

Pub.302 sup.

Sailing Directions for Northwest Coast of Honshu

Supplement No.1

29 September 2023



Japan Coast Guard

Explanatory Notes

Sailing Directions for Northwest Coast of Honshu - Supplement No.1 is issued to correct the outdated information in Publication No.302 Sailing Directions for Northwest Coast of Honshu which was published in March 2023.

This supplement contains the information which has been gathered through the work of Hydrographic and Oceanographic Department, Japan Coast Guard by 16 June 2023.

The instructions for amending, deleting or adding of 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 supplements 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.

29 September 2023

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-dated information concerning the safety of navigation instructed by Japan Coast Guard, please refer to Notices to Mariners and related publications.

In the interest of ensuring the safety of navigation and protecting the marine environment, the Japan Coast Guard (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.

The tendency on marine accidents are described below:

Sea area	Summary
The coastal area of the Japan Sea	Between late autumn and February, there have been a large number of marine accidents which resulted in losses of lives and damages to vessels. Most of the accidents during this period have been caused by strong monsoon winds or winds generated by low pressures intensified as move over the Japan Sea. Ship flooding and capsizing are the most common damages caused by wind waves and gusty winds.
Tsugaru Kaikyo	During winter, violent winds have caused submerging and capsizing of vessels. A number of stranding grounding have been occurred in the area between Oma Saki and Shiriya Saki.

Reporting of marine emergencies. The three-digit telephone number 118 is the designated number to report marine emergencies. Reports should be made by calling 118 in following situations: witness a marine accident, accidental pollution such as oil spill, suspicious ship as well as stowaway, crimes including smuggling, and, involved in a marine accident.

Phone call to 118 can be made from landline telephone, public telephone, cellular telephone and ship telephone.

Marine Search and Rescue **Organisations**

Japan Coast Guard. The mission of JCG is “To ensure marine safety and security”. In order to fulfill the mission, JCG carries out following duties: maintaining public order at sea, ensuring maritime traffic safety, conducting marine rescue, preventing marine disasters, conserving marine environment, cooperating and collaborating with relevant domestic/international organisations.

The organisation consists of 11 Regional Coast Guard Headquarters and main headquarters. Contact information of the headquarters and subordinate departments relevant to the area covered in this volume are listed below:

Regional Headquarters (Telephone number)	Coast Guard Office (Telephone number)	Coast Guard Station (Telephone number)	Detachment of Coast Guard (Telephone number)	Air Station (Telephone number)
1st Regional Coast Guard Headquarters Address: 5-3, Minatomachi, Otaru-shi Phone: +81-134-27-0118	*Hakodate (+81-138-42-1118)			*Hakodate (+81-138-58-3515)
2nd Regional Coast Guard Headquarters Address: 3-4-1, Teizandori, Shiogama-shi, Phone: +81-22-363-0111	Aomori (+81-17-734-2423)			*Sendai (+81-223-22-2891)
	Akita (+81-18-845-1621)			
	Sakata (+81-234-22-1831)			
7th Regional Coast Guard Headquarters Address: 1-3-10, Nishikaigan, Moji-ku, Kita Kyushu-shi Phone: +81-93-321-2931	Senzaki (+81-837-26-0241)	Hagi (+81-838-22-4999)		* Kitakyushu (+81-92-474-7006)
	*Moji (+81-93-321-3215)	*Shimonoseki (+81-832-67-1711)		
8th Regional Coast Guard Headquarters Address: 901, Aza Shimofukui,	Tsuruga (+81-770-22-4179)	Obama (+81-770-52-0494)		Miho (+81-859-45-1100)
		Fukui (+81-776-82-4999)		

Facilities.

Name	Position	Length (Approx. m)	Depth (Approx. m)	Capacity (D/W×vessel)	Remarks	
Showa-North No.1 Quay	35° 33.0' N 133° 15.8' E	140	4.5 to 5.5	700 × 2	Jib crane × 1.	
Showa-North No.2 Quay		220		700 × 2		
Showa-South No.1 Quay	35° 32.3' N 133° 15.2' E	270	13	40,000 × 1		
Showa-South No.2 Quay		185	10	15,000 × 1		
Showa-South No.3 Quay		130	8	5,000 × 1		
Showa-South No.4 Quay		280	13 to 14	50,000 × 1	Gantry crane × 1 Provisional use with a depth of 13m.	
Nakano No.1 Quay	35° 32.2' N 133° 15.1' E	240	12	30,000 × 1		
Outer Harbour Wharf No.1 Quay	35° 32.9' N 133° 15.3' E	370	9	10,000 × 1		
Outer Harbour Wharf No.2 Quay		260	7.5	5,000 × 2		
Mooring Quay	35° 32.9' N 133° 14.4' E	980	4 to 7		Used by patrol vessels, regular service boats and ferries.	
Inner harbour	35° 32.8' N 133° 13.4' E	No.1 Quay	200	6	3,000 × 2	
		No.2 Quay	91	4.5	1,000 × 1	
		No.3 Quay	163	6	3,000 × 1	
		No.4 Quay	130	6.5	3,000 × 1	
Takenouchi	35° 31.7' N 133° 15.2' E	No.1 Quay	100	7.5	2,000 × 1	
		No.2 Quay	100	7	2,000 × 1	
		No.3 Quay	100	7.5	2,000 × 1	
		No.4 Quay	130	8	5,000 × 1	
Takenouchi-South No.1 Quay	35° 31.4' N 133° 15.5' E	300	10	130,000t × 1	Used by cruise ship.	
Moriyama Quay	35° 32.9' N 133° 13.1' E	300	3 to 4.5	700 × 5		
Tonoe No.1 Quay	35° 32.5' N 133° 12.9' E	300	4.5	700 × 5		
Tonoe No.2 Quay	35° 32.3' N 133° 12.6' E	300		700 × 5		
Nakano Quay	35° 32.0' N 133° 14.7' E	550	3.5 to 4	700t × 8		
Eshima No.1 Quay	35° 31.2' N 133° 11.5' E	165	9	10,000 × 1		
Eshima No.2 Quay		130	7.5	5,000 × 1		

In addition to the above, piers (No.1 – 4) are established in front of a petroleum terminal situated about 1km SW of Sakai Ko Breakwater Light.

