profonde (20°47'N., 107°07'E.) is entered between the S extremity of Ile de l'Union and Pointe O, 1.3 miles WNW. Ile du Milieu, 62m high, lies on the W side of the channel, about 0.3 mile SE of Pointe O. From S, the entrance to Entree Profonde is not visible until past Ile du Milieu.

On the E side of the channel, Ilot de la Recherche, 36m high, with a rock close off its SW side, lies 0.3 mile NW of the S end of Ile de l'Union.

La Selle, 220m high, the summit of Ile de l'Union, is conspicuous and stands 0.8 mile N of the S end of the island. Above-water rocks extend about 0.2 mile offshore abreast La Selle; a rock with a depth of 1.8m, lies close W of the rocks. Ilot Rouille, 58m high, lies 0.1 mile farther N.

A chain of islets and rocks extend up to 0.3 mile off the N part of the W side of Ile de l'Union. Vessels should pass W of these dangers.

Anchorage.—Port Bayard, on the W side of Entree Profonde, affords excellent shelter to small vessels with local knowledge in typhoon conditions. It has depths of 5.5 to 7.3m, but the entrance between the rocks on either side is about 73m wide.

Entree Profonde leads into Rade du Crapaud at its N end between the NW end of Ile de l'Union and Le Cobra, about 0.5 mile NW.

Rade du Crapaud (20°49'N., 107°07'E.) affords the most accessible shelter from typhoons for large vessels when in the vicinity of Xuy Nong Chao. Le Crapaud, 13m high, lies on the SW side of the roadstead, 0.1 mile ENE of the N end of Le Cobra.

Anchorage can be taken in 13m, mud, with Le Crapaud bearing 150°, distant about 0.7 mile.

Chenal du Volta, on the NW side of the roadstead, leads to Vinh Ha Long. A vessel can proceed into Passe Henriette via Passe Crochet on the E side of the roadstead.

4.33 Passe Henriette (20°48'N., 107°09'E.) is the best approach channel to Vinh Ha Long and Hon Gai, and the only one that should be used by deep-draft vessels. It has a least depth in the fairway of 12.8m, and is entered between **L'Orange** (20°44'N., 107°11'E.), a 42m high islet, and Ile Henriette, a 60m high islet, lying 1 mile W. L'Orange has a white mark on its SE point, which was reported to be visible, although indistinctly, for a distance of about 5 miles. Le Bloc (Bloc), a 94m high islet, lies about 0.2 mile N of Ile Henriette.

La Mauvaise, a shoal with a depth of 3m, lies 0.7 mile SSE of Ile Henriette; a rock, with a depth of 0.9m, lies 0.2 mile S of the same islet.

Le Canot, a 23m high islet lying 1.5 miles N of Ile Henriette, is the outermost of several islets lying E of Ile de la Paix. A 4.6m shoal, with a wreck on its S side, extends 0.1 mile SE of Le Canot.

Le Youyou, a rock, 0.9m high, lies about 0.3 mile N of Le Canot, and close W of the recommended track. A rock, with a depth of 2.1m, lies 0.2 mile NW of Le Youyou.

Le Nez, 69m high, lies 0.5 mile NE of La Scie, the northeasternmost of the islands fringing Ile de l'Union. A reef, with a depth of 3.7m, extends 100m E of Le Nez, and close W of the recommended track.

An 11m patch lies 0.1 mile SSE of L'Orange. L'Epieu, a 46m high islet, lies 0.8 mile ENE of L'Orange.

Le Fantome, a 47m high islet, lies 0.8 mile N of L'Orange. La Jonque, a 63m high islet, lies 0.3 mile N of Le Fantome. A rock, with a depth of 0.6m, lies 0.4 mile W of La Jonque.

Le Bouquet, 34m high, lies 1 mile NNW of La Jonque. Le Musoir, 123m high, lies 0.5 mile N of Le Bouquet. Ile du Cirque, 131m high, lies 0.7 mile E of Le Musoir. A 4.6m shoal lies 0.5 mile NNW of Le Musoir.

L'Echelle (20°49'N., 107°09'E.), 127m high, and Le Dragon, on which there is a prominent casemate, are the southernmost and northernmost of a group of islets lying 0.5 mile NE of Le Nez. A bank, with depths of less than 9m, extends 0.3 mile SSE from L'Echelle.

4.34 Head of Pass.—Ile Salacco (20°50'N., 107°08'E.) lies on the W side of the channel, 0.7 mile WNW of Le Dragon. Le Moine, 0.5 mile N of Ile Salacco, has a rock, 2m high, close off its E extremity. The island of Le Goeland lies close NW of Le Moine; a wreck lies off the NE side of the island.

Anchorage.—In 1988, the lightering anchorage was reported to lie 0.5 mile E of Ile Salacco and the quarantine anchorage situated 0.5 mile WSW of L'Index.

Le Puceron, a 12m high islet, lies on the E side of Passe Henriette, about 0.5 mile ENE of Le Moine. La Roche Percee, a 126m high island, lies 0.3 mile farther N.

L'Index (20°52'N., 107°07'E.), a 156m high islet, has a prominent notch about halfway up its steep W side, and a white mark on its E side. A light is shown from the islet. A bank with depths of less than 9m extends 0.4 mile S of the islet.

La Tribune, 59m high, lies 0.3 mile SE of L'Index and is the southernmost of a group of small islets on the E side of the entrance to Chenal de l'Hamelin.

La Banane, 102m high, lies 1 mile NNW of L'Index.

Vinh Ha Long

4.35 Vinh Ha Long (20°55'N., 107°05'E.) is an extensive bay lying between the islands bordering the N and NE coasts of Dao Cat Ba and the mainland N. The major part of the bay is occupied by a bank with depths of less than 4.5m. Large vessels can anchor in a narrow band in the SE part of the bay off the inner entrances of the channels leading into the bay.

Ile de l'Hospital lies about 1.8 miles WSW of L'Index; two islets, the N of which is 45m high, lie close N of the W extremity of Ile de l'Hospital. La Noix, a small islet, marked by a light, lies 0.5 mile E of Ile de l'Hospital.

Anchorage.—The most frequented anchorage is in depths of 11 to 15m, mud, between **Ile de la Surprise** (20°51'N., 107°06'E.) and L'Index.

Anchorage can be taken in depths of 9 to 15m, abreast Ile de l'Hospital. The anchorage has excellent holding ground, and vessels intending a long stay should weigh their anchors occasionally to prevent them from being buried.

Hon Gai (20°57'N., 107°04'E.)

