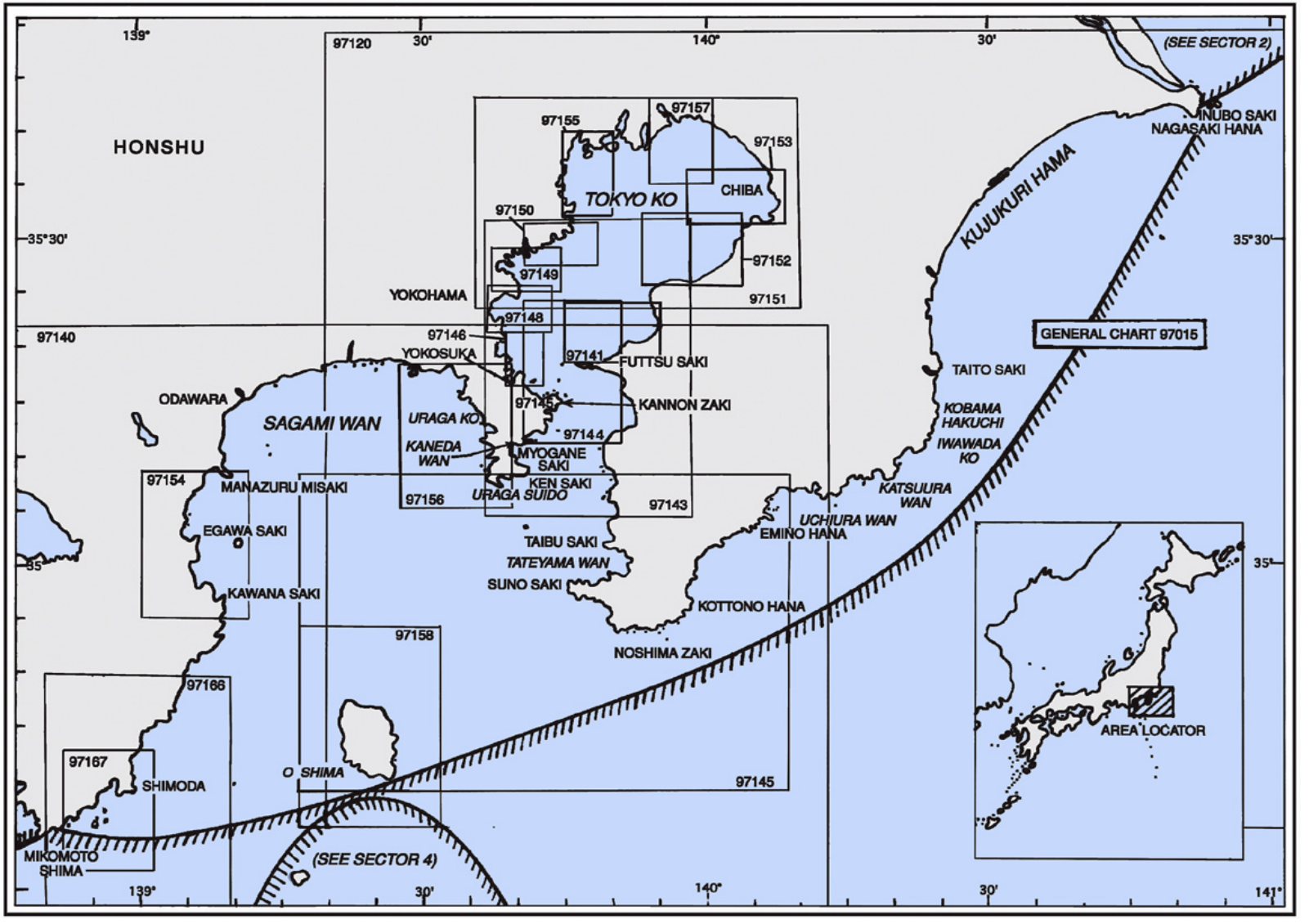
Click on "See Sector" to be hotlinked to that Sector.




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

SECTOR **3** — CHART INFORMATION

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# SECTOR 3

## SOUTHEAST COAST OF HONSHU—INUBO SAKI TO IRO SAKI

**Plan.—**The sector describes the SE coast of Honshu from Inubo Saki in a SW direction to Iro Saki including Sagami Nada, Sagami Wan, and Tokyo Wan. The island of O Shima lies almost in the middle of the entrance to Sagami Nada, and although a member of the Izu Shichito group, it is described in this sector.

### General Remarks

**3.1** From Inubo Saki, the coast trends SW for about 120 miles to Iro Saki. Between Inubo Saki and Noshima Saki, the NE half of this stretch, consisting of two bights, has no pronounced indentations, but between Noshima Saki and Iro Saki, about 55 miles WSW, lies the entrance to Sagami Nada. This extensive bay, with Tokyo Wan, its inner arm, penetrates the Honshu mainland in a N direction for a distance of almost 60 miles.

**Caution.—**Vessels making the coast, between Inubo Saki and Noshima Saki from the E, must exercise great care as the complex current system and the prevalance of fog, especially in the summer, render this section particularly hazardous. Continuous soundings and frequent readings of the sea temperature may afford warnings. During the summer months, a swell usually causes heavy breakers on this coast.

### Inubo Saki to Katsuura Wan

**3.2** From Inubo Saki the coast trends SSW for 44 miles to Katsuura Wan. The middle of this stretch, for a distance of 27 miles, is composed of a flat sandy beach known as Kujujuri Hama (Kuzyukuri Hama). The coast on either side of the beach is considerably more rugged.

The land backing this coast consists mainly of low hills. It has been reported that the mountain located about 3 miles N of Katsuura Wan gives good radar returns up to 40 miles when approaching this coast.

The 20m curve lies nearly 8 miles from shore in the vicinity of Kujujuri Hama, but is less than 1 mile from shore to the S of Toriyama Hana. There are no depths under 10m beyond 2 miles from the shore.

**Winds—Weather.—**From spring through autumn, a NE wind blows offshore while a strong N wind blows near the shore in the vicinity of Katsuura Ko. This is caused by the NE wind being deflected to a N wind by the mountains of the lower Boso Hanto.

**Tides—Currents.—**The Kuroshio flows close offshore S of Katsuura Ko, becoming a strong NE flowing current; N of Katsuura Ko the current directions become unstable, with the velocity never going over 1 knot.

From Inubo Saki, the coast trends S for 1 mile to Nagasaki Hana; the water between these two points is foul and a small islet lies 0.25 mile SE of Nagasaki Hana.

**Togawa Ko** (35˚42'N., 140˚51'E.), a small fishing village, is situated about 0.8 mile W of Nagasaki Hana.

Inuwaka Hana, with a breakwater close W with a light on it, lies about 0.3 mile W of Togawa Ko.

**Naarai Ko** (35˚42'N., 140˚51'E.), a small fishing harbor N of Inuwaka Hana, provides refuge when weather and sea conditions make it impractical to enter Choshi Ko.

Byobuga Ura, a cliffy red coast, extends 5 miles WSW from a position 1.5 miles NW of Naarai Ko. A light is situated on a point at the W extremity of this cliff.

There are several fish haven obstructions and wrecks dangerous to navigation beyond the 10m and 20m curves along Kujujuri Hama; vessels should navigate with caution. Fish havens are situated 2 miles S, 2.1 miles SSE, 6 miles SE, 8.4 miles SSE, and 10.5 miles SW of the light on Byobuga Ura. Sunken wrecks lie 3.5 miles SSE, 7 miles SE, 5.7 miles SSE, 12.6 miles S, and 12.6 and 16 miles SSW of this light.

**3.3** **Taito Saki** (35˚18'N., 140˚25'E.) lies at the S end of Kujujuri Hana. This prominent wooded point has a white and red bluff on its N side and a vertical white chalk cliff on its S side, 69m high. A light is displayed from an octagonal, concrete tower, 8.2m high, situated on the point. Fish haven obstructions lie 8.4 and 12 miles NE of Taito Saki Light.

An irregularly-shaped area, about 4.5 miles in extent from E to W, lies with its center about 7 miles ESE of the lighthouse on Taito Saki; this area has been wire dragged to a depth of 9m in the W part and 10m elsewhere. There are other areas in the vicinity that have been wire dragged; their positions may be seen on the chart.

Hatiman Saki, 3.5 miles S of Taito Saki, is composed of reddish-yellow cliffs 30m high. A light is situated on the point and lights are also situated on the rocky area that extends about 0.5 mile N of Hatiman Saki.

**Toriyama Hana** (35˚11'N., 140˚22'E.) is located 4.75 miles SSW of Hatiman Saki; there is a white monument on the point rising to a height of 79m. When seen from the SW, Toriyana Hana appears round and is easy to distinguish, but from the E it greatly resembles Hachiman Saki, on the E side of Katsuura Ko entrance. Vessels approaching from the E should bear this in mind.

There are shoals lying within 0.8 mile SSW and 1 mile E of Toriyama Hana. The sea breaks heavily on these shoals with S and E winds.

**Hachiman Saki** (Hatiman Saki) (35˚08'N., 140˚19'E.), the E entrance point of Katsuura Ko, is a black, wooded point 50m high, located 5 miles SW of Toriyama Hana. Three dangerous rocks are charted outside the 10m lcurvee, 1 mile E of Hachiman Saki, and a 4.1m patch is charted close S of the E rock. There is a lighthouse on this point.

**3.4** **Katsuura Ko** (35˚08'N., 140˚18'E.) (World Port Index No. 61520) is a small harbor protected by breakwaters situated on the E side of Katsuura Wan. In the harbor are depths of about 4m. A lighted tower stands at the head of each of the W and S breakwaters. The harbor limit is bound on the S

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by a line extending from Hachiman Point to a point 1 mile WNW. Small vessels may anchor here, in depths of 6.5 to 9.5m. The holding ground is not good and anchoring is not possible when strong SW winds occur.

Vessels passing Katsuura Wan should keep at least 3 miles offshore, as the depths are irregular and the bottom is rocky.

## Katsuura Wan to Emino Saki

**3.5** From Katsuura Wan, the coast trends in a SW direction 25 miles to Noshima Saki (Nozima Saki), then continues in a NW direction 8 miles to Suno Saki.

For a distance of 12 miles WSW of Katsuura Wan, the coast is steep and much indented, consisting for the most part of continuous whitish cliffs. From this point, the coast consists of sandy beaches and a much less indented shoreline to Suno Saki. The mountains which back this shore are under 400m high.

**Myoken Yama** (35˚10'N., 140˚09'E.), located 8 miles W of Katsuura Wan, rises to a height of 418m and is the highest point on Boso Hanto. The tall dark cedars make this a good mark, and inbound vessels spot this point first. Takatsuka Yama (Takatuka Yama), 214m high, located 3.25 miles NE of Noshima Saki, is a wooded peak which is a good mark from the offing.

The 20m curve lies from 0.2 mile to 2 miles offshore along this coast. There are dangers and shoal patches close outside this curve which are charted.

**Winds—Weather.—**In summer, relatively weak SE winds dominate and blow across the Kuroshio and the temperatures become extremely high. During the winter period of the Northwest Monsoon, the climate is generally mild, due to the influence of the Kuroshio.

**Tides—Currents.—**The Kuroshio flows at a rate of 1 to 3 knots toward the NE, 20 miles off the coast between Toriyama Hana and Noshima Saki. South of Katsuura Ko, the Kuroshio flows much closer to shore, becoming a strong NE current.

Between Toriyama Hana and Noshima Saki, the tidal flood currents set SW, while ebb currents set NE less than 1 mile from shore. When the tidal currents and ocean currents meet, the rate will exceed 3 knots.

**3.6** From the W entrance point of Katsuura Wan to Emino Hana, about 12 miles distant WSW, the coast is steep and much indented, consisting for the most part of continuous whitish-colored cliffs.

**Uchiura Wan** (35˚07'N., 140˚12'E.), located about 5 miles WSW of Katsuura Wan, has numerous shoals and gradually shallows from the 25m curve to the shore. There are rock ledges on the E and W side of the bay, with the E half of the bay being especially rocky. Small vessels, with local knowledge, can anchor, in 5.5 to 28m, sand. However, heavy SW winds bring waves into the bay.

Kamogawa, a small port sheltered by islets and a series of breakwaters, is situated about 4.5 miles WSW of Uchiura Wan. There are a N and E entrances to the harbor.

**Emino Hana** (Yoshiurano Hana) (35˚03'N., 140˚04'E.), 3 miles SW of Kamogawa, is fringed by a rocky ledge. A hill, 93m high, lies close within the point. This densely-wooded hill is conspicuous from the NE and SW.

## Emino Saki to Suno Saki

**3.7** From Emino Hana to Kottono Hana, about 8.5 miles SW, the coast recedes in a gentle curve of sandy beach. The coast in the vicinity of Kottono Hana is fringed by foul ground and a vessel should not approach within 0.5 mile of it; tide rips frequently occur off the point. It has been reported that Kottono Hana is a good radar target up to 40 miles.

Between Kottono Hana and Noshima Saki, 4.5 miles SW, the coast consists of a series of rocky and sandy beaches backed by low hills.

A 1.4m patch lies close inside the 20m curve, 1.5 miles ESE of Noshima Saki. A 4.6m rocky patch lies outside the 20m curve, 0.4 mile SE of the 1.4m depth, and an isolated 12m rocky patch lies 0.5 mile farther SE.

**Noshima Saki** (Nozima Saki) (34˚54'N., 139˚54'E.), a long flat cape, extends about 0.3 mile S. A light is situated on the point and is shown from an octagonal concrete tower, 29m high. The light structure was reported to be a good radar target from 18 miles.

A signal station and radar beacon are situated on Noshima Saki at the lighthouse.

**3.8** From Noshima Saki, the coast trends WNW for about 3.3 miles to Dottsuno Hana and then NW for about 5 miles to Suno Saki. This coastline consists of sand beaches and rocky shores backed by low hills.

The 20m curve lies 0.3 mile S of Noshima Saki, about 1.8 miles SW of Dottsuno Hana, and closes to 0.25 mile off a point 0.75 mile S of Suno Saki. There are no charted dangers outside the 20m curve. However, overfalls occur in some seasons in an area which extends from 2.5 to 5.75 miles SW of Dottsuno Hana.

**Suno Saki** (34˚58'N., 139˚46'E.) rises to an elevation of 35m and appears from the S or N as a row of small hills.

O Yama, the highest hill in the vicinity, lies 1.25 miles SE of Suno Saki and is 193m high and conical. A lighthouse stands on Suno Saki.

