

FOR THE SAFTY NAVIGATION IN JAPANESE COASTAL WATERS

~ **Note** ~

This book is no more than a reference to attempt the safe navigation for vessels. Each sailor who is going to navigate the sea areas around Japan must do research from other sources on Japanese regulations and the conditions of each navigating sea area.

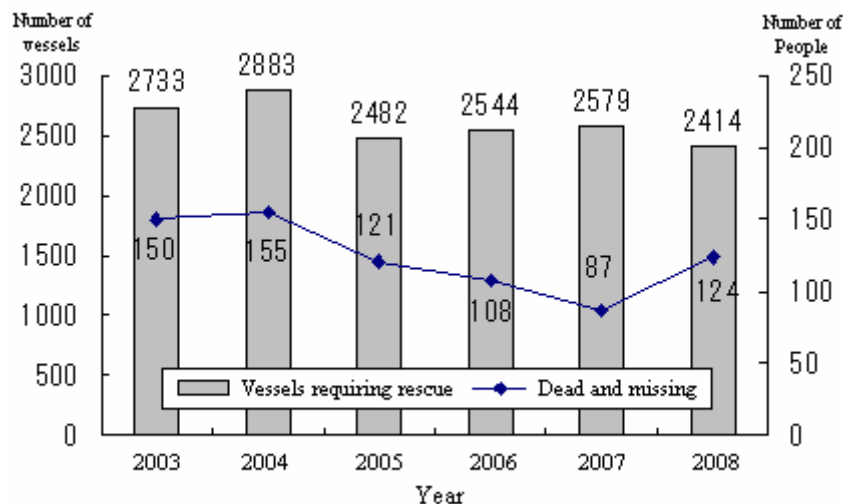
Introduction

Japan is located in middle latitudes and frequently visited by extra tropical cyclones, so it is subject to major changes in weather and sea conditions. In addition, there are many dangerous areas for ships as seen in heavily congested Tokyo Bay, Ise Bay, and the Seto Inland Sea due to unfavorable geographical conditions, such as narrow channels, sunken rocks and complicated tidal currents. Aggravating congestion is getting more serious in the sea area around Japan due to the increasing activities related to marine transport, fisheries, and leisure, making sever environment for ships.

Therefore, the sea areas around Japan have been the places where marine casualties occur with great frequency. Approximately 2,600 vessels including foreign vessels meet with marine casualties as the average in the last 10 years, causing around 140 people found dead or missing.

We wish anyone who undertakes a voyage around Japan will read this book and navigate safely.

The number of vessels requiring rescue and the change in the number of the dead and missing



The number of foreign vessels requiring rescue and the change in the number of dead and missing

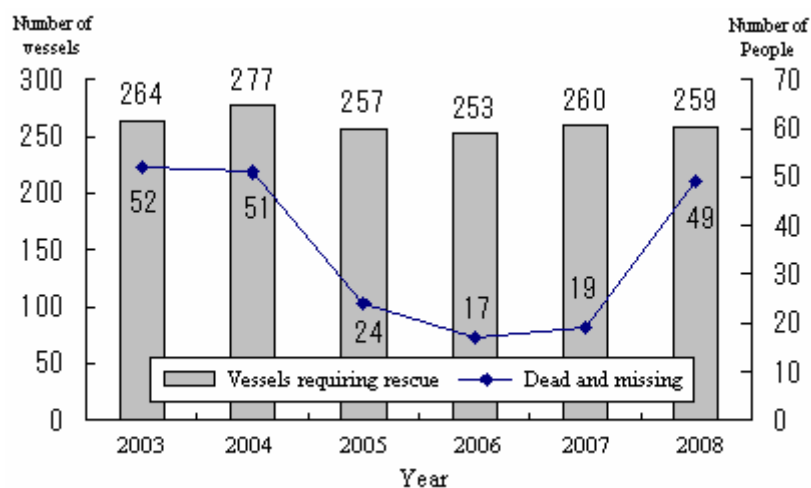


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REFERENCE Fisheries in Waters along the Coasts of Japan

PART 1 WEATHER AND SEA CONDITIONS IN SEA AREAS AROUND JAPAN

The sea areas along the coast of Japan are subject to great changes in sea as well as weather conditions, and this constitutes a grave threat to navigation.

All navigators are required to pay attention to the items described below, understand the geographical features in these sea areas, and try to enhance the navigational safety.

Chapter 1 Weather Conditions in sea Areas along the Coast of Japan

1. Fog

Of all the types of fog that occur in the sea areas along the coast of Japan, the most stringent precautions should be taken for front and sea fogs. These fogs occur quite extensively and occasionally remain for half a day to a full one day (See Fig. 1-1 and Table 1-1).

Fig. 1-1 Sea Areas along the Coast of Japan Where Fog Occurs Frequently

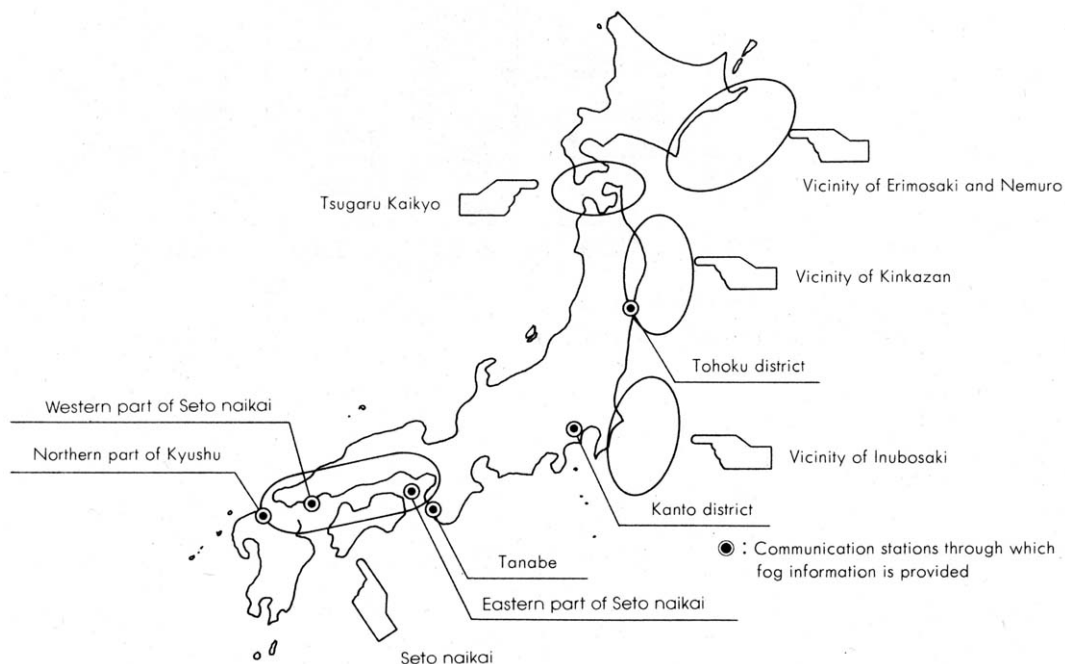


Table 1-1 See areas along shore of Japan where fog occurs frequently

	See areas	Fog period	Mature Stage	Remarks
(1)	Vicinity of Inubo Saki	May-August	July	
(2)	Vicinity of Kinkazan	May-August	July June	
(3)	Tsugaru Kaikyo	April-August	June July	A great deal of dense fog is seen especially in July and August.
(4)	Vicinity of Erimo Misaki Nemuro	May-August	July	
(5)	Kuril's Ostrova (Kurile Islands)	Summer period		During the summer period the islands are practically covered with fog.
(6)	Seto Naikai	March-July	April May June	Fog shows a sharp decrease with the end of the rainy season. In the circumference of Osaka Bay, Bisan Seto, Hiuchi Nada, Aki Nada and Iyo Nada fog occurs frequently. Attention is to be given to Osaka Bay even during the winter months.

(1) Front Fog

This fog occurs most frequently in spring as well as in fall. It occurs frequently in the rainfall area on the north side of the cold front extending from the east-northeast to the south-southwest and advancing south slowly.

To put it another way, there is a front extending roughly from east to west in the Sea of Japan, and both on its south side and its north side an isobar runs roughly parallel to it. On the north side of the front, there is rain and when the front goes south slowly, the most stringent precautions become necessary.

(2) Sea Fog

The rainy season is also a season of sea fog. It is this season when casualties in fog occur frequently. (May, June, July)

The weather map and an illustration of cloud for a typical Bai-u (seasonal rain) pattern on June XX are shown in Figs. 1-2 and 1-3, from which it becomes quite clear that on the north side of the Bai-u (seasonal rain) front extending from east to west, extensive sea fog occurs. (Refer to Fig. 1-2 and 1-3)

Fig. 1-2 Weather map, on June XX

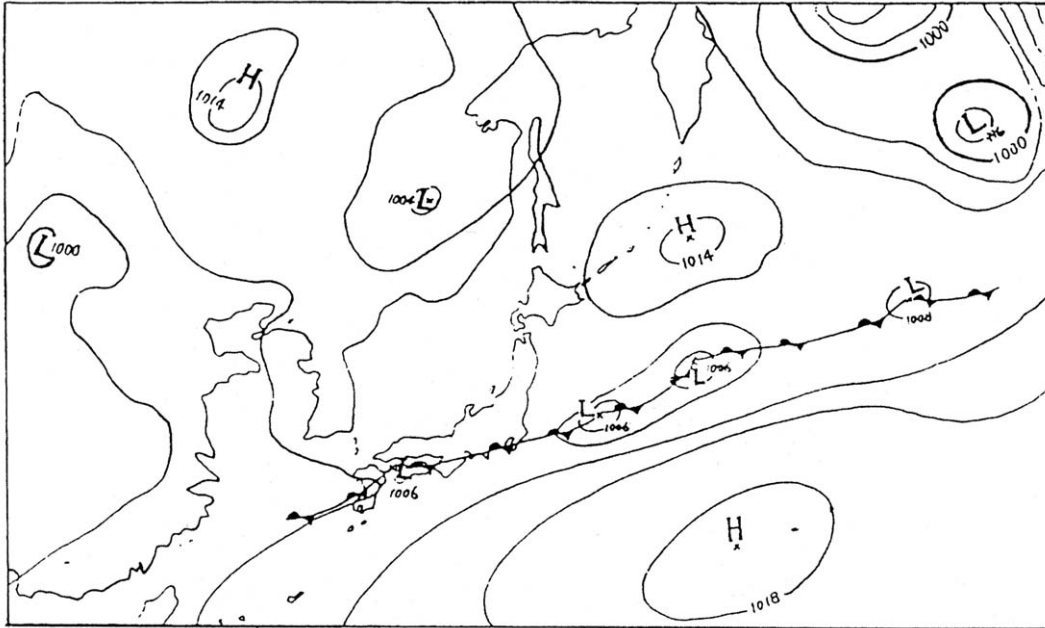
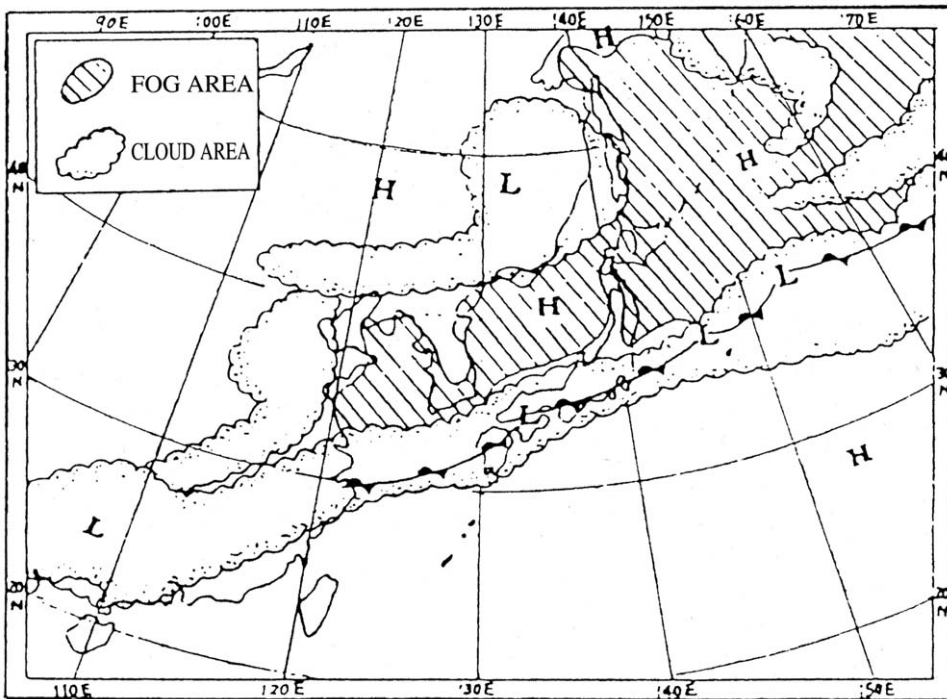


Fig. 1-3 Illustration of cloud picture on June XX



(3) Fog Information

When visibility is limited, fog information is provided through the following communication stations (See Table 1-2). Navigators are required to use this information effectively.