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4.36 Hon Gai (Hon Gay), a coaling port, lies in the N part of Vinh Ha Long, and is accessible by a dredged channel through the bay. Chenal de l'Hamelin is an alternate route to Hon Gai. The port lies at the SE extremity of Cua Luc, the entrance to Port Courbet. The latter is a large bay, encumbered with drying banks.

Tides—Currents.—The tidal rise at Hon Gai is 3.6m at MHHW.

The N flood current in Cua Luc begins 4 hours after LW during small tides, and 2 hours after LW during large tides. The S ebb current begins 1 hour after HW. The ebb current is the stronger, attaining a velocity of 3 knots after heavy rains. The flood current has a maximum velocity of about 0.8 knot at half-tide.

Outside the entrance the tidal current is stronger on the E side than on the W side; during the ebb there is an eddy which sets N along the wharf at Hon Gai.

In the anchorage the ebb begins about 1 hour after HW, with both small and large tides.

Depths—Limitations.—A buoyed channel, dredged to a depth of 6.8m, leads NNW across Vinh Ha Long from a position about 0.6 mile NNW of La Noix. Vessels drawing 10m can reach Hon Gai at HW.

There is a coal berth, 200m long with an alongside depth of 8.5m. Cai Lan berth is 160m long and has an alongside depth of 9m.

Tankers of up to 20,000 dwt can be accommodated at a buoy berth, in a depth of 15m, about 0.5 mile N of Cua Luc narrows.

A submarine cable and an overhead electrical cable, with a safe clearance of 33m, cross the entrance of Cua Luc.

Aspect.—The axis of the channel, 160°-340°, is marked by two directional lights; one is shown on La Noix, and the other is shown on the W side of Cua Luc.

Pilotage.—Pilotage is compulsory. The pilot station is situated 20°44'12"N, 107°10'30"E. See pilotage instructions for Hai Phong (paragraph 4.28) and Archipel des Fai Tsi Long (paragraph 4.30).

Anchorage.—There are designated anchorages for LASH vessels, tankers, dangerous cargo, and lightering.

Anchorage can be taken in the deep water S of the entrance to Cua Luc, provided they do not obstruct the approach to the wharves at Hon Gai.

Anchorage can also be taken, in depths of 15 to 17m, in the S part of Port Courbet, N of Cua Luc, where there are two mooring buoys.

4.37 Chenal de l'Hamelin, an alternative channel leading to Port Courbet, has a least depth of 3.7m in the fairway, and passes between a number of islands in the NW part of Vinh Ha Long. In the NW part of the channel there is a bar, through which there is a dredged channel with a depth of 4.9m, soft mud. Lighted and unlighted buoys mark the S side of the dredged channel.

The channel leads close E of L'Index, then leads N and NE, passing NE of La Clochette, an islet, marked by a light, lying 1.3 miles NE of L'Index. Then it passes close W of La Toque, a 24m high islet, about 0.3 miles farther N. From close W of La Toque the channel leads about 0.7 mile NW, passing close NE of La Porte-Fanal, an islet marked by a light. The channel then extends WNW, passing S of Ile du Repos, which shows a light, then passes through the dredged channel leading to the deep water S of Cua Luc. Vessels in the dredged channel should keep about 50m N of the buoys.

The shallowest part of the channel is midway between La Porte-Fanal and La Lionne, a 65m high islet lying 0.5 mile N, where there is a depth of 3.7m.

Baie de Fai Tsi Long

4.38 Baie de Fai Tsi Long (20°55'N., 107°53'E.), the largest bay in the archipelago, is exposed to NE winds. Depths within the bay are mostly shoal except in its SE part. The bay is not as commercially important as Vinh Ha Long, and is more of a thoroughfare to the channels within the islands.

The bay is entered from SW by Chenal du Ducouedic, which branches off from Passe Henriette. Chenal du Chateau Renaud, which branches off Chenal de l'Hamelin, close N of **La Clochette** (20°53'N., 107°08'E.), enters the W end of the bay, runs along its NW side and joins Chenal de la Saione E of L'Aigle.

Baie de Fai Tsi Long is entered from the S by Passe de l'Aspic, or by Passe de la Perouse, which connects with **Passe du Casque** (20°52'N., 107°18'E.). Passe de la Mouche, available for ships with local knowledge, is entered E of Ile de Deux Passes, which lies 1 mile NE of **Ile de l'Entree** (20°50'N., 107°19'E.). Tidal currents in Passe de la Mouche are very strong.

Chenal de la Saone parallels the S and SE sides of the bay. It connects with Chenal de Bourayne, from which Chenal de Cam Pha leads to Cam Pha Port.

Chenal du Ducouedic

4.39 Chenal du Ducouedic is the deepest channel from Passe Henriette to Baie de Fai Tsi Long. It branches off Passe Henriette, E of Ile de l'Union, and passes E of **L'Echelle** (20°49'N., 107°09'E.) in a N direction. It then passes W of Le Sac, which lies close NW of Le Grand Sommet, 113m high. Le Sampan, a rock which dries 3.4m, lies about 0.3 mile N of Le Sac.

From abreast Le Sac the channel leads NNE, passing W of Ile Commune, 1.3 miles NNE of Le Sac. It then passes W of Ilot A and Ile de l'Entree, which lie nearly 1 mile and 1.8 miles, respectively, NNE of the W extremity of Ile Commune. The channel then turns ENE and enters Chenal de la Saone.

Chenal du Chateau Renaud

4.40 Chenal du Chateau Renaud branches off Chenal de l'Hamelin NW of **La Clochette** (20°53'N., 107°08'E.), and trends NE between Le Nid and Le Pierrot, a 113m high islet, lying 0.3 mile N, where the channel enters Baie de Fai Tsi Long. Le Nid, an islet with a needle-shaped rock at its N extremity, lies 0.2 mile W of **Ile des Singes** (20°53'N., 107°10'E.). A rock, with a depth of 3.7m, lies nearly 0.3 mile NNE of the N extremity of Ile des Singes.

Le Castel, a 169m high islet, lies on the SE side of the channel, about 0.3 mile NE of Ile des Singes. **Le Lapin** (20°54'N., 107°10'E.), 30m high, and Le Kepi, 40m high, are two islets lying 0.5 mile and 1.7 miles ENE, respectively, of Le Castel.

On the NW side of the channel, Le Marron, a 16m high rock, lies 0.6 mile N of Le Lapin. La Voile, a steep, 24m high rock, lies nearly 1.8 miles farther ENE.

Chenal du Chateau Renaud leads across the NW side of Baie de Fai Tsi Long, and passes between **Le Dome** (20°57'00"N., 107°14'30"E.), a 102m high islet, lying 4 miles NE of Le Kepi, and Le Carosse, a 34m high islet, about 0.3 mile E.