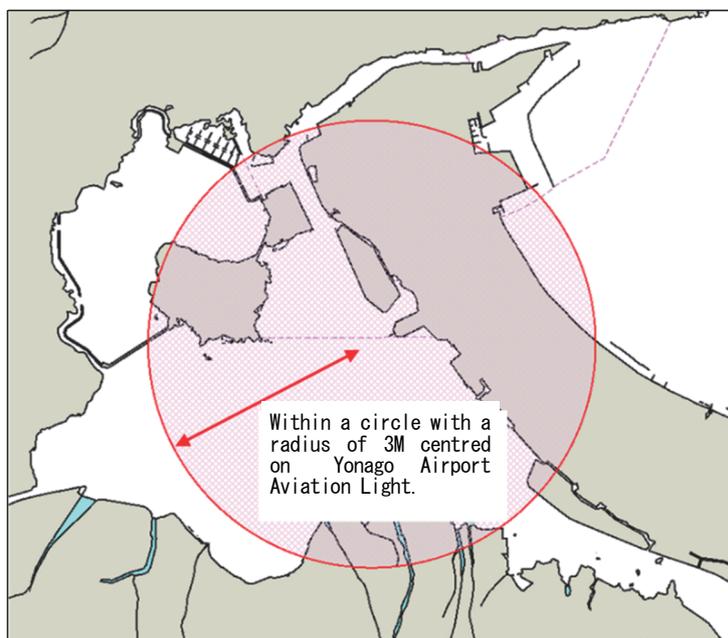
Maximum size of vessel handled. Cruise ship *Quantum of the Seas* (167,800t, with a draught of 8.8m) berthed at Showa South No.1 and 2 Quays on 16 September 2019.

Safety measures during stormy weather. Sakai Coast Guard Office requests vessels to refrain from anchoring in order to prevent marine accidents caused by stormy weather (e.g., anchor dragging) in the sea area around Yonago Airport.

The area required to refrain from anchoring; the sea area within a circle of radius 3M centered on the Yonago Airport Aviation Light on the W side, excluding Miho Wan.

The period required to refrain from anchoring; From the time a wind storm or snow storm warning for Yonago region, Tottori Prefecture and/or Matsue region, Shimane Prefecture is issued (or expected to be issued) by JMA, until the warning is cancelled.

Fig. 9 **The Voluntary no-anchoring area during a stormy weather**



Anchorage. Quarantine anchorage (35° 32.4' N 133° 16.8' E) lies about 0.8M SSE of Sakai Ko Breakwater Light. Vessels should avoid anchoring within the fairway leads to Nakaura Suido from the prescribed passage not to hinder other vessel's navigation.

Section 2 has a depth of 12m or less, with a sand bottom and good holding, serves as good anchorage for all types of vessels except when strong westerly winds are blowing. The position 1M S of Sakai Ko Breakwater Light, S of the line joining Takao Yama and Sakai Ko Breakwater Light, is considered a best anchorage except for the vessels subject to quarantine. Vessels carrying dangerous cargos are required to anchor within a circle of radius 550m centred a position 173°, 2,500m from Sakai Ko Breakwater Light.

Higashi Ko {East Harbour}

Name	Position	Length (Approx. m)	Depth (Approx. m)	Capacity (D/W×vessel)	Remarks	
Maejima Wharf	No.1 Quay	35° 28.8' N 135° 23.6' E	130	6.5 to 7	5,000 × 1	
	No.2 Quay	35° 28.9' N 135° 23.5' E	260	9	8,000 × 1	Ferry terminal is located.
	No.3 Quay	35° 28.9' N 135° 23.4' E	180	5	2,000 × 2	



Higashi Ko {East harbour in Maizuru Ko}

(Photographed in July 2015)

Maximum size of vessel handled. Cruise ship *Spectrum of the Seas* (168,666t, with a draught of 8.8m) berthed at International Wharf No.1 Quay on 11 September 2019.

Mooring buoys. There are four mooring buoys for exclusive use of the Japan Maritime Self-Defense Force in the vicinity of the entrance of Section 2, two mooring buoys for exclusive use of the Maizuru Shipyard, Japan Marine United Corporation are situated 350m SE of Karasu Shima in Section 3.

Anchorage. This port is sheltered from the winds from all directions. The bottom of mud affords good holding ground. Anchorages for vessels carrying dangerous cargo are designated in Section 3.

There are two quarantine anchorages: one is situated at a position (35° 31.1' N 135° 20.5' E), NNW of Ushikuso Hana, which lies near the port entrance, mainly for vessels entering Miyazu Ko or Higashi Ko {East Harbour}, the other is situated at a position (35° 29.4' N 135° 20.4' E), S of To Shima, mainly for vessels entering Nishi Ko {West Harbour}.

Cautions for sheltering. Vessels taking refuge are ordered to anchor in Section 3, and large vessels are ordered to anchor in Kunda Wan, by Maizuru Coast Guard Office.

Typhoon and tsunami safety measures. In order to prevent disasters due to typhoon, tsunami and other abnormal weather, Typhoon and other abnormal weather Countermeasures Committee of Maizuru Ko is established and they manage typhoon and tsunami damage prevention countermeasures, such as the communication of typhoon and tsunami information, warnings, and the issuing and cancelling of evacuation advisories for all vessels in the harbour. (Inquiries: Maizuru Coast Guard Office)

Port classification. Specified port, open port, quarantine port, immigration port, plant protection port, important port.

Outline. This port lies in the head of Tsuruga Wan, which is situated in the E part of Wakasa Wan. The port is divided into five sections. Mooring facilities are established in Section 1. Section 2 is about 25m in depth, and the bottom in most parts of Section 2 is mud. Section 3 occupies Jogu Wan (35° 41.1' N 136° 02.1' E), and is sheltered from the winds from all directions and affords good holding ground. Urasoko Wan (35° 44.2' N 136° 02.1' E), located in Section 5, affords shelter for small and medium vessels.

Weather and Climate. There are only a few sunny days throughout the year. The monthly average number of sunny day during the winter snow season is only 1. South-easterly winds prevail from spring through autumn. North-westerly winds prevail in winter. N and S winds blow any time of the year as a general tendency. Temperatures rarely go down to -5°C or less owing to the influence of Tsushima Warm Current. The climate in summer is hot and humid.