**Tides—Currents.—**The current 1.5 miles SW of Dottsuno Hana sets regularly between the E and SE, with a velocity of 2 to 4 knots, but at times, this current runs in a reverse direction for a week or more at a time.

In a position 1.5 miles W of Suno Saki, the flood current has a maximum rate of 1.5 knots and sets NW, while the ebb current has a maximum rate of 2.2 knots and sets S. The currents reverse about 1 hour after maximum flood and maximum ebb. Further, in this vicinity, a strong onshore tide occasionally occurs from the W producing overfalls in an area close NW of Suno Saki. Vessels should navigate with care in the vicinity of Suno Saki, as the strong E currents may change to W currents in some seasons.

## Suno Saki to Tokyo Wan

**3.9** **Oniga Se** (34˚54'N., 139˚49'E.), with a depth of 4.1m, lies near the extremity of a reef extending about 1.3 miles SW of Dottsuno Hana. The least depth over the reef, less than 1.9m, lies about 0.3 mile NE of Oniga Se.

Kohage Dashi (Kahage Dashi), a detached rocky patch with a depth of 5.8m, lies about 0.8 mile NW of Suno Saki.

**Sagami Nada** (35˚00'N., 139˚30'E.) is an extensive bay which, with Tokyo Wan, deeply indents the SE coast of Honshu. It lies between two peninsulas, the Boso Hanto on the E and the Izu Hanto on the W, with its entrance between their S extremities, Noshima Saki and Iro Saki, about 55 miles WSW. O Shima lies almost in the middle of the entrance and the channels on either side are wide and deep. A peninsula named Miura Hanto projects from the head of Sagami Nada; that part of the bay to the W of this projection is known as Sagami Wan. Uraga Suido leads off the E side of Sagami Nada and into Tokyo Wan, passing between the E side of the Miura Hanto and the W side of the Boso Hanto.

**Winds—Weather.—**Doyo Nami is the name given a wave phenomenon which occurs in Sagami Nada at about the time of the greatest heat of summer. This phenomenon lasts for several days, and its effects are felt as far as Uraga Suido. Typhoons, which normally form far to the S of Japan, send out in all directions a long swell which becomes higher as it approaches the shallow coastal waters and causes great waves to break on the shore. Doyo Nami can be expected during the typhoon season particularly in August and September. A sign of its approach is the gathering of a dense bank of clouds high up to the E of O Shima. As it nears the coast, its size and velocity increase. It is reported that a 3m wave in the offing will increase in height to more than 6.1m in the proximity of the coast, and that the strength of the wind does not materially affect this characteristic. There is a relation between the acceleration of force and the duration of this phenomenon; if the acceleration is rapid the duration is shortened, and if the acceleration is gradual the duration tends to be lengthened. After the subsidence of this phenomonen, it is reported that light S winds and a calm sea prevail. Vessels expecting to encounter this disturbance should maintain a good offing.

**3.10** **O Shima** (34˚44'N., 139˚24'E.), the largest and northernmost of the Izu Shichito, lies in about the middle of the entrance to Sagami Nada, in a position almost 20 miles SW of Suno Saki. The N and E sides of the island are steep and rocky, but the S and W sides have some sandy beaches. Habu Ko, a small landlocked inlet, indents the SE end of the island. Okada Ko, a small harbor, lies about 1 mile SE of the N extremity of the island.

**Tides—Currents.—**The effect of the current in the vicinity of O Shima is greatly modified by the tidal currents. The E Kuroshio impinges on the island in the vicinity of Semba Saki, the SW extremity of the island, and divides, with one branch flowing N along the W coast and the other flowing E along the S coast. The N branch flows NE past Chiga Saki, the island's NW extremity, at a rate of about 3 knots; tide rips occur here. The S branch flows E past Habu Ko, at a rate of 3 knots, but during spring tides in the summer, a resultant W set has been observed during the flood. Tide rips occur off this SE point. Off the E side of O Shima, the flood sets N and the ebb sets S at respective rates of 0.5 and 1.5 knots.

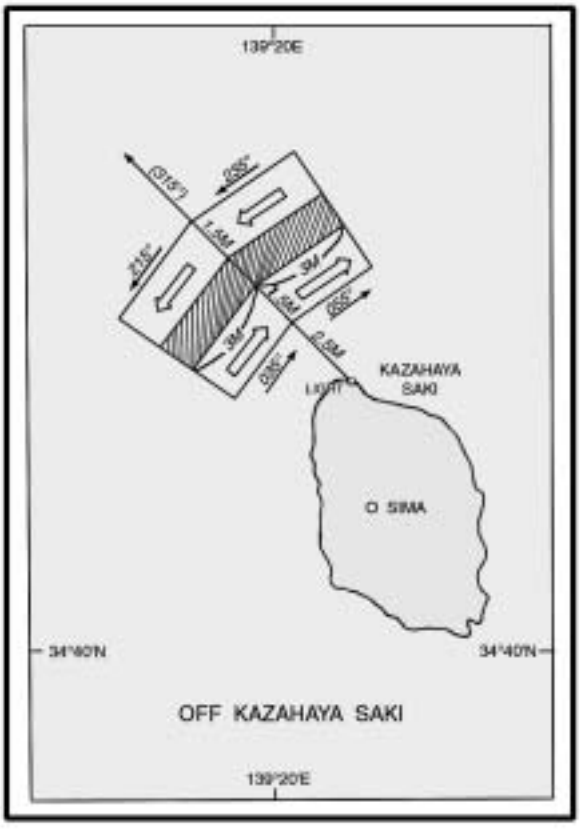
**Aspect.—**O Shima (Mihara Yama) is volcanic; its summit is an active volcano which continuously emits smoke. A light is situated at Kazahaya Saki on the N coast. A ramark transmits from this light. The island was reported to be a good radar target from 26 miles.

**Caution.—**A voluntary traffic separation scheme has been established NW of O Shima. The traffic scheme should be adhered to as far as practicable in the interest of safe navigation.

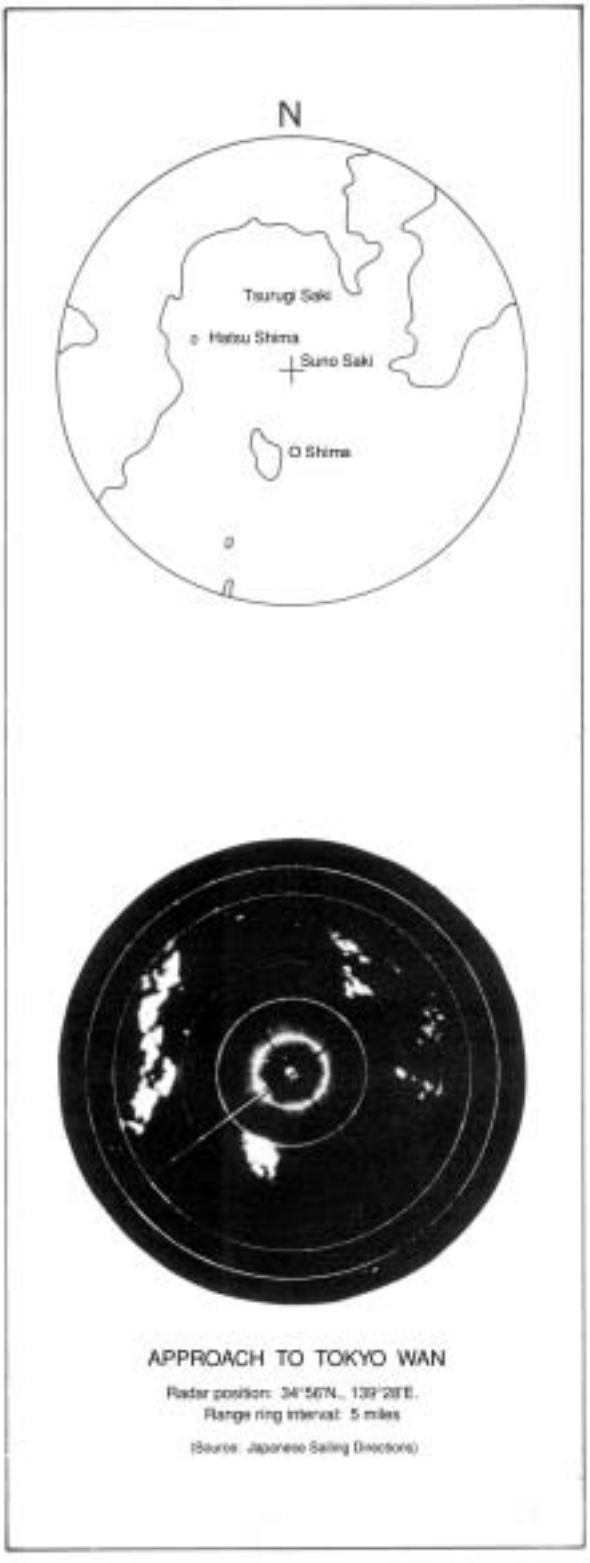
## Tokyo Wan

**3.11** Tokyo Wan is an open bay entered between Suno Saki and Ken Saki (Tsurugi Saki), 10.5 miles NNW. It trends in a general N direction for about 14 miles to the narrows between Futtsu Saki and Kannon Saki; then it curves NE for about 25 miles. The coast immediately adjacent to Tokyo Wan is low, but to the N and NW are high mountains, which afford some protection against wind from the NW quadrant. The S portion of the bay is called Uraga Suido; its middle and N portions are the locales of the major ports of Tokyo, Yokohama, Yokosuka, Tiba Ko (Chiba Ko), and Kisarazu Ko.

**Kazahaya Saki Light**




**O Shima—Voluntary Traffic Separation Scheme**




**Winds—Weather.—**In Tokyo Wan, fog is most frequent in the months of May, June, July, and December. In fine weather fog, usually sets in from midnight to early morning and lifts as the sun rises high, but there are exceptions. Fog is comparatively frequent in the vicinities of Kannon Saki, Suno Saki, and Joga Shima, but the visibility is rarely less than 0.1 mile.

**Tides—Currents.—**The tidal currents in Tokyo Wan are weak and irregular and are usually stronger on the W side than on the E. In the narrows between Futtsu Saki and Kannon Saki, the flood sets NW and then follows the trend of the shore to Yokohama; the ebb sets in the opposite direction. At springs, a drift of 1 to 1.5 knots is experienced.

**Depths—Limitations.—**The depths through Uraga Suido vary from over 200 to 37m in the narrows. In the inner part of the bay depths of more than 37m prevail on the W side for a few miles, and over the central part the depths range from 18.3 to 33m, but depths of less than 18.3m extend for almost 10 miles from the head.

**Pilotage.—**Pilotage is compulsory in Tokyo Wan and its approaches, including Uraga Suido, for vessels of 10,000 grt or over; pilotage is recommended for all other vessels. The pilot boards in a position 2 to 3 miles S of Lighted Buoy No. 1 (35˚12'30"N., 139˚46'48"E.)

**3.12 Uraga Suido** (35˚05'N., 139˚45'E.) leads off the E side of Sagami Nada into the inner part of Tokyo Wan. From

the middle of its entrance between Suno Saki and Ken Saki, it trends in a general N direction for about 14 miles; its N limit lies between Kannon Saki on the W and Futtsu Saki, about 4 miles NNE.

**Winds—Weather.—**Fog is frequent during May, June, and July.

**Tides—Currents.—**In Uraga Suido, the tidal currents set generally N on the flood and S on the ebb; they are greatly affected by the wind.

**Depths—Limitations.—**With the exception of Yebi Ne, a rocky patch with a depth of 11.9m, and Yoshino Se, a rocky patch with a least depth of 16.8m, which lie 1.75 and 2.5 miles SE, respectively, of Ken Saki, the fairway is deep and clear.

**Caution.—**A voluntary traffic separation scheme has been established W of Suno Saki and ESE of Turugi Saki. The traffic scheme should be adhered to as far as practicable in the interest of safe navigation.

**3.13 Tateyama Wan** (35˚00'N., 139˚48'E.) (World Port Index No. 61370) is an open bay, entered between Suno Saki and Taibu Saki, 4.5 miles NE, which affords good protection against winds from the SE quadrant. Tateyama Ko is in the SE section of the bay and Funakata Ko in the NE section.

**Winds—Weather.—**Prevailing winds are from the S in the summer and from the NW in winter.

**Tides—Currents.—**The mean range of the tide in the N part of the bay is 0.8m, and the spring range is 1.1m.

**Depths—Limitations.—**The depths in the middle of the entrance to Tateyama Wan are 366m and shoal quickly to the 10m curve, 0.3 to 0.5 mile off the beach at its head. Shira Ne, a dangerous rock, lies outside the 10m curve, 0.45 mile SSW of Taibu Saki. Okina Shima, surmounted by a light, lies close off the S shore of Tateyama Wan, 3.5 miles ENE of Suno Saki. Shoals, with a least depth of 4.2m, lie about 0.5 mile N of this island.

Kohage Dashi, about 1 mile NW of Suno Saki, has a least depth of 5.9m. Vessels should navigate with caution in this area as tide rips occur off of Suno Saki.

There is a cargo wharf on the SE shore of the port, with a length of 190m and depths alongside of 3 to 4m; on the W side of the cargo wharf is a pier 130m long with a depth alongside 5.5m. Tateyama Pier, on the NE side of the cargo wharf, is a 230m long wooden pier having a depth alongside of 3.5m.

**Aspect.—**Taibu Saki, the N entrance point of Tateyama Wan, is covered with a dense growth of pines; from a distance it appears black and is easy to identify.

Okino Shima is prominent, wooded, and surmounted by a lighted tower. An aero light is shown from a metal framework tower at Tateyama Airport, which lies close SE of Okino Shima.

**Signals.—**Storm signals are displayed at the head of Tateyama Ko.

**Anchorage.—**The recommended anchorage lies about 1 mile ENE of Okino Shima, in a depth of 17m, mud. The anchorage is sheltered from N, E, and SW winds. During strong W winds, high waves and rough seas are experienced, and the anchorage is untenable. Due to the prevailing wind from the NW, use of the port in winter is considered hazardous.

**Caution.—**Mariners are advised when approaching Tateyama Wan to observe the two lines of fixed fishing nets, which extend 1 mile N from a position on the S shore of Tateyama Wan 1.5 miles E of Suno Saki. Fish havens are also prevalent throughout the approach.

**3.14** Between Taibu Saki and Myogane Saki, about 7 miles N, the coast is indented and shows three lights. Between Myogane Saki and Huttu Saki (Futtsu Saki), about 9.5 miles farther N, the coast recedes to form a comparatively large shallow bay. A blunt point named Isone Misaki projects from the head of the bay.