Le Spectre (20°57'N., 107°15'E.), an island, lies 0.2 mile E of Le Carosse. A bank, with a depth of 4m, extends 0.1 mile N of the E end of Le Spectre. Roche du Chenal, which dries 0.9m and is marked to its N by a buoy, lies 0.2 mile N of Le Spectre. The channel passes between the bank and Roche du Chenal.

After clearing Roche du Chenal, the channel extends ENE to a position about 0.2 mile S of the E end of La Momie, an island lying 0.8 mile NW of **L'Aigle** (20°58'N., 106°59'E.). Le Chien, an islet, lies on the NW side of the channel, about 0.3 mile SW of La Momie. The channel then extends in an ESE direction, passing close NE of L'Aigle, and joins Chenal du Bourayne. L'Aigle, seen from the W, dominates all other islands and rocks.

Islands and Dangers in the Approach to Baie de Fai Tsi Long

4.41 Dao Lai Tao (20°43'N., 107°28'E.), 170m high, is the southernmost of the islands which lie on the NE side of the S approach to Baie de Fai Tsi Long. The island lies 15 miles ENE of Rocher Est, and is steep-to on its S side, outside its fringing reef. Roche du Chinois, with a depth of 4.2m, lies 1

mile SW of the island, and a dangerous rock (PA) lies 1.3 miles further SW.

Nui Thuong Mai (Siong Lai Tac), 132m high, lies 1 mile NNE of Dao Lao Tao. Cap Quan Lan, the S extremity of Dao Cai Ban (Ile de Quan Lan) lies 2.5 miles N of Dao Lai Tao.

Off-lying dangers.—Tche Li Pai, an 8m high rock, surrounded by a reef, lies 6 miles WSW of Dao Lai Tao. At LW several pointed rocks are visible, which occasionally resemble the masts of junks. Depths of less than 3.7m extend up to 0.6 mile N and S of the island.

Recif des Salpes, which dries 3.4m, lies 1.2 miles N of Tche Li Pai. A reef, which dries 0.3m, and a rocky shoal, with a depth of 2.1m, lie 0.5 mile NNE and 1 mile NNW, respectively, of Recif des Salpes.

Nui Nut (Ti Mao Tao), 116m high, lies 3.5 miles WNW of Dao Lai Tao. A bank, with depths of less than 5.5m, extends 1.7 miles W of Nui Nut. Baou Tao, 94m high, lies on this bank, 0.5 mile W of the island.

Ile du Sud (20°47'N., 107°20'E.), with Le Fourmilier, a 55m high islet, close N, lies 3.2 miles NW of Baou Tao, and is the S of a group of islets and rocks off the SW extremity of Ile Danh Do La.

A bank, with depths of less than 9m, extends 5 miles SW from Ile Danh Do La, and NW as far as the E side of Passe de L'Aspic and across the entrances of Passe de la Mouche and Passe de la Perouse.

Passe de l'Aspic

4.42 Passe de l'Aspic lies E of Passe Henriette, and has a least depth of 8.2m on the recommended track in the pass.

Approaching from SW, a vessel should pass E of **Hu Lang** (20°44'N., 107°12'E.), a 52m high islet, and L'Epieu, lying 0.2 mile SW, at a distance of at least 1 mile. L'Epieu, a 46m high islet, is the southeasternmost islet of the group lying on the E side of Passe Henriette.

The entrance to Passe de l'Aspic lies NNE of Hu Lang with that islet bearing 210° astern, showing about midway between Sam Pui Tsao and the NW island of the group lying 1 mile W of Grande Norway.

La Mere (20°48'N., 107°15'E.), a 45m high islet, with L'Enfant, a 19m high rock lying close SE, lies on the SE side of the entrance to Passe de l'Aspic. A rock, which dries 1.8m, lies almost 100m NW of La Mere. L'Arche, an islet, lies 0.7 mile NW of La Mere.

From abreast L'Arche, **L'Escargot** (20°53'N., 107°15'E.), a 66m high islet lying 4.5 miles NNE, will be seen between the islets bordering Passe de l'Aspic on either side, bearing about 011°.

Le Roquet, an islet, lies on the E side of the pass, 0.7 mile NNE of L'Arche. Ile de l'Aspic, on the W side of the pass, lies 0.5 mile NW of Le Roquet.

L'Escalier, an islet, about 0.7 mile NNE of Ile de l'Aspic, lies on the W side of the channel. A rocky ledge, with a depth of 1.8m at its extremity, extends 0.1 mile S from L'Escalier.

Ile du Souffleur lies nearly 0.5 mile E of L'Escalier, on the E side of the pass. A rocky ledge connects Ile du Souffleur to the W extremity of Ile de l'Arche, 0.7 mile N. A rock, with a depth of less than 1.8m, lies close off the W extremity of Ile de

l'Arlene. La Tranche, a rock, lies about 0.4 mile WNW, on the W side of the pass.

Ile du Pont lies 0.8 mile N of Ile de l'Arlene, with several islets between, on the E side of the pass. A bank, with a depth of 0.9m, and a spit, with a depth of 3.7m, extend a short distance from the SW side, and N end, respectively, of Ile du Pont.

On the W side of the pass, La Potiche, a rock, close off the E end of an islet, lies 0.1 mile W of Ile du Pont. An islet lies close NE of La Potiche.

After passing Ile du Pont, Passe de l'Aspic leads about 0.5 mile NE, then NNE, passing between some islets. It then enters Baie de Fai Tsi Long between L'Escargot and Le Nigre, a rock, 0.7 mile E, and joins Chenal de la Saone, 1 mile farther NNE. Shoals over which there are depths of 5.8 to 7m, lie E of L'Escargot and 0.4 mile SW of Le Nigre, but there is a narrow channel between them in which the depths are greater.

Tidal currents are strong abreast Ile du Pont.

Passe de la Perouse (Lach Dong Trang)

4.43 Passe de la Perouse, E of Passe de l'Aspic, is oriented on a 029°-209° axis and approached from SW between **Tche Li Pai** (20°41'N., 107°21'E.) and L'Epieu, about 9 miles WNW. The best course of approach is with **Sam Pui Tsao** (20°39'N., 107°09'E.) bearing 221° astern.

Le Turco (20°48'N., 107°16'E.), a rock, lies on the NW side of the approach to Passe de la Perouse.

Le Cancrelat (20°50'N., 107°18'E.), an islet marked by a light, lies 1.5 miles NE of Le Turco, on the SE side of Passe de la Perouse. There is a least depth of 8.5m on the recommended track at the S end, but the depths increase as Passe du Casque is approached.