Table 1-2 Fog information providing condition

Communication Stations	Sea area	Visibility	Calling frequency	Language	Broadcasting time
No.2 District	Off Sanriku	Less than 1,000m	CH16	Japanese/ English	Fixed time (8 times a day)
No.3 District	Uraga Suido/ Patrol vessel sailing area	Less than one nautical mile, 1,000m (only in Uraga Suido) and 500m or when recovered to more than one nautical mile.			Whenever necessary
No.5 District	Akashi Kaikyo/ Tomogashima Suido/ Naruto Kaikyo/ Osaka, Sakaiizumi-kita, Kobe Sections of Hanshin Port/ Himeji Port/ Wakayama Shimotsu Port	Less than 2,000m, 1,000m, and 500m or when recovered to more than 2,000m			After broadcasting once, at even numbered time.
No.6 District	Bisan Seto/ Kurushima Kaikyo	Less than 2,000m			Whenever necessary
No.7 District	Kanmon Kaikyo				

2. Gale

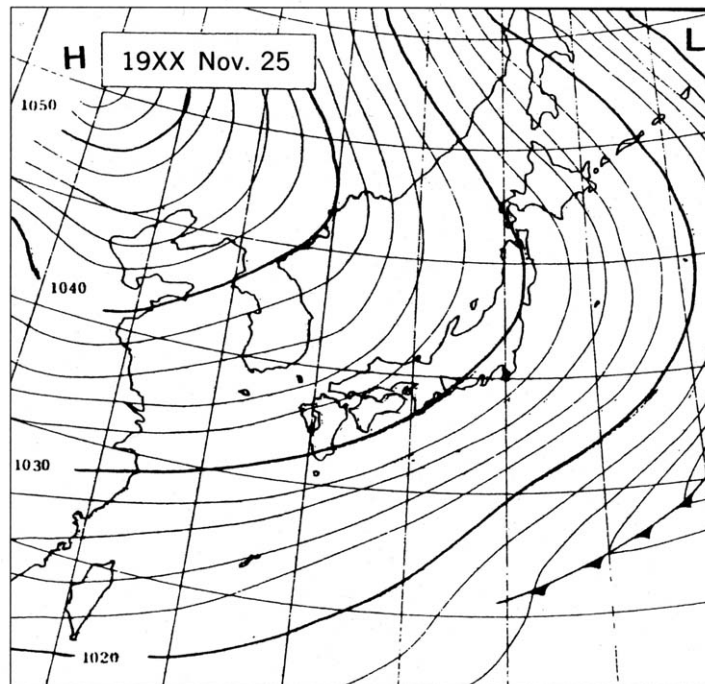
The following items can be pointed out for factors which bring about gale in Japanese coastal waters.

- Winter monsoon
- Cyclone passing through the southern shores of Japan (The atmospheric depression which develops near Taiwan towards the end of winter and visits the southern shores of Japan causing snowfalls.)
- Cyclone following the Japan Sea course (Spring storm)
- Twin cyclones
- Typhoon

(1) Winter monsoon

As shown in Fig. 1-4, it occurs at the time of pressure distribution where there is a continental anticyclone in the west and a deepened cyclone in the Kurilian districts in the east. Outbreak of the monsoon becomes extremely strong in cases where central pressure of the central anticyclone exceeded 1,050 hPa. In such case, northwardly gale of more than 30 m/s sometimes blow.

Fig. 1-4 Winter monsoon



(2) Cyclone passing through the southern shores of Japan

Cyclone which occurred on the northeast shores of Taiwan develops quickly in most cases. Since central pressure may fall in some cases as much as 10 hPa or 20 hPa for 24 hours, leading to increase in the speed, special care should be given to it. (Fig. 1-5)

This cyclone develops quickly extending of Shikoku and Kanto, resulting in such a speed as about 60 Km per hour. Special care should be given to the case where central pressure off Kanto dipped below 990 hPa. The reason is that it may develop further and advance as far as

the Kurile Islands or Kamchatka, and as a result the central pressure may frequently deepen to a level ranging from 960 hPa to 940 hPa.

How far a storm zone of this cyclone extends goes as follows, if shown in Fig. 1-6.

Fig. 1-5 Cyclone passing through the southern shores of Japan(1)

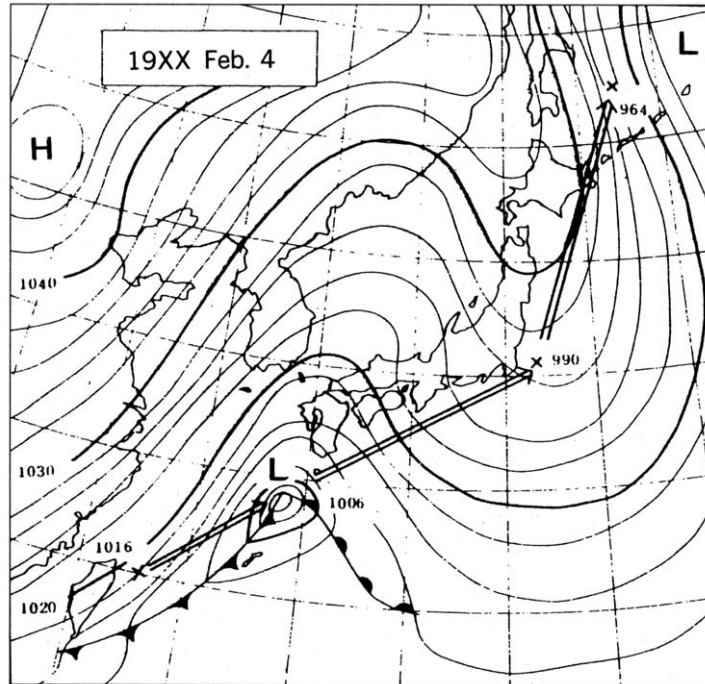
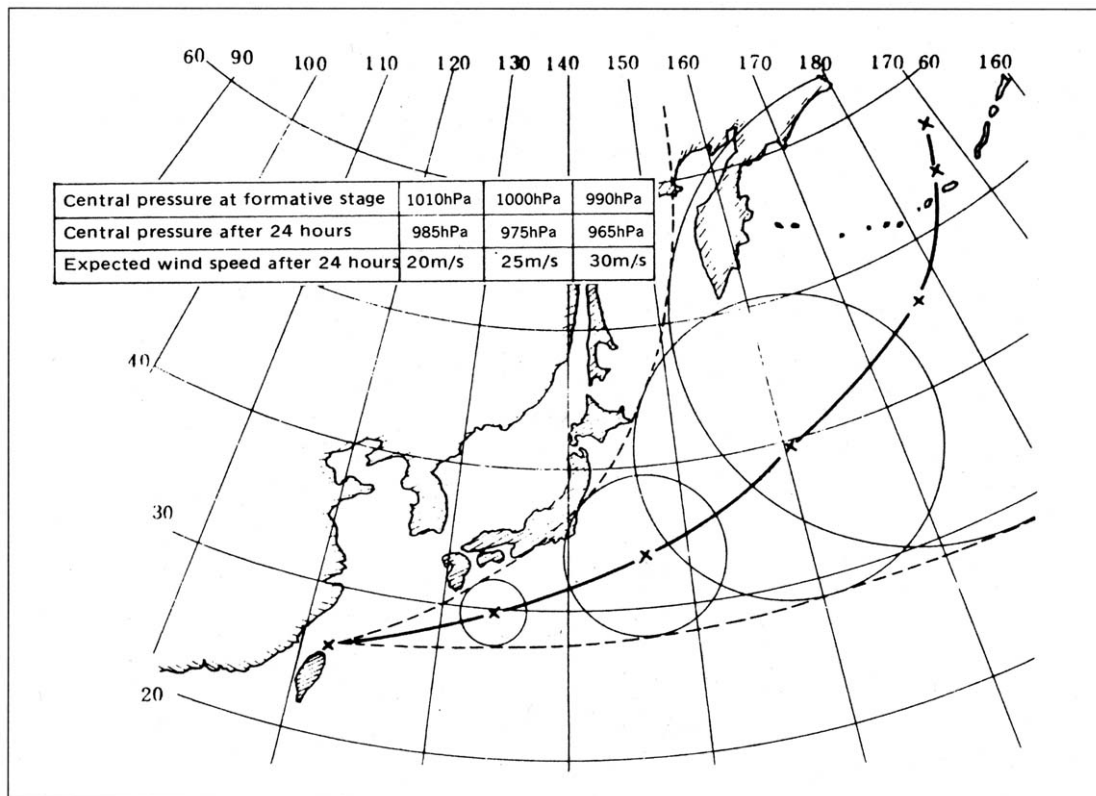


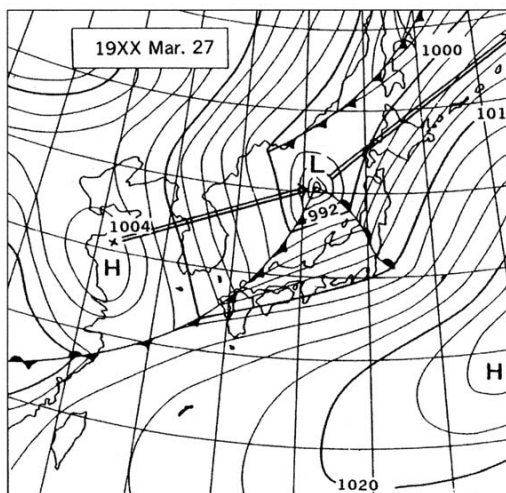
Fig. 1-6 Cyclone passing through the southern shores of Japan(2)



(3) Cyclone following the Japan Sea course (Spring storm)

When a distribution of atmospheric pressure for winter in which the high pressure area lies to the west and the low pressure area lies to the east, abates and a low pressure trough approaches from the continent, it is sometimes possible that cyclone will occur on the Eastern China Sea or the Yellow Sea, enter the Japan Sea and deepen quickly. In such a case, a southerly gale rages throughout Japan. (Fig. 1-7)

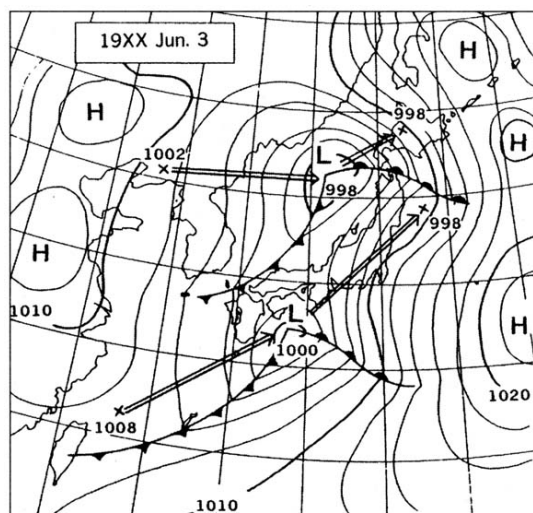
Fig. 1-7 Cyclone following the Japan Sea course (Spring storm)



(4) Twin cyclone (Futatsudama Teikiatsu)

When cyclone which occurred in the vicinity of the Yellow Sea enters the Japan Sea and develops quickly, while at the same time cyclone which occurred in China or the Eastern China Sea, developing, moves eastward on the southern shores of Japan, it is called Futatsudama Teikiatsu. It comes together, however, off the coast of Sanriku and deepens so much on the eastern shores of Hokkaido that it may frequently reach the same level as typhoon. (Fig. 1-8)

Fig. 1-8 Twin cyclone (Futatsudama Teikiatsu)



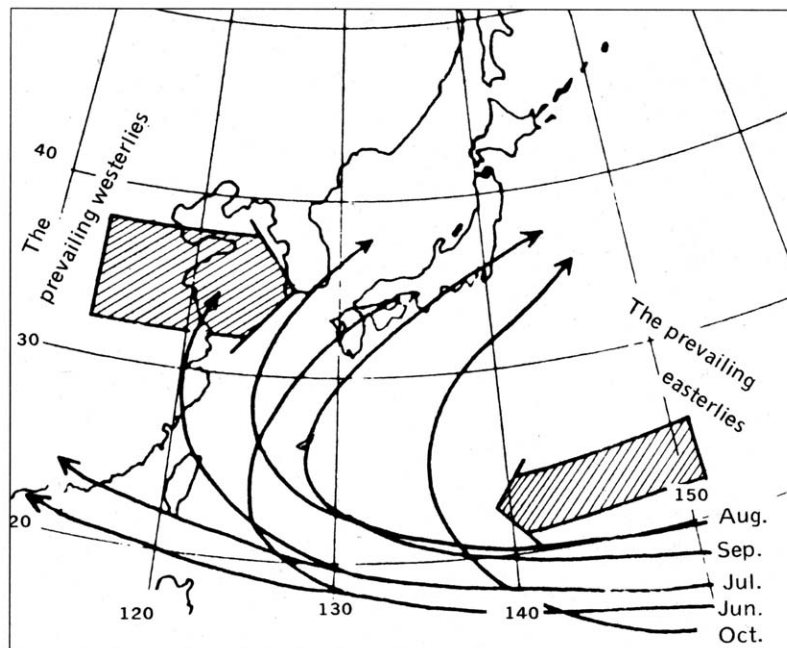
(5) Typhoon

The average course of typhoon classified by month, according to a statistical observation, goes as Fig. 1-9. As may be readily understood there from, typhoon having gone up north turns to the northeast in the vicinity of lat. 20 degrees-30 degrees N. on Japanese waters and speeds up quickly. At the same time, it represents a time when the typhoon develops exceedingly. On the top of it, attention is to be given to the fact that among typhoons there is such a typhoon as to be called so-called stray one and take an irregular course. In general, forecast of the typhoon course is based on upper wind. In addition to it, following forecasts are possible in the light of empirical rules.

