Pub.303 sup.

Sailing Directions for Seto Naikai

Supplement No.4

30 October 2026

Japan Coast Guard

Explanatory Notes

Sailing Directions for Seto Naikai Supplement No.4 is issued to correct outdated information in Publication No.303 Sailing Directions for Seto Naikai which was published in December 2024.

This supplement contains information which has been gathered through the work of the Hydrographic and Oceanographic Department, the Japan Coast Guard by 1st May 2026. However, information current as of 1 June 2026 has been adopted for certain amendments relating to “port regulations”.

The instructions for amending, deleting or adding to the previous issues are indicated in this supplement. This supplement also contains an index to be referred to the pages on which they are mentioned. The index is listed in numerical order, along with the titles of the ports or articles. Amendments are indicated in red letter on grey background while deletions are marked with strikethrough, in red letter on grey background. Chart images, tables or pictures to be deleted, replaced or added are instructed in [square brackets].

Each sheet of the supplement is excerpted from the relevant issue of the Sailing Directions so that the page number printed in the supplement is corresponding to the original page number. In case that a sheet had spanned multiple pages by adding large volume of text or image, sub-number is given to the page number.

30 October 2026

Hydrographic and Oceanographic Department,
Japan Coast Guard

CAUTION

This supplement is for use in conjunction with Notices to Mariners, List of Aids to Navigation, and related charts and publications, because no corrections are given thereto except through supplements. Especially for up-to-date information concerning the safety of navigation instructed by the Japan Coast Guard (JCG), please refer to Notices to Mariners and related publications.

In the interest of ensuring the safety of navigation and protecting the marine environment, the JCG publicises information that could affect the safety of navigation and environmental protection by issuing Notices to Mariners (NTMs) and Navigational Warnings (NWs), and publishing such information on the JCG charts and in other nautical publications, based on laws, regulations, proclamations, charts, NTMs, NWs issued by countries concerned as well as reports made by ships.

Sailing Directions published by JCG are intended solely for the purpose of providing information for safe navigation. The contents included in the Sailing Directions do not reflect the Japanese Government's official stance regarding the laws, regulations, and proclamations of other countries.

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Withdrawn Nautical Charts Referenced in Pub.303

The nautical charts in English (JP charts) listed in the left column of the table below have been withdrawn. In Publication No.303 Sailing Directions for Seto Naikai (including any Supplements), these JP chart numbers should be replaced with the corresponding chart numbers prefixed with "W".

Pub.303 Withdrawn Nautical Charts		
JP Chart No.	**Title**	**Corresponding W chart No.**
JP 77	KII SUIDO AND APPROACHES PLAN: HIDAKA KO	W 77
JP 101A	HANSHIN KO KOBE	W 101A
JP 101B	HANSHIN KO WESTERN PART OF KOBE	W 101B
JP 104	KURUSHIMA KAIKYO AND APPROACHES	W 104
JP 106	OSAKA WAN AND HARIMA NADA	W 106
JP 107	HIGASHI-HARIMA KO	W 107
JP 112	NARUTO KAIKYO	W 112
JP 123	HANSHIN KO OSAKA	W 123
JP 126	TOKUYAMA-KUDAMATSU KO AND APPROACHES PLAN: TOKUYAMA-KUDAMATSU KO HIKARI	W 126
JP 127	EAST ENTRANCE OF KANMON KAIKYO AND APPROACHES	W 127
JP 128	UBE KO	W 128
JP 129	KANDA KO	W 129
JP 131	AKASHI KAIKYO AND APPROACHES	W 131
JP 132	KURUSHIMA KAIKYO	W 132
JP 134B	WESTERN PART OF HIMEJI KO	W 134B
JP 135	KANMON KAIKYO	W 135
JP 137A	EASTERN PART OF BISAN SETO	W 137A
JP 137B	WESTERN PART OF BISAN SETO	W 137B
JP 141	AKI NADA AND APPROACHES PLAN: NEKO SETO	W 141
JP 142	HIROSHIMA WAN	W 142
JP 150A	OSAKA WAN PLAN: TOMOGASHIMA SUIDO	W 150A

JP 150 C	KII SUIDO	W 150C
JP 151	BUNGO SUIDO	W 151
JP 153	BISAN SETO AND BINGO NADA	W 153
JP 165	MISHIMA-KAWANOE KO	W 165
JP 201	KURARA SETO TO TSUNO SHIMA	W 201
JP 1101	SUO NADA AND APPROACHES	W 1101
JP 1102	IYO NADA AND APPROACHES	W 1102
JP 1103	EASTERN PART OF OSAKA WAN	W 1103
JP 1106	TOKUYAMA-KUDAMATSU KO TOKUYAMA	W 1106
JP 1107	HANSHIN KO AMAGASAKI-NISHINOMIYA-ASHIYA	W 1107
JP 1108	AKI NADA AND HIROSHIMA WAN	W 1108
JP 1109	KURE KO AND APPROACHES	W 1109
JP 1110	HANSHIN KO SENBOKU	W 1110
JP 1112A	EASTERN PART OF HIROSHIMA KO	W 1112A
JP 1112B	WESTERN PART OF HIROSHIMA KO	W 1112B
JP 1120	NIIHAMA KO CONTINUATION OF NIIHAMA KO TAKIHAMA	W 1120
JP 1121	SAKAIDE KO	W 1121
JP 1127A	EASTERN PART OF MIZUSHIMA KO CONTINUATION OF EASTERN PART OF MIZUSHIMA KO	W 1127A
JP 1127B	WESTERN PART OF MIZUSHIMA KO	W 1127B
JP 1133C	TOKUYAMA-KUDAMATSU KO SHIN-NAN-YO	W 1133C
JP 1137	FUKUYAMA KO CONTINUATION OF FUKUYAMA KO	W 1137
JP1141	HANNAN KO CONTINUATION OF SOUTHWEST PART OF HANNAN KO	W 1141
JP1144	WAKAYAMA-SHIMOTSU KO ARIDA AND SHIMOTSU	W 1144
JP 1146	HANSHIN KO SAKAI	W 1146
JP 1150	WAKAYAMA-SHIMOTSU KO WAKAYAMA	W 1150
JP 1247A	EASTERN PART OF OITA KO	W 1247A
JP 1247B	WESTERN PART OF OITA KO	W 1247B
JP 1262	EASTERN PART OF KANMON KO	W 1262
JP 1263	MIDDLE PART OF KANMON KO	W 1263
JP 1265	KANMON KO WAKAMATSU CONTINUATION OF WAKAMATSU	W 1265

JP1266	KANMON KO SHIRA SHIMA AND APPROACHES	W 1266
JP 1267	WESTERN PART OF KANMON KO	W 1267

Statistically, fog tends to occur in the following cases:

- when a front line passes Seto Naikai,
- when a front line stays in the S of the Japan Sea,
- when a front line stays in the Pacific Ocean,
- when two undeveloped low pressures pass side by side in the S of the Japan Sea and the offing of Shikoku,
- when a traveling high pressure covers Seto Naikai or the edge of Pacific High reaches Seto Naikai.

Visibility. Due to the geography of Seto Naikai where mountains surrounding and many islands lying, winds are generally weak and the visibility is poor compared with outer seas. The annual trends are as follows:

1. In the coastal waters near Shikoku, the visibility becomes lower in March, poorest in May and June, relatively clear from August.
2. In the coastal waters near Honshu W of Harima Nada, the visibility is relatively good from August to October and poor from November to June.
3. In Osaka Wan, the visibility is poor throughout the year.

Weather Information

Marine forecasts and warnings. Japan Meteorological Agency (JMA) issues analysis results, forecasts, and warnings of marine meteorological phenomena via Inmarsat SafetyNET Service and radiofacsimiles (JMH) for the sea area enclosed by the equator, the 60°N line, the 100°E line, and the 180°E line.

SafetyNET is an international broadcast service, administrated by IMO for the broadcasting of maritime safety information. JMA is responsible for coordinating and promulgating the weather information of meteorological warnings, meteorological summaries, and typhoon forecasts for the NW Pacific Ocean Region, which is one of 21 regions the world is divided into. The information is transmitted via Inmarsat Pacific Ocean Region satellite by SafetyNET of the Inmarsat C Enhanced Group Call (EGC) system every day at the following times: 0530, 1130, 1730, and 2330 in JST. In addition, in the case that a typhoon with a wind speed of 48kn or more is observed or expected to form within 24 hours, forecasts and warning messages are broadcast 3 hours after regular broadcasting.

Local marine forecasts and warnings. JCG coast stations transmit meteorological warnings issued by the local meteorological offices responsible for the sea areas covered by this volume and the neighboring sea areas via radiotelephone, NAVTEX, and fishing radio meteorological report at scheduled times and any time as needs arise (see Section “Communication Services of the Japan Coast Guard” of Chapter 8 “PREVENTION OF MARINE ACCIDENTS”).

Graphical information. Weather charts created by the JMA are broadcast via the JMA’s meteorological radiofacsimiles service (JMH).

Identification signal	Class of emission	Frequency
JMH	F3C	3622.5kHz
JMH2		7795kHz
JMH4		13988.5kHz

Weather information is also available via NHK AM Radio broadcasts (in Japanese) and facsimile broadcasting by Kyodo News.

Marine weather information service. Local meteorological and oceanographic conditions such as wind direction, wind speed, atmospheric pressure, and wave height are observed at 132 observation sites of aids to navigation all over the nation. The most updated information obtained at these sites is available via telephone service or on the website for the safety of navigation and marine leisure (pleasure boating, fishing, etc.) in the coastal areas.

The list of the observation sites is available in Nautical Publication No.411 *List of Aids to Navigation Vol.1* with the observed items, telephone number, and URL for each site.

During the fishing season, information on the boat seine fishery in Akashi Kaikyo and adjacent seas are available ~~via radio broadcasting and~~ on the Osaka Wan VTS Center website, etc. In addition, the information is available by contacting Osaka Wan VTS Center via VHF radiotelephone or telephone:

https://www6.kaiho.mlit.go.jp/osakawan/

Telephone: +81-78-381-9118 (Osaka Wan VTS Center)

~~Radiobroadcast: 1,651kHz, in Japanese, for 15 minutes from one quarter past every hour and three quarters past every hour, 2,019kHz, in English, for 15 minutes from every hour and half past every hour.~~

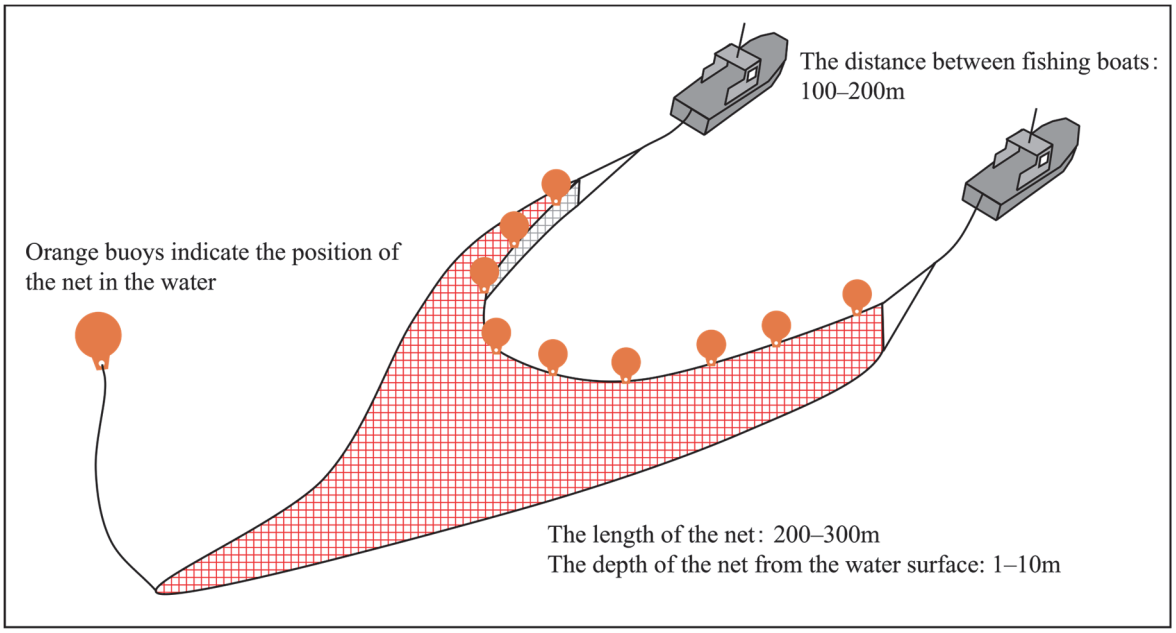


Fig.8 Schematic diagram of boat seine fishery

Red sea bream net fishery and octopus pot. Red sea bream net fishery is operated from April to July, and the busiest area is between Akashi Kaikyo and Bingo Nada. It is rarely operated further W of Kurushima Kaikyo. Fishing boats pulling up octopus pots are found everywhere in the vicinity of main routes/tracks throughout the year. These boats appear to be proceeding as they head toward the direction opposite to the current.

Stationary nets and aquaculture facilities. Stationary nets and aquaculture facilities for cultivating yellowtail, laver, seaweed, oyster, pearl, etc. have been established everywhere within 2M (4M in locations) off the shore. In particular, mariners should bear in mind that some laver aquaculture facilities are set to the far offing.