Approaching the pass from S, La Mere, L'Enfant, and Le Cancrelat are easy to identify. The channel leads about 0.3 mile NW of Le Cancrelat and passes between it and several islets on the NW side of the pass.

A 6m patch lies close off the E extremity of **La Meduse** (20°51'N., 107°17'E.), the largest of the islands lying NW of the recommended track, and an above-water rock lies close W of the patch. Two islets lie about 0.2 mile further N.

L'Encrier, a rock, marked by a beacon, lies 1.5 miles NNE of Le Cancrelat, and between them is a group of islets and shoals which lie within 0.1 mile of the SE side of the recommended track.

Tidal currents at the junction of Passe de la Perouse and Passe du Casque attain a velocity of 1.5 knots with a tidal range of about 3m.

Passe du Casque

4.44 Passe du Casque leads NW from a position located 0.3 mile NW of **L'Encrier** (20°51'N., 107°19'E.). It then passes between Le Marsouin, 0.7 mile NW of L'Encrier, and a group of islets which lie on an extensive shoal on the NE side of the channel.

The channel continues NW, passing close E of Le Casque, a 261m high island lying 1.2 miles NW of Le Marsouin. The NE extremity of Le Casque is marked by a beacon backed by a white-washed mark facing N.

From a position 0.2 mile NW of L'Encrier, the SW extremity of **Hon Hang Toi** (Ile Double) (20°49'N., 107°20'E.) bearing about 146° astern, and just open SW of Ile Verte, leads through the NW portion of the pass. Ile Verte lies 0.3 mile SE of L'Encrier.

Passe du Casque, which should only be used by vessels with local knowledge, can be used at any state of the tide.

Passe de la Mouche

4.45 Passe de la Mouche, E of Passe de la Perouse, should only be used by vessels with local knowledge. **Le Chien** (20°50'N., 107°20'E.), with another smaller islet close NW, lies 1 mile N of Hon Hang Toi, on the E side of Passe de la Mouche. Ile Haute lies 0.4 mile farther NNW. A rock, with a depth of 0.3m, lies 0.4 mile W of Le Chien.

Ile de l'Entree lies nearly 0.8 mile W of the above rock. The E extremity of Ile de Deux Passes, located nearly 1 mile NE of Ile de l'Entree, bearing 015°, in range with La Mouche, a low rock lying 0.2 mile farther NNE, leads W of this rock, and through the entrance of the pass.

Passe de la Mouche is entered from S between Ile des Deux Passes and the islet lying 0.3 mile ESE.

From a position about 0.3 mile S of Ile des Deux Passes, a vessel may leave Passe de la Mouche steering in a NW direction to join Passe du Casque, with Le Casque bearing 313°. The channel then leads N and NNW, passing E of the SE extremity of Nui Thua Cong, and E of Ile Kieu, farther N. The SE extremities of both islands are fringed by reefs.

Ile Dao Trao (20°52'N., 107°22'E.), on the W side of the pass, has a peninsula projecting from its NW end. Nui Say Tau, 110m high, lies on the N end of the peninsula. A patch having a depth of 5.8m lies nearly in mid-channel, 0.5 mile NW of the NW extremity of Ile Dao Trao.

Northward of the N end of Ile Kieu, Passe de la Mouche turns NW and enters Chenal de la Saone.

Chenal de la Saone

4.46 Chenal de la Saone, a continuation E of Chenal du Ducouedic, crosses the banks in the S part of Baie de Fai Tsi Long, in a least depth of about 4.5m. From 1 mile SE of **Ile du Milieu** (20°55'N., 107°16'E.), Chenal de la Saone turns NE through the E part of Baie de Fai Tsi Long.

Ile du Chenal (20°56'N., 107°17'E.), 1.5 miles NE of Ile du Milieu, lies on the NW side of Chenal de la Saone. La Poire and La Pomme lie close together about 0.5 mile farther NE.

Les Aiglons is a group of islands lying off the S side of L'Aigle. A beacon lies on the SE extremity of the E island of Les Aiglons.

On the SE side of the channel, Ilot Plat lies 0.3 mile WSW of the NW end of Nui Thua Cong.

Ile Rousse lies 0.8 mile E of La Pomme. A bank, with a depth of 1.5m at its outer end, extends 0.5 mile SW of the W end of Ile Rousse. Chenal de la Saone passes between La Pomme and the bank.

Chenal du Bourayne, the continuation NE of Chenal de la Saone, is entered between **Le Vautour** (20°58'N., 107°19'E.) an islet lying 0.7 mile NE of L'Aigle, and La Regate, 1 mile

SE. The channel has a least fairway depth of 9.1m to the entrance of Chenal de Cam Pha, 2 miles NE.

L'Abeille, an islet with a 4.3m shoal patch close NE, lies on the SE side of this channel, nearly 1 mile NE of La Regate. La Ruche, a rock, with a depth of 1.5m, and with an islet close SW, lies 0.7 mile farther NE. A light is shown from the NW side of L'Abeille.

Cam Pha (21°02'N., 107°22'E.)

World Port Index No. 57710

4.47 The port of Cam Pha consists principally of a coaling wharf, constructed for the export of coal from the mines in the vicinity. Chenal de Cam Pha, which is buoyed and marked by ranges, provides access to the port.

Tides—Currents.—The tidal rise at Cam Pha Port is 4.3m at MHHW.

The tidal currents are strong. The ebb tidal current sets in a SW direction in the S part of Chenal de Cam Pha. Abreast the wharf, the tidal current sets N and S; the ebb current attains a velocity of 3 knots.

Depths—Limitations.—The approach channel is dredged to a depth of 6.7m.

The wharf at Cam Pha Port, 320m long, can berth two vessels alongside in a depth of 9m.

Vessels of up to 50,000 dwt having a length of 265m and draft of 11m can be accommodated.

Aspect.—Chenal de Cam Pha is entered close SE of **Les Ours** (20°59'N., 107°21'E.), the SE of a group of islets which lies on the coastal bank extending over 1 mile offshore. The E side of the channel is bordered by a shoal bank, which extends about 1 mile SW from Le Bouton, an above-water rock, 1 mile ENE of Les Ours.

Ile de l'Angle, 0.7 mile NNE of Les Ours, lies on the outer edge of a bank, which partly dries, on the W side of the channel. A beacon marks the edge of the bank E of Ile de l'Angle.

Ile Jaune lies 0.5 mile N of the wharf at Cam Pha. Ile Verte lies 0.3 mile NE of the S extremity of Ile Jaune. A spit, which dries, extends 0.5 mile S of Ile Verte; a rock, 0.9m high, lies on this spit, 0.2 mile S of Ile Verte.