Tidal streams. The flood sets S and ebb sets N with a speed of 0.2kn or less. However, in the area S of a breakwater lighthouse of Section 1, the flood sets E and ebb sets W with a speed of 0.6kn.

Secondary undulation (Seishe). In this port, secondary undulation with a period of 10 to 65 minutes occurs, which may sometimes reach 0.2m in the difference of the sea level. A fatal accident induced by secondary undulation have occurred in Tsuruga Ko in February 2013.

Landmarks.

Landmark	Position	Remarks
Saiho-ga-Take	35° 42.6' N 136° 00.6' E	A mountain, 764m in height, capped with a blackish rock.
Radio tower	35° 42.3' N 136° 02.5' E	Stands on near Washi Saki.
Tezutsu Yama	35° 39.7' N 136° 04.9' E	A mountain, 171m in height. There is an observatory near the top.
Chimney	35° 40.3' N 136° 04.9' E	A chimney, 263m in height.

Obstruction. Jogu Wan is fringed with foul ground.

Cautions for entering the port. The water depths between the port entrance and the head of the bay are considerably deep, and the passage is clear so that entering the port presents no difficulties by day or at night. Vessels should stay clear of the stationary nets laid in the E and W side of the bay entrance. When entering Urasoko Wan, vessel completely avoid the light buoy (35° 44.0' N 136° 02.6' E) in the entrance of the bay, then proceeds to the middle of bay.

Entry restriction. In order to prevent accidents due to ignition, general vessels are prohibited from entering a sea area within 30m a tanker loading inflammable materials, including a tank ship, mooring in the harbour. Tanker carrying dangerous inflammable materials displays a banner visible at night, reading *Dangerous Inflammable Cargo Aboard*, when moored in the harbour.

Facilities.

Name	Position	Length (Approx. m)	Depth (Approx. m)	Capacity (D/W×vessel)	Remarks
Mariyama North Quay	A	130	7.5 to 12	5,000 × 1	
	B	240	12	30,000 × 1	
	C	240	12 to 14	30,000 × 1	
	D	240	9.5	20,000t × 1	For car ferries.
Mariyama South A Quay	35° 40.1' N 136° 03.9' E	280	14	50,000 × 1	Crane × 1.
Kanegasaki Quay	C	170	9	10,000 × 1	
	D	130	7.5	5,000 × 1	
Sakura Quay	E	100	4 to 6	2,000t × 2	
	F	90			
Horai Quay	G	390	6 to 7	6,000t × 3	
	H				
	I				

vertical clearance) near the mouth of Oyabe Kawa.

Precautions for entering the port. Large stationary nets are established on both sides of the Fushiki Passage. Therefore, navigable area for large vessel is limited. A directional light indicates the navigable width. Vessels transiting the passage should not deviate from the area illuminated by a directional light. Care must be taken not to confuse Oyabe Kawa with Sho Kawa which is located E of Oyabe Kawa. Water tends to be shallower due to drifting sand from Oyabe Kawa.

Facilities.

Name	Position	Length (Approx. m)	Depth (Approx. m)	Capacity (D/W×vessel)	Remarks
Left Bank No.1 – 2 Quays	36° 47.6' N 137° 03.8' E	310	5 to 7.5	10,000 × 2	
Left Bank No.3 – 4 Quays	36° 47.5' N 137° 03.6' E	370	2.5 to 4.5	15,000 × 2	
Left Bank No.5 Quay	36° 47.4' N 137° 03.5' E	90	2	1,000 × 1	
Right Bank No.1 – 2 Quays	36° 47.5' N 137° 04.0' E	440	3 to 5	5,000 × 4	
Right Bank No.3 – 4 Quays	36° 47.5' N 137° 03.8' E	370	3 to 4.5	15,000 × 2	Crane× 1
Right Bank No.5 Quay	36° 47.4' N 137° 03.7' E	130	2.5	5,000 × 1	
Man-yo No.1 Quay	36° 48.1' N 137° 04.0' E	130	6.5	5,000 × 1	
Man-yo No.2 Quay		190	10	15,000 × 1	
Man-yo No.3 Quay	36° 48.2' N 137° 03.9' E	280	12 to 12.5	30,000 × 1	Gantry crane. Aseismic quay.

Maximum size of vessel handled. Cruise ship *VOYAGER of the SEAS* (138,194 t, with a draught of 9.1m) berthed at the Man-yo No.3 Quay on 18 May 2015.

Maritime authorities and facilities.

Name	Telephone number
Fushiki Coast Guard Office (Captain of the Port)	+81-766-44-0196
Fushiki Branch Customs	+81-766-44-6173
Toyama Transport Branch Office, Hokuriku-shin'etsu District Transport Bureau	+81-766-44-1367
Fushiki Toyama Detached Office, Niigata Quarantine Station	+81-76-428-4160 (Toyama Airport detached office)
Fushiki Toyama Sub-station, Nagoya Head Office, Plant Protection Station	+81-766-44-0954
Fushiki Port and Harbour Office, Toyama Prefectural Government	+81-766-44-0277

Ferryboats. Ferryboats are available.

Supplies. Fresh water can be supplied. Water supply barges and fuel oil supply barges are available.

Repairs. Small shipyard is available.

Oil waste disposition facility.

Name	Application	Hours of operation	Waste oil to be disposed	
			Waste heavy oil	Waste light oil
Daiseki Co., Ltd.	Hokuriku Works Phone number: +81-76-275-6585	0900 – 1600	Water ballast, slop oil, collect oil, tank cleaning water, bilge, sludge, and etc.	Water ballast, tank cleaning water, slop oil, sludge, and etc.

Medical facilities.

Name	Telephone number	Remarks
Takaoka City Hospital	+81-766-23-0204	
Takaoka Fushiki Hospital	+81-766-44-1181	

Toyama Branch Office, Nagoya Regional Immigration Services Bureau (Located in Toyama Airport)	+81-76-495-1580
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Repairs.

Name	Telephone number	Remarks
NHI Industries Co., Ltd.	+81-76-437-9271	

Oil waste disposition facility.