The locations of these facilities are provided on the website of MDA Situational Indication Linkages (MSIL) and their operation periods are shown by clicking the location on the map. Although Some of these facilities are not displayed on MSIL, the information is promulgated through Notices to Mariners or Regional Coast Guard Headquarters Notices to Mariners in the case that they may hinder navigation.

MSIL: https://www.msil.go.jp/

Various kinds of coastal fishery under the common fishery rights such as gill net fishery, domesticated fishery, artificial bank fishery, etc. are in operation within the coastal waters with depths of about 27m or less. They are neither displayed on MSIL, nor promulgated through Notices to Mariners or Regional Coast Guard Headquarters Notices to Mariners because of the inaccuracy of the operated position.

Fish havens. Many fish havens lie along the coasts. Basically, they are charted in the nautical charts. The information of the uncharted fish havens is promulgated through Notices to Mariners or Regional Coast Guard Headquarters Notices to Mariners in the case that they may hinder navigation.

Communication Services of the Japan Coast Guard

The coast radio stations of the JCG conduct ship-to-port communication and communication with vessels submitting position reports prescribed in the Japanese Ship Reporting System (JASREP), and provide navigating vessels the information regarding maritime traffic such as maritime safety information, meteorological warnings, navigational warnings, notification on the movement of a large vessel, etc. In emergency cases such as marine casualties, natural disasters, etc., the coast radio stations communicate with vessels for the operations of the JCG. The summary of coast radio stations is as follows:

Coast station	Identification signal	Class of emission & Frequency		Operation	Phone number
Kobe	KOBE COAST GUARD RADIO	F3E	156.45MHz (ch09) 156.6MHz (ch12) 156.8MHz (ch16)	24 hours	+81-78-391-6551
		J3E	2,150kHz 2,394.5kHz		
	004310501	F1B	2189.5kHz / 2,177kHz *		
Hiroshima	HIROSHIMA COAST GUARD RADIO	F3E	156.6MHz (ch12) 156.8MHz (ch16)		+81-82-251-5115
		J3E	2,150kHz 2,394.5kHz		
	004310601	F1B	2189.5kHz / 2,177kHz *		
Moji	MOJI COAST GUARD RADIO	F3E	156.6MHz (ch12) 156.8MHz (ch16)		+81-93-3212931
		J3E	2,150kHz 2,394.5kHz		
	004310701	F1B	2,189.5kHz / 2,177kHz *		

* receiving frequency / transmitting frequency

Japanese Ship Reporting System

The Japanese Ship Reporting System (JASREP) is a voluntary mutual rescue system operated by the JCG. The operation manual is available on the website:

URL https://www.kaiho.mlit.go.jp/mission/kainan/jasrep.html (in Japanese)

Outline of the system.

Purpose	To ensure efficiency of search and rescue operations ascertaining the movement of ships based on their position report in case of accidents.
Service area	The area covered by this system is the waters N of the parallel of 17°N and W of the meridian of 165°E.
Participating ships	Any ship within the service area, which can make reports following the description in the next table.
Participation process	Participation in the system begins when a sailing plan in the following table is submitted and ends when a final report is submitted.

Description of reports.

Type of report	Timing to send out reports	Contents of reports
Sailing Plan	When a ship departs from a port within the area covered by the system or when a ship enters the area covered by the system.	· Ship's name · Identification signal · Date and time of departure from the port or time of entry into the covered area · Name of the destination port and ETA · Planned route information and speed

Type of report	Timing to send out reports	Contents of reports
Position Report	Within 24 hours of departing port or within 24 hours of the submission of the last Position Report.	· Ship's name · Identification signal · Date and time and current position
Deviation Plan	When sailing plan changes.	· Ship's name · Identification signal · Items changed from the latest plan
Final Report	When a ship arrives at the destination or when a ship leaves the area covered by the system.	· Ship's name · Identification signal · Date and time of the arrival at the destination or time of departure from the covered area

- Ships at sea can participate in JASREP if it submits Sailing Plan, and ships can terminate participation even before arriving destination or leaving the coverage area if it sends Final Report.
- Automated Mutual Assistance Vessel Rescue System (AMVER) is a reporting system operated by the United States Coast Guard which cooperates with JASREP. Reports from the ships participating in AMVER will be forwarded to JASREP when "JASREP" is entered in the Y line of reporting format for AMVER. Likewise, reports from the vessels participating in JASREP will be forwarded to AMVER when "AMVER" is entered in the Y line of reporting format for JASREP.
- Ships sending weather reports to the JMA can omit the Position Report to JASREP when "OBS" is entered in the X line of reporting format of Sailing Plan, Deviation Plan, and Final Report. Weather reports will be forwarded to the JCG and JCG obtains the position information from them.

Reporting methods and contact point. Reports can be submitted by using the following methods: VHF radiotelephone (International VHF) to the coast radio stations of JCG, E-mail to the Operations Center of JCG Headquarters, or telephone or written submission to the nearest local JCG office.

E-mail jasrep@jcgcomm.jp

Automatic Identification of Vessels by AIS

Outline. Automatic Identification System (AIS) is a tracking system that uses the VHF band for exchanging the information automatically between a vessel and another one nearby or between a vessel and an onshore station nearby. The information consists of static information such as unique identification, type of vessel, name of vessel, length, beam, etc., dynamic information such as position, course, speed, heading direction, etc., and navigation information such as destination port, scheduled arrival time, etc.

Notification of the destination port and planned route by AIS. To ensure the safety of navigation, a vessel equipped with AIS has an obligation to notify the information on its destination port and planned route by entering the appropriate codes into AIS according to the Port Regulations Act and the Maritime Traffic Safety Act.

Pursuant to Article 11, paragraph (1) of Regulations for the Enforcement of the Port Regulations Act, codes to indicate the destination port, route in the port, and via-route are specified for vessels sailing in and around the port areas (JCG Public Notice No.94, 2010). Similarly, pursuant to Article 6, paragraph (4) of Regulations for the Enforcement of the Maritime Traffic Safety Act, codes to indicate the information relating to destination port, etc. are specified for vessels sailing in and around the traffic routes (JCG Public Notice No.95, 2010).

area N of the narrowest part for several nautical miles after the current has turned from N-going to S-going. As this residual current might cause a misjudgment about the true time of the turn of tidal current, caution is required.

Directions. When approaching Naruto Kaikyo for both N-bound and S-bound navigation, vessels should look at the whole of the strait. After checking main tidal currents and heading-on vessels, vessels should navigate so as to become right-angled to the bridge axis directing to the bridge centre light of O-Naruto Bridge (34°14.3′N 134°39.0′E). In N-bound navigation, caution should be exercised as vessels which have been waiting for a favourable tide in the N of Oge Shima may suddenly appear by turning closely around Mago Saki.

Caution should be exercised sufficiently with tour boats watching the eddying current from Fukura Ko and Kameura Ko because they cross the strait.

Overhead bridges. O-Naruto Bridge (34°14.3′N 134°39.0′E, with a vertical clearance of 41m, suspension bridge) connects To Saki and the S of Mago Saki~~, with radar beacon set on the E side of the pier~~.

Cautions for navigation. The values of tidal currents listed in the tide table are the calculated ones and may be greatly different from the real current. Even if navigation is possible according to the calculation, mariners should wait in a safe sea area when vessel do not have enough speed over the ground against the current.

It is recommended that no attempt should be made to pass through this strait under the following situations.

1. Before, during, and after the maximum tidal currents occurs; in this situation, being unable to counter to the maximum tidal current, there have been outstanding cases where a vessel becomes difficult to maneuver and runs into a marine accident.
2. On dark night and in poor visibility.
3. In rough weather.
4. When it is expected to meet other vessels in the opposite direction at the narrowest part of the strait; at the narrowest part around O-Naruto Bridge, a vessel may dangerously approach other vessels in the opposite direction, especially when the tidal current is so strong and complicated.
5. When a strong wind blows in the opposite direction to the tidal current, especially in summer with a strong S wind. In such a case, as chopping waves may occur over the strait so seriously that they cover Naka Se, it is sometimes difficult for mariners to identify the waterway.

It is advisable for large vessels or vessels unfamiliar with this strait not to attempt to pass through, regardless of the above-mentioned situations.

Fog information. When the visibility in Naruto Kaikyo falls to 2,000m or less, 1,000m or less, and 500m or less, and when it recovers 2,000m or more, the fog information is broadcast in both Japanese and English via VHF radiotelephone (call:ch16/reporting:ch12) by the 5th Regional Coast Guard Headquarters (Kobe Coast Guard Radio).

Tomogashima Suido (34°17′N 134°59′E, Charts W1143, JP150A)

Outline. Tomogashima Suido is located between the SE end of Awaji Shima and the NW end of Wakayama Prefecture. It is divided into three straits by Oki-no-Shima (34°16.9′N 135°00.7′E) and Ji-no-Shima (34°17.7′N 135°02.8′E): Yura Seto, Naka-no-Seto, and Kada Seto from the W.

Yura Seto, which is a main route, is the sea area where navigable width is as narrow as about 1.5M with the depth of 20m or more, tidal current is as strong as 3kn, many vessels navigate between Osaka Wan and Kii Suido, and many fishing boats operate as this area is a good fishery ground.

Oki-no-Shima and Ji-no-Shima are collectively called Tomo-ga-Shima. Small vessels pass through Kada Seto in general. In a poor visibility, vessels often approach too close to the shore and some of them cause a grounding accident. As Kada Seto has many dangers with strong tidal current, no large vessels pass through.

Around the S of Yura Seto, caution should be exercised as car ferries, operated between Wakayama-Shimotsu Ko and Tokushima-Komatsushima Ko, cross the channel.

The point of embarkation/disembarkation for pilots of Osaka Wan Pilotage Area is about 7M S of Tomogashima Light (34°16.9′N 135°00.0′E). Therefore, attention is required to the movements of large vessels and pilot boats.

(3) In the case that a vessel intends to navigate Kurushima Kaikyo Traffic Route within the time from one hour before the turn of the tidal current until the time of turn, the vessel shall report the items below to Kurushima Kaikyo VTS Center as soon as it crosses the Position Reporting Line (see Fig.32):

(i) name of the vessel,

(ii) means for communicating with JCG,

(iii) navigation speed,

(iv) estimated time of entering into Kurushima Kaikyo Traffic Route.

Reporting method is either of the following:

(v) VHF radiotelephone: Identification signal “KURUSHIMA MARTIS”, ch16, ch13,

(vi) telephone: +81-898-31-9000.

7. Designated route in the sea areas off the traffic routes near W entrance of Kurushima Kaikyo Traffic Route (Article 25, paragraph (2) of the Maritime Traffic Safety Act) (See Fig.30.)

(1) Vessels which have crossed the limit line of the W exit of Kurushima Kaikyo Traffic Route after navigating the traffic route westwards and intend to navigate by crossing Line A shall take their routes as follows:

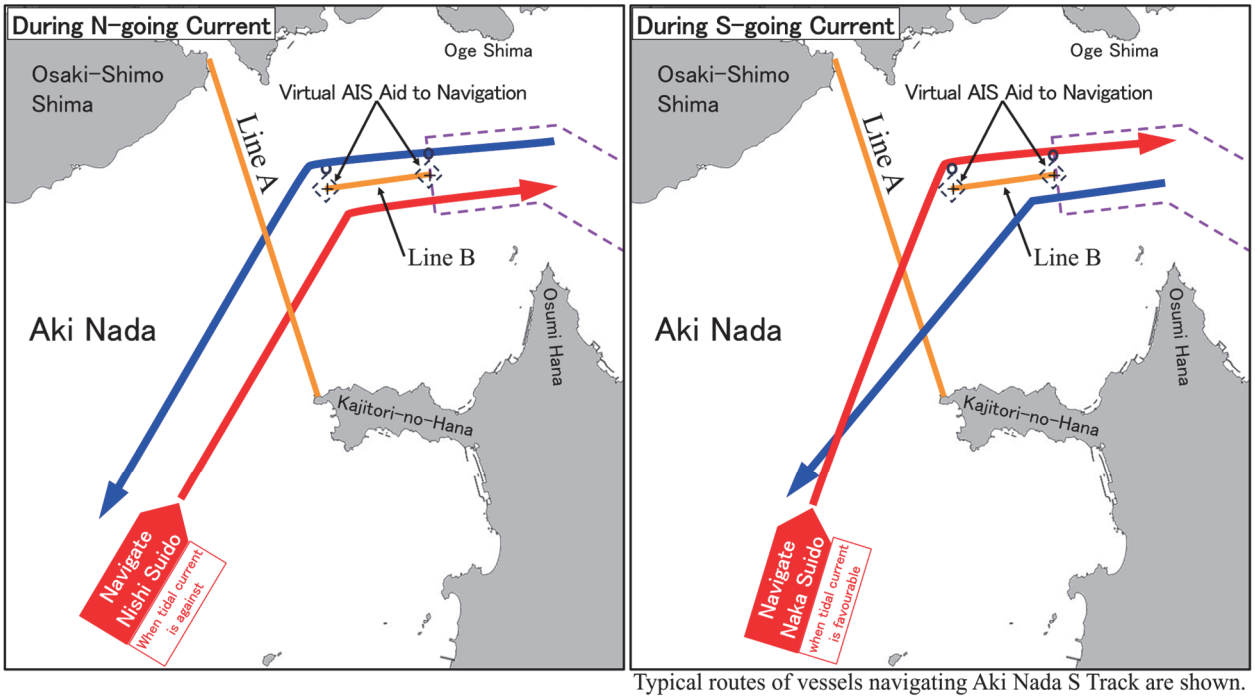
(i) in the case of vessels which have crossed the limit line of the W exit of the traffic route at the N side of Line B before crossing Line A.