Tomiura Wan lies between Daibusano Hana and Namuya Saki, 1.75 miles NNE. It is encumbered with reefs and rocks and a light is shown within.

**Uki Shima** (35˚06'N., 139˚49'E.), 48m high, with steep cliffs and surmounted by a light, lies 4 miles N of Daibisano Hana.

**Depths—Limitations.—**Portions of this coast are fringed with off-lying dangers to a distance of 1.5 miles. The 10m curve lies 0.1 mile off Myogane Saki and about 2 miles off Isone Misaki.

A rectangular area, 3 miles long in a N and S direction and about 1.25 miles wide, centered about 4.5 miles N of Myogane Saki, has been wire dragged to various depths, with the least depth being 8.2m.

**Aspect.—**Tomi San, a wooden hill with two peaks, the S and higher of which is 370m high and prominent, lies 3.75 miles ESE of Uki Shima. It does not appear twin-peaked from the S.

Nokogiri Yama, 330m high, rises 1.25 miles ENE of Myogane Saki. This hill has a sawtooth profile, but resembles a helmet when viewed from the W. A conspicuous white monument, illuminated at night, stands on an eminence about 1 mile ESE of Isone Misaki.

**Anchorage.—**There is an open bay S of Huttu Saki that has depths of 5 to 10m; it provides good temporary anchorage when the wind is not too strong.

There are numerous lava beds and set nets in this area.

**Caution.—**A submerged wave meter, about 1.6m from the bottom, is situated 2 miles NW of Myogane Saki. A submarine cable runs from this meter SE to the shore.

**3.15 Ken Saki** (Tsurugi) (Turugi) (35˚08'N., 139˚41'E.) is the SE extremity of Miura Hanto, and is the W entrance point to Uraga Suido.

The coastline between Ken Saki and Kannon Saki, 8 miles N, is indented by Kaneda Wan, in the S portion, and by Kurihama and Uraga inlets, in the N portion. There are many peaks along this coast as well as continuous stretches of low hills.

Except near Kannon Saki, the water along this coast is shallow, and detached rocks and sunken reefs are numerous.

Kaneda Wan is formed by an open bight that indents the coast for about 2 miles. It is entered between Ame Saki, which is about 1 mile N of Ken Saki, and Senda Saki, which lies about 3.8 miles NNE. The 10m curve lies about 0.8 mile offshore. There are numerous dangers in Kaneda Wan, especially in the N part, where they extend as much as 0.8 mile offshore. The outermost danger is Kakari Ne, with a depth of 5.5m, lying 2 miles NNE of Ame Saki. A lighttower stands close offshore, about 0.7 mile WNW, and lighted piles stand close offshore, 0.5 mile WNW and 1.5 miles NW of Ame Saki.

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Anchorage can be taken in the SW part of the bay, in depths of 8 to 18m, sand, good holding ground. There are several fixed fishing nets, that are in place year-round, near the center of the bay; care must be exercised when entering and anchoring.

**Caution.—**The Doyo Nami enters the bay with destructive force and vessels should not anchor here if this phenomenon is anticipated. Many shallow, rocky depths lie up to 2.5 miles E and SE of Turugi Saki; vessels should refer to the chart for this area.

**Asika Shima** (35˚13'N., 139˚44'E.), located 4.5 miles NE of Ame Saki, is formed of two black rocks. A light is shown from a black round tower on the W rock of Ashika Shima, and there is a white observation tower on the E rock. A lighted buoy is moored 0.1 mile ESE of Kasa Shima, which dries 0.9m, situated near the SE end of the shoal. A wave meter, connected to Asika Shima by a submarine cable, is moored about 160m S of the rocks.

## Kurihama Wan (35˚13'N., 139˚43'E.)

World Port Index No. 61412

**3.16** Kurihama Wan is a bay open to the E, which is entered between Senda Saki and Otuka Hana, about 1 mile to the NE; it is an open bight and indents the coast for about 0.7 mile. The port consists of a harbor protected by reclamation and breakwaters on its S side. It provides anchoring and berthing facilities for medium-size vessels.

Kurihama Wan lies within the harbor limits; it is part of Yokosuka Ko and is known as District No. 7.

**Winds—Weather.—**The wind is primarily SW in summer and NE in winter. The harbor is relatively calm, even during the NE winds of the winter season; however, when E to SW winds are strong during a typhoon, it is not safe to remain in port and all vessels are evacuated. Especially during a SW wind, waves approaching from the SE enter the harbor at right angles to the depth curves, when care must be exercised.

**Tides—Currents.—**The flood current sets NE and the ebb current sets SW, NW of Asika Shima. The NE flow reaches maximum velocity 2.5 hours after LW, and the SW flow reaches maximum velocity 2.5 hours after HW. The velocity during spring tides average 0.5 to 0.6 knot.

**Depths—Limitations.—**Otuka Ne, with a depth of 3m, lies about 0.1 mile SSE of Otuka Hana, in the entrance to the bay and is marked close SSE by a lighted buoy. The main mooring facilities range in depth from 2.5 to 9m. A vessel, with a length of 220m, and a draft of 5.2m can berth alongside.

**Aspect.—**A gray monument commemorating Commodore Perry, who landed here in 1853, stands at the head of the bay. There are three chimneys situated 0.65 mile SSE of the monument; the tallest of these chimneys is 204m high. There are two chimneys, 0.15 mile farther S, that are about 183m high.

**Pilotage.—**Pilots are available 24 hours. The pilot boarding station is situated 0.5 mile NNE of Ashika Shima.

**Anchorage.—**There is good anchorage 0.2 mile E of the NE end of the inner breakwater, in a depth of 8m, sand. Inside the harbor the holding ground is generally poor.

At the time of a typhoon, the anchorage is dangerous and vessels must seek shelter elsewhere.

**Caution.—**When tankers carrying dangerous cargo are moored at Quay C and Quay D at the electric power plant, general shipping must not approach within 50m of them.

## Uraga Ko (35˚14'N., 139˚43'E.)

World Port Index No. 61410

**3.17** Uraga Ko is entered about 1.5 miles SW of Kannon Saki, and is located close NNE of Kurihama Wan. It consists of an inner and outer harbor. The inner harbor penetrates about 0.6 mile and is surrounded by a rim of hills, 50 to 80m high. Most of the shores of the inner as well as part of the outer harbor are occupied by shipways, docks, workshops, and quays of a heavy industries company.

Uraga Ko lies within the harbor limits; it is a part of Yokosuka Ko and is known as District No. 6.

**Winds—Weather.—**North winds in the winter and S winds in the summer are characteristic. The harbor is calm, except when the winds are SE to SW. Even when there is a strong NE wind in District No. 1 or District No. 3 of Yokosuka Ko, there is only a breeze present in this district.

**Tides—Currents.—**The mean range of tide is 0.9m, and the spring range is 1.2m. The tidal currents are weak, with the maximum velocity of less than 0.3 knot reached about 4 hours after HW and LW. The flood current sets N and the ebb current sets S.

**Depths—Limitations.—**Depths in the fairway range from 15m in the entrance to 5.9m at the head of the bay. There is a private mooring buoy for use by vessels of 10,000 grt.

There are two drydocks available for repairs, with capacities of 9,000 grt and 12,500 grt.

**Aspect.—**Myojin Yama, a thickly-wooded hill 71m high, is located N of the inner harbor entrance. Three radio towers, marked by red obstruction lights, stand on Toriga Saki.

**Anchorage.—**Vessels over 2,000 grt should anchor about 0.8 mile E of Tomyo Saki, on the S side of the entrance, in a depth of 25m, sand. Vessels under 2,000 grt may anchor about 0.3 mile NNE of Tomyo Saki, in 13m, sand and mud, good holding ground. Vessels should anchor so as not to obstruct large vessels entering or leaving the inner harbor.

These anchorages may be untenable during strong E to S winds.

**3.18** **Kannon Saki** (35˚15'N., 139˚45'E.) is a steep conspicuous bluff, 72m high, densely covered with trees, which lies 1.5 miles NE of Uraga Ko. It lies on the SW side of Uraga Suido, at the entrance to the inner part of Tokyo Wan. A light is shown from an octagonal concrete tower, 14.9m high, situated on Kannon Saki.

The **Tokyo Wan Traffic Advisory Service Center** is situated about 0.2 mile NW of Kannon Saki Light. The purpose of the center is to provide vessels with information, to control traffic routes, and to ensure the safe navigation of vessels leaving or entering Tokyo Wan. The center consists of a two-story building sumounted by a lookout tower.

Huge vessels, vessels of 10,000 gross tons or more, and vessels of 100 gross tons or more with a maximum boarding capacity of 30 people or more (total of passengers, crew, and other people on board), should report to Tokyo Martis, by VHF or by telephone, on passing the Reporting Points.

The following information should be included in the report:
1. Vessel's name and gross tonnage.
2. Standard time passing Reporting Point.
3. Abbreviation of Reporting Point.
4. Destination of vessel (that do not need seaway information).

| Reporting Points | | |
|---|---|---|
| **Name of Reporting Point** | **Abbreviation** | **Description** |
| Urago Suido Traffic Route South | US | A line bearing 270˚ from Hamkanaya Ko Breakwater Light to the coast. |
| Urago Suido Traffic Route West | UW | A line connecting Yokosuka Ko Northeast Breakwater Light to the N end of Saru Shima. |
| Urago Suido Traffic Route North | UN | A line bearing 270˚ from Lighted Buoy B at Nakanose in Tokyo Wan to the coast. |
| Off Honmoku | HE | A line bearing 090˚ and extending 8,400m from Honmoku Signal Station. |
| Off Kawasaki Ogishima | KE | A line bearing 090˚ and extending 9,900m from Tonen Ogishima East Sea Berth Light. |
| Tokyo Wan North | BN | A line bearing 269˚30' from Chiba Light through Tokyo Light for 2,600m. |
| Off Chiba | TW | A line bearing 225˚ and extending 15,900m from Chiba Light. |
| Kisarazu Traffic Route | KW | A line bearing 210˚ from Kisarazu Ko Lighted Buoy No. 5 through Lighted Buoy No. 6 to the boundary line. |

**Uraga Suido—Naka-no-Se Regulations.—**In view of the possibility of serious marine accidents in these channels, the Yokohama Maritime Safety Division, which is responsible for these channels, has established safety rules for all ships navigating Uraga Suido and Naka-no-Se.

Vessels having a length of 50m or more are obliged to follow the traffic routes.

Ships should carefully observe the directions, signals, and traffic routes mentioned and the Japan Maritime Safety Laws and Regulations. The Maritime Traffic Safety Law of Japan must also be used with the applicable charts.

Vessels navigating Uraga Suido Traffic Route should keep to the starboard side of the centerline of the route.

When a vessel intends to navigate the Naka-no-Se Traffic Route along the course of the route, the vessel should navigate northward.

The term "huge vessel" means any vessel whose length is 200m or more.

A vessel (other than a huge vessel) navigating so as to involve risk of collision with a huge vessel navigating Uraga Suido Traffic Route and intending to enter Naka-no-Se Traffic Route, shall keep out of the way of the huge vessel.

Huge vessels navigating Uraga Suido Traffic Route shall keep out of the way of huge vessels intending to enter the Naka-no-Se Traffic Route.

Southbound vessels navigating through the W area of Naka-no-Se should pass Naka-no-Se Traffic Separation Lighted Buoys No. 1, No. 2, and No. 3 on their port hand.

Northbound vessels navigating through the W area of Naka-no-Se except those enroute Negishi section 5, Yokohama Ku and Keihin Ko, should pass the separation lighted buoys on their port side until they have set their course for their destination.

Northbound vessels, with draft 17m and over, should pass at a distance of 400m from the line that connects Lighted Buoy A, Lighted Buoy B, Lighted Buoy C, and Lighted Buoy D at Naka-no-Se.

Vessels wishing to anchor in the W area of Naka-no-Se should do so at a distance of 1,000m from the line that connects the lighted separation buoys.

Vessels with VHF radio should listen to VHF channel 16 while navigating through the radar service area to receive possible transmissions information from the Tokyo Wan Traffic Service Center.

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A vessel of 50,000 grt or more carrying dangerous cargo, or a vessel of 25,000 grt or more carrying liquified gas, is prohibited from entering the traffic routes from sunset until 1 hour before sunrise

**Pilotage.—**Pilotage is compulsory for vessels of 10,000 grt or more, and is recommended for foreign flag vessels and Japanese flag vessels whose master has no experience in navigating Tokyo Wan. Pilot boards 2 to 3 miles S of Lighted Buoy No. 1 (35˚12'30"N., 139˚46'48"E.)

**Regulations.—**Tokyo Wan Traffic Advisory Service Center should be notified of a vessel's ETA by noon of the day prior to the date of entering Uraga Suido and Naka-no-Se Traffic Routes. Notification may be made by telephone, telegram, VHF, or in writing. Notification may also be sent directly to the coastal radio station of the Maritime Safety Agency in Yokohama.

Vessels carrying dangerous cargo should further advise concerning their arrival 3 hours prior to entering the traffic route. Any change of ETA should be reported immediately, whenever it occurs.

Outbound vessels or vessels shifting in Tokyo Wan should be governed as described above.

The request for pilots is addressed to T1 3852-451 ANJIN YOKOSUKA, giving the ship's name.

A huge vessel or other particular types of vessel, or a vessel which carries dangerous cargo, or is a long tow, or other particular types of vessels as provided in Maritime Traffic Safety Law, should arrange for guarding the course until it confirms its safe navigation even after leaving the traffic routes.