- (a) It proceeds to the direction where the degree of pressure fall in exceedingly great.
- (b) It proceeds to the direction where there is a rainfall area.

In any case, it is essential to get continuous information and to take action to keep away from the typhoon earlier than usual.

Fig. 1-9 Typhoon



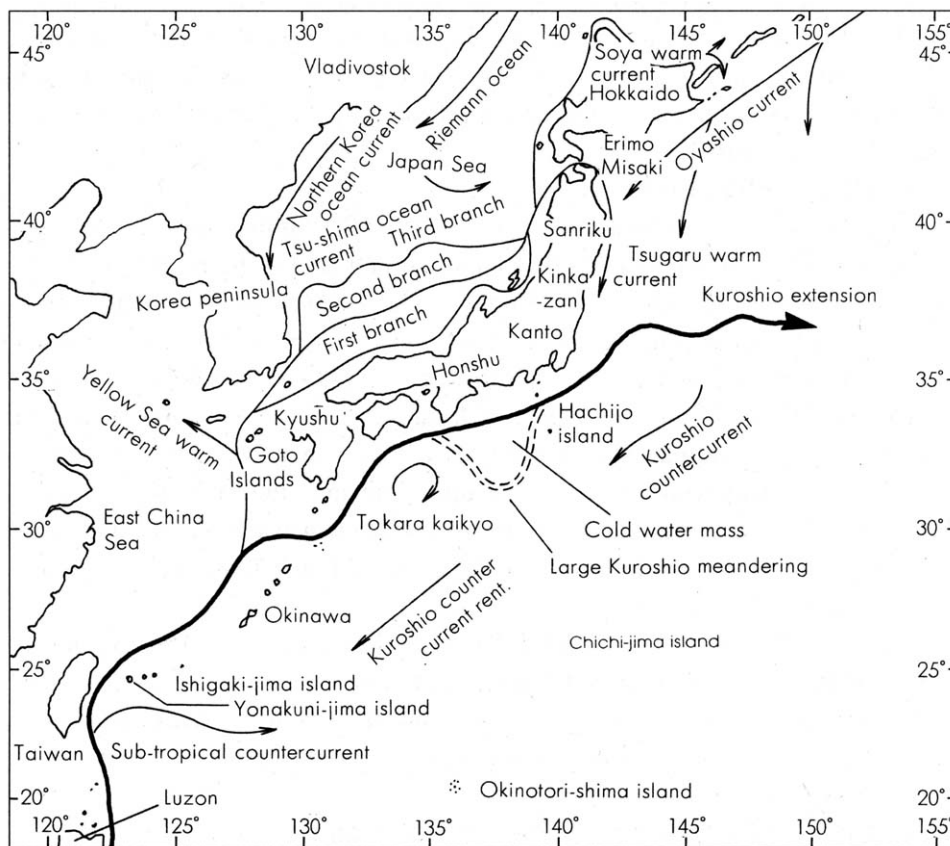
Chapter 2 Sea Conditions in sea Areas along the Coast of Japan

From among various phenomena that occur in the seas, ocean currents, waves, and sea ice are picked out as phenomena closely related to navigation and are summarized below.

Oceanic phenomena have their own characteristic features and show great variations which include seasonal and yearly variations. They frequently differ to a large extent from natural phenomena. Particular care is required, therefore, when such oceanic phenomena are to be interpreted or investigated.

1. Ocean Currents

Fig. 1-10 General Situation of Ocean Currents in Japanese Waters



(1)Kuroshio Current

The Kuroshio Current or the Black Current (refer to Fig. 1-10) is also called the Japan Current. It is the largest ocean current in Japanese waters, and the only current.

The Kuroshio Current is a high-temperature, high-salinity warm current that is dark blue color as is implied by its name and has a transparency of more than 30 metres. Its flow rate is 2 to 3 kn on the average and reaches up to 4 to 5 kn, and its watercourse changes more violently in direction than is usually anticipated. It is always important to pay attention to the movement of the Kuroshio Current as it has a great influence on navigation. Navigators are required to take notice not only of information as to the passage of current, surface temperature, and flow rate of the Kuroshio Current summarized below, but also of the latest information provided by the Maritime Safety Agency with regard to ocean current reports, etc.

[Passage of the current]

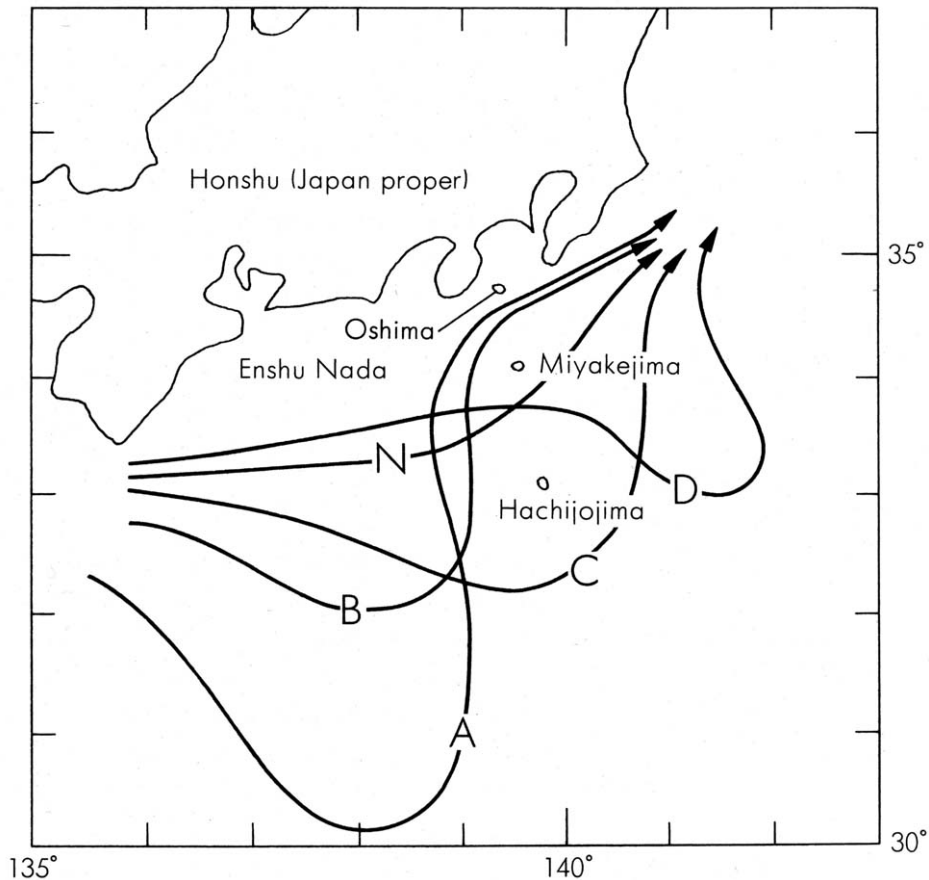
The source of the Kuroshio Current is east of the Philippine IIs., where the North Equatorial Current separates north and south and where the northward branch then flows northward off Luzon. The Kuroshio Current then passes through the sea area between Taiwan and Yonakuni-jima Island, and flows into the East China Sea. It then advances northward along the outer edge of the continental shelf and passes through Tōbara Kaikyo to the South Sea area of Japan. Part of the Kuroshio Current branches off from the main current in the sea area east of Taiwan and flows eastward to turn into a subtropical countercurrent. Part of the upper stream of the Kuroshio Current branches off from the main current in the sea area west of Okinawa, advances northward along the west of Kyushu, and flows into the Japan Sea through Tsushima Kaikyo to become the Tsushima Ocean Current.

The Kuroshio Current in the South Sea area of Japan generally approaches the south shore of Honshu (main island of Japan), flows eastward, advances away from the east coast of Kanto, and turns into a current flowing eastward in the eastern sea area of Honshu. This current is called the Kuroshio extension to distinguish it from the Kuroshio Current.

[Changes in the passage of the current and formation of cold water mass]

The Kuroshio Current in the South Sea area of Japan generally flows eastward or southeastward along the south shore of Honshu. Frequently, however, it is caused to meander in the vicinity of Enshu Nada by a cold water mass formed inside the Kuroshio Current. The meanders of the Kuroshio Current can be classified into type A or a large-scale meander and types N, B, C, and D according to the site and scale of the cold water mass formed inside. (See Fig. 1-11)

Fig. 1-11 Meanders of Kuroshio Current



The large-scale (type A) meander of the Kuroshio Current is now regarded as one of regular passage of the current, because it has become common in recent years.

(2) Oyashio Current

The Oyashio Current (refer to Fig. 1-12), which is also called the Chishima Ocean Current or Kurilian Current, is one of the currents forming the west coast current of the sub-tropical circling system and is regarded as a typical cold current in Japanese waters. The Oyashio Current, however, is comparatively weak in terms of its flow energy and frequently becomes indistinct in relation to its watercourse. The main current of the Oyashio flows westward along the Pacific side of the Kurilskie Ostrova, reaching the eastern section of Hokkaido while sending forth southward branches in the vicinity of 150° E to 15° E and also of 146° E. to 147° E. It then advances southwestward along the Pacific side of the eastern section above, and then veers due south in the sea area off Erimo Misaki toward the sea area off Sanriku.

The main current then flows southward along the shore approximately 50 M off Sanriku. When it reaches the sea area of 40° N to 42° N, the main current flows against the northward branch of the Kuroshio Current to form a peculiar boundary between these two currents. It then flows eastward, meandering through the sea area east of Honshu. The southward Oyashio Current becomes strongest and reaches a sea area near Kinkazan in March through

April every year, while it becomes weakest in November or December and begins to flow eastward in a sea area near 41030° N.

The Oyashio Current has a flow rate of 0.6 to 0.7 on average and reaches a maximum of 1.3 kn. It is approximately 10 to 15 M wide. Generally, the Kuroshio Current becomes weak in summer and autumn and strong in winter and spring. The Kuroshio Current sometimes has an especially strong southerly flow in spring and the cold water it brings with it reaches the sea area near Inubosaki.

(3) Ocean Currents In Japan Sea

In the Japan Sea, there are the Tsushima Ocean Current, which flows northeastward along the northwest side of Honshu, and the Riemann and North Korea Cold Ocean Currents, which flow southward along the east shore of the Korean peninsula. Taken together, a counterclockwise oceanic gyre is formed in this sea area. The two cold ocean currents flowing southward are not as distinct and strong as the Tsushima Ocean Current. They usually flow at a rate of less than 0.5 kn. In the vicinity of Vladivostok, however, the existence of a southwestward current flowing at a rate of more than one kn is occasionally reported.

[Tsushima Ocean Current]

The Kuroshio Current flowing northward along the west side of Kyushu is divided into two currents in the sea area off the Goto Islands. One of these two currents, the minor one, advances toward the Yellow Sea after skirting the south coast of Jeju Do. The other current, the major one, enters the Japan Sea through Tsushima Kaikyo and develops into the largest ocean current in the Japan Sea, known as the Tsushima Ocean Current or Tsushima Warm Current. (See Fig. 1-10)

The flow rate of these currents in the major passages of currents is approximately 1 to 1.5 kn in summer and 0.5 to 1.2 kn in winter.

(4) Ocean Currents in Okhotsk Sea

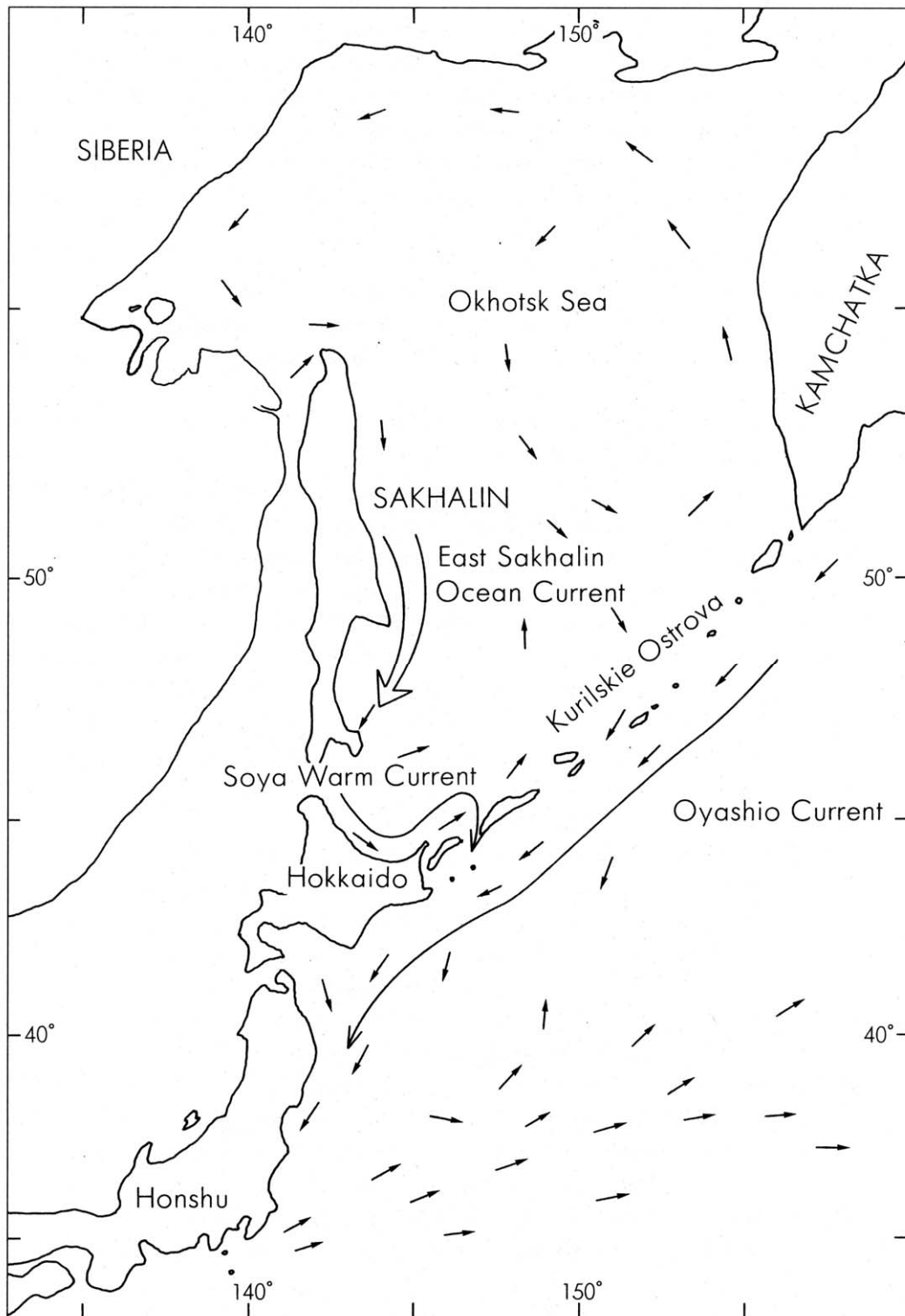
In the Sea of Okhotsk, there is an oceanic gyre usually circulating counter clockwise. Part of this oceanic gyre flows southward along the east coast of Sakhalin and is called East Sakhalin Ocean Current. The oceanic gyre has a low flow rate or approximately 0.3 to 0.8 kn throughout its course with the exception of the channel between the eastern part of Hokkaido and the Kurilskie Ostrova.