A rock, with a depth of 3.7m, lies 0.3 mile N of the S extremity of the wharf at Cam Pha Port and about 100m offshore.

Aspect.—Chenal de Cam Pha is marked by buoys, and range lights which are shown only occasionally.

Pilotage.—Pilotage is compulsory. The vessel's ETA should be sent on departure from last port of call and 72 hours, 36 hours, 24 hours, 12 hours, 6 hours, and 4 hours prior to arrival.

The pilot will board at the No. 0 buoy at the entrance to Cua Nam Trieu. In 1984, it was reported that pilots may board 0.5 mile WSW of L'Orange islet. On leaving, pilots disembark at **Le Cancrelat** (20°50'N., 107°18'E.). See Hai Phong (paragraph 4.28) and Archipel des Fai Tsi Long (paragraph 4.30).

Regulations.—Pratique can not be granted by radio, but must be applied for through the boarding party delegated by the port authority to review all related shipboard documentation and manifests.

Anchorage.—There is good anchorage, in 5.8 to 10.1m, in the N part of Chenal de Cam Pha, but there is very little swinging room.

Directions.—The most frequent route to Cam Pha Port is via Passe de la Perouse and Passe du Casque, then through Passe de la Saone to Chenal du Bourayne and Chenal de Cam Pha to the wharf.

Inner Channels in the North Part of Archipel des Fai Tse Long

4.48 Between the islands in the N part of Archipel des Fai Tsi Long there are several channels, some of which are linked by subsidiary channels. During the Northeast Monsoon these channels offer considerable advantages for shallow-draft and low-powered vessels with local knowledge. There are few aids to navigation and most of the dangers are unmarked. Most of the channels have depths of not less than 4.3m in the fairway, except at the N end of Chenal du Duchaffaut, where there is a bar with a depth of 3m. This bar can be avoided by proceeding to the open sea through Passe des Bruyeres, close N of Ile aux Bruyeres, and then Tsieng Mun.

Chenal du Roc aux Aigles

4.49 Chenal du Roc aux Aigles is entered from W between **Van Duoi** (20°55'N., 107°20'E.) and Ile Rousse, close N. Shoals, with depths of less than 5m, extend nearly 0.5 mile W from the W end of these islands.

Ilot Boise, 38m high, lies 0.8 mile E of Van Duoi. A rock, which dries 0.6m, lies close to the SE side of the channel, on the N end of the foul ground extending almost 1 mile NE of Ilot Boise.

La Brioche, a 91m high islet, lies 1.5 miles ENE of Ilot Boise. Le Coin, 0.3 mile N of La Brioche, is the southeasternmost of a group of islets on the NW side of the channel. Depths of less than 5m extend 1 mile WSW of Le Coin.

The channel then leads NE between **Le Roc aux Aigles** (20°57'N., 107°26'E.), a steep hill, 195m high, on the NW side of Ile Longue, and Le Lapin, a 38m high rock lying 0.3 mile W. The channel continues NE passing between La Hache, 173m high, and La Plate, another islet, 109m high, which lies close NW of the N end of Ile Longue.

L'Enclume (20°59'N., 107°26'E.), a 136m high islet, lies 0.8 mile NE of La Hache, with several other islets between it.

Farther N the channel joins Chenal du Lynx.

Chenal du Lynx

4.50 Chenal du Lynx extends NNE from the NE entrance of Chenal du Roc aux Aigles, and between **L'Isole** (21°00'N., 107°27'E.), a 48m high islet lying 0.8 mile NNE of L'Enclume, and Le Gamin, a 19m high rock, lying 0.6 mile ENE of L'Isole. **La Souris** (21°00'N., 107°28'E.), a prominent rock, 30m high, lies nearly 0.5 mile E of Le Gamin. Le Gland, a 4m high rock which is difficult to distinguish, lies on the W side of the channel, 0.4 mile N of L'Isole.

The least depth in the fairway of Chenal du Lynx is 5.8m and lies 0.3 mile SE of L'Isole.

From a position 0.3 mile E of L'Isole the channel continues NNE a distance of 3.5 miles to pass close E of **Ile du Coude** (21°03'N., 107°28'E.). On this stretch the channel passes close E of a group of islands that lie together on the W side of the channel, 1 mile N of Le Gamin. The channel continues 5.5 miles NE past Ile du Coude along the E side of the shallow bank separating it from Chenal du Duchaffaut.

4.51 Le Grande Ile (21°04'N., 107°30'E.), 212m high on its W end, and Le Diademe, an 89m high islet, lie 0.3 mile, and 1.7 miles, respectively, NE of Ile de la Saone.

Le Chat, a 58m high islet, lies 0.4 mile NNE of the W extremity of Le Grande Ile. A bank with depths of less than 5.5m, extends about 0.3 mile SW of Le Chat.

From a point lying 0.3 mile SW of Le Chat, round the islet at a distance of about 100m from its E side, and from a position about 0.3 mile NE of the islet, continue in a NE direction with the SE extremity of Le Chat bearing 226° astern, in range with the SE extremity of Ile du Coude.

On the NW side of this part of the channel, Basse du Diademe, with a depth of 5.2m, lies 0.3 mile NW of Le Diademe. Basse du Lynx, lying 0.2 mile farther W, is marked by a beacon. Le Lion, a 96m high islet, lies about 0.2 mile farther W.

Le Pate, an 84m high islet, and Le Donjon, 88m high, lie 1.3 miles and 2 miles, respectively, NE of Le Lion, and lie on the bank separating Chenal du Lynx from Chenal du Duchaffaut.

After passing between Basse du Diademe and Le Diademe, the channel takes a more N course and passes between Le Donjon and Le Castel, a 109m high islet lying 0.8 mile E. The channel then joins Chenal du Duchaffaut.

Chenal du Kersaint

4.52 Chenal du Kersaint, with a least depth of 7.3m in the fairway, branches off Chenal de la Saone, 0.3 mile NW of the NW end of Ile Rousse, and leads E between that island and **L'Amande** (20°57'N., 107°20'E.), which lies 0.2 mile N of the W part of Ile Rousse. A rock, with a depth of 3.7m and marked by a buoy, lies 0.1 mile S of L'Amande.

La Limace, an island, lies on the N side of the channel, nearly 1 mile ENE of L'Amande. Le Doigt, an above-water rock, lies 0.4 mile E of the N end of La Limace. Le Capitole, an islet, lies 0.8 mile farther ENE, on the N side of the channel. Shoals, which partly dry, lie on the S side of the channel, about 0.5 mile S and SSW of La Limace.