1. A vessel navigating in Tokyo Wan should not use an automatic pilot.
2. Sailing rules in the vicinity of each entrance and exit of the traffic routes; refer to accompanying illustration.
   a. A vessel navigating in the vicinity of the N exit of Naka-no-Se Traffic Route leaving Kisarazu Ko should pass Kisarazu Ko Lighted Buoy (35˚24.9'N., 139˚47.2'E.) on its port side.
   b. A southbound vessel from Tokyo or its vicinity in the offing of Kawasaki should pass Kawasaki Ku Lighted Buoy No. 2 on its starboard side at a distance of 1,000m or more.
   c. A southbound vessel in the area W of Naka-no-Se should keep a distance of 1,000m or more from Tokyo Wan Naka-no-Se Lighted Buoy D, Lighted Buoy C, and Lighted Buoy B on its port hand. A vessel intending to anchor W of Naka-no-se should keep at least 1 mile from a line joining Lighted Buoy B, Lighted Buoy C, and Lighted Buoy D.
   d. A southbound vessel from Tokyo, Chiba, or their vicinity, approaching Naka-no-Se at an oblique angle, should navigate on the W side of Tokyo Wan Naka-no-Se Lighted Buoy A, keeping distance as far as practicable.
   e. A southbound vessel leaving Uraga Suido Traffic Route should not take such action as greatly altering its course which might impede the passage of a vessel entering the traffic route.
   f. A vessel entering Uraga Suido Traffic Route from the open sea, after passing through the Ken Saki, should navigate in the middle part of the entrance of Tokyo Wan so as to avoid a crossing situation with a southbound vessel in the vicinity of the entrance of the route.
3. Restriction on Overtaking.—Huge vessels or other particular types of vessels in the traffic route should not overtake a vessel of 500 grt or more, except when there are unavoidable reasons.
4. Restrictions on Speed.—A vessel shall not navigate at a speed exceeding 12 knots in the traffic routes. Outside the traffic routes, vessels should not navigate at a high speed.
5. Notification of Traffic Routes and Notification of Change.—A vessel of 10,000 grt or more should give the "Notification of Traffic Routes" and the "Notification of Change" following the example as set forth for a huge vessel.
6. Position Report.—Huge vessels, other particular types of vessels, and vessels of 10,000 grt or more intending to enter or leave Tokyo Wan or shift their positions in the bay, should report their positions to Tokyo Wan Traffic Advisory Service Center when they arrive at the first reporting line.
7. Maintenance of Communications with the Center.—Huge vessels, other particular types of vessels, and vessels of 10,000 grt or more should guard VHF channel 16 while navigating within the radar service of the center even after leaving the traffic route.
8. Vessels of 10,000 grt or more may not enter the traffic route when the visibility is less than 0.5 mile, except with the permission of the Maritime Traffic Advisory Center.
9. Provision of Emergency Fire Wires.—A vessel carrying dangerous cargo specified in the Maritime Traffic Safety Law should provide, on board, the following emergency fire wires and auxiliary ropes, on her bow and stern.
   a. The fire wires, with an eye in the end, strong enough to tow the vessel and long enough to reach the water.
   b. The auxiliary ropes, with an eye in the end, strong enough to lead the fire wires to the water surface, hanging down by the board, as close to the water surface as practicable, without impeding safe navigation.
10. The owner or operator of tankers of 220,000 dwt or more carrying dangerous cargo into Tokyo Wan for the first time should first submit "The Written Pledge for Safety Measures" to the Maritime Safety Agency and fulfill its requirements. These same requirements apply also to liquified gas tankers of 25,000 grt or larger, entering Japanese waters for the first time.

The Traffic Advisory Service Center may place restrictions on entering the traffic routes, for the purpose of ensuring the safety of these routes. The following vessels may be affected: huge vessels, vessels of 25,000 grt or more carrying liquified gas, vessels towing or pushing long objects, and vessels of 10,000 grt or more carrying dangerous cargo.

Vessels should notify the Maritime Safety Agency and provide the following information:

1. The abbreviation of the addressee for each traffic route the vessel intends to navigate. (For the Uraga Suido and Naka-no-Se traffic routes (URAGA and NAKANOSE), the addressee is, Chief, Tokyo Wan Traffic Advisory Service Center, abbreviated as TOKYO WAN).
2. Name and gross tonnage of vessel.
3. Length of vessel in meters.
4. Maximum draft, in meters, down to two decimals places.

5. Types of dangerous goods carried and amount (in tons) of each type. Vessels of 1,000 grt or over which have carried inflammable liquids or high pressure gas loaded in bulk, and are still subject to risk of fire or explosion, should indicate the amount of dangerous cargo as O.
6. Distance between the bow of a towing vessel and the stern of the object being towed, or the distance between the stern of a pushing vessel and the bow of the object being pushed, in meters.
7. Description of the object being towed or pushed.
8. Port of destination.
9. Section of the traffic route to be navigated, using abbreviations.
10. Estimated date and time of entry into a traffic route from outside the traffic route. Times are denoted by 24-hour system.
11. Estimated date and time of departure from a traffic route.
12. Call sign or call name of the ship's radio station.
13. Method of communications with Maritime Safety Agency.

Vessels should start the report with the word NOTIFICATION and include the information listed above, using the corresponding number as a prefix to the message. If an item is not applicable, use NA.

Vessels can communicate by radio with the coastal radio station at Yokohama. The stations call sign and call name are JGC and Yokohama-hoan. The watch frequencies and communication frequencies are 500 kHz, 2,182kHz, 156.8MHz, and 444 kHz, 2,150 kHz, 156.6 MHz, respectively.

The Maritime Safety Office must be notified no later than 72 hours prior to a vessel's transiting of a traffic route.

**Signals.—**The following signals are required in Tokyo Bay:

1. Huge vessels shall show, by day, two black cylindrical shapes, 0.6m by 1.2m in size, displayed vertically 1.4m apart, and by night, a green all-round light, flashing at a frequency between 180 and 200 times per minute, visible at a distance of at least 2 miles, in addition to the conventional lights.
2. Vessels carrying dangerous cargo shall show, by day, the International Code of Signals Flags "First Substitute" over the flag "Bravo"; by night, a red all-round light flashing at a frequency of between 120 and 140 times per minute, visible at a distance of at least 2 miles, in addition to the conventional lights.

**Note.—**It has been reported that vessels proceeding to Tokyo Ko display the following signals:

1. When transiting the Urgao Suido Traffic Route—First Substitute over Sierra.
2. When altering course into the Naka-no-Se Traffic Route—Second Substitute over Sierra.

**Caution.—**The fairway in the vicinity of Daini Kaiho (Fort No. 2) and Daisan Kaiho (Fort No. 3) is heavily congested, making radar identification of the forts difficult. Vessels have grounded by confusing Daini Kaiho for Daiiti Kaiho (Fort No. 1), mistaking Daiiti Kaiho for Futtsu Harbor, or the inability to identify Daisan Kaiho. Care should also be taken particularly in the vicinity of Daisan Kaiho (Fort No. 3), due to the dangerous shoal areas surrounding the fort. Entering, leaving, or crossing the route in the section between Buoy No. 4 and Buoy No. 5 is prohibited.

**3.19 West side of Tokyo Wan.—**The narrows between Kannon Saki and Daini Kaiho, about 3.3 miles N, constricts the N part of Uraga Suido and forms the inner part of Tokyo Wan. The least width in the narrows, between the 20m curve is about 2 miles.

The W shore of the bay extends about 1 mile NW of Kannon Saki to Hatayama Saki. Most of this coast is fronted by a seawall, which makes it conspicuous. From Hatayama Saki, the coast extends in a bight about 3.5 miles WNW to the peninsula which forms the E side of Yokosuka Ko. The bight thus formed contains numerous dangers which lie up to 1.5 miles offshore.

Sara Shima lies in this bight about 0.75 mile offshore.

## Yokosuka Ko (35˚17'N., 139˚40'E.)

World Port Index No. 61400

**3.20** Yokosuka Kois a designated Special Port, Open Port, Quarantine Port, and Port of Entry. The port is a building and repair facility and comprises the bays of Nagaura Ko, Yokosuka Ko, and Otsu Wan.

This port complex is divided into seven port districts, No. 1 through No. 7. The island of Azuma Hanto lies between Nagaura Ko and Yokosuka Ko. Most of the facilities in Yokosuka Ko are for the use of the U.S. Navy. District No. 1 through District No. 4 include the dockyard of Yokosuka Ko, Nagaura, the inner approaches to Yokosuka Ko, and the outer approaches, respectively. Kurihama Wan, Uraga Ko, and Otsu Wan are also included within the harbor limits of Yokosuka Ko and lie, respectively, in District No. 5, District No. 6, and District No.7.

**Tides—Currents.—**The spring rise of the tide of Yokosuka Wan is 1.7m, the neaps rise 1.3m.

**Depths—Limitations.—**The depths vary from 12 to 15m in the passages and from 15 to 36m in the anchorages. The maximum permissible draft for a vessel at Nagaura Ko Pier is 9.6m, with a length of 180m, and 18,000 dwt. The mooring buoys in this section will accommodate a vessel up to 40,000 dwt, with a maximum draft of 11.7m, and a maximum length of 200m.

New Port (Yokosuka Shinko) will accommodate a vessel 200m long, draft of 10m, and 15,000 dwt.

Five berths, with depths of 7 to 11m alongside, lie on reclaimed land 1.5 miles WSW of Northeast Breakwater Light.

**Aspect.—**A hill, with a flagstaff and signal station on its summit, rises near the SW part of Azuma Hanto.

**Pilotage.—**Pilotage is compulsory for vessels exceeding 300 grt. Pilots will embark about 1.5 miles E of the NE breakwater light or off Kurihama Wan. In rough weather, the pilots board inside Northeast Breakwater Light or off Kurihama Wan.

Outbound vessels or a vessel shifting berths in Tokyo Bay are requested to advise the ship's ETD 24 hours and 6 hours before departure. Any change in ETD should be immediately reported. However, the pilotage service for vessels arriving and leaving New Port Wharf and Nagaura Pier in Yokosuka Harbor are subject to the following conditions:

1. At New Port Wharf No. 1, New Port Wharf No. 2, and Nagaura Pier, arriving vessels may pass Yokosuka Lighted

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Buoy No. 1 until 30 minutes before sunset. Departing vessels may leave the quay until 30 minutes before sunset.

No pilot is available when wind velocity is 19.5 kts or more.

2. At Nagaura Pier, arriving vessels, if berthing alongside, head out, may pass the breakwater entrance until 30 minutes before sunset. If berthing alongside, head in, the vessel may pass the breakwater entrance until sunset. Departing vessels, if berthed alongside, head out, may leave the quay until 2200. If berthed alongside, head in, the vessel may leave the quay until 30 minutes before sunset.

**Signals.—**Signals are displayed from the signal station on Azuma Hanto. Another station is at the Harbor Office at the head of Yokosuka Wan. Local storm signals are displayed at the Navy Yard and from the signal station on Hoha To.

**Anchorage.—**Yokosuka Ko is reported to be a good typhoon anchorage.

The quarantine anchorage lies NNE of the NE breakwater. The quarantine station is situated at Nagahama, 2 miles NW of the anchorage.

Vessels carrying dangerous cargo also anchor in the quarantine anchorage.

A Prohibited Anchorage Area extends 1.5 miles E and 2 miles SE of Kannon Saki.

**Caution.—**In addition to the regular aids in this area, numerous buoys for naval use are moored about the harbor, and other lights are situated on piers, landing stages, etc. An obstructed fish haven lies about 4 miles E of Kurihama Wan. Another fish haven lies nearly 2 miles NE.

Dangerous wrecks lie in the approaches to Yokosuka Ko, about 1.3 miles SE of Okino Ne and 2.3 miles SE, as indicated on the chart. A dangerous wreck is charted in the approach to Section I, about 0.5 mile NNE of Hanare Hashima, but was reported removed in 1983.

It has been reported (1997), a foul ground lies 0.6 mile E of the pilot boarding station.

Okino Ne, with a least depth of 5.6m, lies in the NE part of the quarantine anchorage and is marked close S by a lighted buoy.

A submarine cable is laid between a position about 0.5 mile SW of Northeast Breakwater Light and the shore SW.

**3.21 Koshiba Saki** (Kosiba Saki) (35˚21'N., 139˚39'E.) marks the N limit of Yokosuka Ko and the coast trends N for about 1.8 miles to Konosu Bana, the S limit of Yokohama Ko. The land E of Koshiba Saki is being reclaimed to a distance of about 0.7 mile. The land N and S of the point is also being reclaimed to an even larger extent. The waters SW of Koshiba Saki are within a prohibited area; reference should be made to the chart.

Koshiba Sea Berth mooring buoy lies off reclaimed land fronting Koshiba Saki, 2.25 miles NNW of Northeast Breakwater Light (35˚19'N., 139˚41'E.). Anchorage is prohibited within 0.2 mile of the bay.

Keihin Ko occupies the NW portion of Tokyo Wan; it includes Yokohama Ko, Kawasaki Ko, Tokyo Ko, and the water areas immediately adjacent to the intervening coast. The three districts of the port will be described separately.

Keihin Ko is a designated Special Port, Open Port, Quarantine Port, and a Port of Entry.

**Regulations for Turumi Fairway, Kawasaki Fairway, and Keihin Canal.—**Vessels of over 1,000 grt, intending to navigate the Turumi Fairway or the Kawasaki Fairway and enter Kawasaki District No. 1 or Yokohama District No. 4, must notify the harbormaster by noon of the day prior to the planned date of arrival. Similarly, vessels over 1,000 grt, intending to shift berths within Kawasaki District No. 1 or Yokohama District No. 4 (except when shifting berths within waters other than the Keihin Canal), or intending to navigate the Turumi (Tsurumi) Fairway or the Kawasaki Fairway after getting underway from berths in Kawasaki District No. 1 or Yokohama District No. 4, must notify the harbormaster by noon of the day prior to the planned date of getting underway. Any vessel that changes its schedule, after having reported the above information to the harbormaster, is required to notify the harbormaster immediately of any such change in schedule.

Maritime Traffic Information Stations at Honmoku, Shiohama, and Tokyo Jusangochi disseminate pertinent communications concerning traffic control, construction in progress, weather, visibility, or abnormalities in aids to navigation in the Keihin ports of Yokohama, Kawasaki, and Tokyo.

Information is regularly broadcast for a period of approximately 8 minutes by radiotelephone frequency 1665 kHz, A3H, as follows:

1. At Honmoku—From 45 to 53 minutes after even-numbered hours from 0600 to 1900.
2. At Shiohama—From 52 minutes after even-numbered hours, to the hour, from 0600 to 1900.
3. At Tokyo Jusangochi—From 45 to 53 minutes after odd-numbered hours from 0500 to 1800.

The common call sign for Honmoku, Shiohama, and Tokyo Jusangochi stations is Keihin Harbor Radar on VHF channels 14 and 16.

## Yokohama Ko (35˚27'N., 139˚35'E.)

World Port Index No. 61390

**3.22** Yokohama Ko, a great port, has complete facilities for the accommodation of large vessels. The principal wharves and other port installations are situated in a bight that indents the coast between the NE end of the reclaimed land N of Negisi, and the artificial island protecting Kawasaki Ko, about 3 miles N.