Name	Application	Hours of operation	Waste oil to be disposed	
			Waste heavy oil	Waste light oil
Kiraku Kougyou	Toyama Energy Factory Phone: +81-76-455-3282	0830 – 1730	Water ballast, tank cleaning water, bilge, and etc.	Water ballast, tank cleaning water, and etc.

Medical facilities.

Name	Telephone number	Remarks
Toyama Ken Saiseikai Toyama Hospital	+81-76-437-1111	
Toyama Red Cross Hospital	+81-76-433-2222	

Ikuji Hana to Naoetsu Ko (Chart JP120)

Outline. The coast between Ikuji Hana and Miyazaki Hana, extending about 10M, is an alluvial fan formed by Kurobe Kawa. The coast consists of pebbles and oval stones and is backed by a forest of pine trees. The board plain extends further inland. The coast between Miyazaki Hana and the mouth of Hime Kawa (W side of Himekawa Ko) extending about 13M, is a low land, backed by high ground, which joins the mountain range in the interior. The water deepens abruptly. The coast between Hime Kawa and Naoetsu Ko, extending about 22M, has similar topographic feature, and is indented by Torigakubi Misaki, which is located in the middle. Nou Ko (37° 06.9' N 138° 00.0' E, Port code; JP NOU) lies almost midway between the mouth of Hime Kawa and Torigakubi Miaki.

Tidal streams. In the vicinity of the mouth of Kurobe Kawa, the flood current sets NE, and the ebb current sets SW, with a speed of 0.5kn or less. Currents setting E with a speed more than 1kn off Torigakubi Misaki on occasions.

Landmarks.

Landmark	Position	Remarks
Miyazaki Hana	36° 58.3' N 137° 35.2'E	A hilly point which gradually rises to high mountains inland. Lighthouses stand on the head of the bay and the breakwater lying N of the head.
Kurohime Yama	36° 58.6' N 137° 47.4'E	A conical mountain. 1,222m in height.
Torigakubi Misaki	37° 10.3'N 138° 05.8' E	The cape rises steeply to the landward and reaches over 300m. Two wind turbines are established on the ridge. There is a lighthouse on the head.
Wind turbine	36° 57.8'N 137° 30.5' E	One wind turbine. Submarine power cable is laid between the wind turbine and the coast at 36°57.3' N 37°29.9'E.
Wind turbine	36° 58.1'N 137° 31.5' E	Two wind turbines. Submarine power cable is laid between these wind turbines.

A mountain range including Aota-Nanba Yama (949m in height), Myoko San (2,446m in height), Hiuchi Yama (2,462m in height) and Yake Yama (2,400m in height) lies inland of Torigakubi Misaki. It is often covered by fogs and clouds in May and June, and its summit is covered by white clouds in summer. Fogs and clouds may dissipate toward sunset.

Naoetsu Detached Office, Niigata Quarantine Station	+81-25-275-4615 (Niigata Airport Sub-branch)
Naoetsu Sub-branch, Niigata Branch, Yokohama Plant Protection Station	+81-25-543-0648
Naoetsu Port and Harbour Office, Niigata Prefectural Government	+81-25-543-4167

Tugboats. Tugboats are available.

Supplies. Fresh water and fuel oil can be supplied.

Repairs. There are repair facilities, but they are not equipped with lifts.

Medical facilities.

Name	Telephone number	Remarks
Joetsu General Hospital	+81-25-524-3000	
Niigata Rosai Hospital	+81-25-543-3123	

Maritime traffic. There are services of car ferries (2,486t) between Naoetsu Ko and Ogi Ko {Sado Shima}. Operation period: from spring through autumn.

Naoetsu Ko to Niigata Ko (Chart JP1180)

Outline. The coast between Naoetsu Ko and Yoneyama Saki, extending for about 12M, consists of sandy beach backed by dunes, with height of about 30m. The NE part of the dunes is wooded with trees, and the SW part is covered with grasses, with a clump of pine trees.

The coast between Yoneyama Saki and Kashiwazaki Ko, extending for about 5M, consists of reddish-coloured high cliffs rising precipitously.

The coast between Kashiwazaki Ko and Shiiya Hana, extending for about 8M, consists of sand and gravel beaches backed by hills with pine trees, with heights of 120 to 150m.

The coast between Shiiya Hana and Teradomari Ko (37° 39' N 138° 46' E, Port code; JP TRD), extending about 12M, consists of sand and gravel beaches.

The coast between the Okouzu Bunsuiro (a flood bypass flow into the N of Teradomari Ko) and Kakuda Misaki, extending for about 8M, consists of low land backed by mountain range. The coast between Kakuda Misaki and Niigata Ko, extending for about 15M, consists of sandy beaches backed by hills, with height of about 30m. The mouth of Shin Kawa is situated in the middle of the coast.

Shinano Kawa flows into Niigata Ko and is the longest river in Japan. Agano Kawa is the second longest river in the NW side of Honshu, followed by Shinano Kawa, and whose mouth is located 3M E of the mouth of Shinano Kawa.

Landmarks.

Landmark	Position	Remarks
Yoneyama Saki	37° 19.4' N 138° 26.2' E	A cape of a blackish cliff. Another blackish cliff is located E of it. Both are prominent and are good radar targets.
Yone Yama	37° 17.4' N 138° 29.0' E	A mountain, 993m in height. The highest peak near the shore along the coast between Naoetsu Ko and Niigata Ko.
Shiiya Hana	37° 29.0' N 138° 37.1' E	A round-shaped, wooded cape, faced with reddish-brown cliff. A lighthouse stands on it.
Yahiko Yama	37° 42.3' N 138° 48.5' E	A mountain, 634m in height. There are radio towers near the summit and an observation tower in the N side of the summit.
Kakuda Misaki	37° 47.6' N 138° 49.2' E	A lighthouse is situated at the foot of Kakuda Yama (482m in height). A pylon, painted red and white, located about 4km S of the lighthouse.

Fog occurs infrequently throughout the year, and usually dissipates within 4 to 5 hours.

Marine Accidents. Strong winds from between W and NW may cause high waves, with heights of 7 to 8m in winter, making entry difficult.

In the past, losses of anchor chains and grounding accidents have been caused in the outside of the port in such circumstances.

Landmarks.