(ii) in the case of vessels which have crossed the limit line of the W exit of the traffic route at the S side of Line B shall navigate the sea area S of Line B before crossing Line A.

(2) Vessels which intend to cross Line A and then intend to navigate Kurushima Kaikyo Traffic Route eastwards after crossing the limit line of the W entrance of traffic route shall take their routes as follows:

(i) in the case of vessels which intend to cross the limit line of the W entrance of the traffic route at the N side of Line B shall navigate the sea area N of Line B before crossing the limit line,

(ii) in the case of vessels which intend to cross the limit line of the W entrance of the traffic route at the S side of Line B shall navigate the sea area S of Line B before crossing the limit line.



Typical routes of vessels navigating Aki Nada S Track are shown.

Fig.30 Reference chart of the designated route near the W entrance/exit of Kurushima Kaikyo Traffic Route

4. W entrance of Hayatomo Seto – E entrance of O Seto.

The passage is bent with an angle of about 20 degrees at the offing of Shiraki Saki (33°56.3′N 130°56.8′E). After passing through Hayatomo Seto, W-bound vessels steer 220° following Hikoshima Leading Lights (33°55.9′N 130°55.6′E) and navigate the passage indicated by the light buoys situated to show normal lines of the passage from the NE of Shiraki Saki. In this sea area, some vessels that are intending to anchor in Moji Ku or Shimonoseki Ku may occasionally turn around near the passage to search an anchoring point.

Due to traffic signals, car lights, etc. on the seaside road on Shimonoseki side in the vicinity of Kanmon Bridge, it is difficult to distinguish the lights of W-bound vessels.

It is also extremely difficult to distinguish the lights of E-bound vessels navigating from off Yamazoko-no-Hana (33°54.9′N 130°55.4′E) to off Ganryu Shima (33°56.0′N 130°55.8′E) due to the lights on shore.

5. O Seto

This is the second most dangerous point after Hayatomo Seto, where the passage is largely bent, visibility is poor, and there are many small vessels navigating.

(1) Vessels are liable to be driven towards the Moji side at the time of E-going current and towards the Kokura side at the time of W-going current.

(2) Under the strong current, it is difficult to navigate along the passage. Vessels are liable to deviate from the passage towards the S to run into danger while turning around the bent part, especially at night.

(3) Vessel traffic is heavy and complex, with vessels taking various courses and crossing one another. Most of small vessels ~~and miscellaneous vessels~~ take the course close to Hiko Shima for the shortcut and some of them cross the passage W of Yamazoko-no-Hana.

W-bound vessels. W-bound vessels should make several small changes of course to prevent the deviation of the course to the S. It is advisable not to approach the Hiko Shima side as many small vessels are navigating and some shoals lie there.

E-bound vessels. It is advisable for vessels to navigate the course indicated by Oseto No.1 Leading Lights (33°53.5′N 130°54.8′E) – No.3 Leading Lights (33°55.0′N 130°56.4′E). It is difficult to distinguish the lights of navigating vessels at night for both E-bound and W-bound vessels due to the lights on shore.

6. W entrance of O Seto – Takenoko Shima (33°57.1′N 130°52.6′E).

Tidal current is weak and the width of the passage is relatively wide. Kanmon Passage, Kanmon Passage No.2, Anse Passage, Wakamatsu Passage, and Tobata Passage are situated in the S side and W side of Daiba Hana (33°57.0′N 130°52.4′E). Transit priorities for vessels navigating these passages are complicated (see Fig.38).

In particular, enough care should be taken of the transit priority between S-bound vessels in Kanmon Passage E of Mutsure Shima, W-bound vessels heading for Kanmon Passage No.2, and E-bound vessels from Kanmon Passage No.2.

7. E side of Mutsure Shima

The quarantine anchorage areas are located on both sides of Kanmon Passage, where many vessels sometimes take anchorage. When strong W wind is blowing, many vessels seeking shelters gather at the sea area near Mutsure Shima. Vessels navigating the passage should look out the passage and keep clear off vessels in anchorage. An artificial island is under construction in the area about 2M NE of Mutsure Shima.

8. W side of Mutsure Shima

A fairway runs between Mutsure Shima and Ai-no-Shima, which is narrow and slightly bending. In recent years, vessel traffic has increased in this fairway, including large vessels.

Near the point where vessels change the course at the W of Kata Shima (33°58.1′N 130°50.8′E), it is advisable not to approach to Densaku-no-Se (33°58.4′N 130°50.7′E) to the E of the fairway and shallows to the W of the fairway by observing the distance to Kata Shima.

(iii) the visibility falls to 500m or less,

(iv) the visibility recovers 2,000m or more.

(2) Notification method.

(i) The 7th Regional Coast Guard Headquarters:

- VHF radiotelephone (MOJI COAST GUARD RADIO, calling:ch16/reporting:ch12, in Japanese and English)

(ii) Kanmon Kaikyo VTS Center:

- VHF radiotelephone (KANMON MARTIS, calling: ch16/reporting: ch14, in Japanese and English),

~~- Radio: 1,651kHz (in Japanese), 2,019kHz (in English),~~

- AIS binary messages (in English).

Guidance for safe navigation by the Captain of the port. The Captain of the port, Kanmon, provides the following guidance for safe navigation:

1. Control of traffic meeting in Hayatomo Seto Fairway

In Hayatomo Seto Fairway, the following vessels should not meet up each other:

(1) Between vessels (other than oil carrying vessels): 10,000t or more vs10,000t or more,

(2) Between oil carrying vessels: 3,000t or more vs 3,000t or more,

(3) Between vessels other than oil carrying vessels and oil carrying vessels: vessels of 10,000t or more vs oil carrying vessels of 3,000t or more.

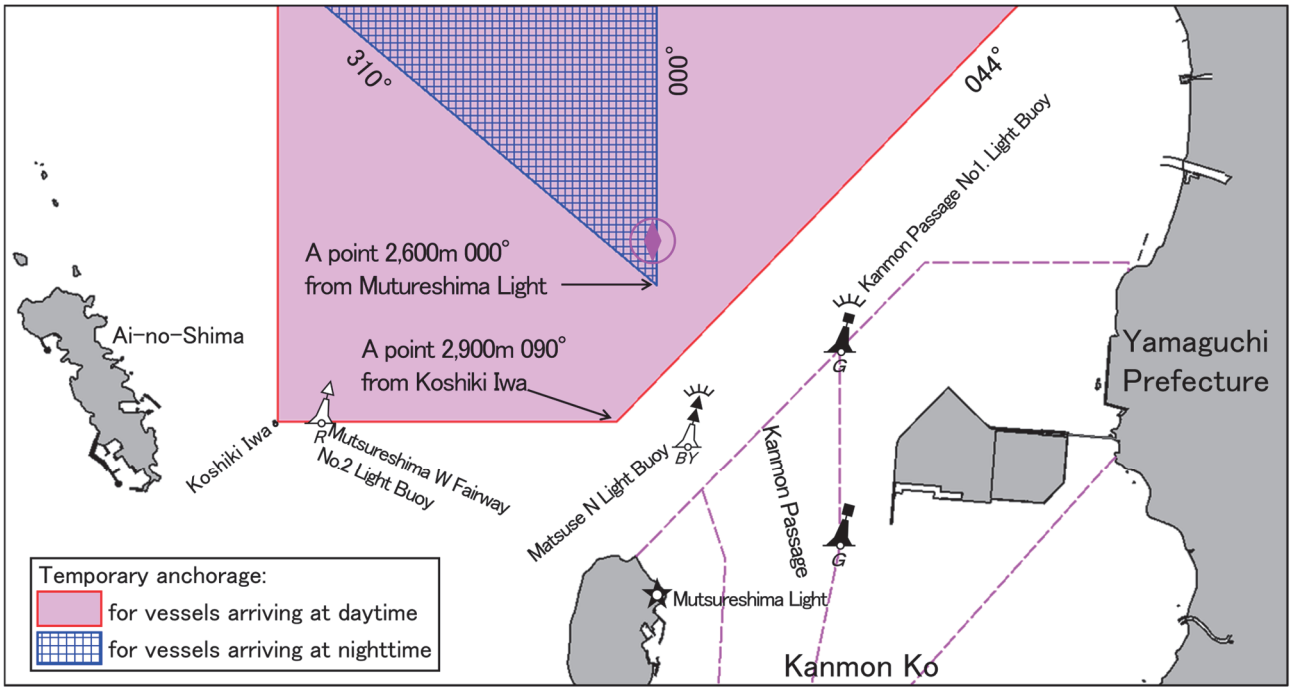


Fig.42 Temporary anchorage around Mutsure Shima.

2. Temporary anchorage in the sea areas around Mutsure Shima (see Fig.42).

Vessels with the draught of 10m or more or with the gross tonnage of 30,000t or more intending to enter or pass through Kanmon Ko should take temporary anchorage in the sea area described below, when taking temporary anchorage near Mutsure Shima in order to wait for a pilot, a favourable tide, etc.:

(1) From sunrise to sunset

The sea area N of a line joining Koshiki Iwa (33°59.5′N 130°50.0′E) and a point 2,900m 090° from Koshiki Iwa and a line drawn at 044° from the same point.



Yura Ko (Photographed in March 2021)

Directions. When approaching Yura Ko, keep Kii-yura Ko Mitsui Buoy (33°56.7′N 135°04.5′E) to the port side and change course as required to proceed towards the port.

After passing Ari Shima, breakwaters for tsunami prevention are situated at both the left and right sides (the one in front of Komaihaltek is under construction), a fishing park is situated around the S of Tobi Shima, and aquaculture facilities are situated near Muronoki Hana at the S part of the middle of the port area.

Port facilities.

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×vessel)	Remarks
Mooring Quay	33°57.6′N 135°06.8′E	145	3 – 5	700×2	
Sakurajima Quay	33°57.4′N 135°06.4′E	245	3.5 – 7	2,000×1	Privately used by a cement company. General vessels are allowed to use only in emergency.

Anchorage. For large vessels, favourable anchorage can be taken at the N part of the port area, near a line joining Tobi Shima (33°57.4'N 135°05.8'E, 7m in height) and the N end of Ari Shima, with depths of about 15 – 16m, as well as the inner part of the bay where Nagai-no-Hana (33°57.8'N 135°06.1'E) is seen at a bearing of 336° with a depth of about 11m and a muddy bottom.

Safety measures against typhoon and tsunami. In order to prevent maritime disasters due to typhoon, tsunami, etc., Wakayama Kihoku Chiku Typhoon and Tsunami Countermeasure Council has been established. Vessels in the port, etc. are given guidance on disaster prevention measures such as the provision of information about typhoon, tsunami, etc., the provision of warnings, issuing recommendations for evacuation, and the restriction of port entry and the cancellation thereof.

(Inquiries: Wakayama Coast Guard Office).

Repair facilities.

Facility	Phone number
TSUNEISHI YURA DOCKYARD Co., Ltd.	+81-738-65-1111

Outline. Wakayama-Shimotsu Ko faces the NE part of the Kii Suido, and the port area spans three cities of Wakayama-shi, Kainan-shi, and Arida-shi from N to S. The port area is divided into four districts of Wakayama Ku, Kainan Ku, Shimotsu Ku, and Arida Ku, and the outer harbour.

Wakayama Ku is situated in the NE part of the port area. The district is divided into four sections of Section 1, Section 2, Kita Ku {N Section}, and Minami Ku {S Section}. Section 1, which is the part inside the S and N breakwaters at the S of the mouth of Ki-no-Kawa (34°13.2'N 135°07.4'E), is generally called “Wakayama Honko {main port}”; Kita Ku, which is the N part of the Ki-no-Kawa mouth (private port of a metal company), is called “Wakayama Kita Ko”; Minami Ku, which is the part between the S breakwater of Wakayama Honko and Daiba-no-Hana (34°11.6'N 135°08.4'E) to the S, is called “Wakayama Minami Ko”. In Kainan Ku at the SE part of Wakaura Wan, there are oil refining and steel-related factories. There is a large leisure facility in the N part of Kainan Ku. Shimotsu Ku and Arida Ku lie in the S part of Wakayama-Shimotsu Ko. Arida Ku comprises Section 1 to 3. Oil refineries are situated in each section of Shimotsu Ku and Arida Ku, and the area offshore of these sections constitutes the outer harbour.

In the N part of Wakaura Wan, Wakaura Gyoko is situated in the outer harbour~~; the water depth in the fishing harbour is said to be around 5m;~~, and can accommodate vessels of up to 200tons. Saikazaaki Gyoko lies about 1M W of Wakaura Gyoko. Minoshima Gyoko is situated in Section 3 of Arida Ku.