Abreast the shoals S of La Limace the channel leads NE, with the summit of **Le Colosse** (Colosse) (21°01'N., 107°27'E.), bearing about 051°, until reaching a point 1.2 miles SW of that island, when it takes a more N course and joins Chenal du Duchaffaut.

Le Dome (21°00'N., 107°26'E.), a 123m high island, lies on the SE side of the channel. A rocky shoal, which dries 3.4m, lies 0.4 mile N of Le Dome, and is marked by a beacon. Chenal du Kersaint connects with Chenal du Duchaffaut about 0.2 mile W of the shoal.

Chenal du Duchaffaut

4.53 Chenal du Duchaffaut, the continuation of Chenal du Kersaint, leads in a NNE direction for a distance of 6 miles between the islands and rocks off the SE side of Dao Cai Bau (Ile de Ke-Bao), and then for 10 miles along the SE side of that island, about 0.5 mile offshore, as far as the S entrance of **Cua Mo** (21°13'N., 107°37'E.), where it accesses the sea. Off Cua Mo there is a bar, over which there is a depth of 4.6m, which is the shallowest part of the channel.



Chenal du Duchaffaut

The channel leads between **Le Colosse** (21°01'N., 107°27'E.) and Le Maillet, another island, 63m high, 0.5 mile W of the S extremity of Le Colosse. The channel then continues NNE, passing E of Ile aux Trois Sommets, lying 2.2 miles NNE of Le Maillet. From abreast Ile aux Trois Sommets the channel trends more N to a position 0.2 mile E of Le Marron, a 20m high islet, lying 1 mile farther NNE.

Le Doigt, an islet, 63m high, lying 0.7 mile NNE of Le Marron, is the SE of a group of islets NW of the channel.

From abreast Le Marron the channel leads NE and passes between L'Isole, a 45m high islet, and a 2.4m high rock lying 0.1 mile ESE. The fairway in this stretch leads across patches with depths of 5.5m. L'Isole lies 0.5 mile NW of **Ile du Marquis** (21°05'N., 107°30'E.). Basse de l'Isole, with a depth of 2.7m, lies 0.3 mile E of L'Isole. Lying 0.2 mile N of Basse de l'Isole, are depths of less than 5.2m in the fairway of the channel.

From a position lying 0.3 mile NE of L'Isole, the channel continues NE for about 3 miles to abreast **Le Donjon** (21°07'N., 107°32'E.). Chenal du Duchaffaut joins Chenal du Lynx about 1 mile NNE of Le Donjon.

From abreast Le Donjon, the channel continues 8 miles NE to abreast the NE extremity of Dao Cai Bau, the S entrance point of Cua Mo. A shoal, with a depth of 4.2m, lies 0.3 mile offshore, about 1.5 miles SW of the NE extremity of Dao Cai Bau. The SE extremity of **Ile de la Plage** (21°14'N., 107°38'E.) bearing 035°, and in range with the partly wooded summit of **Ile du Grand Singe** (21°17'N., 107°41'E.), leads close SE of the above shoal.

A marked shoal with a least depth of 4.6m extends from the NE extremity of Dao Cai Bau, SE to Hon Chin, obstructing the fairway. Vessels may bypass this shoal and proceed to the open sea via Passe des Bruyeres and Tsieng Mun. Passe des Bruyeres leads close around the N end of **Ile aux Bruyeres** (21°09'N., 107°35'E.), with a fairway depth of 4.5m.

Off-lying Islands and Dangers in the East Approach to Archipel des Fai Tsi Long

4.54 Iles Kao Tao, a group of islands located 7 to 14 miles offshore, lies 20 miles NE of **Dao Lai Tao** (20°43'N., 107°28'E.). The islands are nearly bare of trees, the larger ones being cultivated, and form a contrast with the islands near Cap Quan Lan, which are densely wooded. The islands are fairly steep-to on the SE side, and lie close within the 20m curve. The channels between the islands are encumbered with numerous dangers, and vessels without local knowledge should not navigate between the islands.

Dao Ching Lan Xan (Ile Tching Lan Xan) (21°01'N., 107°50'E.), the SE island of the group, has a range of hills extending the length of the island, and attains an elevation of 210m near it's middle.

Dao Cu Xa (Ile Cu Xu), an island with a conical summit, 166m high, near its N end, lies 1 mile W of Chao Chay Toc, the SW extremity of Dao Ching Lan Xan.

Anchorage for vessels with local knowledge, having a draft of 4.5m, can be taken between Dao Ching Lan Xan and Dao Cu Xa.

A rock, which dries 0.9m, lies 2 miles NNW of the S extremity of Dao Cu Xa; a detached 5.5m patch lies 1.5 miles W of the rock.

Rocher Ulipai, 0.9m high, lies 2.8 miles NW of the N extremity of Dao Cu Xa. A rock, which dries 2.4m, and another rock, which dries 1.8m, lie 0.3 mile N and 0.2 mile S, respectively, off Rocher Ulipai.

Roche du Pou, with a depth of 4.6m, lies 1.2 miles NW of Rocher Ulipai.

Vang Chao lies 4 miles NW of Xan Chao, an island lying off the NW end of Dao Ching Lan Xan. **Txat Xing Chao** (21°08'N., 107°48'E.), 1.5 miles NW of Vang Chao, is the largest of a group of islets off the NW side of Iles Kao Tao. A reef on which lies several islets, extends nearly 0.5 mile NNE of Txat Xing Chao.

Ma Chao (21°09'N., 107°51'E.), 106m high, lies 3 miles NE of Txat Xing Chao, and is the N island of Iles Kao Tao. A reef, on which there are some islets, extends about 0.5 mile from the NE end of Ma Chao.

Dangers between Iles Kao Tao and Tsieng Mun.—Banc Intermediaire, which has a least depth of 3m, lies about midway between Rocher Ulipai and Ile Ba Mun. Roche Nam, with a depth of 3.7m, lies at the NE end of this bank, nearly 4 miles ESE of Pointe de Tsieng Mun, the SE entrance point of Tsieng Mun. Roche du Nhatrang, with a depth of 2.7m, lies 2 miles SE of the same point.

Islands and Channels on the East Side of Archipel des Fai Tsi Long

4.55 Dao Cai Ban (Ile De Quan Lan) is hilly, rising to an elevation of 195m about 2 miles NNE of **Cap Quan Lan** (20°59'N., 107°29'E.). Sommet de l'Entree, 96m high, lies at the N extremity of the island.