Landmark	Position	Remarks
Chimney	38° 58.0' N 139° 49.9' E	About 184m in height, silver in colour. It stands inside the site of thermal power station.
Lighthouse	38° 56.8' N 139° 49.0' E	Sakata Light, 41m in height, white tower.
Tower	38° 55.1' N 139° 49.7' E	A memorial lighthouse, 28m in height.
Radio tower	38° 54.9' N 139° 50.1' E	Painted red and white, fitted with NTT dish aerials.
Wind turbine	38° 55.9' N 139° 48.8' E	100m in height.

Directions. Vessels approaching Section 1 or 2 should pass the midway between No.2 N and S Breakwaters. Then, alter course to 160° and steer for the head of the port after passing along S breakwater.

Vessels approaching North Port district should pass the middle of the port entrance, and proceed along the N breakwater in North Port district, steer for the chimney which is described in *Landmark*. Then, alter course as necessary for the passage, and head to the berth.

Precautions for entering the port. See also the item *Marine Accidents*. Currents flow rapidly, and outflow of muddy water may reach as far as 2M offshore in the vicinity of the port entrance when the river is flooded during the spring thaw in May or the rainy season. Vessels are liable to be set the N under such circumstances.

Strong westerly winter monsoon hinder entry into the North Port district, and vessels are liable to be set shoreward. When entering Section 1 or 2, extra care is needed to maintain course as vessels may be battered by winds and waves from behind, especially when passing the entrance of Section 2 near the N Breakwater Light in the Main Port district.

The entrance of Section 2 is busy with the numerous pleasure-fishing boats and pleasure boats from summer to autumn, vessels must exercise caution to avoid collision.

Facilities.

Name		Position	Length (Approx. m)	Depth (Approx. m)	Capacity (D/W×vessel)	Remarks
Takasago	No.1 Quay	38° 57.1' N 139° 49.0' E	152	13.5	50,000 × 1	Warehouse.
	No.2 Quay	38° 57.0' N 139° 49.2' E	280	14	50,000 × 1	Warehouse.
Kominato Wharf	No.1 Quay	38° 57.2' N 139° 49.7' E	270	13	50,000 × 1	
	No.2 Quay		185	10	15,000 × 1	
	No.3 Quay		185	8.5 to 9.5	15,000 × 1	
Kominato Mooring Pillar		38° 57.3' N 139° 50.0' E		5 to 8	15,000 × 1	Log pond is located S of here.
Miyayumi	No.2 Quay	38° 57.6' N 139° 50.2' E	170	9.5	10,000 × 1	Aseismic quay.
	No.3 Quay		130	6.5	5,000 × 1	Warehouse.
	No.4 Quay		130	6 to 7	5,000 × 1	
	No.5 Quay		130	5 to 6	5,000 × 1	
Ohama Wharf	No.1 Quay	38° 55.6' N 139° 48.9' E	330	6.5 to 8.5	10,000 × 2	Warehouse.
	No.2 Quay	38° 55.6' N 139° 49.0' E	90	4	2,000 × 1	

East Wharf	Shinmachi Quay	38° 55.1' N 139° 49.5' E	260	6 to 6.5	5,000 × 2	
	Funabacho Quay	38° 55.0' N 139° 49.6' E	360	4 to 6	2,000 × 4	
	Funabacho No.2 Quay	38° 54.9' N 139° 49.7' E	195	3 to 3.5	700 × 3	
West Wharf		38° 55.5' N 139° 49.1' E	185	7 to 8.5	15,000 × 1	
			53	3.5	700 × 1	
			180	4.5	2,000 × 2	Warehouse.
Sodeoka Wharf Quay		38° 54.9' N 139° 49.5' E	390	2 to 6.5	5,000 × 3	
Suisan	No.1 Quay	38° 54.8' N 139° 49.8' E	140	2.5 to 3.5	150t	Fish market.
	No.2 Quay	38° 54.7' N 139° 49.7' E	196	2.5 to 4	300t	
			180	3 to 4.5	150t	Opposite of Suisan No.1 Quay.

Pilotage. Pilotage is available upon request. (Inquiries: Sakata Pilot Association. See *Chapter 6 PILOTAGE* in Part 1 for details)

Maximum size of vessel handled. Cruise ship *MSC SPLENDIDA* (137,936t, with a draught of 8.68m) berthed at Kominato Wharf No.1 Quay on 16 September 2019.

Anchorage. In principle, vessels staying in Section 1 or Section 2 shall moor at quays.

Vessels carrying dangerous cargos shall anchor in Section 3.

Quarantine anchorage (38° 56.9' N 139° 47.5' E) is established about 0.5M NW of No.2 N Breakwater. However, it does not afford good anchorage as rough seas are experienced there.

Precautions for anchoring. There is a risk of dragging anchor as the bottom has poor holding ground.

Sakata and Akita Coast Guard Offices advise vessels to refrain from anchoring in the vicinity of Sakata Port during westerly winds and North port anchorage of Sakata Ko during stormy weather which occurs frequently in winter.

Typhoon and tsunami safety measures. In order to prevent disasters due to typhoon, tsunami and other abnormal weather, Yamagata Prefectural Vessel Concerned Parties is established and manages damage prevention countermeasures, such as the communication of information, warnings, and the imposition and cancelling of evacuation advisories for all vessels in the port. (Inquiries: Sakata Coast Guard Office)

Maritime authorities and facilities.

Name	Telephone number
Sakata Coast Guard Office (Captain of the Port)	+81-234-24-0055
Sakata Branch, Tokyo Customs	+81-234-22-1024
Sakata Chosha, Yamagata Transport Branch Office, Tohoku District Transport Bureau	+81-234-22-0084
Sakata Detached Office, Sendai Quarantine Station	+81-18-846-8280 (Akita-Funakawa Detached Office)
Sakata Port Branch Office, Sendai Regional Immigration Service Bureau	+81-234-22-2746
Yamagata Prefectural Port and Harbour Office	+81-234-26-5633

Tugboats. Three tugboats are available.

Supplies. Fresh water and fuel oil can be supplied. Fuel oil supply barges are available.

Repairs. A shipyard with a maximum grounding capacity of 499t and some ironworks are available.