The Soya Warm Current, which passes through the Soya Kaikyo (strait) and flows southeastward along the northeastern coast of Hokkaido, is regarded as the main ocean current in the Okhotsk Sea.

This current flows 5 to 30 M off the coast at a mean flow rate of one to 2 kn in summer and approximately one kn in spring and autumn. In summer, the current becomes strongest and occasionally reaches a maximum flow rate of approximately 3 kn.

The detailed flow conditions of the straits and channels between the eastern part of Hokkaido and the Kurilskie Ostrova have not been clarified satisfactorily due to insufficient data. It is known, however, that there are currents flowing between the islands of the northern Kurilskie Ostrova into the Okhotsk Sea and those flowing between islands of the central and southern Kurilski Ostrova into the Pacific. (See Fig. 1-12)

Fig. 1-12 Oyashio Current and Currents in Okhotsk Sea



2. Waves

In Japanese waters waves run very high when a series of northwesterly seasonal winds blow or when developed low atmospheric pressures or typhoons pass through. Northwesterly seasonal winds begin to blow as the barometric gradient of atmospheric pressure distribution, in which the high pressure area lies to the west and the low pressure area to the east, deepens after the passage of low atmospheric pressures. Consequently, the sea becomes turbulent for several days. Some of low atmospheric pressures gain in force while passing in the vicinity of Japan and stormy winds extend over a radius of 500 to 800 M. A high-wave region covers a large sea area where waves reach as much as 0 metres or more in height. From summer through autumn, typhoons frequently pass in the vicinity of Japan causing big waves to rise around their courses and big surges to roll in the sea areas around the courses. Special care should be paid to such atmospheric phenomena as the above.

(1) Wave Height in Japanese Waters

[Winter]

In Japanese waters, the mean wind velocity is 15 to 20 kn and the mean wave height is 1.5 to 2 metres. High-wave regions are widely distributed, ranging from the sea area east of Kanto to the offing far from the shore of Japan. The mean wave height in these regions is more than 2.5 metres. In some places, it reaches as much as 3.5 metres.

[Spring]

In Japanese waters, the mean wind velocity is 10 to 17 kn and the mean wave height is 1 to 1.8 metres. High-wave regions, where the mean wave height is about 2 metres, are scattered in the sea area southeast of Kamchatka and in the offing far east of Sanriku.

[Summer]

In Japanese waters, the mean wind velocity is 9 to 13 kn and the mean wave height is 0.8 to 1.5 metres. This is the calmest season of the year. High-wave regions where the mean wave height is about 2 metres can only be observed in some sea areas off Kito to Izu.

[Autumn]

In Japanese waters, the mean wind velocity is 13 to 18 kn and the mean wave height is 1.3 to 1.9 metres. This is the season after winter when waves are most turbulent. High-wave regions, where the mean wave height is over 2.5 metres, can be observed in the sea area extending from the southeastern part of Kamchatka to the offing far from the shore of Sanriku and in the northern part of the East China Sea. In some places, the wave height reaches as much as approximately 3 metres.

(2) Waves Generated by Seasonal Winds

Seasonal winds continuously blow almost in a certain direction for hours at a considerably high velocity, and the fetch (the distance along open water over which the wind blows) of each seasonal wind gains in scale in the vicinity of Japanese waters. Consequently, big waves begin to rise and develop into larger ones over a wide range. Especially after the passage of a cold front accompanying a low atmospheric pressure, northwestward or northward seasonal winds blow one after another over the sea at a velocity of more than 20 m/s and waves rage furiously. Moreover, atmospheric layers become unstable due to the approaching cold. As a result, the direction of wind suddenly changes and a violent gust of wind springs up, so that waves rolling in opposite directions gain in force, dash against one another, and turn into pyramidlike chopping waves. Stringent precaution should be taken against chopping waves since they are so powerful as to sink even a large-sized ship

once they grow up.

(3) Waves Caused by Low Atmospheric Pressures

According to weather observations at specific points in sea areas east of Honshu, low atmospheric pressures which generate rough waves more than 5 metres high occur 17 times on average during the winter months (December through February) or once every 5 days. It is reported that the height of these waves reaches a maximum of 13 metres. At a specific point in the sea area south of Honshu, low atmospheric pressures equivalent in violence to those mentioned above are observed about 4 times on average every year. The height of the waves generated by these low atmospheric pressures reaches a maximum of 8 metres in March.

(4) Waves Generated by Typhoons

Waves in the area of a typhoon are distributed with the highest intensity in the right-rear section of the quadrant and the lowest intensity in the left fore section according to the direction of the typhoon. This phenomenon can be interpreted by combining the following conditions

- the wind velocity in the right semicircle (dangerous semicircle) is higher than that in the left semicircle (navigable semicircle);
- in the right semicircle, the waves and the typhoon generally advance in the same direction, and both the time and distance in which the waves are exposed to the wind in the same direction are longer than those measured in the left semicircle; and
- the waves in the rear semicircle and the rolling swell in the fore semicircle overlap in the rear semicircle, so that they are intensified. The height and periodic distribution of the waves in the area of a typhoon largely depend on the velocity of the typhoon. When the velocity of the typhoon is high, the waves in the rear semicircle are much higher than those in the fore semicircle. When the velocity of the typhoon is nearly equal to that of the waves, the waves gained in force, reaching the rear semicircle simultaneously with the typhoon, so that the waves suddenly become higher, especially in the dangerous semicircle. Special precaution should be taken for this.

(5) Waves in the Japan Sea

[Wind and waves]

In the Japan Sea and along the northwest coast of Honshu, big waves rise frequently in winter due to the effects of low atmospheric pressure and northwesterly seasonal wind. The low pressure velocity is 20 to 30 km/h, while the wind velocity is approximately 20 m/s and rarely exceeds 25 m/s. Wind and waves develop with a period of less than 12 seconds. The height of the waves is more than 8 metres; in extraordinary cases, it exceeds 10 metres. On average, low atmospheric pressure passes through once a week. It may be said, therefore, that not a day passes without waves developing.

In spring and autumn, the waves are comparatively low and surge for a short duration. Occasionally, high waves develop in the sea area along the coast due to localized winds.

In summer, a long spell of fine weather is generally observed except when a typhoon is passing.

In the sea area along the coast of the Japan Sea, the mean wave height is 0.6 to 1 metre and the mean wave period is 7 seconds. Waves of more than 2 metres high continue to rise for 1.4 days at the time of a typhoon, and for 3 days at the time of low atmospheric pressure.

PART 2 NAVIGATION LAW AND PILOTAGE

Chapter1 Navigation Law

1. Summary

Vessels navigating within Japanese territorial waters are subject to the restrictions outlined under three different laws. The objectives of each law and the relationships between them can be briefly described as follows.

- (1) The Law for Preventing Collisions at Sea is a Japanese version of the International Regulation for Preventing Collision at Sea, which is recognized as a basic common regulation of all maritime nations in the world. The Law for Preventing Collisions at Sea contains general regulations on lighting and navigation for all vessels cruising within Japanese territorial waters.
- (2) The Port Regulations Law, which can be considered a by-law of the Law for Preventing Collisions at Sea, is aimed at promoting safe navigation and at maintaining order within ports.
- (3) The Maritime Traffic Safety Law describes special traffic rules for traffic-congested areas.

In addition to obeying these three laws, masters of vessels should abide the recommendations issued by Regional Coast Guard Headquarters for proceeding through narrow channels where there is a strong possibility of casualties.

This chapter, in particular, will describe the Port Regulation Law and the Maritime Traffic Safety Law which apply to traffic-congested areas. Notifications of traffic routes, which are part of the Maritime traffic Safety Law, are also presented in this chapter and should be strictly abided by masters of foreign vessels.

2. Port Regulations Law

(1) Purpose of this Law

The purpose of this Law is to ensure the safe navigation of vessels and maintenance of good order in ports.

(2) Summary of Restriction

This Law provides extra rules of "The Law for Preventing Collision at Sea" for congested vessel traffic in ports and regulates the following:

- (i) matters concerning vessel's navigation, berthing, etc.
- (ii) Actions such as dumping waste materials, construction or work which affect safe navigation.
- (iii) lights and signals for vessels.
- (iv) smoking, using naked flames, handling dangerous goods, etc.

Furthermore, special navigation methods are established for each port.

(3) Applicable ports

There are 500 ports to which this Law applies, including 84 so-called "specified ports". This Law, besides the restrictions on applicable ports mentioned in paragraph, regulates the establishment of passages, handling of dangerous goods, and designation of anchor-ages within specified ports.

A captain of the port is appointed for each specified port from among Maritime Safety Officials by the Commandant of the Japan Coast Guard, and he is responsible for enforcing the Port Regulations Law in his appointed port.

(4) Traffic control within ports

Traffic control within ports is outlined in Table 2-1.

(Reference) List of Ports to Which Port Regulation Law Applies

To, Do, Fu and Prefectures	Name of Port
Hokkaido	Esashi, Oumu, Monbetsu, Abashiri, Rausu, Nemuro*, Hanasaki, Kiritappu, Akkeshi, Kushiro*, Tokachi, Erimo, Samani, Urakawa, Tomakomai*, Muroran*, Date, Mori, Usujiri, Hakodate*, Matsumae, Fukushima, Esashi, Setana, Suttu, Iwanai, Yoichi, Otaru*, Ishikariwan, Mashike, Rumoi*, Tomamae, Hahoro, Teshio, Wakkanai*, Aonae, Teuri, Yagishiri, Kutsugata, Oniwaki, Oshidomari, Kafuka, Funadomari
Aomori	Fukaura, Ajigasawa, Kodomari, Minmaya, Hiradate, Aomori*, Kominato, Noheii, Omanato, Kawauchi, Wakinosawa, Sai, Oma, Ohata, Shiriyamisaki, Mutsuogawara*, Hachinohe*
Iwate	Kuji, Yagi, Miyako, Yamada, Ozuchi, Kamaishi*, Ofunato, Hirota
Miyagi	Kesenuma, Shizukawa, Onagawa, Ayukawa, Ogihama, Watanoha, Ishinomaki*, Sendaishiogama*
Akita	Kisakata, Konoura, Hirasawa, Honsho, Akitafunakawa*, Toga, Kitaura, Noshiro
Yamagata	Sakata*, Kamo, Yura, Nezumigaseki
Fukushima	Soma, Shikura, Ena, Nakanosaku, Onahama*
Ibaraki	Hirakata, Otsu, Ose, Hitachi*, Hitachinaka, Nakaminato, Oarai, Kashima*
Ibaraki Chiba	Choshi
Chiba	Katsuura, Shirahama, Tateyama, Kisarazu*, Chiba*
Tokyo	Okada, Habu, Motomachi, Niijima, Okubo, Kamiminato, Yaene
Tokyo Kanagawa	Keihin*
Kanagawa	Yokosuka*, Misaki, Manazuru
Niigata	Nou, Naoetsu*, Kashiwazaki, Teradomari, Niigata*, Iwafune, Ryotsu*, Hamochi, Ogi, Himekawa
Toyama	Uozu, Fushikitoyama*, Himi
Ishikawa	Nanao*, Anamizu, Udezu, Ogi, Iida, Wajima, Fukura, Taki, Kanazawa*
Fukui	Uchiura, Wada, Obama, Tsuruga*, Fukui*
Shizuoka	Atami, Ajiro, Ito, Inatori, Shimoda, Teishi, Matsuzaki, Ukusu, Toi, Heda, Shizuura, Numazu, Tagonoura*, Shimizu*, Yaizu, Oigawa, Haibara, Sagara, Omaezaki, Hamana
Aichi	Irako, Fukue, Izumi, Mikawa*, Higashihazu, Yoshida, Ishiki, Kinuura*, Morozaki, Shinoshima, Toyohama, Uchimi, Tokoname, Nagoya*
Mie	Kuwana, Yokkaichi*, Chiyozaki, Tsu, Matsuzaka, Ujiamada, Toba, Namikiri, Hamajima, Gokasho, Nagashima, Hikimoto, Owase, Kinomoto
Kyoto	Kumihama, Asamogawa, Taiza, Nakahama, Honjo, Ine, Miyazu*, Maizuru*, Nohara, Tai
Osaka	Fukahi, Hannan*, Sensyu*
Osaka Hyogo	Hanshin*
Hyogo	Akashi, Higashiharima*, Yagi, Himeji*, Aioi, Ako, Tsuiyama, Shibayama, Kasumi, Hamasaka, Iwaya, Tsuna, Sumoto, Yura, Fukura, Minato, Tsushi, Gunge, Toshima
Wakayama	Shingu, Ukui, Katsuura, Urugami, Kozanishimuki, Kushimoto, Hioki, Tanabe*, Hidaka, Yura, Yuasahiro, Wakayama Shimotsu*
Tottori	Yonago, Akasaki, Tottori, Amishiro, Tago
Tottori Shimane	Sakai*
Shimane	Masuda, Misumi, Hamada*, Gotsu, Jinman, Hisate, Taisha, Keiun, Kaga, Shichirui, Mihonoseki, Matsue, Yasugi, Saigou, Urugo
Okayama	Hinase, Katakami, Tsurumi, Ushimado, Saidaiji, Kogushi, Okayama, Uno*, Hibi, Kotoura, Ajino, Shimotsui, Mizushima*, Kasaoka
Hiroshima	Fukuyama*, Onomichiitosaki*, Tadaumi, Takehara, Akitsu, Kure*, Hiroshima, Otake, Tou, Shigei, Saki, Setoda, Mebaruzaki, Kinoe, Mitarai, Onishi, Kamagari, Itsukushima