Pak Ha Mun (20°58'N., 107°34'E.), a body of water from which Chenal de la Surprise is accessible, is identified by Sommet de l'Entree and La Bosse, a 220m high hill, about 1 mile NE at the S end of Ile Ba Mun. Sommet Pak Ha Mun,

401m high, in the N part of Ile de la Table, and the flat summit of the same island, 436m high, can also be identified rising 2.5 miles NNW and WSW, respectively, of Sommet de l'Entree.

Le Fer a Cheval, a group of black jagged rocks, lie about 1 mile NW of the entrance. Pointe Cormoran lies 0.5 mile farther N.

Within the entrance of Pak Ha Mun the land is high on both sides; the E side is densely wooded and on the W side the slopes of the hills are clearer. The middle of Pak Ha Mun is encumbered by a narrow sandbank, with depths of less than 3.7m, which extends 1.8 miles S from La Tortue, a 27m high island, lying 0.8 mile NNE of Pointe Cormoran.

The NE end of Chenal du Jaguar lies between Sommet de l'Entree and Le Fer a Cheval. In this vicinity, Ile de la Table and Dao Cai Ban are connected by a sandbank which has depths of less than 1.8m. Chenal de Jaguar is available only for shallow draft vessels with local knowledge.

Anchorage.—Vessels can anchor in depths of 10 to 12m between Le Fer a Cheval and the sandbank lying 0.4 mile E. A more sheltered anchorage lies E of the sandbank, abreast Anse du Pirate, in depths of 6 to 7m. The bottom is mud, good holding ground, but the tidal currents are strong and the sea is rough during the Northeast Monsoon.

Vessels entering from seaward should steer for Sommet Pak Ha Mun bearing 313°.

Chenal de la Surprise

4.56 Chenal de la Surprise is entered between Pointe Cormorant and Pointe Ducouedic, 0.7 mile ENE. From the entrance of Pak Ha Mun, the channel leads N, passing E of the sandbank extending 1.7 miles S of La Tortue, and E of the bank, with depths of less than 5.5m, which extends off the E side of Ile de la Table from La Tortue to **La Gourde** (21°02'N., 107°34'E.). An islet, 20m high, lies on the bank about 0.3 mile NNE of La Tortue. A rocky shoal, which dries 2.7m, lies on the bank, about 0.7 mile SSW of La Gourde.

The channel passes 0.3 mile E of La Gourde, then passes close E of La Tour, a 135m high island, lying 1.5 miles farther NNE.

There is a least depth of 5.8m in the fairway of the N part of Chenal de la Surprise, and the depths are not less than 4.9m for about 100m on either side.

After passing E of La Tour, the channel is navigated by keeping the SE extremity of that island bearing 204° astern, and in range with La Gourde. Then, from abreast **Ile Noire** (21°05'N., 107°35'E.), the channel leads in a more E direction, with the S extremity of Ile Noire bearing 217° astern.

Ile du Doigt, 99m high, lies on the NW side of the channel, with several islets close NE, one of which is 122m high. The NE of these islets lies 1 mile W of the N extremity of Ile Ba Mun. Rocher Tsieng Mun, 48m high, lies 0.3 mile NNE of the latter islet.

Les Freres, two islets close together, lie on the SE side of the channel. The N islet is 51m high, and lies 0.7 mile WSW of the N extremity of Ile Ba Mun.

Chenal de la Surprise enters Tsieng Mun between Rocher Tsieng Mun and Pointe de Tsieng, the N extremity of Ile Ba Mun, from a position 0.2 mile E of Ile du Doigt, with the S extremity of Ile du Doigt bearing 236° astern.

Chenal de la Carabine

4.57 Chenal de la Carabine is entered from Chenal de la Surprise between **La Gourde** (21°02'N., 107°34'E.), the outermost islet off the NE end of Ile de la Table, and Le Cone, an islet, 56m high, lying 0.5 mile N. The channel trends W and SW, and connects with Chenal du Lynx and Chenal du Roc aux Aigles. The least depth in the fairway is about 6.7m.

La Quille, a 22m high rock, lies close off the NE end of Ile de la Table, about 0.3 mile NW of La Gourde. Ile Plate lies on the N side of the channel, 0.2 mile NW of La Quille. The islet of Le Chateau Fort lies 0.1 mile farther NW.

A shoal, with a least depth of 2.7m, lies 0.3 mile W of the S extremity of Le Chateau Fort. La Touffe, a 13m high island, with a white rock on its S end, lies in mid-channel, about 0.5 mile farther W. A bank, with a depth of 4.6m, and a bank with a depth of 3m, extend 0.1 mile W and E, respectively, of La Touffe. A shoal, with a least depth of 0.9m, lies about 0.2 mile S of La Touffe. The main channel lies S of La Touffe, but vessels with local knowledge may pass about 150m N of it. The white rock on the S end of La Touffe bearing 274° leads from Chenal de la Surprise to La Touffe.

The channel trends SW and divides into two branches after passing La Touffe. The branches pass on either side of a bank, on which there are three islets. Chenal du Sud, leading SW between the islands and the NW side of Ile de la Table, is only available at LW for vessels with local knowledge, drawing less than 4.6m. Le Schako, 43m high and the northeasternmost islet, lies 1.2 miles SW of La Touffe. La Chimere, a 95m high islet, lies 0.3 mile SW of Le Schako, and Le Meutriere, a small islet, 74m high, lies 1 mile farther SW. A rock, awash, lies 0.2 mile SW of Le Meutriere.

Chenal de la Carabine leads SW between the above dangers and a chain of islands, lying on a shallow bank extending SW from **Ile Madeline** (21°06'N., 107°34'E.), and forming the NW side of the channel. Ile de Amers, Le Lieve, and La Fourmi lie on the above bank closest to the fairway. Ile de Amers lies 0.5 mile W of La Touffe. Le Lieve, a 24m high islet, lies 0.3 mile NW of La Meutriere. La Fourmi, a 5.5m high rock, lies close off the edge of the bank, 1 mile SW of La Meutriere.

The channel passes between La Meutriere and La Lieve and then SE of La Fourmi. It then passes N of La Souris and then on either side of Le Gamin, about 0.5 mile farther W. The latter two rocks are described with Chenal du Lynx ([paragraph 4.50](#)). Chenal de la Carabine joins Chenal du Lynx W of Le Gamin.

Tsieng Mun

4.58 Tsieng Mun (21°08'N., 107°38'E.) is entered between Pointe de Tsieng Mun, the N extremity of Ile Ba Mun, and Ile Boise, about 0.8 mile NE. This pass leads to Passe des Bruyeres and the N end of the channels running through the E part of Archipel des Fai Tsi Long. A spit, with a depth of 2.7m, extends 0.1 mile NE of Pointe de Tsieng Mun.