The port is divided into five areas, as follows:

1. Area No. 1 lies within the E and N breakwaters.
2. Area No. 2 lies S of the inner part of Yokohama Fairway.
3. Area No. 3 lies N of the inner part of Yokohama Fairway.
4. Area No. 4 lies N of Ogishima, between lines drawn NNW near the middle of the island and a line drawn WNW from the W extremity of the island to the opposite shore.
5. Area No. 5 lies on either side of the outer part of Yokohama Fairway and includes Negisi Wan.

**Winds—Weather.—**Winds are N in the winter and SSW in summer. Dense fog is reported to average 30 to 50 days a year.

**Tides—Currents.—**The mean range of the tide at Yokohama Ko is 1.1m; the spring range is 1.4m.

The tidal currents in Yokohama Ko are weak. Outside the breakwaters, the currents set NNW and SSE with the rising and

**Yokohama Ko—Honmoku Pier**

falling tides, respectively. Between the N and E breakwaters, the current sets WNW with the rising tide. With strong S winds, there is a rise of about 0.3m sea level.

**Depths—Limitations.—**The draft limitation in Yokohama channel is 12m. Vessels with a maximum draft of 11.6m, when entering through the channel, must wait for the tide. The Yokohama Bay Bridge, with a vertical clearance of 56m at mid-span, crossed Yokohama Channel from Jetty A to Daikoku Wharf.

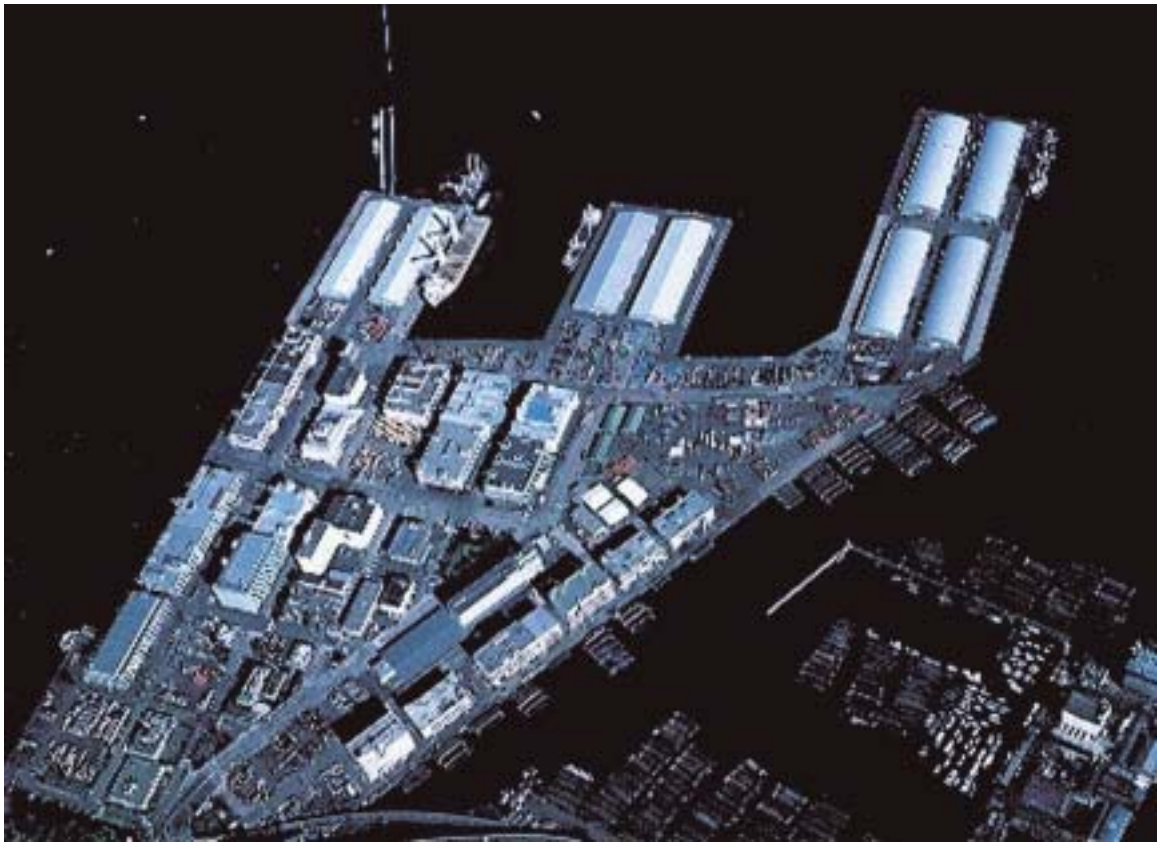
The general depths alongside the piers in Area No. 1 vary from 7.3 to 12m. In Area No. 2 depths vary from 9.4 to 14.1m. Daikoku Wharf, 1 mile N of Honmoku Pier, has a container terminal on its N side, passenger berths on its N and E sides, and public quays on the SE and SW sides. The container terminal has two berths, each with a length of 300m and a depth alongside of 12m. A bridge, with a vertical clearance of 17m, spans the channel between Sekiyu Pier and the N side of Daikoku Wharf.

A prohibited area lies about 0.3 mile NW of Daikoku Breakwater Light. In Area No. 3 there are numerous berths for container vessels. Vessels can berth here in depths of 7.9 to 11.9m. In Area No. 4 there are some wharves, with depths of 5.8 to 9.1m alongside; other berths have depths of 8.5 to 10.4m. There is a detached oil pier, with dolphins off each end, which has a depth of 11.9m. In Area No. 5 the oil berth extends 0.2m SE from shore and a mooring dolphin stands about 0.1 mile SE of the pier head. Three additional dolphins have been established at position 35˚24.1'N, 139˚38.4'E. There is a least charted depth of 17m alongside the pier. On the S side of the area, there is a wharf with an approach dredged to a depth of 12.5m.

Land reclamation works are being carried out at various sites in Yokohama Port. These include the provision of extra land for improved container facilities at Honmoku Pier, the Kanazawa waterfront project providing a modern industrial site, and the ongoing works at the new Daikoku Pier Area. Work is being carried out on reclamation throughout the harbor.

Yokohama Sea Berth lighted mooring buoy is moored in about 21m of water, about 1 mile SE of the S extremity of Ogishima. This berth is designed to accommodate vessels with a draft up to 19.5m and a capacity of 200,000 dwt. The buoy moorings extend up to 0.15 mile from the buoy.

Toden Ogishima LNG Berth, 1.25 miles NNE of Yokohma Sea Berth, consists of a central platform flanked by dolphins extending 183m NNE and SSW. Lights are exhibted from the



**Yamashita Pier**

platform and from the outer dolphins. A catwalk connects the platform to the N shore. There is a depth of 15.5 to 16.1m at the berth. A quarantine anchorage lies close SW.

**Aspect.—**The Yokohama observation tower, 104m high, shows a light and stands nearly 2 miles W of Honmoku Breakwater. There are several chimneys on Ogishima that are conspicuous. The chimneys NE of the West Fairway also provide good landmarks for obtaining a position. Honmoku signal station and radar tower stands approximately 0.3 mile E of the root of Honmoku breakwater.

**Pilotage.—**Pilotage is compulsory for berthing all vessels over 300 grt. Pilots should be requested 24 hours in advanc. Pilots board, as follows:

1. Tsurumi Fairway—within a circle of radius 1 mile centered on a position 2 miles ESE of Yokohama Daikoku Breakwater East Light.
2. Yokohama Fairway and Nissan Honmoku Wharf District—within a circle of radius 1 mile centered on a position 1.5 miles SE of Lighted Buoy No. 1.
3. Negishi Fairway and Area No. 5—within a circle of radius 1 mile centered on a position 1 miles ESE of Lighted Buoy No. 1.

Vessels are requested to advise the ship's ETD 24 hours and 6 hours before departure. Any change in ETD should immediately be reported. Ships are not berthed at night and must clear quarantine prior to sunset. Mooring should be completed before 2200.

**Regulations.—**Regulations are enforced at Yokohama Ku. Vessels entering, to which berths have been allotted, must display the specially notified signal from the time when they are near the harbor until they are secured at the berth.

For other regulations pertaining to this area, refer to Pub. 120, Sailing Directions (Planning Guide) Pacific Ocean and and Southeast Asia, and Maritime Traffic Safety Law.

**Signals.—**The signals contained in the following tables are for the designation of anchorages and the assignments of the mooring facilities for Keihin Port. These signals are displayed from the Tokyo Lighted Beacon Signal Station, Shibaura Quay Signal Station, Nihon Sekiyu Kagaku Electric Signal Board (for vessels mooring to Nisseki Ukishima No. 1 Berth, Nisseki Ukishima No. 2 Berth, Nisseki Ukishima No. 3 Berth, and Nisseki Ukishima No. 5 Berth), Kawasaki-Ko Waste Oil Disposing Station Control Room, and the Yokohama Ship Waste Oil Station Signal Pole. "Desig" means the Designation Flag and the letters and numbers refer to the International Code of

Signals Flags. "Ans" means the Answering Pennant. The order the flags are listed in refers to the location of the flags from top to bottom.

| Keihin Port—Tokyo Quarter | | |
|---|---|---|
| **Signal Station Signal** | **Meaning** | **Ship's reply** |
| Desig. A | Anchor with two an-chors in Section II, S of No. 6 Daiba (Fort). Signal Desig.C.1 through C.5 below—Anchor with two anchors within a circle whose radius is 130m and whose center is at the following bearing and distance from the W chimney of the New Tokyo Power Station of Tokyo Electric Power Company: | Ans. A |
| Desig. C.1 | 292˚, 570m | Ans. C.1 |
| Desig. C.2 | 273˚, 740m | Ans. C.2 |
| Desig. C.3 | 262˚, 960m | Ans. C.3 |
| Desig. C.4 | 256˚, 1,200m | Ans. C.4 |
| Desig. C.5 | 251˚, 1,450m | Ans. C.5 |
| Desig. D | Anchor with two anchors within the area surrounded by the line drawn from the point 217˚, 400m from the NW extremity of Fishery Quay (Suisan Futo) to the Mooring Buoy No. 8, the line drawn then to the Mooring Buoy No. 15 and the line drawn then to the S extremity of Fishery Quay. | Ans. D |
| Desig. M.1 | Moor to Mooring Post No. 1 at the lumber-unloading an-chorage. | Ans. M.1 |
| Desig. M.2 | Moor to Mooring Post No. 2 at the lumber-unloading an-chorage. | Ans. M.2 |
| Desig. M.3 | Moor to Mooring Post No. 3 at the lumber-unloading an-chorage. | Ans. M.3 |
| Desig. M.4 | Moor to Mooring Post No. 4 at the lumber-unloading an-chorage. | Ans. M.4 |
| Desig. M.5 | Moor to Mooring Post No. 5 at the lumber-unloading an-chorage. | Ans. M.5 |

| Keihin Port—Tokyo Quarter | | |
|---|---|---|
| **Signal Station Signal** | **Meaning** | **Ship's reply** |
| Desig. M.1.0 | Moor to Mooring Post No. 10 at the lumber-unloading anchorage. | Ans. M.1.0 |
| Desig. M.1.1 | Moor to Mooring Post No. 11 at the lumber-unloading anchorage. | Ans. M.1.1 |
| Desig. 1.A | Anchor with the stern moored to Mooring Buoy No. 1 and the bow headed about 185˚. | Ans. 1.A |
| Desig. 1 | Moor between Mooring Buoy No. 1 and Buoy No. 2. | Ans. 1 |
| Desig. 2 | Moor between Mooring Buoy No. 2 and Buoy No. 3. | Ans. 2 |
| Desig. 3 | Moor between Mooring Buoy No. 3 and Buoy No. 4. | Ans. 3 |
| Desig. 4 | Moor between Mooring Buoy No. 4 and Buoy No. 5. | Ans. 4 |
| Desig. 5 | Moor between Mooring Buoy No. 5 and Buoy No. 6. | Ans. 5 |
| Desig. 6 | Moor between Mooring Buoy No. 6 and Buoy No. 7. | Ans. 6 |
| Desig. 7 | Moor between Mooring Buoy No. 7 and Buoy No. 8. | Ans. 7 |
| Desig. 8 | Anchor with the stern moored to Mooring Buoy No. 8 and the bow headed about 000˚. | Ans. 8 |
| Desig. 9.A | Anchor with the stern moored to Mooring Buoy No. 9 and the bow headed about 185˚. | Ans. 9.A |
| Desig. 9 | Moor between Mooring Buoy No. 9 and Buoy No. 10. | Ans. 9 |
| Desig. 1.0 | Moor between Mooring Buoy No. 10 and Buoy No. 11. | Ans. 1.0 |
| Desig. 1.1 | Moor between Mooring Buoy No. 11 and Buoy No. 12. | Ans. 1.1 |
| Desig. 1.2 | Moor between Mooring Buoy No. 12 and Buoy No. 13. | Ans. 1.2 |
| Desig. 1.3 | Moor between Mooring Buoy No. 13 and Buoy No. 14. | Ans. 1.3 |