To, Do, Fu and Prefectures	Name of Port
Yamaguchi	Iwakuni*, Hisaga, Agenosho, Komatsu, Yanai*, Murotsu, Kaminoseki, Hirao, Murozumi, Tokuyamakudamatsu*, Mitajirinakazeki*, Aio, Yamaguchi, Maruo, Ube*, Onoda, Asa, Kogushi, Kottoi, Sumishima, Awano, Senzaki, Hagi*, Susa, Esaki
Yamaguchi Fukuoka	Kanmon*
Tokushima	Buyo, Imakiri, Tokushima Komatsujima*, Tomioka, Tachibana, Yuki, Hiwasa, Mugi, Asakawa, Shishikui
Kagawa	Toyohama, Kanonji, Nito, Takuma, Tadotsu, Marugame, Sakaide*, Kasai, Takamatsu*, Shido, Tsuda, Sanbonmatsu, Hiketa, Sakate, Utsumi, Ikeda, Tonosho, Naoshima
Ehime	Fukaura, Uwajima, Yoshida, Mikame, Yawatahama, Kawanoishi, Misaki, Mitsukue, Nagahama, Korinaka, Matsuyama*, Hojo, Kikuma, Imabari*, Yoshiumi, Minobugawa, Saijyou, Niihama*, Samukawa, Mishimakawanoe*, Okamura, Miyaura, Hakata
Kochi	Kounoura, Murotomisaki, Murotsu, Nahari, Kochi*, Usa, Susaki, Kure, Uenokae, Saga, Kamikawaguchi, Shimoda, Shimizu, Katashima
Fukuoka	Kafuri, Hakata*, Oshima, Ashiya, Kanda, Ushima, Miike*, Omuta, Wakatsu
Saga	Yobuko, Karatsu* , Suminoe, Morodomi
Saga Nagasaki	Imari*
Nagasaki	Shimabara, Kuchinotsu, Obama, Mogi, Wakisaki, Nagasaki*, Mieshikimi, Seto, Matsushima, Omura, Sakito, Sasebo*, Aiura, Usuura, Emukae, Tabira, Matsuura, Imafuku, Fukue, Tomie, Tamanoura, Kishiku, Narushima, Narao, Arikawa, Aokata, Ojika, Hirado, Tsuyoshi, Ikitsuki, Oshima, Ashibe, Gonoura, Katsumoto, Hitakatsu, Sasuna, Izuhara*, Tsutsu
Kumamoto	Minamata, Sashiki, Yatsushiro, Misumi*, Kumamoto, Hyakkan, Nagasu, Aizu, Himedo, Hondo, Ushibuka, Tomioka, Oniike
Fukuoka Oita	Nakatsu
Oita	Nagasu, Takada, Takedatsu, Kunisaki, Morie, Beppu, Oita*, Saganoseki, Usuki, Tsukumi, Saiki, Kamae
Miyazaki	Kitaura, Nobeoka, Totoro, Hososhima*, Miyazaki, Uchinomi, Aburatsu, Sotoura, Fukushima
Kagoshima	Shibushi, Uchinoura, Odomari, Onejime, Kanoya, Tarumizu, Fukuyama, Kajiki, Kagoshima*, Kiire*, Yamagawa, Makurasaki, Nomaie, Kushikino, Kawauchi, Akune, Komenotsu, Nishinootomote, Shimama, Nakakoshiki, Teuchi, Issou, Miyanoura, Naze*, Koniya
Okinawa	Kinnakgusuku*, Naha*, Toguchi, Unten, Hira, Ishigaki

Note: Mark * indicates specified ports.

Table Related to Application of Port Regulation Law

Article	Description	Law applicable port	Specified port
§ 4	Reporting of entry into/departure from port		○
§ 5 ①	Anchoring restriction		○
②④	Anchorage specified		○ (Port specified by order)
③④	Anchorage specified (When recognized as necessary by port manager)		○ (Specified port other than the above)
⑤	Notification of permission of facilities by controller of mooring facilities		○
⑥	Restriction/prohibition of use of mooring facilities		○
⑦	Convenience offering by controller of mooring facilities and port manager		○
§ 6	Restriction of night entry into port		○ (Port specified by order)
§ 7 ①②	Restriction of movement		○
§ 8 ①	Reporting of repairing and mooring		○
②	Specifying of anchoring place related to repairing and mooring		○
③	Boarding order of necessary number of persons		○
§ 9 ①	Restriction of mooring, etc.	○	○
§ 10	Moving order	○	○
§ 11	Restriction of anchoring	○	○
§ 12	Obligation to navigate in course		○
§ 13	Prohibition of anchoring, etc. within course		○
§ 14 ①-④	Navigation in course		○
§ 15	Navigation at or near the entrance of breakwater	○	○
§ 16 ①	Speed limit	○	○
②	Navigation of sailing ship	○	○
§ 17	Navigation near the tip of a structure or anchored ship	○	○
§ 18 ①	Obligation of avoiding navigation of miscellaneous ships	○	○
②	Obligation of avoiding navigation of small ships		○ (Port specified by order)
③	Marking obligation of ships other than small ships/miscellaneous ships		○ (Port specified by order)
§ 19 ①	Special navigation rules (related to 14 (3) (4), 15 and 17)	○	○
②	Special navigation rules (related to others than 14- 1 8)	○	○
§ 20	(deleted)		
§ 21 ①	Port manager's instructions to ships loaded with dangerous goods		○
②	Order entrusting of type of dangerous goods		○
§ 22	Anchoring/mooring restrictions for ships loaded with dangerous goods		○
§ 23 ①	Permission of loading/unloading of dangerous goods		○
②③	Specifying of work place outside the port boundary		○

Article	Description	Law applicable port	Specified port
④	Permission of transporting of dangerous goods		○
§ 24 ①	Control of waste abandoning	○	○
②	Dropping prevention measures against scattered objects	○	○
③	Order to remove abandoning wastes and scattered objects		○
§ 25	Measures and reporting at occurrence of disasters at sea	○	○
§ 26	Order to remove driftage, etc.	○*	○
§ 27 ①②	Light of small ships within port	○	○
§ 28	Blowing restriction of whistle and siren	○	○
§ 29	Permission of private signals	○	○
§ 30 ①②	Fire alarm		○
§ 30 2	Indication of method of fire alarm		○
§ 31 ①	Permission of work/operation	○	○
②	Order of necessary measures	○*	○
§ 32	Permission of events		○
§ 33	Reporting of ship launching and entry into/departure from dock		○
§ 34 ①	Permission of unloading of bamboo/lumber and mooring/operation of rafts		○
②	Order of necessary measures		○
§ 35	Restriction of fishing	○	○
§ 36 ①	Restriction of use of light	○	○
②	Light dimming/covering order	○*	○
§ 36 2①②	Restriction of smoking, etc.	○*(Item 2)	○
§ 36 3①	Obligation to observe control signals	○*	○
②	Reporting of scheduled time of navigation in waterway	○	○
③	Order entrusting of position of signal box/signal contents	○*	○
§ 37 ①②③	Restriction/prohibition of ship traffic	○	○
§ 37 2	Control of nuclear-powered vessel	○	○

Note: Mark*: those to be applied to law applicable ports other than specified ports in accordance with 3 of Section 37 of Port Regulation Law

Table 2-1 Traffic control within the port

Port	Waterways covered		Signal stations	Method of signalling	
				Daytime	Nighttime
Tomakomai	Tomakomai Waterway		Tomakomai	Electric light letter	
	Yufutsu Waterway		Yufutsu		
Hachinohe	Part of river surface		Hachinohe	Flash, Figure, Flag	Flash
Shiogama	Part of Passage		Shiogama	Flash, Figure, Flag	Flash
Kashima	Kashima Waterway		Kashima	Flash	
			Kashima chuo	Electric light letter	
Chiba	Chiba Passage		Chiba light beacon	Electric light letter	
			Shinko	Flash	
	Ichihara Passage		Chiba light beacon	Flash	
Keihin	Tokyo East Passage		Jugogochi, Chuobo, Jugochi	Electric light letter	
	Tokyo West Passage		Tokyo light beacon	Flash	
			Oi, Jusangochi, Harumi	Electric light letter	
	Tsurumi Passage	North Waterway	Tsurumi	Electric light letter	
		South Waterway	Tsurumi Daini	Electric light letter	
	Keihin Canal	1st Quarter	Tsurumi, Tanabe	Electric light letter	
		2nd Quarter	Ikegami	Electric light letter	
		3rd Quarter	Shiohama, Mizue	Electric light letter	
		4th Quarter	Kawasaki, Daishi	Electric light letter	
	Kawasaki Passage		Kawasaki	Electric light letter	
Yokohama Passage	West Waterway	Daidoku, Naiko	Electric light letter		
	East Waterway	Honmoku	Electric light letter		
Niigata	West Quarter		Niigata	Flash, Figure, Flag	Flash
Nagoya	East Passage		Takashio Bohatei East, Kinjo	Electric light letter	
	West Passage		Takashio Bohatei West, Kinjo	Electric light letter	
	North Passage		Kinjo, Nagoya North	Electric light letter	
Yokkaichi	No.1 Passage, Umaokoshi Passage		Yokkaichi, Yokkaichi Bohatei	Flash	
Hanshin	Hamadera Waterway		Hamadera	Flash, Figure, Flag	Flash
	Sakai Waterway		Sakai	Flash, Figure, Flag	Flash
	Nanko Waterway		Nanko	Flash, Figure, Flag	Flash
			Nanko Daini	Electric light letter	
	Part of Canal		Kizugawa Canal	Flash, Figure, Flag	Flash
Kobe Central Passage		Koba, Kobe Daini	Electric light letter		
Mizushima	Inner Harbour Passage		Mizushima	Electric light letter	
Kanmon	Hayatomonoseto Waterway		Hayatomo	Electric light letter	
	Wakamatsu Waterway, Okudokai Waterway, Okudokai Passage, Wakamatsu District		Wakamatu Port Mouth, Makiyama, Nishima	Electric light letter	
Kochi	Kochi Waterway		Katsurahama, Urado	Flash, Figure, Flag	Flash
Sasebo	Sasebo Waterway		Kogosaki	Flash	
Naha	Naha Waterway		Naha	Flash, Figure, Flag	Flash

(Remark)

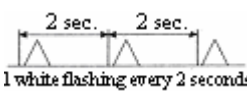
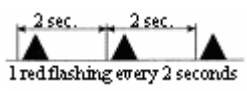
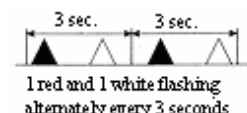
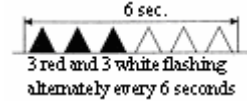
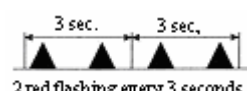
1. Nighttime signals may be used during daytime due to the weather conditions, etc.
2. In the column "Method of signaling," "Flash" means signaling by flashing light; "Figure" means signaling by figure; "Flag" means signaling by flag; "Light letter" means signaling by light and "Electric light letter" means signaling by electric light dial.