Shimotsu Ku of Wakayama-Shimotsu Ko (Photographed in March 2021)



Arida Ku of Wakayama-Shimotsu Ko (Photographed in March 2021)

Landmark	Position	Remarks
Ji-no-Shima (Hatsu Shima)	34°06.8′N 135°06.0′E	An island, with the top (115m in height) near the SW end.
Cluster of tanks	34°06.2′N 135°06.7′E	Painted silver, situated within the premises of an oil company.
A chimney	34°06.7′N 135°07.0′E	161m in height, painted red and white, with flare; conspicuous.
Aoishi Hana (Tsubune Hana)	34°07.8′N 135°07.3′E	A cape with a lighthouse. Five oil tanks (painted white) lie on the E side of cape.
A sea-berth	34°08.0′N 135°07.2′E	Three sea-berth lights are installed.
A tower	34°09.6′N 135°10.9′E	A bridge pier, 109m in height, for Sun Bridge (cable-stayed bridge).
Cluster of chimneys	34°14.0′N 135°08.1′E	124m in height, painted red and white.
A tank	34°14.3′N 135°07.9′E	100m in height, painted white.

Directions.

1. Kita Ku of Wakayama Ku. In the case of vessels approaching from the S, steer N towards Takurasaki Light (34°15.9'N 135°03.7'E); then change course as required at the W side of Kitaku Passage so as to enter the passage.
   Note that, when entering and leaving the port, caution is necessary as many fishing boats are in operation within the port area.
2. Shimotsu Ku. When approaching the port, steer a course of 100° towards the entrance of Shimotsu Passage from about 1M N of Shimotsu-okinoshima Light (34°06.8'N 135°04.6'E) until entering the passage; then steer a course of 123° towards the top of Ushi-ga-Kubi (34°06.7'N 135°08.4'E, 47m in height) so as to enter the port.
   Note that there is a quarantine anchorage area about 0.5M W of the entrance of Shimotsu Passage; caution is necessary for anchored vessels.
3. Arida Ku. A waterway on the S side of Ji-no-Shima has depths of more than 10m, but the navigable width is about 250m at the narrowest part. Caution is necessary as Nabe Iso lies in the S of Ji-no-Shima.

Passages under the Port Regulations Act.

1. Kitaku Passage running to Kita Ku of Wakayama Ku is about 0.8M in length, about 300m in width, and 14 – 20m in depth, marked by lights and light buoys.
2. Shimotsu Passage running from about 750m SSW of Aoishi Hana to Shimotsu Ku is about 1.1M in length, about 200m in width (partially about 100m), 12 – 16m in depth.

Fog information. When the visibility in Wakayama-Shimotsu Ko falls to 2,000m or less, 1,000m or less, and 500m or less, and when it recovers 2,000m or more, fog information is broadcast in both Japanese and English via VHF radiotelephone (ch16/ ch12) by the 5th Regional Coast Guard Headquarters (Kobe Coast Guard Radio).

~~**Private signals.** In Kita Ku of Wakayama Ku, the following signal station and signal mast are operated for the purpose of providing navigation control signals to the vessels intending to berth at private facilities:~~

~~1. Nippon Steel Signal Station which instruct the vessels berthing at Nippon Steel berthing facilities,~~

~~2. Nippon Steel Signal Mast which instruct the vessels berthing at Nippon Steel No 2 Inner Harbour berthing facilities.~~

Entry restrictions. General vessels navigating within the port area are prohibited by the Captain of the port from entering the sea area within 30m of tankers carrying flammable dangerous goods that are anchoring in the port, in order to prevent accidents caused by ignition.

Anchorage. Quarantine anchorage area is located in the S part of Outer Harbour, W of the entrance to Shimotsu Ku.

1. Outer Harbour in Wakaura Wan. This area is 5 – 20m in depth, good holding ground with a soft muddy bottom. It affords favourable anchorage during the winds from E, but high waves may enter during the strong winds from between S and W.
2. Kainan Ku. Shiotsu Gyoko is situated in the S of Section 2, which is a small fishing harbour of about 550m in width and about 7m in depth. A small pier is situated on the W side of the entrance.

Landmarks.

Landmark	Position	Remarks
Wada-no-Hana	34°00.6′N 134°37.9′E	A cape of low sandspit with a lighthouse in the eastern part.
Nei Hana	34°01.1′N 134°36.1′E	A cape with a lighthouse on a mountain about 0.3M to the W.
Shiba Yama	34°01.3′N 134°35.3′E	A mountain, 191m in height.

Directions. Vessels should navigate while keeping safe distances from Oki-no-Se (34°02.9′N 134°39.9′E), Ai-no-Se, and Okame Iso (34°02.3′N 134°37.9′E). In the case of vessels approaching Section 1, after passing Wada-no-Hana, proceed through the entrance of a fairway marked by Komatsushima No.1 Light Buoy (34°00.4′N 134°36.6′E) and No.2 Light Buoy (34°00.5′N 134°36.5′E).

In the case of vessels intending to moor at Kanaiso Quay or Akaishi Quay, turn to the left as required and follow a fairway marked by Komatsushima-kanaiso No.1 Light Buoy (34°00.8′N 134°37.2′E) – No.6 Light Buoy (33°59.9′N 134°37.0′E).

Passages under the Port Regulations Act. A passage of Section 1, running from between the E and S breakwaters to the NW end of the harbour, is about 700m in length, 150m in width, and 5 – 10m in depth.

Fairways. A fairway leading to Kanaiso Quay in the S part is 10 – 13m in depth, marked by light buoys.

Port facilities.

Section 1:

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×Vessel)	Remarks
Shinko Wharf Shinko Quay	34°00.8′N 134°35.5′E	150	8.5	10,000×1	
Shinko Wharf N Quay	34°00.7′N 134°35.4′E	218	6.5	2,500×2	
Shinko Wharf W Quay		91	6.5	1,000×1	
Shinko Wharf S Quay		221	6.5 – 7.5	2,500×2	

Section 3:

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×Vessel)	Remarks
Kanaiso Quay (No.1)	33°59.7′N 134°36.7′E	210	11 – 11.5	15,000×1	
Kanaiso Quay (No.2)		170	9	8,000×2	
N Landing Place		260	1.5 – 4	500×5	
S Landing Place	33°59.5′N 134°36.4′E	370	3.5	500×4	There is a sunken ship.
Akaishi Quay	33°59.6′N 134°37.2′E	260	10 – 13	40,000×1	
Akaishi E Quay	33°59.8′N 134°37.5′E	130	7.5	5,000×1	

* In addition to the above table, there are some private mooring facilities for use by companies.

Maximum size of vessel handled. Cruise ship *MSC Splendida* (137,936t, with a draught of 8.6m) berthed at Akaishi Quay on 14 May 2019.

2 Tokushima Ku

Outline. Tokushima Ku is a river mouth port formed at the estuary of Shinmachi Kawa. Since Tsuda Wood Industrial Estate and log ponds are situated in the S side of the estuary, many timber carriers enter and leave the port. Many car ferries also depart from and arrive at this port.

Port facilities.

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×Vessel)	Remarks
Kotajima Quay	33°53.0′N 134°39.2′E	240	4.5	700×4	
Nishihama Public Quay	33°52.2′N 134°38.5′E	360	4 – 5	2,000×4	
Ogata Quay (No.1)	33°52.7′N 134°39.9′E	100	5 – 5.5	2,000×1	
Ogata Quay (No.2)		60	4.5 – 5	—	

* Ogata Quay (No.1) is a quay for receiving supplies in emergencies. In addition to the above table, there are some private mooring facilities for use by companies.

Supplies. Fuel oil supply vessels are available.

Medical facilities

Name	Phone number
Anan Medical Center	+81-884-28-7777

Maritime traffic. Passenger liners are operated bound for I Shima, which departs from and arrives at Kotajima Quay.

Tsubakidomari Ura (33°50.4′N 134°42.8′E) (Chart W1104)

Outline. Tsubakidomari Ura is a narrow bay, located about 1.3M WNW of Kamoda Misaki, indenting about 3M towards W with depths of 10m or more even in the inner part. The bottom is muddy, suitable for anchorage. Tsubakidomari Gyoko is located on the S shore near the entrance of the bay and on the N shore in the middle part.



Tsubakidomari Ura (Photographed in May 2021)

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×vessel)	Remarks
Hannan No.1 – 3 Landing Places	34°27.7′N 135°21.6′E	1,000	3	500t class	
Hannan No.1 Quay	34°27.7′N 135°21.3′E	360	4 – 5	700×6	
Hannan No.2 Quay	34°27.8′N 135°21.3′E	240	3.5 – 4	700×4	Fronted by foul ground.
Hannan No.3 Quay	34°28.0′N 135°21.5′E	180	3.5 – 4.5	1,000×3	
Hannan No.4 Quay		420	4.5 – 5	1,000×7	
Hannan No.4･5 Landing Places	34°28.0′N 135°21.9′E	1,070	3 – 4	500t class	

Section 3:

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×vessel)	Remarks
Sano Gyoko Public Quay	34°25.7′N 135°19.4′E	101	2 – 2.5	50×5	Fronted by foul ground.
Sano Gyoko South Quay	34°25.5′N 135°19.3′E	230	2.5 – 5	2,000×2	
Sano Gyoko Central Quay	34°25.6′N 135°19.5′E	800	Unsurveyed	2,000×7	
Sano Gyoko North Quay	34°25.8′N 135°19.6′E	230	5 – 6.5	2,000×2	

Safety measures against typhoon and tsunami. In order to prevent maritime disasters due to typhoon, tsunami, etc., Osaka Ko Maritime Disaster Prevention Countermeasure Committee has been established. Vessels in the port, etc. are given guidance on disaster prevention measures such as the provision of information about typhoon, tsunami, etc., the provision of warnings, issuing recommendations for evacuation, and the restriction of port entry and the cancellation thereof.

(Inquiries: Osaka Coast Guard Office)

Maritime authorities and facilities.

Name	Phone number
Kishiwada Coast Guard Office (Captain of the Port)	+81-72-422-3592
Kishiwada Sub-Branch Customs, Sakai Branch Customs, Osaka Customs Headquarters	+81-72-439-1176
Kishiwada detached office, Osaka Quarantine Station	Contact Osaka Quarantine Station: +81-6-6571-4312
Facility Management and Operation Department (Sennan Management Group), Senshu Ports and Coasts Division, Osaka Ports and Harbors Bureau	+81-72-521-7249

Tugboats. Many privately-operated tugboats are available.

Ferryboats. Ferryboats are available.

Medical facilities.

Name	Phone number
Rinku General Medical Center	+81-72-469-3111

Overhead bridges. Kishinoura O-hashi Bridge (with vertical clearances of 7 – 14m) connects the reclaimed land in Section 2 and the opposite shore to the SE. Kaizuka O-hashi Bridge (with a vertical clearance of 4m) and Nishiki O-hashi Bridge (with a vertical clearance of 5.1m) connect the reclaimed land in the SE of the quarantine anchorage area and the opposite shore to the SE.

Kobe Ku:

International maritime signal flags	Symbols	Signal Message
2nd substitute・K	K	Heading for the mooring facilities between Kobe Plant of Mitsubishi Heavy Industries and Kobe Works of Kawasaki Heavy Industries in Section 1.
2nd substitute・T	T	Heading for Takahama Quay in Section 1.
2nd substitute・N	N	Heading for Naka Jetty in Section 1.
2nd substitute・S・W	SW	Heading for the mooring facilities between the W side of No.1 Shinko Jetty and the W side of No.4 Shinko Jetty in Section 1.
2nd substitute・P・W	PW	Heading for the mooring facilities on the W side of Port Island in Section 1.
2nd substitute・P・2	P2	Heading for the mooring facilities on the E side of phase-2 reclaimed land of Port Island in Section 2.
2nd substitute・P・E	PE	Heading for the mooring facilities on the E side of Port Island or Dolphin Berth 9 in Section 2.
2nd substitute・P・N	PN	Heading for the mooring facilities on the N side of Port Island in Section 2.
2nd substitute・S・E	SE	Heading for the mooring facilities between the E side of No.4 Shinko Jetty and Shinko-Higashi Wharf in Section 2.
2nd substitute・M・W	MW	Heading for the mooring facilities on the W side of Maya Wharf ~~or Dolphin Berth 1~~ in Section 2.
2nd substitute・M	M	Heading for the mooring facilities on the S side of Maya Wharf or on the E side of Maya Wharf or Dolphin Berths 6 – 8 in Section 2.
2nd substitute・A	A	Heading for the Nada Wharf in Section 2.
2nd substitute・E・1	E1	Heading for the mooring facilities on the Eastern No.1 Section in Section 2.
2nd substitute・E・2	E2	Heading for the mooring facilities on the Eastern No.2 Section in Section 2 and Section 3.
2nd substitute・R・N	RN	Heading for the mooring facilities on the N side of Rokko Island in Section 2.
2nd substitute・R・W	RW	Heading for the mooring facilities on the W side of Rokko Island in Section 2.
2nd substitute・R・S	RS	Heading for the mooring facilities on the S side of Rokko Island in Section 3.
2nd substitute・R・E	RE	Heading for the mooring facilities on the E side of Rokko Island in Section 3.
2nd substitute・R	R	Heading for the mooring facilities on the N side of Rokko Island in Section 3.
2nd substitute・E・3	E3	Heading for the mooring facilities on the Eastern No.3 Section in Section 3.
2nd substitute・F	F	Heading for the mooring facilities on Higashi-Kobe Ferry Wharf in Section 3.
2nd substitute・E・4	E4	Heading for the mooring facilities in the Eastern No.4 Section in Section 3.