W, and Tsubaki Gyoko (39° 52' N 139° 47' E) and Toga Ko (39° 57.2' N 139° 42.7' E, Port code; JP TOJ) lie on the coast. In winter, groundings have occurred in the coastal area as there is no protection against westerly monsoon winds, and the bottom is poor holding ground. Therefore, Sakata and Akita Coast Guard Offices advise vessels to refrain from anchoring in this area.

Landmarks.

Landmark	Position	Remarks
Mi Saki	39° 07.1' N 139° 52.2' E	A cape with a lighthouse.
Radio tower	39° 07.2' N 139° 53.6' E	A radio tower with dish aerials, 20m in height.
Chokai San	39° 06.0' N 140° 02.9' E	A mountain, 2,236m in height. A conical peak, which appears to have three peaks when viewed from the S, and two peaks from the N. It can be seen for a great distance. The peak is often hidden by clouds and is covered by snow throughout the year except in August and September.
Tobi Shima	39° 12.0' N 139° 33.4' E	A flat and low island. There is a lighthouse on the top of Takamori Yama, situated in the N part of the island. The coast consists of sand and gravel beaches with scattered rocks. Rocks are found especially in the N and NW of the island.
Towers	39° 39.9' N 140° 04.4' E	Six radio towers are established on the summit of Omori Yama. They exhibit red lights.
Kanpu San	39° 56.0' N 139° 52.5' E	A mountain with a conspicuous observation platform, 355m in height. Hachiro Gata rises gradually toward the peaks of the mountain. It has three peaks and the one in the easternmost is the highest. This peak cannot be seen from the W.
U-no-Saki	39° 51.5' N 139° 49.2' E	A cape, 32m in height. A lighthouse is situated there.
Shiose Saki	39° 51.5' N 139° 45.4' E	A cape in trapezoidal shape with a lighthouse.
Hon San	39° 54.4' N 139° 45.2' E	The highest peak of Oga Hanto, 715m in height. A conspicuous radar dome is situated on the top.
Nyudo Saki	40° 00.3' N 139° 42.1' E	The head is steep-to. A lighthouse (painted in black and white bands) stands on it.
Mizu Shima	40° 00.8' N 139° 42.0' E	A rock, 3.7m in height. It extends about 550m in a N to S direction. The sea violently breaks on it when strong westerly wind blows. The current always sets N in the vicinity. The sea breaks heavily on it when strong northerly winds are blowing. A white-painted pillar in the central part of this island is illuminated by a spotlight installed on Nyudosaki Light.

Akita-Funagawa Ko (39° 51.3' N 139° 56.3' E) (Charts W147, JP148, JP1192) (Port code; JP AFG)

Port classification. Specified port, open port, quarantine port, immigration port, domestic animal quarantine port, plant protection port, important port.

Outline. Akita-Funagawa Ko used to be two individual ports, namely, Akita Ko, located in the SE side, and Funagawa Ko. The two ports had merged together and became one port. Since then, the port consists of Akita Ku and Funagawa Ku. Facilities such as zinc refinery, thermal power station, paper factory are situated in Akita Ku, and oil storage base, lumber factory are situated in Funagawa Ku. Both Akita Ku and Funagawa Ku are busy with a large number of tankers and timber carriers. **In Akita Ku, 13 implantable offshore wind turbines (with yellow lights) have been installed.**

Section 1 of Akita Ko is well protected from the winds from all directions, but the winter monsoon winds hinder entry and departure from there. Funagawa Ku is opened to the E, and entry and departure from there is comparatively easy.

Weather and Climate. Winter monsoon blows intensely and usually lasts for 3 or 4 days.

Marine Accidents. The severe winds from between W and NW accompanied by waves of 7 to 8m in height make entry the port difficult, especially in winter.

There have been grounding accidents due to breakage of anchor chain.

Port operation communications. Communications by radiotelephone between a vessel and the Captain of the Port is available.

Directions. Vessels approaching Akita Ku from the N should steer a course of 105° from a position about 2M S of Shiose Saki (39° 51.5' N 139° 45.4' E). With chimneys (described in *Landmarks*) standing on the premises of a thermal power plant (in Akita Ku) bearing 095°, steer for the entrance of Section 1.

Approaching Akita Ku from the S should steer for Kanpu San (39° 56.0' N 139° 52.5' E), bearing 000°, until previously mentioned chimneys are sighted. Then, alter course to 095°, steering the chimneys and proceed to the entrance of Section 1.

When approaching the entrance, proceed in the mid-channel between New N and No.2 S Breakwaters, keeping clear of stationary nets (marked by four yellow buoys with yellow lights) laid near the end of No.2 S Breakwater and the area within about 0.8 to 6.1M northwestward of New N Breakwater. Then, head for the berth passing through dredged fairway.

Precautions for entering the port. During strong NW wind, entering the port is dangerous. After a heavy rain, an outgoing current, with a speed of about 2kn, may occur at the entrance to the inner harbour of Akita Ku. A beacon light at the head of the former N Breakwater (39° 45.7' N 140° 02.6' E) (green) is low in intensity which must be noted.

Destinational Signals. Indication of course and destination (Japan Coast Guard Public Notice No.35 of 1995) and Symbol showing Destination of Automatic Identification System. (Japan Coast Guard Public Notice No. 94 of 2010)

Signal	Symbol showing the route in the port.	Meaning of signal
Second substitute over Flag N		N Proceeding to the mooring facilities located N of a line drawn from Akita N Breakwater Light to the head of the former N Breakwater.
Second substitute over Flag E		E Proceeding to the mooring facilities located N of a line (hereinafter called <i>line A</i>) drawn from the end of the former N Breakwater to the shore on a bearing of 099°.
Second substitute over Flags E and N		E+N Proceeding to ENEOS Pier.
Second substitute over Flags E and C		E+C Proceeding to the mooring facilities located between Nakashima Quay and Shimohama Quay on the E side of the Kyu-Omono Kawa (S of the <i>line A</i>).
Second substitute over Flags E and S		E+S Proceeding to the mooring facilities located on the E side of the Kyu- Omono Kawa (S of the <i>line A</i>) and, at the same time, S of Terauchi Wharf.
Second substitute over Flag W		W Proceeding to the mooring facilities on the W side of the Kyu-Omono Kawa (S of <i>line A</i>).