With regard to Tokyo (West, East) Passage, an example of control is shown in Fig. 2-1 and Table. 2-2

Fig. 2-1



Table 2-2 (Tokyo West Passage)

Names	Signaling Method		Meaning
	Character system signal (day/night)	Flashing light signal (day/night)	
Signal of entry into port	I (Flashing letter “I”)		<ul style="list-style-type: none"> ○ Incoming vessels may enter ○ Vessels of 500G/T or over are prohibited to go out
Signal of departure from port	O (Flashing letter “O”)		<ul style="list-style-type: none"> ○ Outgoing vessels may go out ○ 500G/T or over are prohibited to enter
Signal of free into port	F (Flashing letter “F”)		<ul style="list-style-type: none"> ○ Vessels of 25000G/T (1000G/T or over for oil tankers) are prohibited to enter or go out. (Tokyo West Passage) ○ Other vessels may enter or go out.
Prohibition signal	X (Flashing letter “X”)		<ul style="list-style-type: none"> ○ Vessels are prohibited to navigate unless directed by Captain of the port.
Signal of change-over notice	XI (Alternating flashing of letters “X” and “I”)		<ul style="list-style-type: none"> ○ Vessels in the Passage may navigate. ○ Vessels of 500G/T or over outside the passage shall wait giving the way to vessels navigating in the passage. ○ The signal will change to “I” soon.
	XO (Alternating flashing of letters “X” and “O”)		<ul style="list-style-type: none"> ○ Vessels in the Passage may navigate. ○ Vessels of 500G/T or over outside the passage shall wait giving the way to vessels navigating in the passage. ○ The signal will change to “O” soon.
	XF (Alternating flashing of letters “X” and “F”)		<ul style="list-style-type: none"> ○ Vessels in the Passage may navigate. ○ Vessels of 500G/T or over outside the passage shall wait giving the way to vessels navigating in the passage. ○ The signal will change to “F” soon.
	X (Flashing letter “X”)		<ul style="list-style-type: none"> ○ Vessels in the Passage may navigate. ○ All vessels outside the passage shall wait giving the way to vessels navigating in the passage. ○ The signal will change to “X” soon.
			<ul style="list-style-type: none"> ○ Comply with signal of other signal stations.

As an example, the control in Nagoya passages (East, West and North) is shown in Fig. 2-2 and Tables 2-3 through 2-7.

Fig. 2-2

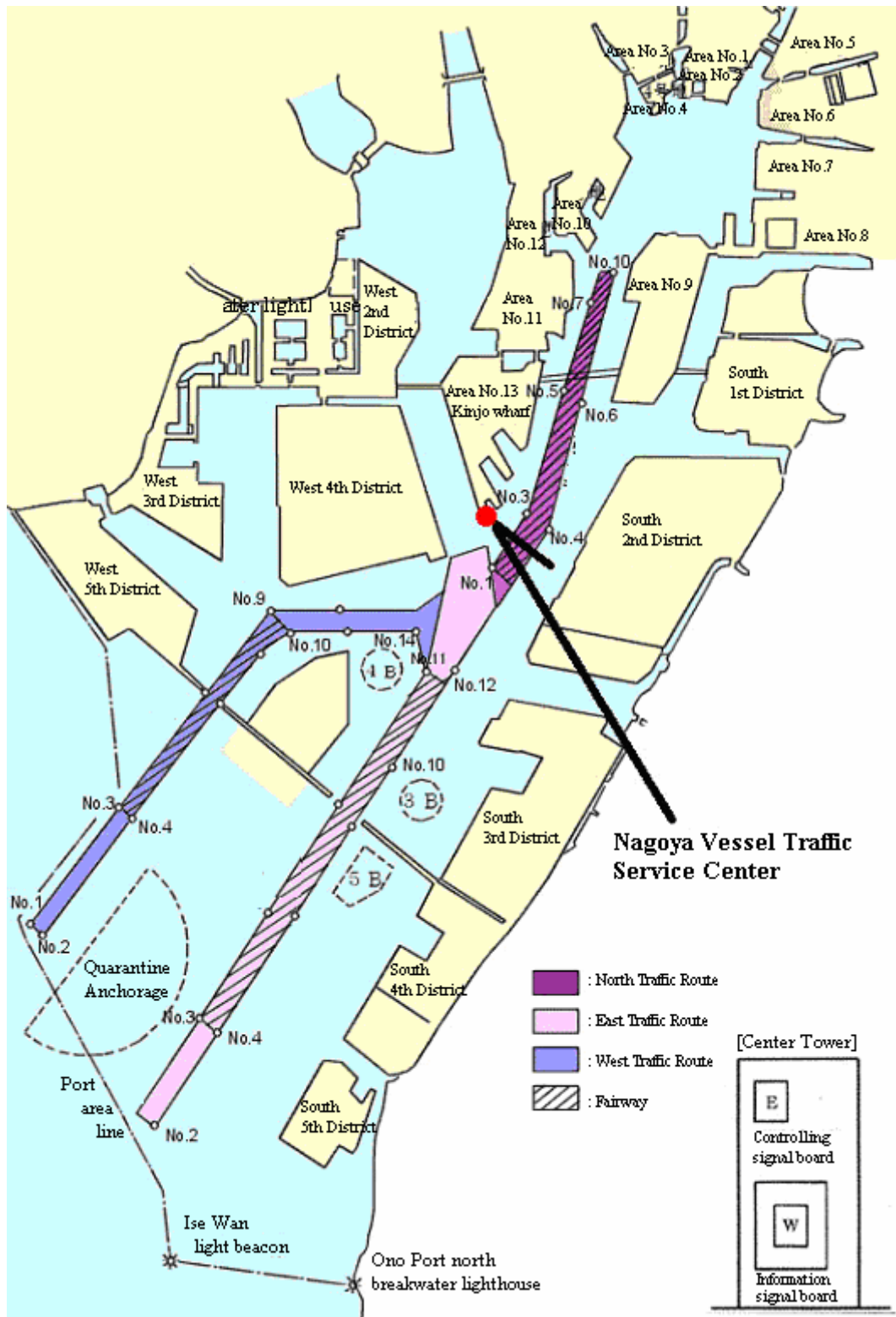


Table 2-3 Types and Meanings of Traffic Control Signals

Explanation of terms

Controlled vessels: of 40,000 GT or more (oil tankers: 5,000 GT or more)

Vessels subject to control: Vessels of 500-40,000 GT (oil tankers less than 5,000 GT)

East Waterway

(Takashio Bohatei East Signal Station)

Waterway and Signal Station	Signal Type		Controlled vessels	Vessels Subject to Control	Vessels less than 500 GT	Remarks
East Waterway Takashio Bohatei East Signal Station	Entry signal	I Flashing	Entry OK Departure NG		Entry and Departure OK	
	Departure signal	O Flashing	Departure OK Entry NG			
	Free signal	F Flashing	Entry and Departure NG	Entry and Departure OK		
	Prohibition signal	X Continuously lit	Entry and Departure NG			only vessels specified by the Captain of the Port may enter and depart from the port.
	Advance notice signal	XI By-turn flashing ously lit	Entry and Departure NG However, vessels already into waterway may enter and depart from the port.		Entry and Departure OK	Signal will change into flashing "I" soon.
		XO By-turn flashing ously lit				Signal will change into flashing "O" soon.
		XF By-turn flashing ously lit				Signal will change into flashing "F" soon.
		X Flashing	Entry and Departure NG However, vessels already in waterway may enter and depart from the port.			Signal will change into continuously lit "X" soon.

Table 2-4 West Waterway
(Takashio Bohatei West Signal Station)

Waterway and Signal Station	Signal Type		Controlled vessels	Vessels Subject to Control	Vessels less than 500 GT	Remarks
West Waterway Takashio Bohatei East Signal Station	Entry signal	I Flashing	Entry OK Departure NG		Entry and Departure OK	
	Departure signal	O Flashing	Departure OK Entry NG			
	Free signal	F Flashing	Entry and Departure NG	Entry and Departure OK		
	Special signal	T Flashing	Only West Entry from Line T OK Departure NG			Line T is the line extending from southeast end of West-4 Section to the northeast end of port Island. (Refer to the figure below)
	Prohibition signal	X Continuously lit	Entry and Departure NG			Only vessels specified by the Captain of the Port may enter and depart from the port.
	Advance notice signal	XI By-turn flashing ously lit	Entry and Departure NG However, vessels already into waterway may enter and depart from the port.		Entry and Departure OK	Signal will change into flashing "I" soon.
		XO By-turn flashing ously lit				Signal will change into flashing "O" soon.
		XF By-turn flashing ously lit				Signal will change into flashing "F" soon.
		X Flashing	Entry and Departure NG However, vessels already in waterway may enter and depart from the port.			Signal will change into continuously lit "X" soon.

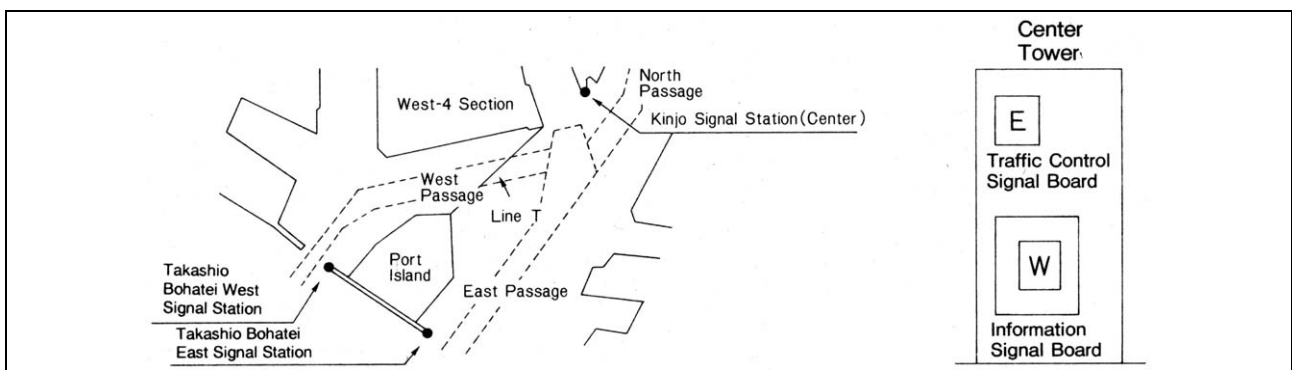


Table 2-5 East Waterway, West Waterway
(Kinjo Signal Station (Signal Board facing the northwest))

*For vessels to depart from the Kinjo Zone

Waterway and Signal Station	Signal Type		Controlled vessels	Vessels Subject to Control	Vessels less than 500 GT	Remarks	
East Waterway West Waterway Kinjo Signal Station Signal Board Facing Northwest [For Kinjo Zone]	Entry signal	I Flashing	Departure NG		Departure OK		
	Departure signal	O Flashing	Departure OK				
	Free signal	F Flashing	Departure NG	Departure OK			
	Special signal	OE Flashing	East Waterway Departure OK West Waterway Departure NG			Departure OK	This signal indicates which waterway (East or West) vessels departing from the *Kinjo Zone may use.
		OW Flashing	West Waterway Departure OK East Waterway Departure NG				This signal indicates which waterway (East or West) vessels subject to control departing from *Kinjo Zone may use.
		E Flashing	Departure NG	East Waterway Departure OK West Waterway Departure NG			
		W Flashing		West Waterway Departure OK. East Waterway Departure NG			
	Prohibition signal	X Continuously lit	Departure NG			only vessels specified by the Captain of the Port may depart from the port.	
	Advance notice signal	XI By-turn flashing ously lit	Departure NG		Departure OK	Signal will change into flashing "I" soon.	
		XO By-turn flashing ously lit				Signal will change into flashing "O", or "OE" or "OW" flashing by turn soon.	
		XF By-turn flashing ously lit				Signal will change into flashing "F" soon.	
		XE By-turn flashing ously lit				Signal will change into flashing "E" soon.	
		XW By-turn flashing ously lit				Signal will change into flashing "W" soon.	
X Flashing		Entry and Departure NG				Signal will change into continuously lit "X" soon.	

* The Kinjo Zone is the area north of the line extending from the south end of Kinjo Pier to the southeast end of the West-4 Section.

Table 2-6 North Waterway
(Kinjo Signal Station except Signal Board facing the northwest)

Waterway and Signal Station	Signal Type		Controlled vessels	Vessels Subject to Control	Vessels less than 500 GT	Remarks
North Waterway Kinjo Signal Station (not including Signal Board facing the Northwest)	Entry signal	I Flashing	Entry OK Departure NG		Entry and Departure OK	
	Departure signal	O Flashing	Departure OK Entry NG			
	Free signal	F Flashing	Entry and Departure NG	Entry and Departure OK		
	Special signal	E Flashing	Entry and Departure NG	North Waterway Entry and Departure OK East Waterway Departure OK West Waterway Departure NG	Entry and Departure OK	This signal indicates which waterway (East or West) vessels subject to control departing from the port via the North Waterway may use.
		W Flashing		North Waterway Entry and Departure OK West Waterway Departure OK East Waterway Departure NG		
	Prohibition signal	X Continuously lit	Entry and Departure NG			only vessels specified by the Captain of the Port may enter and depart from the port.
	Advance notice signal	XI By-turn flashing ously lit	Entry and Departure NG However, vessels already into waterway may enter and depart from the port.	Entry and Departure OK	Signal will change into flashing "I" soon.	
		XO By-turn flashing ously lit			Signal will change into flashing "O" soon.	
		XF By-turn flashing ously lit			Signal will change into flashing "F" soon.	
		XE By-turn flashing ously lit			Signal will change into flashing "E" soon.	
XW By-turn flashing ously lit		Signal will change into flashing "W" soon.				
X flashing		Entry and Departure NG However, vessels already in waterways may enter and depart from the port.			Signal will change into continuously lit "X" soon.	