【Replaced with the figure below】

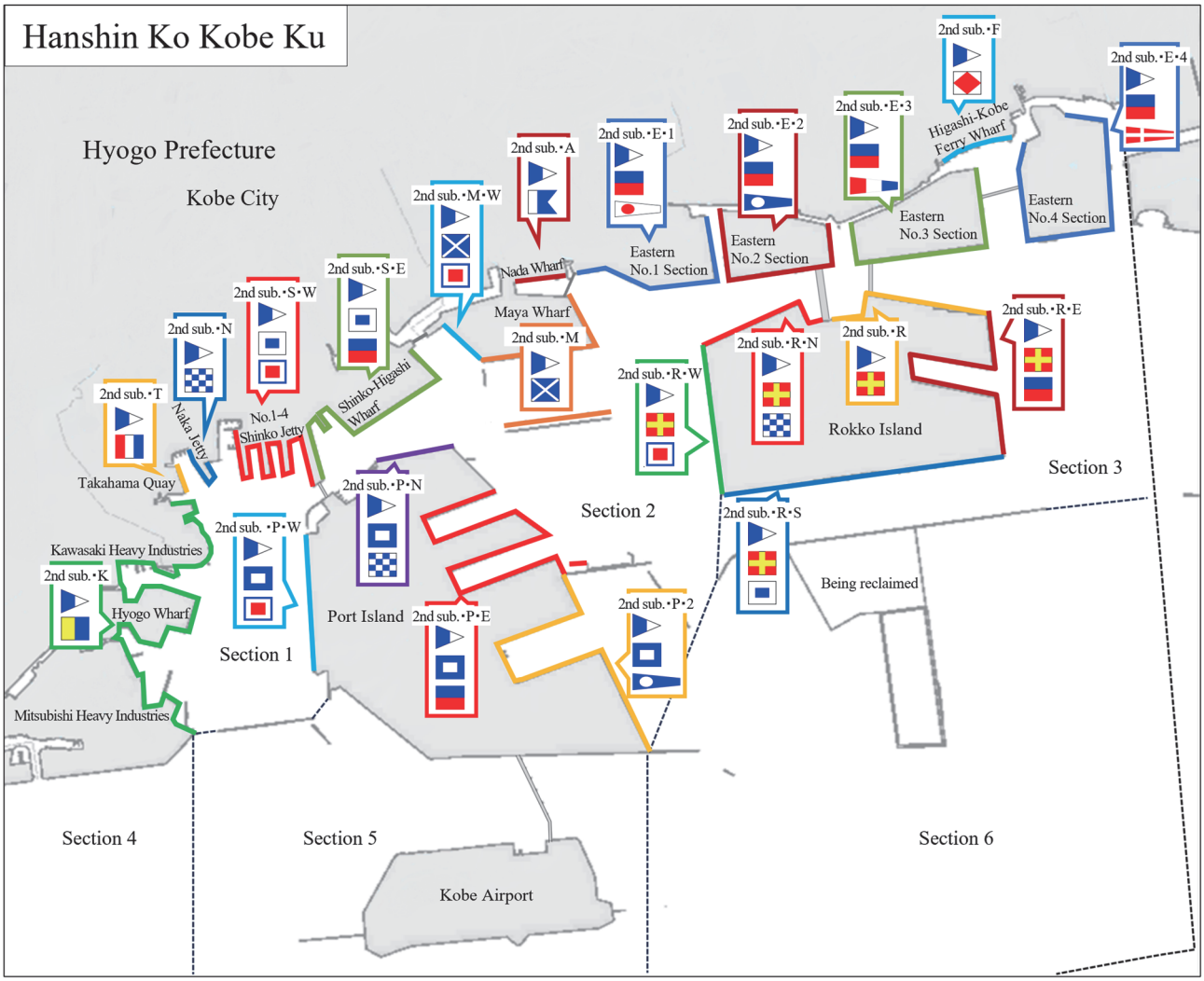


Fig.44 Indication of course in Hanshin Ko Kobe Ku: international maritime signal flags

Pilotage. Pilotage is available upon request to Osakawan Pilots' Association (see Chapter 6 "PILOTAGE", Part 1 "GENERAL INFORMATION").

Fog information. When the visibility in any districts of Hanshin Ko falls to 2,000m or less, 1,000m or less, and 500m or less, and when it recovers 2,000m or more, fog information is broadcast in both Japanese and English via VHF radiotelephone (ch16/ ch12) by the 5th Regional Coast Guard Headquarters (Kobe Coast Guard Radio). Fog information is also provided via NAVTEX Navigational Warnings (English/Japanese), AIS messages, E-mails from the Maritime Information and Communication System (MICS).

Entry restrictions. From 1 May 2019, for the time being, vessels within the port area are prohibited from navigating the sea area within 30m of tankers carrying flammable dangerous goods that are anchoring in Osaka Ku and Sakai-Senboku Ku (this restriction applies to the sea area within 50m for tankers carrying Liquefied Natural Gas (LNG), and within 15m of tankers carrying flammable dangerous goods anchoring in Kizugawa Canal in Section 3 of Osaka Ku), in order to prevent accidents caused by ignition. Note that tankers carrying flammable dangerous goods display a banner that can be easily seen even at night, stating "Carrying Flammable Dangerous Goods" or similar wording, while anchoring in the port (Captain of the Port, Hanshin, Public Notice (Osaka Ku) No.1-1, 1 May 2019).

Section 5

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×vessels)	Remarks
Sukematsu Wharf No.1 Quay	34°31.5′N 135°23.7′E	280	9	10,000×1	Aseismic quay. For ferry.
Sukematsu Wharf No.2 Quay		390	7 – 7.5	5,000×3	
Sukematsu Wharf No.3 Quay		390	7 – 7.5	5,000×3	
Sukematsu Wharf No.4 Quay		390	7.5	5,000×3	
Sukematsu Wharf No.5 Quay		390	7.5	5,000×3	
Sukematsu Wharf No.6 Quay		180	5.5 – 8.5	2,000×1	
Sukematsu Wharf No.7 Quay		390	8.5	5,000×3	
Sukematsu Wharf No.8 Quay		480	12	30,000×2	
Sukematsu Wharf No.9 Quay		300	12 – 14	30,000×1	Aseismic quay.
Komatsu Wharf No.1 Quay	34°30.8′N 135°24.1′E	360	5 – 5.5	2,000×4	
Komatsu Wharf No.2 Quay		390	6 – 7	5,000×3	
Komatsu Wharf No.3 Quay	34°30.9′N 135°24.0′E	230	5 – 6.5	2,000×2	
Matsunohama No.1 Quay	34°30.8′N 135°24.6′E	450	5 – 5.5	2,000×5	
Matsunohama No.2 Quay		450	5	2,000×5	
Shiomi Wharf No.1 Quay	34°30.4′N 135°23.3′E	480	1.5 – 5	700×8	
Shiomi Wharf No.2 Quay	34°30.7′N 135°23.2′E	555	9 – 10	15,000×3	
Shiomi Wharf No.3 Quay	34°30.7′N 135°23.1′E	555	9 – 10	15,000×3	
Shiomi Wharf No.4 Quay	34°30.7′N 135°23.0′E	260	5.5 – 8	5,000×2	
Shiomi Wharf No.5 Quay		720	10.5 – 11.5	30,000×3	
Shiomi Wharf No.6 Quay	34°30.6′N 135°23.5′E	370	10	15,000×2	
Yunagi No.1 Quay	34°31.2′N 135°23.1′E	260	11	18,000×1	

Safety measures against typhoon and tsunami. In order to prevent maritime disasters due to typhoon, tsunami, etc., Osaka Ko Maritime Disaster Prevention Countermeasure Committee and Tsunami Countermeasures Subcommittees for Osaka Prefecture and Osaka City each have been established. Vessels in the port, etc. are given guidance on disaster prevention measures such as the provision of information about typhoon, tsunami, etc., the provision of warnings, issuing recommendations for evacuation, and the restriction of port entry and the cancellation thereof.

When rough weather is expected, an evacuation recommendation will be issued by the Captain of the port, Hanshin. In some cases, the recommendation for self restraint from anchoring will be issued for the area near the specified piers in Sakai-Senboku Ku: Crude Oil Pier of Cosmo Oil Co. Ltd, No. 2 Pier in Senboku Works Plant No. 2 of Osaka Gas Co. Ltd, and LNG Center Pier of Sakai LNG Co. Ltd.(see Article “Safety measures against typhoon and tsunami” of Section “Osaka Wan”, Subchapter 2 “OSAKAWAN AND THE VICINITIES”, Chapter 1 “KII SUIDO – AKASHI KAIKYO”, Part 2 “OFFSHORE AND THROUGH ROUTES”).

Maritime authorities and facilities.

Name	Phone number
Sakai Coast Guard Station (Captain of the Port)	+81-72-244-1771
Sakai Branch Customs, Osaka Customs Headquarters	+81-72-244-4474
Facility Management and Operation Department (Facility Management and Operation Group), Senshu Port and Coast Division, Osaka Ports and Harbors Bureau	+81-725-21-7217
Facility Management and Operation Department (Senboku Management Group), Senshu Ports and Coasts Division, Osaka Ports and Harbors Bureau	+81-72-521-7248

Tugboats. Tugboats for mother vessels with powers of 2,600 – 6,000PS are available.

Ferryboats. A ferryboat is available.

Supplies. Fuel oil supply vessels and fresh water supply vessels are available.

Waste oil treatment facilities.

Name	Contact	Hours of operation	Kind of waste oil processed	
			Waste heavy oil	Waste light oil
Cosmo Oil	Phone: +81-72-245-8554	0900 - 1700	Ballast water	Ballast water, tank cleaning water
ENEOS Sakai Oil Refinery	Phone: +81-72-269-2011	0900 - 1700	Ballast water	Ballast water, tank cleaning water

Medical facilities.

Name	Phone number
Sakai City Medical Center	+81-72-272-1199

Maritime traffic. Car ferries are operated between Sakai-Senboku Ku and Kanmon Ko, departing from/arriving at Section 5.

2 Osaka Ku (34°39.0′N 135°25.0′E) (Charts JP123, W1148) (JP OSA)

Outline. Osaka Ku is divided into Section 1 – 6 and Osaka Passage under the Port regulations Act. The port area in the E of a line joining Osaka Hokko S breakwater (34°38.5′N 135°23.6′E) and Osaka S breakwater within Section 1 – 3 is called “Zairai Ko {Conventional Harbour}”. The port area in the S side of Osaka S breakwater within Section 4 is called “Nanko {South Harbour}”. The port area surrounded by the shores from the N end of Maishima to the SE end of Yumeshima and opposite shores to the E within Section 1 and Section 6 is called “Hokko {North Harbour}”. In the port area within Hokko and Section 6 in the W side of Osaka S Breakwater Light, land development for the construction of facilities for the domestic and foreign trades is currently underway through reclamation. Depths at the mouth of the Yodo Kawa have decreased considerably due to sediment deposition; navigation requires caution.



Osaka Ku (Photographed in June 2021)

Weather and climate. W winds are prevalent in winter, while W or NNE winds are prevalent in summer. In winter, when strong W winds continuously blow, wind waves become high.

Strom Surge. Abnormal high tide can occur when the passage of a typhoon or a low pressure overlaps with High Water. During the passage of typhoon No.21 on 4 September 2018, the maximum wind speed of 27.3m/s from the SSW was observed and the sea level became so high that it reached to 405cm.

International maritime signal flags to indicate the course	Symbols to indicate the course	Signal Message
1st substitute・M	—	Leaving from the E of Kami-Mizu Shima. (Vessels which navigate Inner Harbour Passage to leave Mizushima Ko before navigating Mizushima Traffic Route are allowed to display “1st substitute・P” instead of “1st substitute・M” if they are required to display “1st substitute・P” in the traffic route according to the provision of Article 7 of the Maritime Traffic Safety Act.)
1st substitute・T	—	Leaving from the W of Kami-Mizu Shima.
2nd substitute・A	A	Heading for the mooring facilities between W Public Landing Place (-2.6m) and quays on ENEOS Mizushima Refinery A.
2nd substitute・B	B	Heading for the mooring facilities between E Public Landing Place and piers on ENEOS Mizushima Refinery B, or those on a narrow channel called Yobimatsu Suiro.
2nd substitute・C	C	Heading for the mooring facilities between Asahi Kasei C7 Pier and Taiheiyo Cement Pier.
2nd substitute・D	D	Heading for the mooring facilities between berth A of JFE Quay and JFE Coal Loading Pier.
2nd substitute・T・H	TH	Heading for the mooring facilities on Takahashi Kawa or Otoshima.
2nd substitute・T・S	TS	Heading for the mooring facilities on Tamashima Chiku (excluding Otoshima).
2nd substitute・F・M	FM	Heading for the sea area S of JFE (anchorages A to E).
2nd substitute・F・T	FT	Heading for the sea area S of Tamashima Harbour Island (anchorages from F to S).