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| Keihin Port—Tokyo Quarter | | |
|---|---|---|
| **Signal Station Signal** | **Meaning** | **Ship's reply** |
| Desig. 1.4 | Moor between Mooring Buoy No. 14 and Buoy No. 15. | Ans. 1.4 |
| Desig. 1.5 | Anchor with the stern moored to Mooring Buoy No. 15 and the bow headed about 000˚. | Ans. 1.5 |
| Desig. 1.7.A | Anchor with the stern moored to Mooring Buoy No. 17 and the bow headed about 195˚. | Ans. 1.7.A |
| Desig. 1.7 | Moor between Mooring Buoy No. 17 and Buoy No. 18. | Ans. 1.8 |
| Desig. 1.8 | Moor between Mooring Buoy No. 18 and Buoy No. 19. | Ans. 1.9 |
| Desig. 1.9 | Moor between Mooring Buoy No. 19 and Buoy No. 20. | Ans. 2.0 |
| Desig. 2.0 | Anchor with the stern moored to Mooring Buoy No. 20 and the bow headed about 000˚. | Ans. 2.1.A |
| Desig. 2.1.A | Anchor with the stern moored to Mooring Buoy No. 21 and the bow headed about 195˚. | Ans. 2.1 |
| Desig. 2.1 | Moor between Mooring Buoy No. 21 and Buoy No. 22. | Ans. 2.2 |
| Desig. 2.2 | Anchor with the stern moored to Mooring Buoy No. 22 and the bow headed about 000˚. | Ans. 2.3 |
| Desig. 2.3 | Moor between Mooring Buoy No. 23 and Buoy No. 24. | Ans. 2.3 |
| Desig. 2.5 | Moor between Mooring Buoys No. 25 and No. 26. | Ans. 2.5 |
| Desig. 2.6.A | Anchor with the stern moored to Mooring Buoy No. 26 and the bow headed about 320˚. | Ans. 2.6.A |
| Desig. 2.7 | Anchor with the stern moored to Mooring Buoy No. 27 and the bow headed about 000˚. | Ans. 2.7 |

| Keihin Port—Yokohama Quarter | | |
|---|---|---|
| **Signal Station Signal** | **Meaning** | **Ship's reply** |
| Desig. G | Anchor with two anchors in a place designated by the Captain of the Port in Section I. | Ans. G |
| Desig. H | Anchor with two anchors in a place inside of breakwater, designated by the Captian of the Port in Section III. | Ans. H |
| Desig. I | Anchor with two anchors outside breakwater desig-nated by the COTP in Section III. | Ans. I |
| Desig. 1.A | Moor between Mooring Buoy No. 1 and Buoy No. 2 in Section I. | Ans. 1.A |
| Desig. 2.A | Moor between Mooring Buoy No. 2 and Buoy No. 3 in Section I. | Ans. 2.A |
| Desig. 4.A | Moor between Mooring Buoy No. 4 and Buoy No. 5 in Section I. | Ans. 4.A |
| Desig. 5.A | Moor between Mooring Buoy No. 5 andBuoy No. 6 in Section I. | Ans. 5.A |
| Desig. 6.A | Moor between Mooring Buoy No. 6 and Buoy No. 7 in Section I. | Ans. 6.A |
| Desig. 8.A | Moor between Mooring Buoy No. 8 and Buoy No. 9 in Section I. | Ans. 8.A |
| Desig. 9.A | Moor between Mooring Buoy No. 9 and No. 10 in Section I. | Ans. 9.A |
| Desig. 1.1 | Moor to Mooring Buoy No. 11 in Section I. | Ans. 1.1 |
| Desig. 1.2 | Moor to Mooring Buoy No. 12 in Section I. | Ans. 1.2 |
| Desig. 1.3 | Moor to Mooring Buoy No. 13 in Section I. | Ans. 1.3 |
| Desig. H.1 | Moor to Mooring Buoy No. H1 in Section I. | Ans. H.1 |
| Desig. H.2 | Moor to Mooring Buoy No. H2 in Section I. | Ans. H.2 |
| Desig. H.3 | Moor to Mooring Buoy No. H3 in Section I. | Ans. H.3 |

| Keihin Port—Yokohama Quarter | | |
|---|---|---|
| **Signal Station Signal** | **Meaning** | **Ship's reply** |
| Desig. 2.0 | Moor between Mooring Buoy No. 20 and Buoy No. 21 in Section II. | Ans. 2.0 |
| Desig. 2.2.A | Moor between Mooring Buoy No. 22 and Buoy No. 23 in Section II. | Ans. 2.2.A |
| Desig. 2.4.A | Moor between Mooring Buoy No. 24 and Buoy No. 25 in Section II. | Ans. 2.4.A |
| Desig. 3.2.A | Moor between Mooring Buoy No. 32 and Buoy No. 42 in Section III. | Ans. 3.2.A |
| Desig. 3.6.A | Moor between Mooring Buoy No. 36 and Buoy No. 37 in Section III. | Ans. 3.6.A |
| Desig. 3.7.A | Moor between Mooring Buoy No. 37 and Buoy No. 38 in Section III. | Ans. 3.7.A |
| Desig. 4.3.A | Moor between Mooring Buoy No. 43 and Buoy No. 44 in Section III. | Ans. 4.3.A |

Traffic controls for Yokohama Passage and Turumi Passage are made at signal stations on Honmoku Wharf, Naiko, Daikoku, and Turumi.

Signal letters and meaning for Turumi Passage and Yokohama Passage are, as follows:

1. Flashing I—Entering signal.
2. Flashing O—Leaving signal.
3. Flashing X—Warning signal.
4. Fixed X—Prohibition signal. (For Yokohama Passage only.)
5. Flashing F—Free signal.
6. Alternating flashing XI or XF—Preliminary signal for changeover.

**Anchorage.—**Quarantine anchorages, which serve both Yokohama and Kawasaki, are situated in Section III, to seaward of Daikoku Breakwater, and in Section II, approximately 0.8 mile WSW of Tonen-Ogishima Sea Berth. If a vessel must wait for a berth, it may anchor in the quarantine anchorage or as near as safety permits.

Berths for vessels exceeding 500 grt, intending to stay 72 hours or longer in the quarantine anchorage, will be allocated by the harbormaster through the shipping companies concerned. Anchoring in the vicinity of such allocated berths by other vessels is prohibited. Ships anchoring in the area W of Naka No Se should avoid anchoring within 1 mile of a line connecting Lighted Buoy B, Lighted Buoy C, and Lighted Buoy D.

Anchorage is prohibited in Yokohama Fairway, Kanagawa Fairway, and Tsurumi Fairway. Anchorage is also prohibited in the area indicated on the chart between the outer harbor limit and the entrances to Yokohama Fairway and Tsurumi Fairway.

**Caution.—**Vessels should navigate with caution when entering Tokyo Bay, N of Kannon Saki, in the vicinity of the forts. Numerous groundings have occurred here due to not identifying the forts correctly, even in favorable weather with local knowledge and radar.

## Kawasaki Ko (35˚30'N., 139˚46'E.)

World Port Index No. 61385

**3.23** Kawasaki Ko lies adjacent to Yokohama Ko. It consists of a number of basins leading N from Keihin Unga and also includes the mouth of Tama Kawa at the NE end of the harbor area. The port is entered through Turumi Passage or Kawasaki Passage.

Kawasaki Ko is divided into two areas, as follows:

1. Area No. 1 lies NW of Ogishima and Higashi-Ogishima, and N of Kawasaki Fairway.
2. Area No. 2 lies between Ogishima and Higashi-Ogishima, and the seaward harbor limit.

**Depths—Limitations.—**The draft limitation for vessels in transit of Kawasaki Channel is 12m, and 11.7m for those vessels utilizing Turumi Passage. The Turumi-Tu-basa Bridge, with a vertical clearance of 49m, crosses Tu-rumi Passage between Daikoku Wharf and Yokohama.

In Area No. 1, near the middle of the NW side of Ogi Shima, there is a wharf with depths of 12.5 to 12.8m alongside. On the N side of Keihin Unga, and in the channel and basins leading N, there are numerous piers and wharves with depths up to 12.9m alongside.

An approach channel, dredged to 21m and marked by lighted buoys, leads to Nippon Kokan Wharf on the E side of Ogishima; the two outermost channel buoys lie between Yokohama Sea Berth and Kawasaki Sea Berth. Leading lights, shown from metal posts and in line bearing 331˚, lead towards Nippon Kokan Wharf. Quays on the SE side of Higashi-Ogishima are also approached by this channel.

Construction work is in progress within a prohibited area close SE of the leading lights. Depths alongside Nippon Kokan Wharf are 7.5 to 22m. Higashi-Ogishima Wharf, NE of Ogishima, has nine berths, with alongside depths of 10 to 12m.

Construction of a new oil berth is in progress (1997) in the former location of the Tonen-Ukishima Sea Berth.

In Area No. 2, there are three berths on the E end of Ogishima that are approached on a range bearing 331˚. These berths have charted depths of 8.2 to 23m alongside. Toden LNG Berth, with depths of 17.2 to 17.7m alongside, extends S from Ogishima.

Tonen-Ogishima Sea Berth lies 0.5 mile S of Kawasaki Passage. This berth has depths of 26m alongside and will accommodate a vessel with a draft of 20.5m and of 250,000 dwt. A wreck lies about 4 miles E of this berth.

Kawasaki Sea Berth, which lies 0.8 mile SSW of the above sea berth, is a buoy moored in a depth of 30m. The maximum safe draft at the berth is 20.5m, and a maximum of 250,000 dwt. The buoy moorings extend up to 0.15 mile from the buoy.

There are two dry docks on the N side of Keihin Unga, where repairs for vessels of up to 60,000 grt may be undertaken.

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**Kanazawa—Timber Pier**

Several submarine cables and pipelines are laid across Keihin Unga and the channels leading N of it; some landing places are marked by beacons. Two tunnels also cross Keihin Unga. Overhead cables cross some of the channels N of Keihin Unga; the least vertical clearance is about 38m.

**Pilotage.—**Pilotage is compulsory for Kawasaki Ko. Pilots are available from sunrise to 1 hour before sunset. Requests for pilotage should be sent 24 hours in advance. Outbound vessels or vessels shifting berths are requested to advise the ship's ETD 24 hours and 6 hours before departure. Any change of ETD should be reported whenever it occurs. Pilots board, as follows:

1. Kawasaki Fairway—within a circle of radius 1 mile centered on a position 1 mile ESE of Lighted Buoy No. 1. (Large vessels are boarded within a circle of radius 1 mile centered on a position 2.5 miles SSE of Lighted Buoy No. 1.)
2. Ogi Shima No. 2 Fairway—within a circle of radius 1 mile centered on a position 1 mile ESE of Lighted Buoy No. 1.

**Signals.—**Traffic controls for Kawasaki Passage and Turumi Passage are made from signal stations situated on Turumi, Tanabe, Ikegami, Mizue, Siohama, Daisi, and Kawasaki.

Signal letters and meaning for Turumi Passage and Kawasaki Passage are, as follows:

1. Flashing I—Entering signal.
2. Flashing O—Leaving signal.
3. Flashing X—Warning signal.
4. Fixed X—Prohibition signal.

**Anchorage.—**A quarantine anchorage, which serves both Yokohama Ko and Kawasaki Ko, is situated SE of Yokohama breakwater, to seaward of Daikoku Breakwater. If a vessel must wait for a berth, it may anchor in the quarantine anchor or as near as prudent. A quarantine anchorage has been designated in a circular area, with a 300m radius centered at a position about 0.5 mile SW of Ogishima Sea Berth.

Anchorage is prohibited in the fairways and the area marked on the chart.

Anchoring is also prohibited in the vicinity of pipelines and cables.

## Tokyo Ko (35˚40'N., 139˚45'E.)

World Port Index No. 61380

**3.24** Tokyo Ko, in the NW part of Tokyo Wan, lies at the mouth of the Sumida Kawa and occupies that part of Keihin Ko

not included in the port of Kawasaki and Yokohama. Tokyo Ko is divided into four districts. District No. 1 and District No. 2 lie well within the mouth of the Sumida Kawa. District No. 3 and District No. 4 include the outer harbor NE and SW, respectively, of Tokyo Fairway. The principal piers and wharves lie in District No. 2.

**Tides—Currents.—**The mean range of the tide at Tokyo Ko is 1.1m, and the spring range is 1.4m.

Within the harbor, the tidal currents follow the direction of the channel. At the entrance to District No. 2, the flood and ebb currents reach their maximum rate of about 0.8 knot, 2 to 2.5 hours before HW and LW. A rate of 2.5 knots has been experienced off the docks and the first line of mooring buoys.

**Depths—Limitations.—**Access to Tokyo Inner Harbor is through Tokyo West Passage, entered 0.5 mile WSW of Tokyo Light; it leads between West Breakwater and Middle Breakwater and will accommodate a vessel of 12m draft. The channel then continues N, with a least charted depth of 11m. District No. 2 lies N of the dredged fairway and contains Shibaura Quay, Hinode Pier, Takeshiba Pier and, Harumi Wharf to the NE, and Toyosu Wharf to the SE. Depths alongside range from 5.4 to 10.4m. There are several mooring buoys in this area. District No. 1 lies N of District No. 2; reclamation and construction are underway in this area

Tokyo East Passage (Tokyo Passage No. 3) lies between the NE end of the Middle Breakwater and the East Breakwater. This channel leads to three basins and is dredged to a depth of 12m. Channel No. 2, dredged to 10m, also leads to these basins from Tokyo West Passage; it is marked by lighted buoys and has a least charted depth of 9m.

District No. 3 and District No. 4 lie E and W of the Tokyo West Passage, respectively. Shinagawa and Oi Wharves, having container and ro-ro facilities, are situated on the W side. Shinagawa Terminal also handles general cargo. Depths alongside range from 6.7 to 13m. On the E side of Tokyo West Passage are the Foreign Trade, Odaiba Public, and General Cargo Wharves. Depths alongside range from 4.5 to 11.5m.

Aomi Container Wharf, on the E side of Tokyo West Fairway, has three berths. Berth 1 has depths of 11.1 to 12.0m along-side; Berths 2 and 3 have been dredged to a depth of 14m alongside.

There is a tanker berth at Toyosu Gas Wharf. The wharf has a berthing face of 41m and a depth alongside of 10m, with five dolphins. Oi Wharf has container and ro-ro facilities capable of berthing several 50,000 grt vessels simultaneously. The passenger ship terminal is at Takeshiba. Terminal 10 serves vessels of up to 5,000 grt with facilities for ro-ro, container, and general cargo. Terminal 15 is principally a lumber terminal. The Harumi Terminal receives foodstuffs, lumber, and cement; there is also a passenger terminal on the S side. The Asashio Terminal, to the W of Harumi Terminal, handles steel, chemical products, and fertilizers. The Rainbow Bridge, with a vertical clearance of about 50m, spans the S end of District No. 2.

**Aspect.—**The most prominent landmarks are Tokyo Tower, 350m high, situated in the NNW part of Tokyo, and the World Trade Center Building, 160m high, situated 0.55 mile ESE of Tokyo Tower. There are many chimneys that are useful in fixing a position.

**Pilotage.—**Pilotage is compulsory. The pilot boards in the vicinity of the quarantine anchorage and Tokyo Light. The ship's ETA should be sent 12 hours in advance. All communications with the pilot should be by radio. Requests for pilotage should be made by 1200 on the previous day. Pilots are normally available during daylight hours only.

**Regulations.—**Passenger ships and large vessels using mooring facilities must submit applications for use to port managers through shipping firms or agents 3 days before entry into port, so that they may have berths designated. Small vessels, less than 300 grt, do not need to apply for anchorage.

When a vessel wants to use the anchorage facilities, they must submit an application for use of the anchorage areas to the Tokyo-Yokohama Port Director, to have anchorage sites designated. Small vessels, less than 300 grt, do not need to apply for anchorage.

A ship carrying explosives or any other dangerous cargo must submit two copies of the application in advance to the Port Director for permission to use the port. Such ships are required to stay outside the port, in the Third District. However, they may enter at the discretion of the Port Director.

Vessels over 500 grt that want to enter the port at night (between sunset and sunrise) must apply to the Port Director in advance and receive permission.