Table 2-7 North Waterway (Nagoya North Signal Station)

Waterway and Signal Station	Signal Type		Controlled vessels	Vessels Subject to Control	Vessels less than 500 GT	Remarks
North Waterway	Entry signal	I Flashing	Entry OK Departure NG		Entry and Departure OK	
	Departure signal	O Flashing	Departure OK Entry NG			
	Free signal	F Flashing	Entry and Departure NG	Entry and Departure OK		
	Special signal	E Flashing	Entry and Departure NG	North Waterway Entry and Departure OK East Waterway Departure OK West Waterway Departure NG	Entry and Departure OK	This signal indicates which waterway (East or West) vessels subject to control departing from the port via the North Waterway may use.
		W Flashing		North Waterway Entry and Departure OK West Waterway Departure OK East Waterway Departure NG		
	Nagoya North Signal Station	Prohibition signal	X Continuously lit	Entry and Departure NG		
Advance notice signal		XI By-turn flashing ously lit	Entry and Departure NG However, vessels already into waterway may enter and depart from the port.	Entry and Departure OK	Signal will change into flashing "I" soon.	
		XO By-turn flashing ously lit			Signal will change into flashing "O" soon.	
		XF By-turn flashing ously lit			Signal will change into flashing "F" soon.	
		XE By-turn flashing ously lit			Signal will change into flashing "E" soon.	
		XW By-turn flashing ously lit			Signal will change into flashing "W" soon.	
		X Flashing			Entry and Departure NG However, vessels already in waterways may enter and depart from the port.	Signal will change into continuously lit "X" soon.

3. Maritime Traffic Safety Law

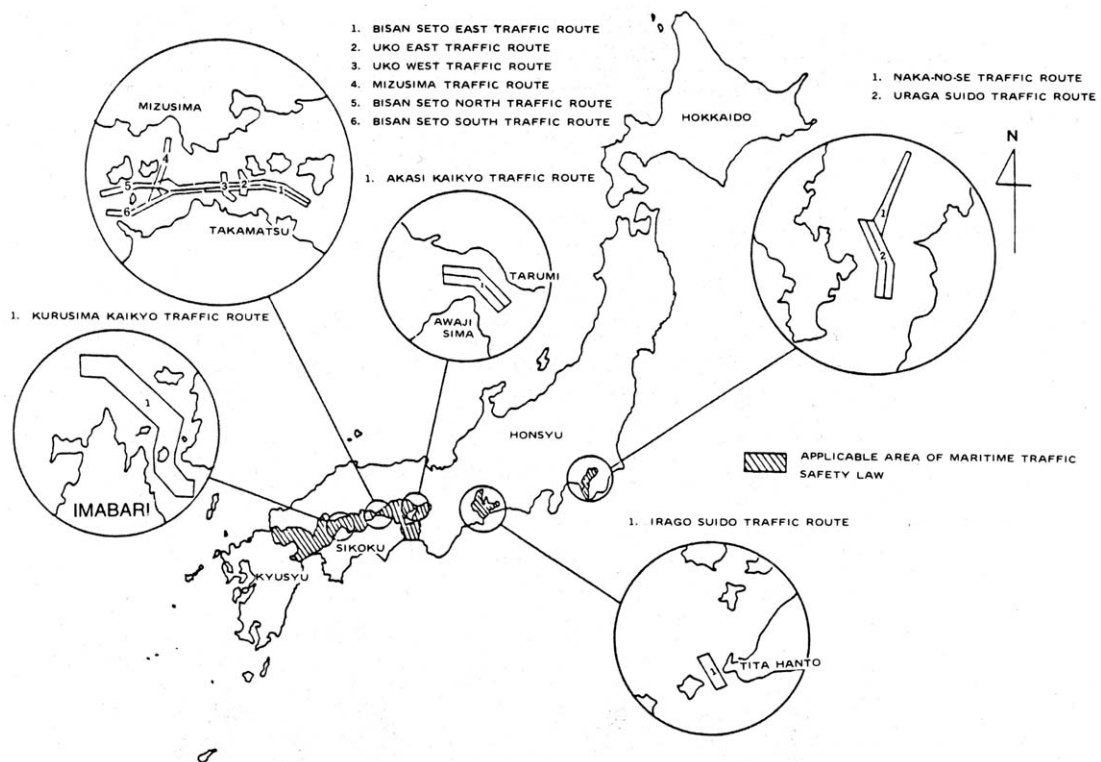
(1) Purpose of this law

The purpose of this law is to ensure the safety of ships' traffic by prescribing special modes of navigation and by effecting control for preventing danger to ships' traffic in the traffic congested areas.

(2) Sea areas where the law is applicable

The sea areas where this law is applicable are Tokyo Wan (Bay), Ise Wan and Seto Naikai (Seto Inland Sea). (See Fig. 2-3)

Fig. 2-3 Figure of Applicable Area and Traffic Route



Marine traffic centers receiving and providing notification of traffic route

Traffic route	Authorities	Telephone number, etc.		Address
Uraga Suido, Nakanoseto	Tokyo Bay marine traffic center	Receiving notification	TEL: 046-843-8622~4 FAX: 046-844-4720	4-1195 Kamoi, Yokosuka-shi, 〒239-0813
		Marine traffic information	Fixed time and special broadcasting: 1,665kHz (Japanese) 2,019kHz (English) Telephone service: 046-843-0621 (Huge vessels entry, etc.) 046-844-4521 (Weather) FAX service: 046-844-2055 Internet service: http://www6.kaiho.mlit.go.jp/tokyowan http://www6.kaiho.mlit.go.jp/tokyowan/imode/ http://www6.kaiho.mlit.go.jp/tokyowan/ezweb/ http://www6.kaiho.mlit.go.jp/tokyowan/jsky/	
Irago Suido	Ise Bay marine traffic center	Receiving notification	Telephone: 0531-34-2443 FAX: 0531-34-2444	2814-38 Furuyama, Irako-cho, Tahara-shi, Aichi-ken 〒441-3624
		Marine traffic information	Fixed time and special broadcasting: 1,665kHz (Japanese) 2,019kHz (English) Telephone service: 0531-34-2666 (Huge vessels entry, etc.) 0531-34-2333 (Weather) FAX service: 0531-34-2888 Internet service: http://www6.kaiho.mlit.go.jp/isewan/ http://www6.kaiho.mlit.go.jp/isewan/imode/ http://www6.kaiho.mlit.go.jp/isewan/ezweb/ http://www6.kaiho.mlit.go.jp/isewan/jsky/	
Akashi Kaikyo	Osaka Bay marine traffic center	Receiving notification	TEL: 0799—82-3030/3032 FAX: 0799-82-3033	914-2 Nojimaezaki, Awaji-shi, Hyogo-ken 〒656-1725
		Marine traffic information	Fixed time and special broadcasting: 1,651kHz (Japanese) 2,019kHz (English) Telephone service: 0799-82-3044 (Huge vessels entry schedule etc. for the day) 0799-82-3043 (Huge vessels entry etc. for the following day) 0799-82-3040 (Weather) FAX service: 0799-82-3046	

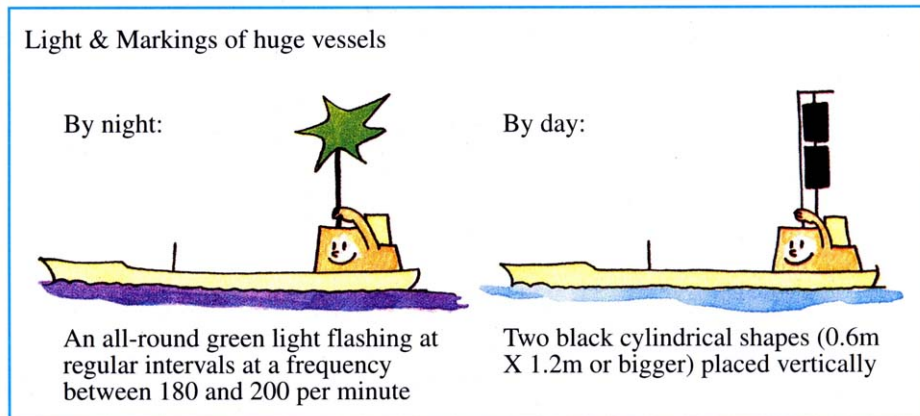
			<p>Internet service:</p> <p>http://www6.kaiho.mlit.go.jp/osakawan/</p> <p>http://www6.kaiho.mlit.go.jp/osakawan/imode/</p> <p>http://www6.kaiho.mlit.go.jp/osakawan/ezweb/</p> <p>http://www6.kaiho.mlit.go.jp/osakawan/jsky/</p>	
<p>Bisan Seto East, Uko East, Uko West, Bisan Seto North, Bisan Seto South, Mizushima</p>	<p>Bisan Seto marine traffic center</p>	<p>Receiving notification</p>	<p>TEL: 0877-49-2220~1</p> <p>FAX: 0877-49-1413/1156</p>	<p>3810-2 Aonoyama, Utatsu-cho, Ayaka-gun, Kanagawa-ken 〒769-0200</p>
		<p>Marine traffic information</p>	<p>Fixed time and special broadcasting: 1,651kHz (Japanese) 2,019kHz (English)</p> <p>Telephone service: 0877-49-5166 (Huge vessels entry schedule etc. for that day)</p> <p>0877-49-5167 (Huge vessels entry etc. for the following day)</p> <p>0877-49-1041 (Weather)</p> <p>FAX service: 0877-49-1199</p> <p>Internet service:</p> <p>http://www6.kaiho.mlit.go.jp/bisan/</p> <p>http://www6.kaiho.mlit.go.jp/bisan/imode/</p> <p>http://www6.kaiho.mlit.go.jp/bisan/ezweb/</p> <p>http://www6.kaiho.mlit.go.jp/bisan/jsky/</p>	
<p>Kurushima Kaikyo</p>	<p>Kurushima Kaikyo marine traffic center</p>	<p>Receiving notification</p>	<p>TEL: 0898-31-9000</p> <p>FAX: 0898-31-9666</p>	<p>2-5-100 Minato-cho, Imabari-shi, Aichi-ken 〒794-0003</p>
		<p>Marine traffic information</p>	<p>Fixed time and special broadcasting: 1,651kHz (Japanese) 2,019kHz (English)</p> <p>Telephone service:</p> <p>0898-31-3636 (Huge vessels entry etc.)</p> <p>0898-31-8177 (Weather)</p> <p>FAX service: 0898-31-4646</p> <p>Internet service:</p> <p>http://www6.kaiho.mlit.go.jp/kurushima/</p> <p>http://www6.kaiho.mlit.go.jp/kurushima/imode/</p> <p>http://www6.kaiho.mlit.go.jp/kurushima/ezweb/</p> <p>http://www6.kaiho.mlit.go.jp/kurushima/jsky/</p>	

(Remark) If you have any questions, please ask authorities above or regional coast guard headquarters.

(3) Vessels which receive special treatment in application of the Law

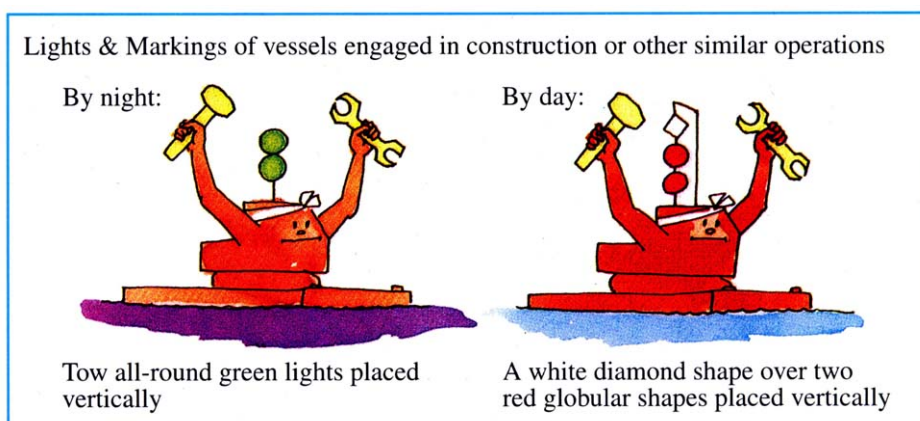
① Huge Vessels are:

Vessels whose length is 200 metres or more. In navigating traffic routes, they must give advance notification to the maritime Safety Agency and obey instruction given by the same Agency.

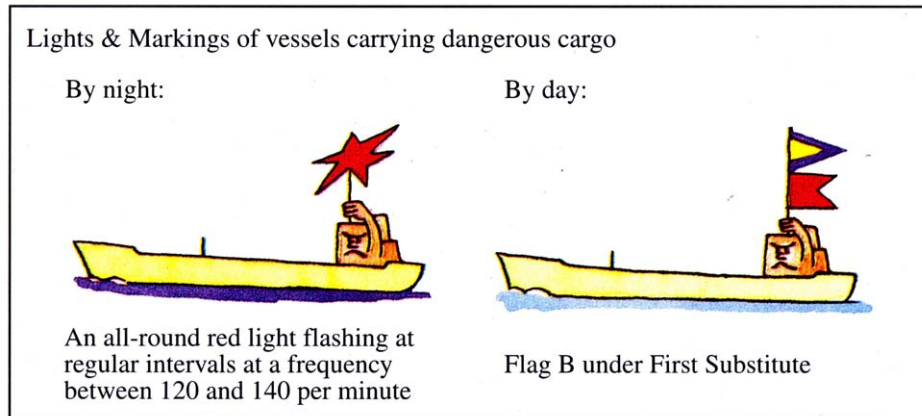


② Vessels engaged in fishing or other operations are:

- a. Vessels which are engaged in fishing with nets, lines or other fishing apparatus with restrict maneuverability and which exhibit the lights markings required by the Law for Preventing Collisions at Sea.
- b. Vessels which are engaged in construction or other similar operations with permission, which are restricted in her ability to keep out of the way of another approaching vessel from the nature of her work and which exhibit the following lights (by night) or markings (by day).