【Replace with the image below】

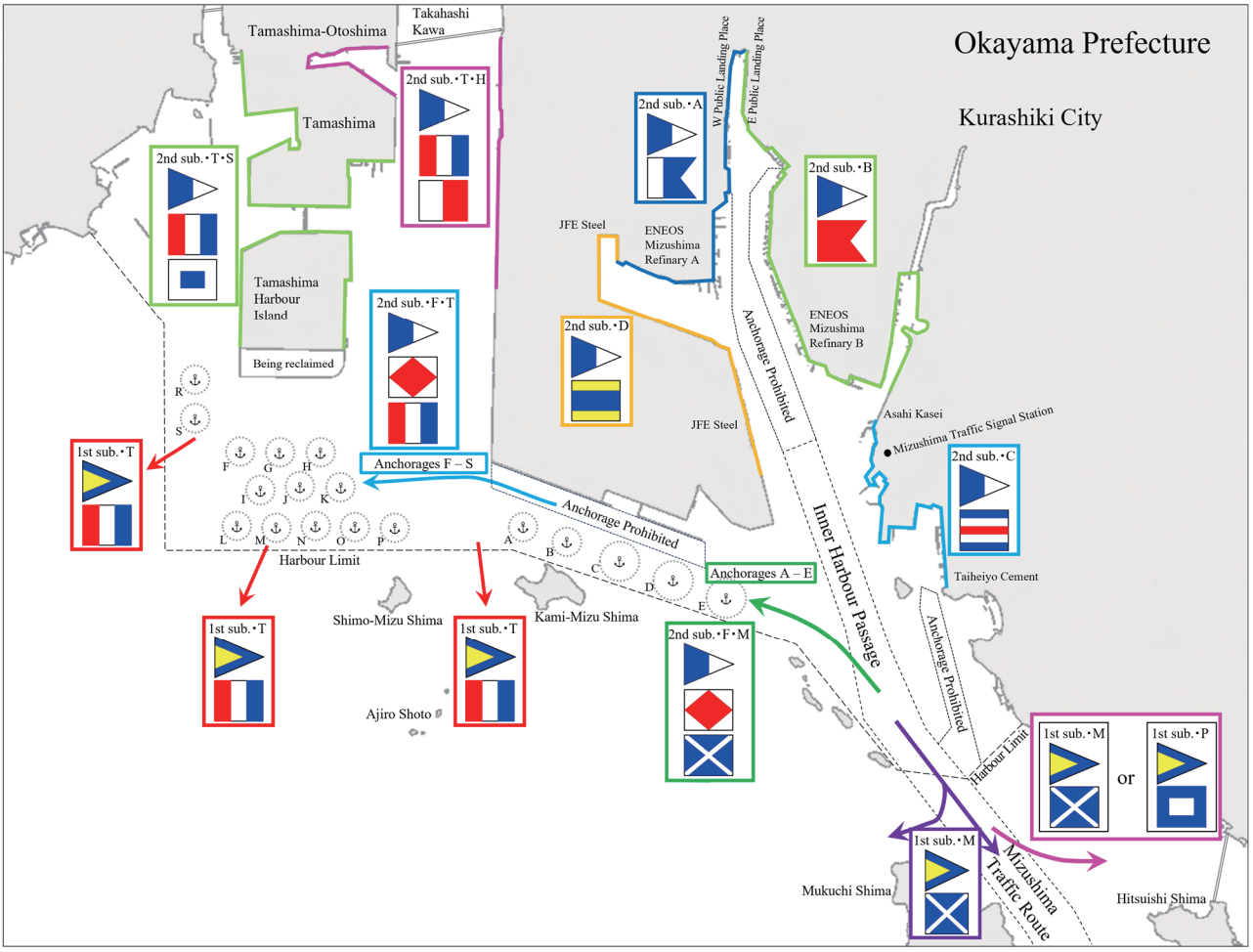


Fig.42 Course Indication Signals in Mizushima Ko

Landmarks.

Landmark	Position	Remarks
Noji Shoto	34°26.9′N 133°45.1′E	A chain of four islands of Kami-Noji Shima (29m in height), Futo-Noji Shima (43m in height), Hoso-Noji Shima (29m in height), and Izaro-Noji Shima (28m in height).
Katsura Shima	34°27.8′N 133°45.7′E	An island, 35m in height.
Mizushima Signal Station	34°28.7′N 133°45.5′E	A building, painted white.
Cluster of chimneys	34°28.8′N 133°44.1′E	125 – 136m in height, all painted red and white, within the premises of a steelworks.
A chimney	34°29.5′N 133°43.5′E	204m in height, painted red and white, within the premises of a steelworks.
Kami-Mizu Shima	34°27.8′N 133°42.8′E	An island, 51m in height.
Shimo-Mizu Shima	34°27.8′N 133°41.5′E	An island, 60m in height.

Passages under the Port Regulations Act. The inner harbour passage running from the N entrance of Mizushima Traffic Route under the Maritime Traffic Safety Act is about 2.5M in length, 450 – 700m in width, and about 16 – 22m in depth, marked by light buoys.

Fairways.

1. A fairway with depths of 12m or more runs from the E side of the S entrance of Inner Harbour Passage to the N to Seto Futo Pier (34°28.1′N 133°46.0′E), marked by light buoys.
2. A fairway with depths of 12m or more runs from the N of Noji Shoto to the mouth of Takahashi Kawa along S side of JFE Steel, marked by light buoys.
3. Vessel traffic is coordinated by Mizushima Port VTIS Center during periods when large vessels are navigating in accordance with “Guidelines for Traffic Organization in Mizunara Port”, prescribed by the Port Authority.

Signals. Mizushima Traffic Signal Station (see the description in “Landmarks”) is equipped with an electric signboard displaying vessel traffic control signals for the inner harbour passage (see table below). Following the introduction of course indication via AIS, traffic control measures are in force for the inner harbour passage. Under these measures, vessels 70m or more but less than 200m in length may, with permission and instruction from the Captain of the Port, meet vessels 200m or more in length within the passage or to depart from Mizushima Ko before other regulated vessels enter the Mizushima Traffic Route. Vessels intending to operate under these measures ~~that intend for this new rule to apply~~ shall contact the Captain of the port via the Bisan Seto VTS Center.

Signal	Meaning	
Flashing letter “ **I** ”	Inbound signal	- Inbound vessels are permitted to navigate the passage. - Outbound vessels of 70m or more in length shall stop and wait, provided, however, that vessels instructed by the Captain of the port are permitted to navigate the passage. - Outbound vessels of less than 70m in length are permitted to navigate the passage.
Flashing letter “ **O** ”	Outbound signal	- Outbound vessels are permitted to navigate the passage. - Inbound vessels of 70m or more in length shall wait outside the passage and give way to outbound vessels, provided, however, that vessels instructed by the Captain of the port are permitted to navigate the passage. - Inbound vessels of less than 70m in length are permitted to navigate the passage.

Signal	Meaning	
Flashing letter " **F** "	Free signal	- Inbound vessels of 200m or more in length shall wait outside the passage and give way to outbound vessels. - Outbound vessels of 200m or more in length shall stop and wait. - Inbound and outbound vessels of less than 200m in length are permitted to navigate the passage.
Alternate flashing of letter " **X** " and letter " **I** "	Forthcoming inbound signal	- Vessels navigating the passage are permitted to navigate the passage. - Inbound and outbound vessels of 70m or more in length outside the passage shall wait and give way to vessels navigating the passage, provided, however, that vessels instructed by the Captain of the port are permitted to navigate the passage. - Inbound and outbound vessels of less than 70m in length outside the passage are permitted to navigate the passage. - The signal will soon turn into flashing letter "I".
Alternate flashing of letter " **X** " and letter " **O** "	Forthcoming outbound signal	- Vessels navigating the passage are permitted to navigate the passage. - Inbound and outbound vessels of 70m or more in length outside the passage shall wait and give way to vessels navigating the passage, provided, however, that vessels instructed by the Captain of the port are permitted to navigate the passage. - Inbound and outbound vessels of less than 70m in length outside the passage are permitted to navigate the passage. - The signal will soon turn into flashing letter "O".
Alternate flashing of letter " **X** " and letter " **F** "	Forthcoming free signal	- Vessels navigating the passage are permitted to navigate the passage. - Inbound and outbound vessels of 70m or more in length outside the passage shall wait and give way to vessels navigating the passage, provided, however, that vessels instructed by the Captain of the port are permitted to navigate the passage. - Inbound and outbound vessels of less than 70m in length outside the passage are permitted to navigate the passage. - The signal will soon turn into flashing letter "F".
Flashing letter " **X** "	Forthcoming prohibition signal	- Vessels navigating the passage are permitted to navigate the passage. - Inbound and outbound vessels outside the passage shall wait and give way to vessels navigating the passage. - The signal will soon turn into fixed letter "X".
Fixed letter " **X** "	Prohibition signal	- Vessels except for those instructed by the Captain of the port are prohibited from navigating the passage.

Cautions.

1. In accordance with the provisions of the Maritime Traffic Safety Act, vessels of 50m or more in length are obliged to navigate Mizushima Traffic Route, which leads to the S entrance of inner harbour passage.
2. Large vessels intending to navigate the vicinity of a white-lighted floating light near the harbour entrance (34°26.6′N 133°46.3′E) should take caution for a shoal with depths of slightly more than 10m. ~~In addition, many of fishing boats may congregate in this sea area.~~
3. Since the depths of Inner Harbour Passage and the fairways have been deepened by dredging work, the waters outside of them suddenly become shallow.

Port facilities.

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×vessel)	Remarks
Matsugaura Quay	34°21.2′N 133°53.5′E	210	5	1,000×3	
Hayashida Quay (A)	34°20.6′N 133°52.6′E	240	12	30,000×1	
Hayashida Quay (B)	34°20.6′N 133°52.8′E	260	7.5	5,000×2	Fronted by foul ground.
Hayashida Quay (C)	34°20.5′N 133°52.9′E	270	5 – 6	2,000×3	
Hayashida Quay (D)	34°20.5′N 133°53.0 E	120	4.5 – 5	700×2	
Agahama Quay	34°20.4′N 133°52.3′E	130	7.5	5,000×1	
Higashi Unga Quay	34°19.8′N 133°51.8′E	100	5.5	2,000×1	
		480	2.5 – 4.5	700×6	
Central Wharf (Quay No.1)	34°19.6′N 133°51.3′E	188	9 –9.5	15,000×1	
Central Wharf (Quay No.2)	34°19.6′N 133°51.2′E	162	5.5 – 6.5	6,000×1	
Central Wharf (Quay No.3)	34°19.7′N 133°51.2′E	140	3.5 – 5.5	2,000×1	
Central Wharf (Quay No.4)	34°19.6′N 133°51.2′E	120	1 – 2	700×2	
W Wharf W Quay	34°19.7′N 133°51.0′E	260	7.5	5,000×2	

* In addition to the above table, there are some private mooring facilities for use by companies.

Sea-berths. COSMO OIL No.1 Pier (34°21.7′N 133°50.2′E) is located about 1M SW of Ko-Sei Shima.

~~**Maximum size of vessel handled.** Tanker *M. STAR* (314,016D/W with a draught of 12.7m) berthed at COSMO OIL No.1 Pier on 27 August 2010.~~

Safety measures against typhoon and tsunami. In order to prevent maritime disasters due to typhoon, tsunami, etc., Sakaide Ko Typhoon and Tsunami Countermeasure Committee has been established. Vessels in the port, etc. are given guidance on disaster prevention measures such as the provision of information about typhoon, tsunami, etc., the provision of warnings, issuing recommendations for evacuation, and the restriction of port entry and the cancellation thereof.

(Inquiries: Sakaide Coast Guard Station)

Maritime authorities and facilities.

Name	Phone number
Sakaide Coast Guard Station (Captain of the Port)	+81-877-46-5999
Sakaide Branch Customs, Kobe Customs Headquarters	+81-877-44-9210
Sakaide detached office, Hiroshima Quarantine Station	+81-877-46-4279
Sakaide Sub-station, Kobe Plant Protection Station	+81-877-46-4108
Port Division, Sakaide City	+81-877-46-2518

Tugboats. Privately-operated tugboats are available.

Ferryboats. Several ferryboats are available.

Supplies. Fresh water and fuel oil supplies are available. ~~Several fuel oil supply vessels are available.~~

Repair facilities.

Name	Phone number
Sakaide Works, Kawasaki Heavy Industries	+81-877-46-1111

Medical facilities.

Name	Phone number
Sakaide City Hospital	+81-877-46-5131

Entry prohibited areas. Navigation is prohibited within the sea area bounded by the lines connecting Iwakuni Ko B, C, and D Light Buoys and the points on the coast to the W.

Entry restrictions. General vessels navigating within the port area are prohibited by the Captain of the port from entering the sea area within 30m of tankers carrying flammable dangerous goods that are at anchor in the port, in order to prevent accidents caused by ignition.

Anchorage. The area in the SW of the mouth of Monzen Kawa, where the water is 10 – 15m in depth and the bottom is mud and affords favourable anchorage when NW winds blows.

The quarantine anchorage area is located about 1M SW of Atata Shima (34°11.5′N 132°18.4′E). Anchorage for vessels carrying dangerous goods is designated within Section 1, which is located about 0.6M E of Iwakuni Ko N Breakwater Light.

Port facilities.