Tankers must enter port at dead slow speed preceded by a patrol boat, with one tug boat on each side of the vessel, and followed by a patrol boat. When moored, the tanker's engines should be kept ready for immediate use in case of an emergency. In addition, tow lines are to be placed over the bow and stern, with eyes close to the water surface.

**Signals.—**Flashing light traffic signals for vessels using Tokyo Fairway are shown from Tokyo Light (35˚33.8'N., 139˚49.9'E.). Illuminated letter traffic signals are shown from the three signal stations on Oi Wharf No. 2, Maritime Museum, and Harumi Wharf. The signals, shown by day and night, apply to vessels over 500 grt, as follows:

| Flashing Light | Illuminated Letter | Meaning |
|---|---|---|
| White light flashing every 2 seconds. | Flashing I | Outbound vessels stop and wait clear of the fairway. |
| Red light flashing every 2 seconds. | Flashing O | Inbound vessels stop and wait clear of the fairway. |
| Alternating white and red lights flashing every 3 seconds. | Flashing F | Vessels exceeding 5,000 grt and tankers stop and wait clear of the fairway. |
| Light exhibiting three red flashes and three white flashes every 6 seconds. | Fixed X | All traffic prohibited. |
| | Alternating flashing of X and I, X and O, or X and F | Preliminary signal for changeover. |

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Vessels of 500 grt or more, intending to depart Districts No. 1 and No. 2, shall hoist the signal from the International Code of Signals for preparing to get underway by day, and by night, illuminate two vertical white lights, both plainly visible, 30 minutes prior to scheduled time of getting underway. Such vessels shall also sound two prolonged blasts on whistle or siren, and shall follow signal instructions from Shibaura Wharf Signal Station.

**Anchorage.—**Vessels requiring pratique must anchor in the quarantine anchorage, which is situated with its center about 1 mile NNW of Tokyo Light, on the NE side of the channel.

Anchorage is prohibited in the area indicated on the chart adjoining the SW side of the quarantine anchorage.

Construction work is in progress (1988) about 1.5 miles WSW Tokyo Light; entry into this area is prohibited.

## Tokyo Wan—East Side

**3.25** The E shore of the inner part of Tokyo Wan extends NE from Huttu Saki for a distance of 20 miles, then NW about 9 miles to the head of the bay.

The bank that lies N of Huttu Saki dries out as much as 1 mile offshore in places.

## Kisarazu Ko (35˚22'N., 139˚53'E.)

World Port Index No. 61372

**3.26** Kisarazu Ko is an open port established on reclaimed land, situated about 3.3 miles NE of Huttu Saki. The N side of the harbor is protected by a breakwater extending about 1.8 miles W on the N side of the dredged channel, and on the S side by the reclaimed land that forms the wharves. The harbor limits may be seen on the chart.

**Depths—Limitations.—**The harbor is entered through a channel, about 4 miles long, that has been dredged to a depth of 19m, and has a width of 440m. A turning basin at the E end of the 19m dredged area, is about 700m in width. A 12m dredged channel leads NE from the turning basin, and an 11m channel extends SE from the turning basin. On the SW side of the reclaimed land there is a channel, leading to the berths, that is dredged to a depth of 11m; these berths are referred to as West Pier. Center Pier is situated at the turning basin and East Pier is situated SE of the turning basin.

Center Pier can accommodate vessels up to 270,000 dwt and a draft of 19m at HW.

East Pier can accommodate vessels up to 30,000 dwt and a draft of 11m.

West Pier can accommodate a vessels up to 40,000 dwt and a draft of 11m.

Huttu Passage is entered 4 miles NNE of Futtsu Misaki and leads 2.75 miles SSE to Huttu LNG Tanker Berth (35˚20'N., 139˚50'E.). The fairway and turning basin are dredged to a depth of 14m and are marked by lighted buoys.

Kisarazu Ko is one of the largest ports in Japan. There are various piers within the port which can accommodate vessels with drafts from 7.6 to 10.8m.

**Aspect.—**There are several chimneys on the reclaimed area that rise above 100m. In the W part of the area, the most prominent chimney rises to a height of 224m.

**Pilotage.—**Pilotage is compulsory for vessels exceeding 10,000 grt. Requests for pilots should be sent via ship's agent 24 hours in advance. Pilots board, as follows:

1. Kaisarazu and Kimutsu Fairways—within a circle of radius 1 mile centered on Harbor Entrance Lighted Buoy No. 2.
2. Futtsu Fairway—on the E side of a circle of radius 1 mile centered on Nako-no-Se Fairway Lighted Buoy No. 6.

**Anchorage.—**The quarantine anchorage is centered about 2 miles ENE of the dredged channel entrance buoys. There are depths of 15.6 to 22m in the anchorage.

**Signals.—**A signal station is situated near the NW corner of reclaimed land W of Center Pier.

**Caution.—**Seaweed cultivation is being carried out in the area SW of the West Pier. It should be noted that the discharge of oil or oily waste into the water is strictly prohibited by the Marine Pollution Law and other related laws. Similarly, proceeding to the cultivated area is prohibited.

**Banzu Hana** (35˚25'N., 139˚54'E.) is situated about 1.5 miles N of Kisarazu Ko harbor limit. From Banzu Hana to the S harbor limit of Chiba (Tiba) Ko, 3 miles ENE, the coast is low and fronted by shoal water up to 1 mile offshore.

## Chiba Ko (Tiba Ko) (35˚35'N., 140˚02'E.)

World Port Index No. 61375

**3.27** Chiba Ko is an industrial harbor complex, designated as an open port, situated in a bight between 3 miles ENE and 13 miles NE of Banzu Hana. The harbor consists of a number of dredged basins and sections on reclaimed land. It consists of an inner and outer harbor, whose limits may be seen on the chart. Chiba Ko fronts the cities of Chiba and Itihara (Ichihara). There are five sections in this harbor and four fairways. The fairways include Chiba Passage, Anegasaki Passage, Itihara Passage, and Siizu Passage.

**Depths—Limitations.—**Chiba Passage, marked by lighted buoys, has been dredged to a depth of 18m. It extends in a NE direction from the outer harbor for a distance about 8 miles to Section No. 1. There is a basin within this section that is also dredged to 18m. Draft limitation in the channel is 17m. Itihara Passage, dredged to a depth of 12m, leads to berthing spaces close S of those accessed by way of Chiba Passage.

Anegasaki Passage, dredged to 15.7m, is also marked by lighted buoys, as are Chiba and Itihara Passages. Siizu Passage, dredged to 15.8m, leads to a basin on the S side of Anegasaki Power Station. Kitasode Fairway is the southernmost passage in Chiba Ko and has a least depth of 10.5m.

Section No. 1 and Section No. 2 contain the main berthing facilities for public use. Depths alongside range from 3 to 18m. Mitsui Dry Dock, having a capacity of 150,000 dwt, is situated in Section No. 2, 2.5 miles SE of Chiba Light.

In Section No. 3, depths alongside range from 3 to 12.8m. In Section No. 4, depths alongside range from 4.5 to 16m. The petrochemical, oil, gas, and power companies are situated there.

Tokyo Gas Terminal (35˚28'N., 139˚59'E.), in the S part of the harbor, consists of a dolphin berth, with a depth of 15.5m on its E side and 15m on its W side. A basin W of Tokyo Gas

Terminal is approached by a channel dredged to 14m and is marked by lighted buoys.

East of the gas terminal there is a basin with Sodegaura Wharf at its head. Lighted buoys mark the W side the entrance to the basin. The LNG terminals, to the S of a passage about 1.5 miles long and dredged to a depth of 14m, can accommodate vessels up to 70,000 dwt, having a draft of 16m.

Keiyo Sea Berth can accommodate a vessel of 258,000 dwt and a maximum draft of 20.5m.

Reference should be made to the charts for location of the prohibited areas and submarine cables and pipelines in this harbor.

**Aspect.—**Conspicuous landmarks include a chimney, 204m high, situated about 0.6 mile S of the liquid natural gas pier; three chimneys in a line, 205m high, about 2.5 miles NE of the above chimney; and the government building at Chiba and a lighttower 0.25 mile NW of it. A light is shown from the shore 3.25 miles NNE of Chiba Light. There are numerous tanks and chimneys with flares charted in this area.

**Pilotage.—**Pilotage is compulsory and is available from sunrise to 1 hour before sunset. Requests for pilots should be sent 24 hours in advance. Pilots board, as follows:

1. Chiba, Ichihara, Ane-ga-Saki, and Shiizu Fairways—within a circle of radius 1 mile centered on the Harbor Entrance Lighted Buoy; however, the pilot normally boards vessels with a draft of 10m or less in the vicinity of the quarantine anchorage and vessels with a draft of greater than 10m about 1 mile WSW of Chiba Ko Harbor Entrance Lighted Buoy No. 1.
2. Funbashi Fairway—within a circle of radius 1 mile centered on a position 1 mile WSW of Lighted Buoy No. 1.
3. Kita Sode and Minami Fairways and the Tokyo Gas LNG Berth—within a circle of radius 1 mile centered on a position 1.5 miles SW from the SW end of Kei Yo sea berths.
4. Kei Yo sea berths—within a circle of radius 1 mile centered on a position 2 miles WSW of Kei Yo sea berths.

Vessels unfamiliar with the Uraga Channel may receive a pilot at Uraga Channel No. 1 Lighted Buoy. This is especially recommended for tankers exceeding 100,000 dwt and liquified-gas carriers.

**Signals.—**Flashing light traffic signals for vessels using Chiba Passage are shown from Chiba Light (35˚33.9'N., 140˚03.0'E.) and Shinko Signal Station (35˚35.6'N., 140˚05.2'E.). Flashing light traffic signals for Ichihara Passage are shown from Chiba Light.

Illuminated letter traffic signals for vessels using Chiba Passage are shown from Chiba Light.

The signals, shown by day and at night, are as follows:

| Flashing Light | Illuminated Letter | Meaning |
|---|---|---|
| White light flashing every 2 seconds. | Flashing I | Inbound traffic and outbound small craft may proceed. Outbound vessels over 500 grt stop and wait clear of passage. |
| Red light flashing every 2 seconds. | Flashing O | Outbound traffic and inbound small craft may proceed. Inbound small craft may proceed. Inbound vessels over 500 grt stop and wait clear of passage. |
| Alternating white and red lights flashing every 3 seconds. | Flashing F | Both inbound and outbound traffic under 5,000 grt (but over 1,000 grt for tanker) may proceed. Vessels over these limits stop and wait clear of passage. |
| Light exhibiting three red flashes and three white flashes every 6 seconds. | Fixed X | All traffic prohibited except the one vessel permitted by the Port Captain. |

The flashing light signals are the same for both Chiba Passage and Ichihara Passage.

From the N limit of the outer harbor of Chiba Ko, the coast trends N to Funabashi and Itikawa. The entire coastal area is under reclamation.

**Anchorage.—**The quarantine anchorage is situated on the N side of Chiba Passage, about 2.8 miles NE of its entrance. The depths in the anchorage vary from 11 to 14.2m.

## Katunan Ku (35˚40'N., 139˚59'E.)

World Port Index No. 61378

**3.28** Katunan Ku lies N of the outer basin of Chiba Ko and embraces the former port of Funabashi Ichikawa Ko. The port consists of a number of quayed basins. Breakwaters protect the S side of the port, and the W part is protected by the reclaimed land. Edo Kawa flows into Tokyo Wan through the W part of the harbor.

**Depths—Limitations.—**The harbor is approached from the S through a channel 4.25 miles long, dredged to a depth of 12m. Close within the breakwater the channel is dredged to 10m. The quays have depths from 5 to 12m alongside and will accommodate vessels up to 15,000 dwt.

The basins in the E mouth of the Edo Kawa can be approached through the Ichikawa Channel, dredged to 6.5m. This channel is buoyed and its entrance is about 3 miles N of the entrance to the main channel.

**Pilotage.—**Pilotage is compulsory for vessels exceeding 10,000 grt. Pilots embark at Chiba quarantine anchorage. There are no restrictions on entry or sailing, however, pilots are only available during daylight hours until 1 hour before sunset.

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**Anchorage.—**Vessels for Katunan Ku may use Chiba Ko quarantine anchorage. The depths in the anchorage range from 11 to 14.2m.

Between the W limit of Katunan Ku and the E limit of Keihin Ko, 3 miles W, is an area of reclaimed land. The W mouth of Edo Kawa flows out close E of the E limit of Keihin Ko.

Urayasu Light is shown from a square metal framework tower, 8m high, situated off the S extremity of the reclaimed land.

**3.29 South side of Miura Hanto.—**From Ken Saki. the coast trends in a W direction about 3 miles to Misaki Ko. The coast is indented by several small bays. There are many rocks and reefs along the coast, with depths ranging more than 20m, 0.5 mile offshore and beyond.

**Joga Shima** (Zyo-ga Shima) (35˚08'N., 139˚37'E.), a flat trapezoidal shaped island, 30m high, lies about 0.2 mile offshore, and forms the S side of Misaki Ko. A bridge, with a vertical clearance of 22m, spans the channel. A breakwater extends toward the mainland from both the NE and NW ends of the island. A breakwater also extends from the mainland in a SSW direction toward the W breakwater; there is an opening about 100m wide. A detached breakwater extends NW from the NW extremity of Joga Shima.

**Misaki Ko** (35˚08'N., 139˚37'E.) is a small harbor enclosed by the above-described breakwaters.

**Misaki Seto—West entrance.—**A light stands on the head of the S outer breakwater, which extends 0.18 mile WNW from Nadaga Saki, the NW extremity of Joga Shima. A light stands on the head of the N outer breakwater, which extends NNE to the shore from a position 0.1 mile NE of the S outer breakwater. The W entrance to Misaki Seto lies between the outer breakwaters. Inner N and S breakwaters lie about 0.3 mile inside the outer breakwaters. There is a basin bordered by quays between the inner and outer N breakwaters.

**Misaki Seto—East entrance.—**A breakwater projects 91.5m NE from the NE extremity of Joga Shima on the S side of the E entrance to Misaki Seto. A light stands at the head of this breakwater. A 2.1m patch, located about 0.2 mile SE of the head of the breakwater, is the outermost of several rocky patches lying off the E side of Joga Shima. Drying reefs, lying on the N side of the E entrance to Misaki Ko, are marked by a lighted buoy.