Facilities.

Name	Position	Length (Approx. m)	Depth (Approx. m)	Capacity (D/W×vessel)	Remarks
Outer Harbour - 13m No.1 Quay	39° 45.9' N 140° 02.4' E	270	12.5	50,000 × 1	Two cranes and warehouses.
Outer Harbour - 13m No.2 Quay	39° 46.1' N 140° 02.3' E	260	13	40,000 × 1	
Iijima -11m Quay	39° 46.9' N 140° 02.1' E	190	9.5 to 10.5	18,000 × 1	
Iijima -7.5m Quay	39° 46.9' N 140° 02.2' E	260	3.5 to 7	5,000 × 2	
Iijima -5m Quay	39° 47.2' N 140° 02.2' E	130	4 to 4.5	1,000 × 2	

Ohama	- 4.5m No.1 Quay	39° 46.2' N 140° 03.0' E	60	3	700 × 1	
	- 4.5m No.2 Quay		60	3	700 × 1	
	- 10m No.1 Quay	39° 46.4' N 140° 03.0' E	185	10	15,000 × 1	
	- 10m No.2 Quay	39° 46.2' N 140° 02.9' E	185	9 to 9.5	15,000 × 1	
	- 10m No.3 Quay	39° 46.0' N 140° 02.9' E	185	9 to 9.5	15,000 × 1	
Nakashima	No.1 Quay	39° 45.3' N 140° 03.5' E	161	8.5	10,000 × 1	
	No.2 Quay	39° 45.4' N 140° 03.4' E	185	9.5	15,000 × 1	
	No.3 Quay	39° 45.5' N 140° 03.3' E	185	9.5	15,000 × 1	
North Wharf	A Quay	39° 45.3' N 140° 03.5' E	122	6 to 7.5	5,000 × 1	
	B Quay	39° 45.3' N 140° 03.6' E	155	6 to 6.5	5,000 × 1	
South Wharf	C Quay	39° 45.2' N 140° 03.6' E	155	4.5 to 5	2,000 × 1	
	D Quay	39°45.1' N 140° 03.6' E	90	6	2,000 × 1	
Shimohama - 5m Quay		39° 45.0' N 140° 03.8' E	345	3.5 to 5	1,000 × 4	Fish market.
Terauchi Wharf		39° 44.7' N 140° 04.0' E	195	6 to 7	5,000 × 2	
Mukaihama	- 7.5m No.1 Quay	39° 44.9' N 140° 03.7' E	130	7	5,000 × 1	
	- 7.5m No.2 Quay		130		5,000 × 1	
	- 10m No.1 Quay	39° 45.0' N 140° 03.4' E	186	9	15,000 × 1	
	- 10m No.2 Quay	39° 45.1' N 140° 03.3' E	186	8 to 9	15,000 × 1	
	- 10m No.3 Quay	39° 45.2' N 140° 03.2' E	185	8.5 to 10	15,000 × 1	
	- 12m Quay	39° 45.3' N 140° 03.1' E	240	12	30,000 × 1	

Maximum size of vessel handled. Cruise ship *MSC SPLENDIDA* (137,936t, with a draught of 8.68m) berthed at the Nakashima No.2-3 Quays on 24 October 2018.

Anchorage. Vessels carrying dangerous cargos shall anchor in Section 2.

Maritime authorities and facilities.

Name	Telephone number
Akita Coast Guard Office (Captain of the Port)	+81-18-845-1624
Akita Funakawa Branch Customs	+81-18-845-0735
Akita Transport Branch Office, Tohoku District Transport Bureau	+81-18-863-5811
Akita Branch Office, Sendai Regional Immigration Service Bureau	+81-18-895-5221
Akita Sub-branch, Niigata Branch Office, Yokohama Plant Protection Station	+81-18-845-1411
Akita-Funakawa Detached Office, Sendai Quarantine Station	+81-18-846-8280
Akita Port and Harbour Office, Akita Prefectural Government	+81-18-845-2021

Tugboats. Tugboats are available.

Supplies. Fresh water and fuel oil can be supplied. Fuel oil supply barges are available.

Medical facilities.

Name	Telephone number	Remarks
Akita City Hospital	+81-18-823-4171	
Akita Welfare Medical Center	+81-18-880-3000	

Maritime traffic. There are services of car ferry (18,229t) between Tsuruga Ko and Tomakomai Ko, calling at Akita Ko and Niigata Ko.

Funagawa Ku (39° 52.8' N 139° 51.9' E) (Chart W147)


(Photographed in July 2020)

Outline. Funagawa Ku is divided into three sections: Section1, Section2 and Section3. This area has irregular depth of less than 20m. The bottom consists of rock. Shoals lie SW part and the head of the bay.

Hachiro Gata, located E of the root of Oga Hanto, is used by the second largest lake in Japan, but 80% of the total area had been reclaimed. The remaining part of the lake is connected to Funagawa Ku by Funakoshi Suido with a width of about 390m and depths ranging from 2 to 3m.

Landmarks.

Landmarks	Position	Remarks
Tanks	39° 52.0' N 139° 51.0' E	Oil tanks, painted white, standing on an oil storage base.
Radio tower	39° 52.9' N 139° 50.8' E	A radio tower, 60m in height.
Oebana Saki	39° 53.9' N 139° 53.5' E	A triangular-shaped cliffy cape, whitish coloured.

Precautions for entering the port. Vessels approaching from the W should exercise caution not to navigate close to the shore and pass the S side of a light buoy established S of Aka Ne, keeping clear of dangerous reefs in the vicinity of Aka Ne and stationary net extending S for 1.2M from the S side of Ne Shima. Vessels approaching from the S should steer for Funagawa Breakwater Light and head to the port.

Facilities.

Name	Position	Length (Approx.m)	Depth (Approx.m)	Capacity (D/W×vessel)	Remarks
Public Wharf	No.1 to 2 Quay	260	6.5	5,000 × 2	For oil carriers, etc.
	No.3 Quay	145	6.5	7,000 × 1	For timber carriers.
	No.4 Quay	185	8 to 9.5	15,000 × 1	For timber or stone carriers.