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×vessel)	Remarks
Shozoku Wharf No.1 Quay	34°11.7′N 132°14.3′E	185	9.5	15,000×1	
Shozoku Wharf No.2 Quay		180	5 – 5.5	2,000×2	
Shinminato Wharf N Quay	34°11.2′N 132°14.3′E	80	4.5	2,000×1	
Shinminato Wharf N No.1 Quay		90	5	2,000×1	
Shinminato Wharf N No.2 Quay		260	6.5 – 7.5	5,000×2	Fronted by foul ground.
Shinminato Wharf S Quay		370	10	5,000×2	
Muronoki Wharf -5.5m Quay	34°10.7′N 132°14.7′E	180	3.5 – 5	2,000×2	
Muronoki Wharf -7.5m Quay		260	7 – 7.5	5,000×2	
Muronoki Wharf -10m Quay		185	9.5	15,000×1	
Muronoki Wharf -12m Quay		240	12	30,000×1	
Log Pond Alongside Quay	34°10.6′N 132°14.9′E	205	9.5 – 10	15,000×1	

* In addition to the above table, there are some private mooring facilities for use by companies.

Maximum size of vessel handled. Passenger vessel *DIAMOND PRINCESS* (115,875t, with a draught of 8.55m) berthed at the Shinminato Wharf S Quay in 2018.

Safety measures against typhoon and tsunami. In order to prevent marine disasters due to typhoon, tsunami, etc., Iwakuni Ko and Otake Ko Typhoon, Tsunami, etc. Countermeasure Committee has been established. Vessels in the port, etc. are given guidance on disaster prevention measures such as the provision of information about typhoon, tsunami, etc., the provision of warnings, issuing recommendations for evacuation, and the restriction of port entry and the cancellation thereof.

(Inquiries: Iwakuni Coast Guard Station.)

Maritime authorities and facilities.

Name	Phone number
Iwakuni Coast Guard Station (Captain of the Port)	+81-827-21-6118
Iwakuni Branch Customs, Moji Customs Headquarters	+81-827-21-7138
Iwakuni Port Management Office, Yamaguchi Prefectural Government	+81-827-22-2271

Tugboats. Several tugboats are available.

Ferryboats. Several ferryboats are available.

Supplies. A fuel oil supply vessel is available. Fresh water supplies are available at each quay and wharf.



Kanda Ko (Photographed in October 2021)

Landmarks.

Landmark	Position	Remarks
Ko-no-Shima	33°47.5′N 131°00.6′E	A long, narrow island, 53m in height, stretching in an E-W direction. It appears as a small island with a round peak when seen from the entrance of the port.
A chimney	33°47.2′N 130°59.9′E	204m in height, painted blue and white, situated within the premises of a power station.
Matsu Yama	33°48.4′N 130°59.1′E	A mountain, 128m in height. It has wide reddish brown-coloured bare mountainside.

Fairways.

1. A fairway runs from the ENE outside of the port to the inner ports of Kanda Ko, with a width of about 200m and with depths of 10 – 12m, marked by light buoys.
2. Off the NE of Ko-no-Shima, the above fairway divides into two fairways; one leads to Hon Ko, about 200m in width and with depths of 10 – 12m; the other leads to Nan Ko, about 300m in width and with depths of 9 – 10m. These fairways are indicated by several light buoys.
3. VTIS Center in Kanda Port controls the navigation of vessels in accordance with "GUIDELINES FOR TRAFFIC ORGANIZATION OF INBOUND AND OUTBOUND VESSELS IN PORT KANDA", prescribed by the Fukuoka Prefectural Government Kanda Port and Harbor Office.

Communication. Port operation communication via VHF radiotelephone is available between vessels and the Port Authority (see Section "Port Operation Communications", Chapter 8 "PREVENTION OF MARINE ACCIDENTS", Part 1 "GENERAL INFORMATION").

Identification signal	Call/Response	Communication	Operation	Remarks
KANDA PORT RADIO	ch16	ch12, ch14, ch64, ch20, ch07	24 hours	VTIS Center in Kanda Port Phone: +81-93-383-0106

Cautions for navigation. In the N and S sides of Kitakyushu Airport, approach surface areas are established according to the Civil Aeronautics Act.

Port facilities.

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×vessel)	Remarks
Honko Quay (No.4)	33°47.4′N 130°59.5′E	386	3 – 4.5	700×6	Travelling crane.
Honko Quay (No.5)	33°47.7′N 130°59.6′E	150	4.5 – 5.5	2,000×2	Crane.
Honko Quay (No.6)		110	6	3,000×1	
Honko Quay (No.7)	33°47.7′N 130°59.7′E	130	5.5 – 6	5,000×1	
Honko Quay (No.10)		370	8 – 10.5	10,000×2	
Honko Quay (No.13)	33°47.7′N 131°00.0′E	260	11.5 – 13	40,000×1	Travelling crane.

Medical facilities.

Name	Phone number
Oita Medical Center, National Hospital Organization	+81-97-593-1111
Oita Prefectural Hospital	+81-97-546-7111

Maritime traffic. Car ferries bound for Hanshin Ko are operated within Nishi-Oita Hakuchi. In addition, passenger cruise vessels operate within Beppu Wan (Bay), and hovercraft services operate between the bay and Oita Airport.

Saganoseki Ko (33°15.3′N 131°51.9′E) (Chart W1225) (JP SAG)

Port classification. Port designated by Port Regulations Act, Open port, Quarantine port, Immigration port.

Outline. Saganoseki Ko is located about 9M E of Oita Ko, situated in a bay at the N side of a peninsula projecting to Hayasui Seto. Saganoseki Gyoko is situated in a bay, which is commonly called Shita Ura, on the S coast of the peninsula.

Saganoseki Ko has been developed as a base for importing raw materials and exporting products for metal smelting industry.



Saganoseki Ko (Photographed in October 2021)

Pilotage. Pilotage is available upon request to Licensed Inlandsea Pilots' Association (see Chapter 6 “PILOTAGE”, Part 1“GENERAL INFORMATION”).

Landmarks.

Landmark	Position	Remarks
A chimney	33°15.5′N 131°52.6′E	About 325m in height, painted red and white.

Directions. When reaching near Saganoseki Hoppo Koro Light Buoy (33°16.2′N 131°51.6′E), alter course to 165° to steer for Saganoseki Ko W Breakwater Light (33°15.1′N 131°52.0′E) at the SW side of the port and proceed until Wakamiko-no-Hana is abeam; then change course as required to proceed into the port appropriately.

Anchorage. The port area where the water is 10 – 17m in depth and the bottom is good holding ground with mud affords favourable anchorage except when NW winds blow. The quarantine anchorage area is located to the NW of the port entrance.

Section 2:

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×vessel)	Remarks
Outer Harbour No.1 Wharf (Quay No.1)	33°51.5′N 132°42.5′E	220	4.5 – 5	3,000×2	Fronted by foul ground.
Outer Harbour No.1 Wharf (Quay No.2)		370	10	10,000×2	Fronted by foul ground.
Outer Harbour No.1 Wharf (Quay No.3)		315	3.5 – 4	700×6	Fronted by foul ground.
Outer Harbour No.2 Wharf (Quay No.1)	33°51.8′N 132°42.5′E	300	3.5	700×5	
Outer Harbour No.2 Wharf (Quay No.2)		180	4 – 5	2,000×2	Fronted by foul ground.
Outer Harbour No.2 Wharf (Quay No.3)		390	6.5 – 7.5	5,000×3	Fronted by foul ground.
Okaga Wharf (Quay No.1)	33°51.3′N 132°42.5′E	180	1 – 3	700×2	Fronted by foul ground.
Okaga Wharf (Quay No.2)		200	1.5 – 3	700×3	Fronted by foul ground.
Okaga Wharf (Quay No.3)		90	4 – 4.5	2,000×1	Fronted by foul ground.
Yoshidahama Quay (No.1)	33°50.4′N 132°41.8′E	270	4 – 5	2,000×3	Fronted by foul ground.
Yoshidahama Quay (No.2)		180	4 – 4.5	2,000×2	
Outer Harbour New Wharf (Quay No.1)	33°50.8′N 132°41.9′E	170	10 – 10.5	10,000×1	Fronted by foul ground. Container crane.
Outer Harbour New Wharf (Quay No.2)	33°50.8′N 132°41.8′E	260	13	40,000×1	Container crane.
Outer Harbour New Wharf (Quay No.3)	33°51.1′N 132°41.9′E	260	7 – 7.5	5,000×2	~~Container crane~~.
Outer Harbour New Wharf (Dangerous cargo Quay		130	7.5	5,000×1	

Nishi-Habu Hakuchi:

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×vessel)	Remarks
Habu Quay (No.3)	33°48.9′N 132°41.6′E	272	3 – 4.5	2,000×3	Fronted by foul ground.
Habu Quay (No.4)	33°48.8′N 132°41.2′E	370	9 – 9.5	10,000×2	Fronted by foul ground.

* In addition to the above table, there are some private mooring facilities for use by companies.

Cautions. Near the S entrance of Takahama Seto, meeting and crossing situations frequently occur as the traffic is congested with the vessels entering and leaving Matsuyama Ko and the vessels passing through Takahama Seto.

Maximum size of vessel handled. Passenger vessel *MSC BELLISSIMA* (171,598t with a draught of 8.7m) berthed at Outer Harbour No.1 Wharf (Quay No.2) on May 2023.

Wakamatsu Ku:

International maritime signal flags	Symbols	Signal Message
2nd Substitute・Y・O	YO	Heading for Tokyo Steel Pier, Goshimashoten Quay, Egawa Relay Point Pier, Horikawa Public Quay, or Mitsubishi Ube Cement Pier in Section 1.
2nd Substitute・Y・R	YR	Heading for the mooring facilities between Mitsubishi Chemicals Ryusan No.1 Pier and Mitsubishi Chemicals Gosei No.4 Pier in Section 1.
2nd Substitute・Y・K	YK	Heading for Futajima Quay or the mooring facilities between the Mitsubishi Chemicals Kakohin No.1 Pier and Mitsubishi Chemicals Yuki No.1 Pier in Section 1.
2nd Substitute・Y・D	YD	Heading for Taiheiyo Cement Quay, Kurosaki Public Quay, or the mooring facilities in Kurosaki Hakuchi in Section 1.
2nd Substitute・Y・B	YB	Heading for Wakamatsu Elevated Railway Pier, Nishi-Yahata Scrap Quay, the mooring facilities in Myoken Hakuchi in Section 1, or Kukioka N Quay in Section 2.
2nd Substitute・Y	Y	Heading for the mooring facilities in Yahata Hakuchi (except for AGC Quay) in Section 2.

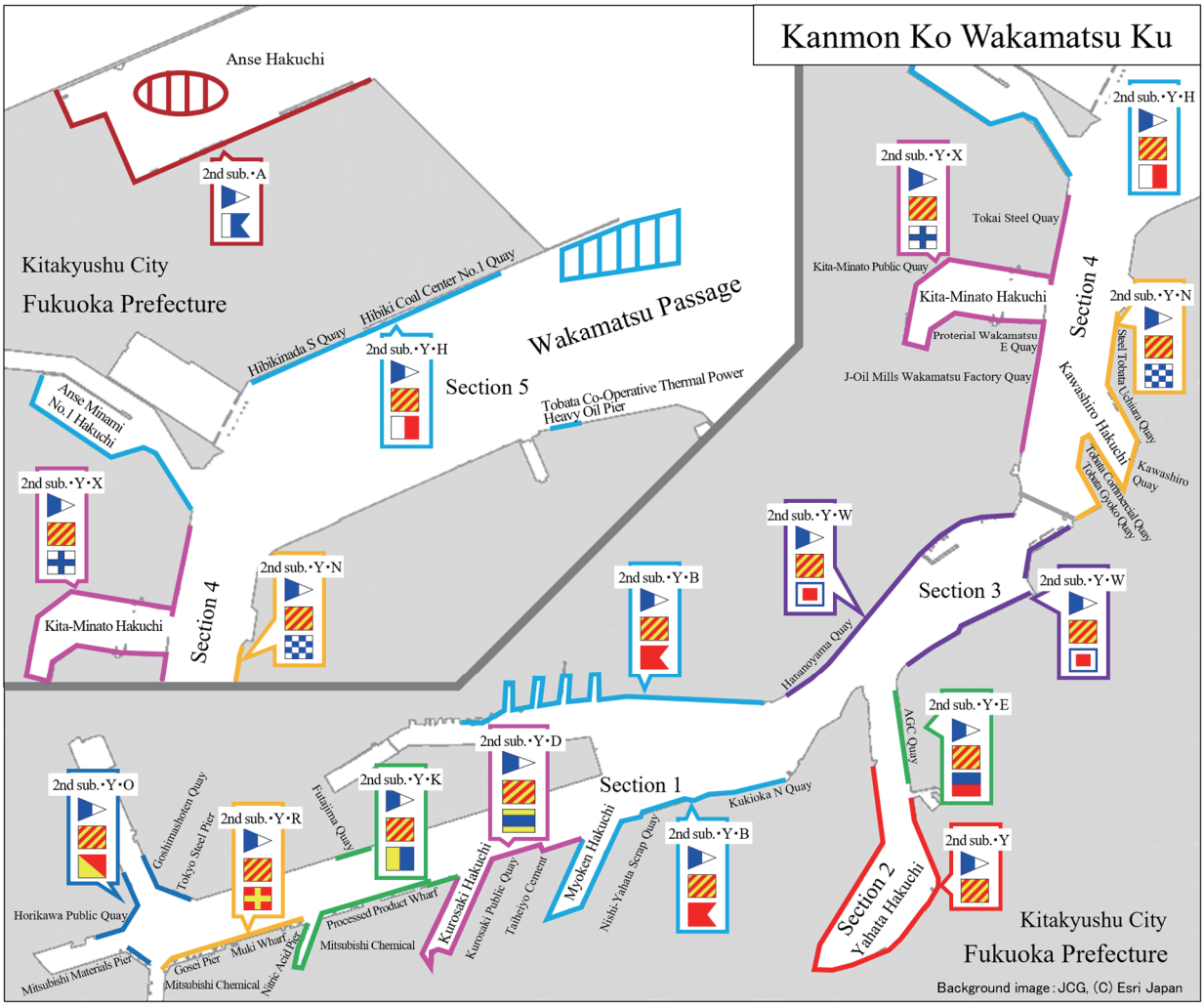


Fig.48　Indication of course in Kanmon Ko Wakamatsu Ku: international maritime signal flags.