**Tides—Currents.—**Off Misaki Ko, the tidal currents are affected by the ocean current, but the flood usually sets W or N and the ebb S. During the summer, there are occasional periods when a constant S set is experienced. In Misaki Seto the flood sets W, attaining a rate of 1.5 knots, and about 0.5 mile W of Joga Shima it sets NW at a rate of 2.75 knots. In a position more than 2 miles W of Joga Shima, a S set of 1 knot has been observed.

**Depths—Limitations.—**The fairway channel has depths of 5.5m, and the depths in the N part of the harbor are between 4 to 5.9m.

At night, buoys on the N side of the channel, in the vicinity of the bridge, are difficult to distinguish against the lights of the town.

**Signals.—**Local storm signals are displayed from a hill to the W of the town of Misaki, which is situated on the mainland.

**Anchorage.—**A quarantine anchorage is situated close NE of the E extremity of Joga Shima.

## Sagami Wan

**3.30 Sagami Wan** (35˚12'N., 139˚22'E.) is a large open bay between Joga Shima and Manazuru Misaki, 22 miles W. This bay lies at the head of Sagama Nada. The E shore of the bay is formed by the W coast of Miura Hanto, which extends in a general NNW direction for about 10 miles; it has many indentations with a few sandy beaches and many rocks. The N shore of the bay is a long sandy beach with no dangers except in the vicinity of Uba Shima (Ubaga Shima). The W shore has few indentations, except for the projecting Manazuru Misaki, and consists mostly of a stone beach.

The depths in the bay generally are deep, especially in the W where the 20m curve lies within 0.4 mile of the shore near Odawara (35˚15'N., 139˚10'E.).

**Winds—Weather.—**At Ken Saki, E of Sagami Wan, in winter when the NW seasonal winds are strong, the wind direction is affected by geographical features. The velocity of the winds from the N or NE is relatively low, and the weather is mild.

In the summer, land and sea breezes develop and it is fairly cool. Wind direction is S or SW. Offshore, fog often develops in the spring when the area is covered by a high pressure system and a weak wind blows. In the summer, fogs are common late at night or in early morning when there is a weak wind.

**Tides—Currents.—**Near Joga Shima, tidal currents are changeable due to the effects of ocean currents. In general, the flood tide current flows to the W, and the ebb tide current to the E. West of Joga Shima, the flood current is NNW at a rate of 0.5 knot and the ebb is SSW at a rate of 1 knot. At a distance of 5 miles NNW of Joga Shima, the flood current flows N at 1.25 knots and the ebb current flows SSW at 1 knot.

In the NW extremity of the bay near Odawara, swells begin to hit the shore a few days before a typhoon reaches it, and when the center of a typhoon actually passes, high tides occur, sometimes causing substantial damage.

**Caution.—**Submarine exercises are conducted in Sagami Wan, N of a line joining Joga Shima and Kawana Saki, a point 25 miles SW.

Vessels should used extreme caution while transiting in the vicinity of position 35˚10'N, 139˚25'E due to naval operations which involves frequent maneuvers.

**3.31 East coast of Sagami Wan.—**There are many coves on the W side of Miura Hanto, N of Joga Shima, none of which are useful as anchorages. Miyata Wan, 3 miles N of Joga Shima, is too shallow; Shinjuku Wan (Sinzyuku Wan), 6.5 miles farther N, is exposed to WSW winds and is used as an anchorage only when winds blow from the land.

Submarine cables indicated on the chart are landed on the N shore of Miyala Wan. A light is shown in Koaziro Wan (35˚10'N., 139˚36'E.). A light is shown off Miura in position 35˚16'N, 139˚34'E.

**Syonan Ko** (35˚18'N., 139˚29'E.) is a small harbor protected on the W by Eno Shima and a causeway that extends from the island in a NNE direction about 0.2 mile to the mainland. A light stands on the mainland, 0.8 mile NE of Eno Shima Light. There are depths in the outer harbor up to 7m. There is a yacht

marina enclosed by three breakwaters. Vessels should navigate with caution when approaching from the S in order to avoid Kamo Ne, a shoal with a least depth of 1.5m. Kamo Ne lies close S of the light on the breakwater extending from the SE end of Eno Shima.

**3.32 West coast of Sagami Wan.—**Sagami Gawa flows into Sagami Wan, about 5.5 miles W of Syonan Ko. Teruga Saki lies about 2.5 miles farther W. This coast is flat and sandy.

Uba Shima (Ubaga Shima) is a group of rocks lying about 1 mile offshore, 2.5 miles ESE of the mouth of Sagami Gawa. Hira Shima is a chain of rocks lying 1 mile NW of Eboshi Iwa, the largest island of the Uba Shima group.

**Odawara** (35˚15'N., 139˚10'E.), a small village situated 8.5 miles WSW of Teruga Saki, is fronted by a basin protected by a breakwater.

**Aspect.—**A conspicuous cliff is located about 3.5 miles NE of Odawara.

**Signals.—**Storm signals are displayed in the village.

From Odawara, the coast trends S about 6 miles to Manazuru Misaki, a point which projects 1.5 miles E from the mainland. A hill, 128m high to the top of the trees, is located near the E extremity of the point.

Kasa Shima, 18m high, is located 0.25 mile SE of Manazuru Misaki.

**Manazuru Ko** (35˚09'N., 139˚09'E.) is a small harbor protected by two breakwaters, situated on the N side of Manazuru Misaki. The town is situated at the head of the harbor. There are quays inside the breakwaters with depths of 2 to 5m alongside. Two radio masts stand on a hillock SE of the town and storm signals are displayed.

**3.33 West side of Sagami Nada.—**The W side of Sagami Nada is backed by Izu Hanto and extends from Manazuru Misaki SSW 37 miles to Iro Saki, the S extremity of Izu Hanto. This coast is indented by numerous small bays and is backed close inland by a mountain range that parallels the shoreline for much of its length.

There are no dangers charted outside the 200m curve, which lies from 0.25 mile to 6.75 miles offshore.

**Winds—Weather.—**Along the W coast of Sagami Nada the seasonal winds are NW in winter, NE or SW in spring, and SW in the summer. Along the coast it is warm in the winter, as the seasonal winds are obstructed by the chain of mountains on Izu Hanto, and because of the effect of the Kuroshio.

In the vicinity of Ajiro Ko the winds are N or W in winter, the wind speed is fairly low and most days are clear. In spring N or NE winds blow; in June, it is mostly S; from July to autumn NE winds dominate.

Near Mikomot Shima. the weather is especially changeable due to the geographical features. Strong SW winds change to strong NE winds, and suddenly reverse directions with no advance indications. Due to the strong winds and the strong oceanic and tidal currents, the sea in the area often develops violent swells and waves.

Near Iro Saki, the W wind in winter and the E wind in summer dominate. There are many days of strong winds in winter, and during a typhoon, gusts of more than 87 knots have been recorded.

**Tides—Currents.—**Between Izu Hanto and O Shima, there is a tendency of a drift to the W during HW and to the E during LW; the flood current flows WSW and the ebb current ENE. The velocity of the tidal currents in this area is fairly high, and it sometimes reaches 3 knots when the ebb tide current coincides with the ocean currents.

The flood tidal current not only loses its velocity through contact with the ocean current, but sometimes it overcomes the ocean current and creates a SW flow. For navigation in this area, the effect of the resultant flow of tidal and ocean currents must be taken into account. Near Izu Hanto, the flow depends completely on tidal current, and its velocity becomes about 1 knot.

Near Mikomoto Shima, the flood tidal current flows to the W and the ebb tidal current flows to the E. The directions change about 2 hours after the LW and HW. The maximum velocity of the E flow, during the spring tides, is more than 3 knots, and it was once observed that the current flowed to the E all day with a maximum velocity of 5 knots. Rapid currents caused by an irregular sea bottom are sometimes found NW and N of Mikomoto Shima.

**3.34 Yoshihama Hakuchi** (35˚08'N., 139˚08'E.) is an open bay situated W of Manazuru Misaki and the coast 2.5 miles W, in front of Yoshihama. Its depths are 10 to 20m, sand and mud. Vessels with local knowledge can obtain temporary anchorage off the village with an offshore wind.

Two chimneys on the SW entrance point to the bay are prominent.

From Yoshihama Hakuchi the coast trends 3 miles SSW to Atami.

**Atami Hakuchi** (35˚05'N., 139˚05'E.) is a small basin with depths up to 8m that lies in the SW corner of Atami Hakuchi. It is protected from the NE by an area of reclaimed land extending NNW from Uomi Saki, and by an outer breakwater projecting NNE from the N end of the reclaimed land. A light stands on the NNW end of the reclaimed land. Within the basin are two quays used by ferries. Three detached breakwaters lie between 0.1 to 0.5 miles N of the basin.

A white tower at the top of a mountain, 254m high, situated close W of Uomi Saki, is conspicuous. Iwado Yama (Iwato Yama), 734m high, rises 2.5 miles NNW of Uomi Saki.

Temporary anchorage can be obtained in offshore winds, in a depth about 14m, mud and sand, off Atami.

**Ajiro Ko** (35˚03'N., 139˚05'E.) is entered between Egawa Saki and Iso Saki, about 1 mile NW. The port is open to the NE, but is the best harbor on the E side of Izu Hanto. The inner harbor is protected by breakwaters. A light stands at the head of the N breakwater.

**Tides—Currents.—**The mean range of tide at Ajiro Ko is 0.8m and the spring range is 1.1m.

**Signals.—**Local storm signals are displayed at Ajiro Ko.

**Anchorage.—**Good anchorage can be had off the town of Ajiro, on the W side of Egawa Saki, in a position about 0.4 mile W of the point. The depth is about 41m, sand and mud.

**Caution.—**Fishing nets may be laid throughout the year in Ajiro Ko and its approaches.

**3.35 Hatsu Shima** (35˚02'N., 139˚10'E.), a low flat island 51m high, is located about 3.3 miles E of Ajiro Light. A light

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shown from a white cylindrical concrete structure, 15m high, is situated in the SE part of the island. The island is surrounded by a rocky coast, and a 6.4m patch lies close off its NW extremity. A submarine pipeline lies between Izu Aziro Light and Hatsu Shima.

From Egawa Saki, the coast trends 2.5 miles S to O Saki, which rises to a height of 157m close within.

**Ito Ko** (34˚58'N., 139˚06'E.) is a small artificial harbor situated close W of a point that lies 2 miles SSE of O Saki.

Teishi Shima, a small islet 40m high, lies on the foul ground that extends about 1 mile E of the S entrance point of Ito Ko.

A submarine volcano lies in a position about 1 mile N of Teishi Shima.

The bay that is formed between O Saki and Teishi Shima is obstructed with a number of fish havens.

From Ito Ko, the coast trends 2 miles SE to Kawana Saki, then 4 miles SSW to Nichiren Saki.

Komuro Yama, 321m high, lies 1.25 miles SW of Kawana Saki, and Omuro Yama, 589m high, rises 3 miles farther SW. Both hills are rounded, but Komuro Yama is heavily wooded while Omuro Yama is grassy.

From Nichiren Saki the coast trends SSW about 8.5 miles to Inatori Saki (Misaki). A hotel on the N side of Inatori Saki is conspicuous.

**Inatori Ko** (34˚46'N., 139˚03'E.), a small artificial harbor, lies on the N side of Inatori Saki. The harbor is protected by four breakwaters, one of which is detached. A light stands at the head of each of the N and S breakwaters and at the N end of one of the detached breakwaters.

Anchorage is afforded to small vessels in Inatori Ko except when the wind is between NE and E. Anchorage may be obtained in a position about 0.3 mile ENE of the head of the N breakwater.

From Inatori Saki, the high bold coast trends 7.25 miles SSW to Tsumeki Saki. For most of this section of the coast, it is steep-to and bordered by flat rocks.

Shoal water fringes Tsumeki Saki to a distance of 0.4 mile, and a rock, 33m high, is located on this shoal area about 0.2 mile NE of the point.

Tsumeki Saki is the E extremity of SuSaki Hanto, which forms the E shore of Shimoda Ko (Simoda Ko).

From Tsumeki Saki, the S coast of SuSaki Hanto trends 1.5 miles WSW to Susari Saki. This coast is indented by several coves and is fringed by a number of islets and sunken rocks extending up to 0.5 mile in places. A light shown from a round concrete tower, 8.2m high, is situated on Susari Saki.

## Shimoda Ko (Simoda Ko) (34˚40'N., 138˚57'E.)

World Port Index No. 61420

**3.36** Shimoda Ko consists of a town that sits on the W side of a river in the NW part of the bay that is entered between Susari Saki and Norosi Saki, about 0.9 mile NW. A line drawn between these two points forms the harbor limits. The harbor is protected by two breakwaters. One extends WNW about 0.2 mile from a position on shore, 0.6 mile N of Susari Saki. The other breakwater extends E from a position close S of the river's mouth to an islet and then about 45m E of the islet. The head of each breakwater is marked by a light.

**Winds—Weather.—**East winds are dominant during the summer and fall; Northwest Monsoon winds prevail during the winter. During the winter the port is protected against winds by the mountains behind it. Vessels may obtain weather reports from the Maritime Safety Office.

**Tides—Currents.—**The mean range of tides at Shimoda Ko is 0.9m; the spring range is 1.2m.

**Depths—Limitations.—**Depths range from 37m in the entrance to 5.5m in the anchorage area. Within the mouth of the river, depths are less than 3.5m.

**Aspect.—**Take Yama, 181m high, rises close inland on the N side of the harbor. A hotel 0.38 mile NNW of Norosi Saki is a good mark both day and night. Akane Shima, 87m high, whose S side is a steep red cliff, is located close within the W entrance point of the harbor.

**Anchorage.—**This port is congested, especially in winter, when the W winds prevail, or during a typhoon. Occasionally vessels that arrive late may not be able to enter.

The harbor provides good anchorage for small vessels with local knowledge.

From Norosi Saki, the coast extends 6 miles SW to Iro Saki, the S extremity of Izu Hanto. Iro Saki is a high steep rocky cape which is marked by a light shown from a white cylindrical concrete tower 11m high.

**Caution.—Mikomoto Shima** (34˚34'N., 138˚57'E.) is a rocky islet, 32m high, that lies 5 miles SE of Iro Saki. A light is shown on the island; it is displayed from a round stone tower 23m high.

A racon is located here. It has been reported that Mikomoto Shima is a good radar target up to 17 miles.

The area N of Mikomoto to the mainland is fouled with rocks and wrecks. It is recommended that large vessels pass seaward of Mikomoto Shima when transiting this area.

A voluntary Traffic Separation Scheme is in operation SE of Mikomoto Shima. See Pub. 120, Sailing Directions (Planning Guide) Pacific Ocean and Southeast Asia for further information.