Anchorage.—Anchorage can be taken in 14 to 18m, good holding ground, close within the entrance of Tsieng Mun. Shallow draft vessels can find better shelter in Chenal de la Surprise, close SE of Ile du Doigt, which lies 1 mile SW of Pointe de Tsieng Mun.

Iles Kao Tao and the dangers W of them have been previously described in [paragraph 4.54](#).

Passe de Bruyeres

4.59 Passe de Bruyeres is a narrow shoal channel, with a least depth of 4.6m. It leads WNW from a position 0.5 mile NNW of Pointe de Tsieng Mun, passing N of Rocher Tsieng Mun, lying 1 mile WNW of the point. The channel then passes 0.1 mile NE of the reef extending from the NE end of Ile aux Bruyeres, and SW of an extensive bank which lies S of Hon Chin. The channel is less than 0.2 mile wide here, and there are depths of less than 0.9m on the S and SW sides of the latter bank. The channel then leads into Chenal du Duchaffaut.

Directions.—From Tsieng Mun, pass N of Rocher Tsieng Mun, then bring the N end of the latter rock to bear 132° astern, and in range with a white pyramidal structure on the NW end of Ile Ba Mun. Steer on this range for about 1 mile. Then bring a white mark on the N extremity of the northeasternmost islet of the Ile du Doigt group in range 148°, astern, with a pyramidal structure on the S islet of Les Freres. This course leads N of Ile aux Bruyeres into Chenal du Duchaffaut.

Dao Cai Bau to the Chinese Border

4.60 The coast between the NE extremity of **Dao Cai Bau** (Ile de Ke-Bao) (21°31'N., 107°37'E.) and the Chinese border, about 16 miles NE is backed by hills, covered with trees and dense jungle, extending to the coast, which is bordered by mangroves. A range of mountains lies between 8 and 18 miles inland, rising to an elevation of 1,507m, about 21 miles N of the NE end of Dao Cai Bau, but they are only visible from seaward in clear weather.

A chain of long and narrow islands, with hills about 100 to 150m high, and usually very wooded, lie a short distance off and parallel with the coast. Vinh Thuc (Ile du Kersaint), the E island of the chain, has a conspicuous peak, 159m high, at its SW extremity. Xinh Moui Tiai (Gai Tien Xa) (Ile du Chateau Renaud) is separated from the SW end of Vinh Thuc, by Passe Fu Tai Mun (Fu Tai Mun), a narrow pass.

Off-lying Islands and Dangers

4.61 Dao Lo Chuc San (Ile Lo Chuc San) (21°14'N., 107°58'E.), 186m high, is the highest of a group of islands and rocks, fringed by foul ground, and lies 6 miles NE of Iles Kao Tao. Several 10m patches lie between Iles Kao Tao and the group.

Tai Shan Tao, 141m high, the SE island of the group, is located 3 miles SE of Dao Lo Chuc San. Rocher Occidental, 5m high, lies 0.5 mile W of the W extremity of Tai Shan Tao. A 10.1m patch lies 2.5 miles S of the island.

Im Shan, a 59m high island, lies 0.4 mile NNW of Tai Shan Tao. A reef, which dries 3.4m, lies 0.3 mile E of the S extremity of the island, and a group of rocks, 4.9m high, lies 0.2 mile farther E, with a 4.9m patch close NE.

Anchorage.—Anchorage, affording good shelter during the Northeast Monsoon, can be taken, in a depth of 10m, mud and sand, 0.5 mile SE of the W extremity of Dao Lo Chuc San, about 0.2 mile offshore.

Sam Hai Pai, a reef with two heads, which dries 0.3m, lies 5.5 miles ENE of the N extremity of Dao Lo Chuc San.

Pak Son Kong Pai, a dangerous rock, 0.3m high, with a reef, which dries 1.2m close W, lies 10 miles NE of Sam Hai Pai, and 7 miles S of Pei Lung Wei. A rocky shoal, with a depth of 1.8m, lies 1 mile E of Pak Son Kong Pai, and a rocky shoal, with a depth of 6.1m, lies 1 mile W of the same rock.

Approaches to Van Hoa and Rade de Tien Yen

4.62 Van Hoa is approached via **Kuai Chin Mun** (21°15'N., 107°42'E.), N of Ile des Singes (Ile aux Singes), then through Cua Mo. It can also be approached via Tsieng Mun, Passe de Bruyeres and the channels through Archipel des Fai Tsi Long.

The seaward approaches to Kuai Chin Mun are encumbered with numerous shoals with depths of less than 5.5m. Le Grand Banc, with a least depth of 3.4m, lies with its W edge about 0.5 mile W of Ile aux Sangliers. **Le Petit Banc** (21°12'N., 107°45'E.), with two heads, with depths of 2.1m and about 0.7 mile apart, lies 4 miles ESE of Ile aux Singes. Le Banc du Milieu, a sandbank, with a least depth of 1.2m, lies 4.5 miles E of Ile aux Singes. Banc de la Clocheterie, with a least depth of 3m, lies 2.5 miles SSE of the E end of **Iles Tsin San** (21°17'N., 107°47'E.).

The fairway depths in Kuai Chin Mun are over 5.5m, with the exception of a 4.5m patch lying 1.7 miles W of the N

extremity of Ile aux Singes. Kuai Chin Mun should only be used by shallow draft vessels having local knowledge.

Cua Mo is entered between the NE extremity of Dao Cau Bau and Ile Verte, 0.5 mile NNE. The channel passes NW of **Ile des Pirates** (21°13'N., 107°35'E.), which lies close W of the NE extremity of Dao Cai Bau. Iles des Pirates should be passed 0.1 mile off to avoid the extensive sandbank, with depths of less than 5.5m, lying 0.3 mile NW of that island.

Van Hoa and Rade de Tien Yen

4.63 Van Hoa (Port Wallut) (21°12'N., 107°34'E.) ([World Port Index No. 57720](#)), a coaling station, reported in disrepair, is situated on Dai Cai Bau, S of the SW extremity of Iles des Pirates. There is a stone coaling wharf, 60m long, with a depth of 4.9m alongside.

Pilotage.—Pilotage is not compulsory, but can be obtained at Hon Dan with advance arrangement. ([See Hai Phong, paragraph 4.28](#)).

Anchorage.—Anchorage can be taken, in 7.3 to 12m, good holding ground, 0.5 to 1 mile W of the SW extremity of Ile des Pirates.

Rade de Tien Yen provides anchorage about 3 miles NW of Ile des Pirates, but vessels without local knowledge should not proceed above Van Hoa.