Wakamatsu Ku (continued):

International maritime signal flags	Symbols	Signal Message
2nd Substitute・Y・E	YE	Heading for AGC Quay in Section 2.
2nd Substitute・Y・W	YW	Heading for Hananoyama Quay in Section 2 or the mooring facilities in Section 3.
2nd Substitute・Y・N	YN	Heading for Steel Tobata Uchiura Quay, Kawashiro Quay, Tobata Commercial Quay or Tobata Gyoko Quay in Section 4.
2nd Substitute・Y・X	YX	Heading for J-Oil Mills Wakamatsu Factory Quay, Proterial Wakamatsu E Quay, or Tokai Steel Quay, or the mooring facilities in Kita-Minato Hakuchi in Section 4.
2nd Substitute・Y・H	YH	Heading for the mooring facilities in Anse Minami No.1 Hakuchi in Section 4, ~~Hibikinada Dolphins,~~ Hibikinada S Quay, Hibiki Coal Center No.1 Quay, Heavy Oil Pier of Tobata Co-Operative Thermal Power, or the anchorage in Section 5.
2nd Substitute・Z	Z	Heading for the mooring facilities in Seitetsu-Tobata Hakuchi or Shoketsu Basin in Section 5.
2nd Substitute・A	A	Heading for the mooring facilities or the anchorage in Anse Hakuchi in Section 6.

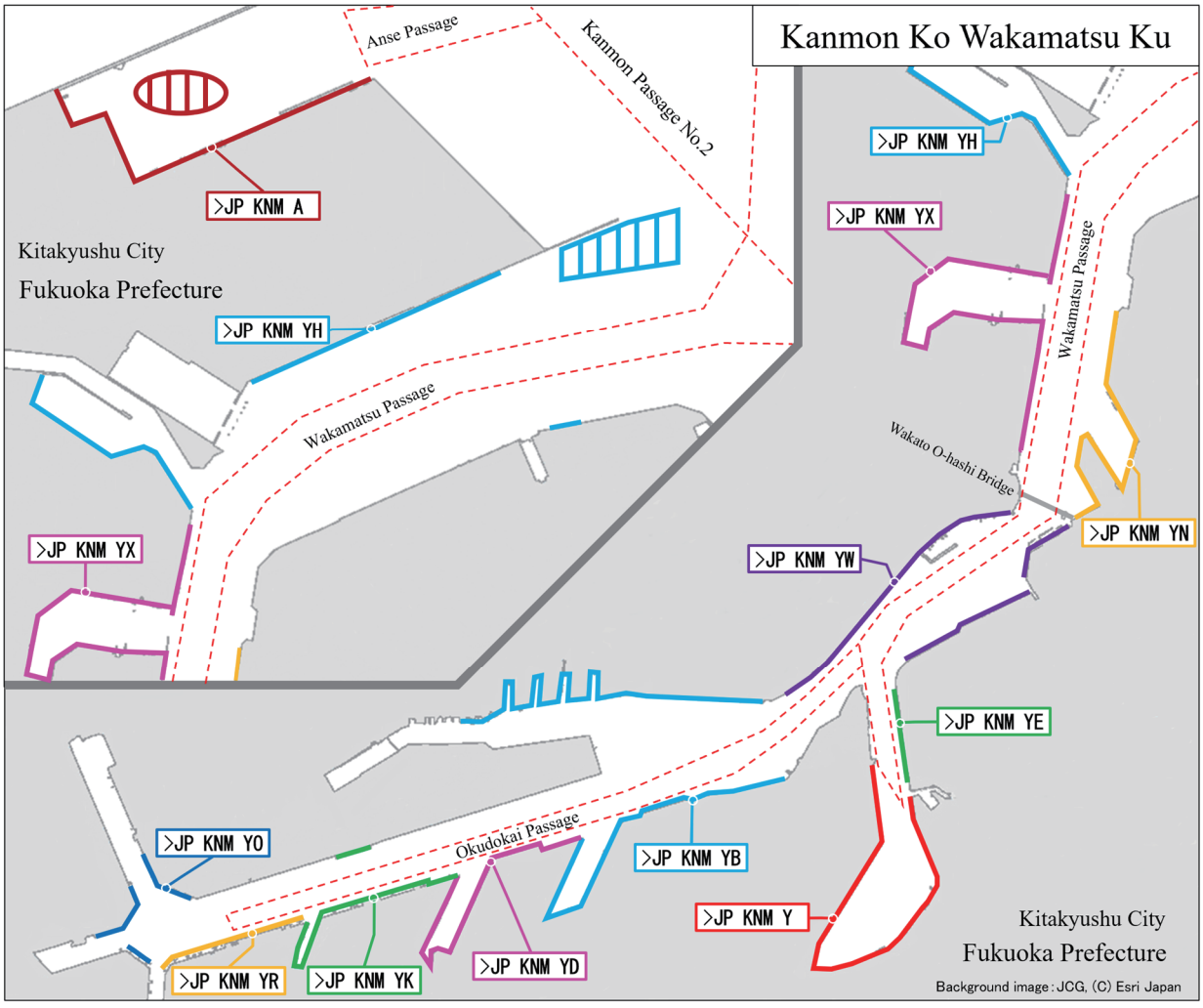


Fig.49 Indication of course in Kanmon Ko Wakamatsu Ku: symbols transmitted by AIS

Port facilities.

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×vessel)	Remarks
Shinko Quay (No.1)	33°59.1′N 130°53.8′E	328	12	30,000×1	
Shinko Quay (No.2)	33°59.1′N 130°53.6′E	380	12	220,000t×1	

Overhead bridges. Choshudejima O-hashi Bridge (with a vertical clearance of 12m) connects Choshudejima and opposite shore to the E.

Maximum size of vessel handled. Passenger vessel *MSC BELLISSIMA* (171,598t) berthed at Shinko Quay (No.2) in Choshudejima on 24 September 2023.

Maritime traffic. Passenger ferries are operated, connecting Mutsure Shima and Shimonoseki Ku.

Subchapter 2 KANMON KO {KYUSHU SIDE}

5 Hibiki-Shinko Ku (33°59.0′N 130°45.0′E) (Charts JP201, JP1266, JP1267) (JP HBK)

Outline. The port area of Hibiki-Shinko Ku extends from the waters in the vicinity of the E side of O Shima, part of Shira Shima lying about 3.7M WNW of Ai-no-Shima, to Section 6 of Wakamatsu Ku and the shore on the N side of Anse anchorage. There is no protection from the wind and waves within the port area. Groups of offshore wind power generation facilities are established in the waters E and W of Hibikinada Fairway. Hibikinada Fairway, with depths of 4.5 – 5m in its central part, lies E of Hibiki Hakuchi and is adjacent to Section 4 of Wakamatsu Ku.

Hibiki LNG Terminal is situated at the E side of Hibiki Hakuchi. Hibikinada-Nishi Quay (No.6) on Hibiki Hakuchi can accommodate a large passenger vessel of 160,000t class.

At the sea area E of Hibikinada E breakwater, a seawall is under construction for a future reclaimed land.



Hibiki-Shinko Ku (Photographed in October 2021)

Cautions for navigation. A floating wind turbine (34°03.2′N 130°43.5′E, with yellow light, established as a Fog Signal Station, emitting AIS Signal at all times) is located about 2M N of O Shima.

Mooring anchors and mooring chains are installed around the wind turbine. A submarine power cable extends from the wind turbine to the S shore of Hibiki-Shinko Ku, which is floating below the surface within about 200m in horizontal distance from the wind turbine.

Therefore, vessels should take caution when navigating near the wind turbine.

Cautions for entering. A shoal with a least depth of 3.8m lies about 1M SSE of Me Shima; Naka Se (with a least depth of 4.4m) lies about 2M SSE of Me Shima; Maruyama Dashi (33°58.1′N 130°45.1′E, with a least depth of 3.8m, marked by a light buoy on the E side) lies about 1M ESE of Naka Se; Yoko Se (with a least depth of 2.4m, marked by a

light buoy on the N side) lies about 1.1M NNE of Hachiman Misaki (33°56.1′N 130°43.7′E). Shoals are scattered around Shira Su (33°59.0′N 130°47.5′E, a lighthouse standing on it) lying about 1.3M SW of Ai-no-Shima.

In the S part of the port area, a waterway for usual passage of coastal vessels crosses in a E-W direction, where the traffic is congested with vessels of 2,000t class or less.

Landmarks.

Landmark	Position	Remarks
Two tanks	33°55.9′N 130°46.7′E	Painted white, situated within the premises of an LNG terminal.

Port facilities.

Name	Position	Length (m)	Water depth (m)	Mooring capacity (D/W×vessel)	Remarks
Hibikinada-Nishi Quay (No.1・2)	33°56.0′N 130°46.1′E	160	5	—	
Hibikinada-Nishi Quay (No.3・4)		340	10	15,000×2	
Hibikinada-Nishi Quay (No.5・6)	33°56.0′N 130°45.9′E	701	15	100,000×2	
Hibikinada-Higashi Quay (No.2)	33°56.3′N 130°47.0′E	196	7	—	
Hibikinada-Higashi Quay (No.3)	33°56.4′N 130°47.0′E	130	7.5	—	

* In addition to the above table, there are some private mooring facilities for use by companies.

Sea-berths. Shiraishi National Oil Storage Sea-Berth (34°01.3′N 130°44.3′E) is situated NE of O Shima.

Overhead bridges. Shin-Hibikinada O-hashi Bridge (with a vertical clearance of 12m) and Hibikinada O-hashi Bridge (with a vertical clearance of 12m, lying along the border of port districts) span Hibikinada Fairway.

Overhead cables. Two overhead cables (with vertical of clearances of about 20m and 19m) span Hibikinada Fairway at both E and W sides of Hibikinada O-hashi Bridge.

Supplies. Fresh water supply vessels and fuel oil supply vessels are available.

6 Wakamatsu Ku (33°55.4′N 130°52.3′E) (Charts JP1263, W1264, JP1265) (JP KNM)

Outline. Wakamatsu Ku is located in the SW part of Kanmon Ko. The main port area occupies Dokai Wan, a long, narrow, intricated water where many port facilities fill the coast. Numerous factories surround the port area. Wakamatsu Ku is divided into Section 1 – 6. Four passages under the Port Regulations Act are situated: Tobata Passage, Wakamatsu Passage, Okudokai Passage, and Anse Passage. A submarine tunnel crosses Dokai Wan at the N side of Wakato O-hashi Bridge. Wakamatsu Ku is connected to Hibiki-Shinko Ku through Hibikinada Fairway.



Wakamatsu Ku (Photographed in October 2021)

Cautions during typhoons. During a typhoon, many small vessels and barges taking shelter anchorage congregate in Wakamatsu Ku.

Landmarks.

Landmark	Position	Remarks
Eight tanks	33°55.1′N 130°52.0′E	Painted light blue, situated within the premises of an LNG terminal.

Overhead cables. Three overhead cables run; one is between the NW part of Onyu Shima and the S part of Hiko Shima (with a vertical clearance of 41m), one between the N part of Hiko Shima and the opposite shore to the NW (with a vertical clearance of 24m), and one between the SW part of Onyu Shima and the opposite shore to the WNW (with a vertical clearance of 45m).

Obstacles. There are many fouls and sunken timbers in the vicinity of the NE side of disused log pond lying in the W head of the port and in the E part of Honko Hakuchi.

Maximum size of vessel handled. A passenger vessel *Asuka* II (50,142t with a draught of 7.8m) berthed at the Mejima Quay on 28 September 2024.

Safety measures against typhoon and tsunami. In order to prevent marine disasters due to typhoon, tsunami, etc., Oita Ko, etc. Abnormal Weather Countermeasure Committee has been established. Vessels in the port, etc. are given guidance on disaster prevention measures such as the provision of information about typhoon, tsunami, etc., the provision of warnings, issuing recommendations for evacuation, and the restriction of port entry and the cancellation thereof.

(Inquiries: Oita Coast Guard Office)

Maritime authorities and facilities.

Name	Phone number
Saiki Coast Guard Station	+81-972-22-4999
Saiki Sub-Branch Customs, Oita Branch Customs, Moji Customs Headquarters	+81-972-25-0059

Tugboats. Many tugboats are available.

Ferryboats. Ferryboats are available.

Supplies. Fuel oil supply vessels are available.

Repair facilities.

Name	Phone number
Kyoei Dockyard	+81-972-22-8646
Miura Shipbuilding	+81-972-22-2033
Honda Heavy Industries	+81-972-20-0111

Maritime traffic. Car ferries and passenger liners bound for Onyu Shima and passenger liners bound for O Shima are operated.