Sea berth. A sea berth (39° 51.4' N 139° 51.6' E) for Akita Oil Storage Base is established about 0.5M SE of the Akita Oil Storage Base (East). It has a capacity of 180,000D/W×1 vessel and equipped with sea berth lights and a submersible oil boom.

Maximum size of vessel handled. Tanker *KAIMON MARU* (120,015t, with a draught of 13.56m) berthed at the Akita Oil Storage Base sea berth on 4 June 2013.

Anchorage. Anchorage can be taken in the area about 500m N of Funagawa Breakwater Light, with a depth of 8m, mud, good holding ground.

Quarantine anchorage (39° 51.2' N 139° 53.3' E) is established about 1.5M SE of Funagawa Breakwater Light. Vessels carrying

Nyudo Saki to Henashi Saki (Chart JP1195)

Outline. The line joining Kyudo Saki and Henashi Saki is about 37M in length. The coastline between these two projections is slightly curved inward.

The N part mainly consists of rocky beaches fringed with rocky reefs, and is backed by mountains. Kyuroku Shima lies about 17M to the WSW of Henashi Saki.

The S part is adjacent coast of the N coast of Oga Hanto, has concave coastline consisting of sandy beaches. The water depth 1 to 2M off the coast is about 20m, and the bottom mainly consists of sand. A large number of stationary nets are laid out there. The coast includes Kitaura Ko (39° 57.8' N 139° 47.4' E, Port code; JP KJT), and Noshiro Ko which is situated at the mouth of Yoneshiro Kawa.

A small bay (40° 34.8' N 139° 54.6' E) situated S of Henashi Saki affords best shelter anchorage in this area as it is backed by high terrains, when winds blow from between the N and E.

The bay is exposed to westerly winter monsoon winds which may result in grounding accidents. Akita and Aomori Coast Guard Offices advise vessels to refrain from anchoring in this area under such circumstances.

Landmarks.

Landmark	Position	Remarks
O Shima	40° 22.0' N 140° 00.7' E	An islet, 14m in height. There is no other island in this region.
Chigoki Saki	40° 24.9' N 139° 56.9' E	A cape with a lighthouse.
Henashi Saki	40° 36.8' N 139° 51.8' E	A cape located at the W extremity of Fukaura Hanto, projecting W. Iwasaki Ko lies on the S side of the base of Fukaura Hanto. A lighthouse is established on this cape. Tsubaki Yama, a small hill at the end of the cape, 56m in height, appears as an islet from a distance and is prominent from the N and the S.

Fishery. The vicinity of Teri Ba (40° 22.3' N 139° 41.0' E), with a depth of 42m, about 17M NW of Noshiro Ko, is busy with the fishing boats engaged in pole-and-line and gill net fishing throughout the year.

Noshiro Ko (40° 12.4' N 139° 59.1' E) (Chart W1292) (Port code; JP NSR)



(Photographed in July 2020)

Port classification. Port designated by Port Regulation Law, open port, immigration port, plant protection port, important port.

Outline. Noshiro Ko lies on the S side of the mouth of Yoneshiro Kawa, located about 19M NE of Nyudo Saki. The port has been developed as an artificial inland port to deal with the sediment delivered by the frequent flood of the river. Lumber factories are situated in the port. A large number of wind turbines exist within the harbour area. **20 implantable offshore wind turbines (with yellow lights) have been installed.**

Kyuroku Shima (40° 32.1' N 139° 29.9' E) (Chart JP1195)

Seen from the SE

(Photographed in July 2015)

Outline. Three rocky islets lying about 17M WSW of Henashi Saki are collectively called **Kyuroku** Shima. A lighthouse stands on the middle part of the islet, with a length of 53m and a width of 13m, low and flat, and is the largest and westernmost of the group. There are two rocks, with a height of 5.7m respectively, on the both side of the lighthouse. The islet resembles a ship from a distance.

The other two islets lie about 150m and 170m ENE of the largest islet, and are 3.9m and 2m in height, respectively. A pinnacle rock awash lies about 300m SE of the largest islet. Two sunken rocks lie about 220m ENE and 250m E of the largest islet. The sea breaks on those sunken rocks.

Henashi Saki to Tappi Saki (Chart JP1195)

Outline. Tappi Saki, the W entrance of Tsugaru Kaikyo is situated about 45M NE of Henashi Saki.

The coast between Tappi Saki and Odose Saki extends for a distance of about 13M, and is backed by high land. Fukaura Ko (40° 38.7' N 139° 55.6' E, Port code; JP FKK) lies in the S part.

The coast between Odose Saki and Kodomari Misaki, extends for a distance of about 24M, has concave coastline consisting of sandy beaches. The water depth about 1M off the coast is about 10m. Tsugaru Ko (40° 47.7' N 140° 14.4' E) and Ajigasawa Ko (40° 47.1' N 140° 12.8' E, Port code; JP AJK) lie in the S part.

The coast between Kodomari Misaki and Tappi Saki extends for about 8M, plateau. Kodomari Ko (41° 08.2' N 140° 18.0' E, Port code; JP KOD) lies in the S part.

Aomori Coast Guard Offices advises vessels to refrain from anchoring in the coastal area as the coast is exposed to westerly winter monsoons which may result in grounding accidents.

Tidal streams. The flood sets N and the ebb sets S weakly in the offing of Komadori Misaki.

Landmarks.

Landmark	Position	Remarks
Torii Saki	40° 44.6' N 140° 00.0' E	A cape with a lighthouse, prominent from a distance. Two islets lie adjacent to this cape.
Odose Saki	40° 46.0' N 140° 03.4' E	A cape with a lighthouse.
Iwaki San	40° 39.4' N 140° 18.2' E	A mountain 1,625m in height, commonly called Tsugaru Fuji. There are three summits, the highest of which stands in the middle.
Kodomari Misaki	41° 07.5' N 140° 15.0' E	A prominent cape lying 11M S of the W entrance to Tsugaru Kaikyo. The cape is easy to identify with its unique shape, faced on its W side by a reddish cliff, and rising to Tappi Saki. Lighthouses are situated at its N and S end. A thickly-wooded round shaped mountain rises near the head.
Tappi Saki	41° 15.5' N 140° 20.5' E	A cape with a lighthouse, situated at the S side of the W entrance of Tsugaru Kaikyo.