- ③ Vessels carrying dangerous cargo are:
- Vessels of 1,000 gross tons or more which are carrying inflammable liquids or liquefied gases in bulk;
 - Vessels of 300 gross tons or more which are carrying 80 tons or more of ammunition or 200 tons or more of organic peroxides.

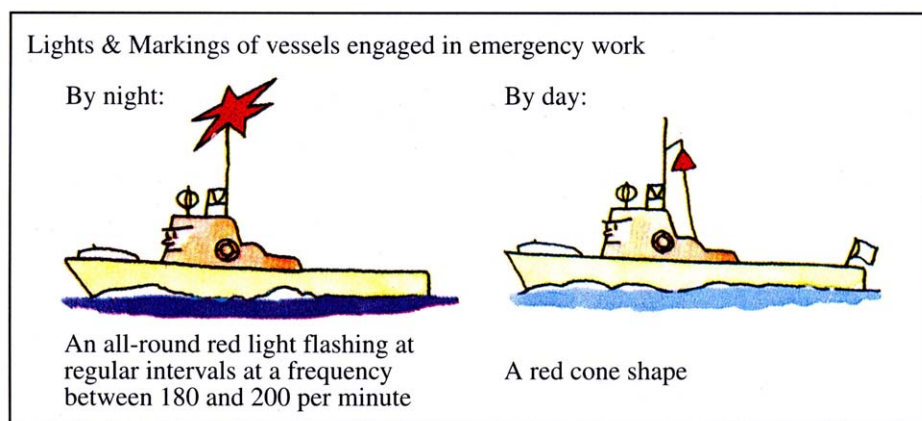


- ④ Vessels towing or pushing long objects are:

Vessel towing or pushing vessels, rafts or other objects, with total length (the distance between the bow of the towing vessel and the rear edge of the object towed or the distance between the stern of the pushing vessel and the fore edge of the object being pushed) being 200 meters or more.

- ⑤ Vessels engaged in emergency work are:

Vessels engaged in emergency work, such as fire-fighting operations, rescue of marine accidents, prevention or removal of marine pollution or controlling of crimes.



(4) Rules in Traffic Routes

① Keeping out of the way of other vessels

- (a) Any vessel other than these engaged in fishing or other operations entering, leaving or crossing a traffic route, should keep out of the way of other vessel navigating the traffic route;
- (b) Any vessel engaged in fishing or other operations entering, leaving or crossing a traffic route or vessels staying still in the traffic route should keep out of the way of a huge vessel navigating the traffic route;
- (c) At the intersection or junction of a traffic route, any vessel other than a huge vessel, so as to involve risk of collision with the huge vessel navigating the traffic route, should keep out of the way of the huge vessel.
- (d) Any vessel other than a huge vessel or a vessel engaged in fishing or other operations, which navigate in Mizushima Traffic Route should keep out of the way of a vessel navigating in Bisan Seto North Traffic Route;
- (e) Any vessel other than these mentioned in paragraph a through paragraphed above, should observe the rules stipulated in the Law for Preventing Collisions at Sea.

NOTE: Huge Vessels are: Vessels whose length is 200 metres or more.

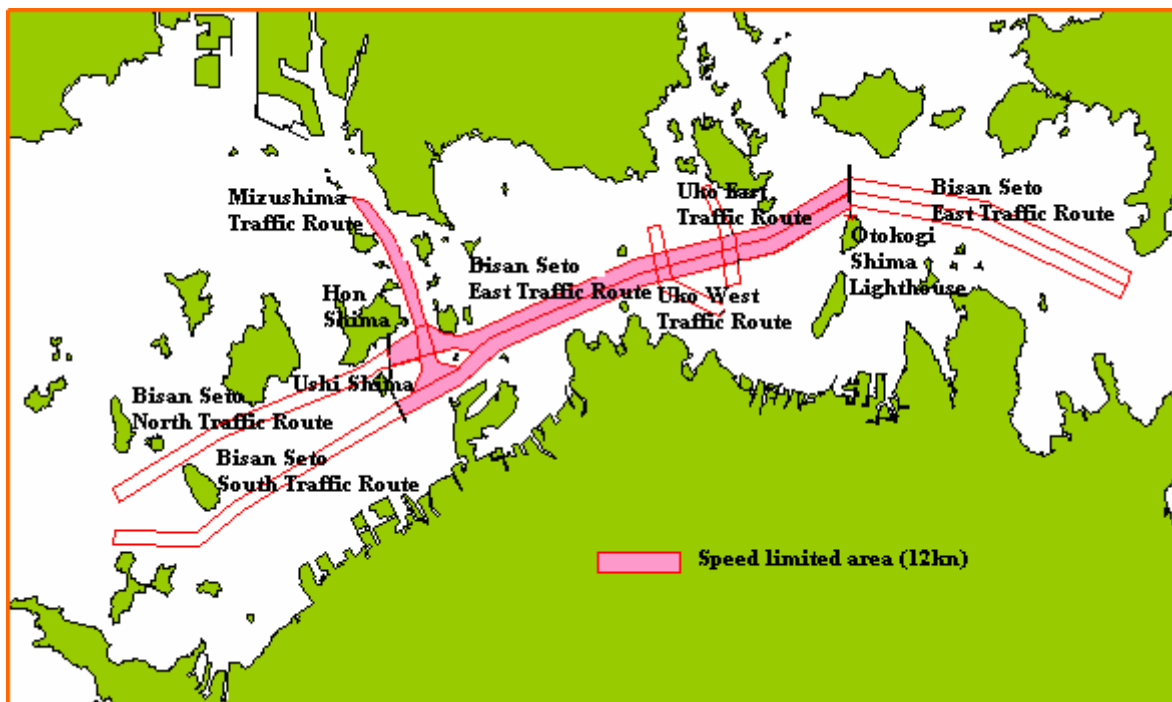
② Obligation to navigate traffic routes

Any vessel whose length is 50 metres or greater should navigate the traffic route along the course of the route in the area where there is such traffic route.

③ Restrictions on the speed of a vessel

Any vessel shall not navigate at a speed exceeding 12 knots in all areas of Uraga Suido Traffic Route, Naka-no-Se Traffic Route, Irigo Suido Traffic Route and Mizushima Traffic Route, and in the sections of Bisan Seto East Traffic Route, Bisan Seto North Traffic Route and South Traffic Route, which are shown in the diagrams.

Fig. 2-4



④ Restrictions on entering or leaving or crossing the Traffic Route

No vessel is allowed to enter, go outside or cross the traffic routes in the sections of Bisan Seto East Traffic Route or Kurushima Kaikyo Traffic Route, which are shown in the diagrams.

Fig. 2-5

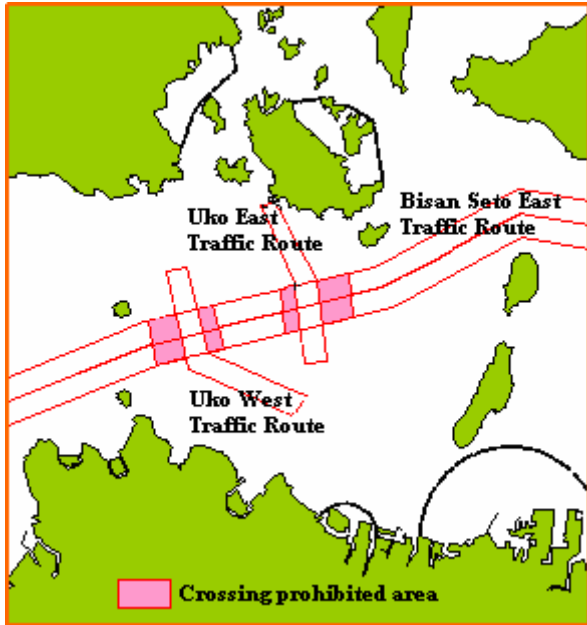
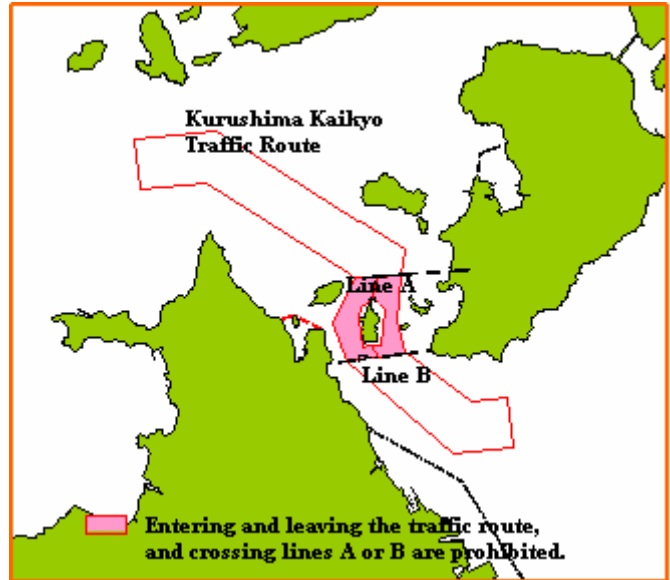


Fig. 2-6



⑤ Indication of destination

Where vessels of 100 gross tons or over equipped with a whistle intend to enter, leave or cross a traffic route, they should indicate their destination by giving signal shown below.
 (Refer to Fig. 2-7, 2-8, 2-9, 2-10, 2-11, 2-12)

Fig. 2-7

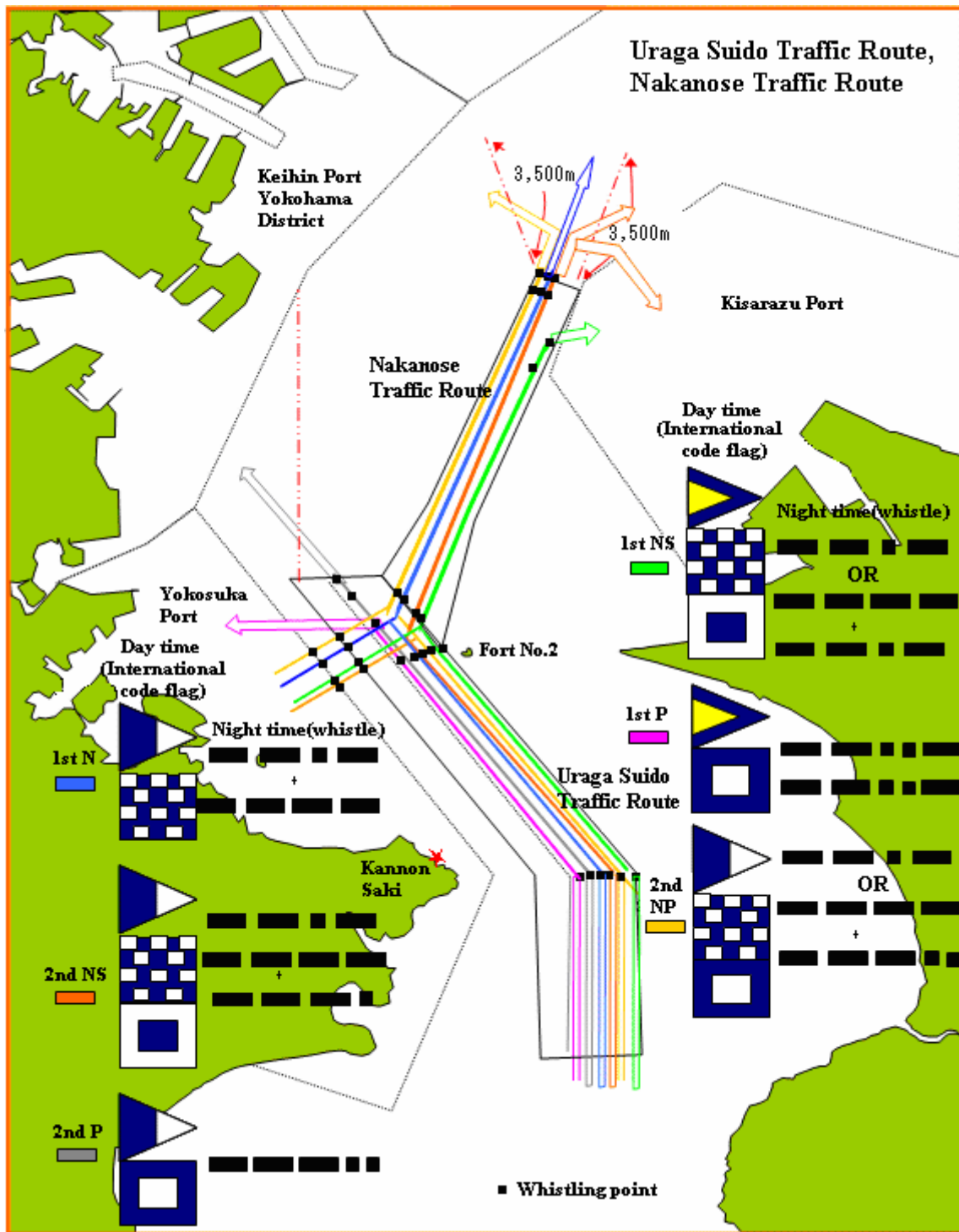


Fig. 2-8

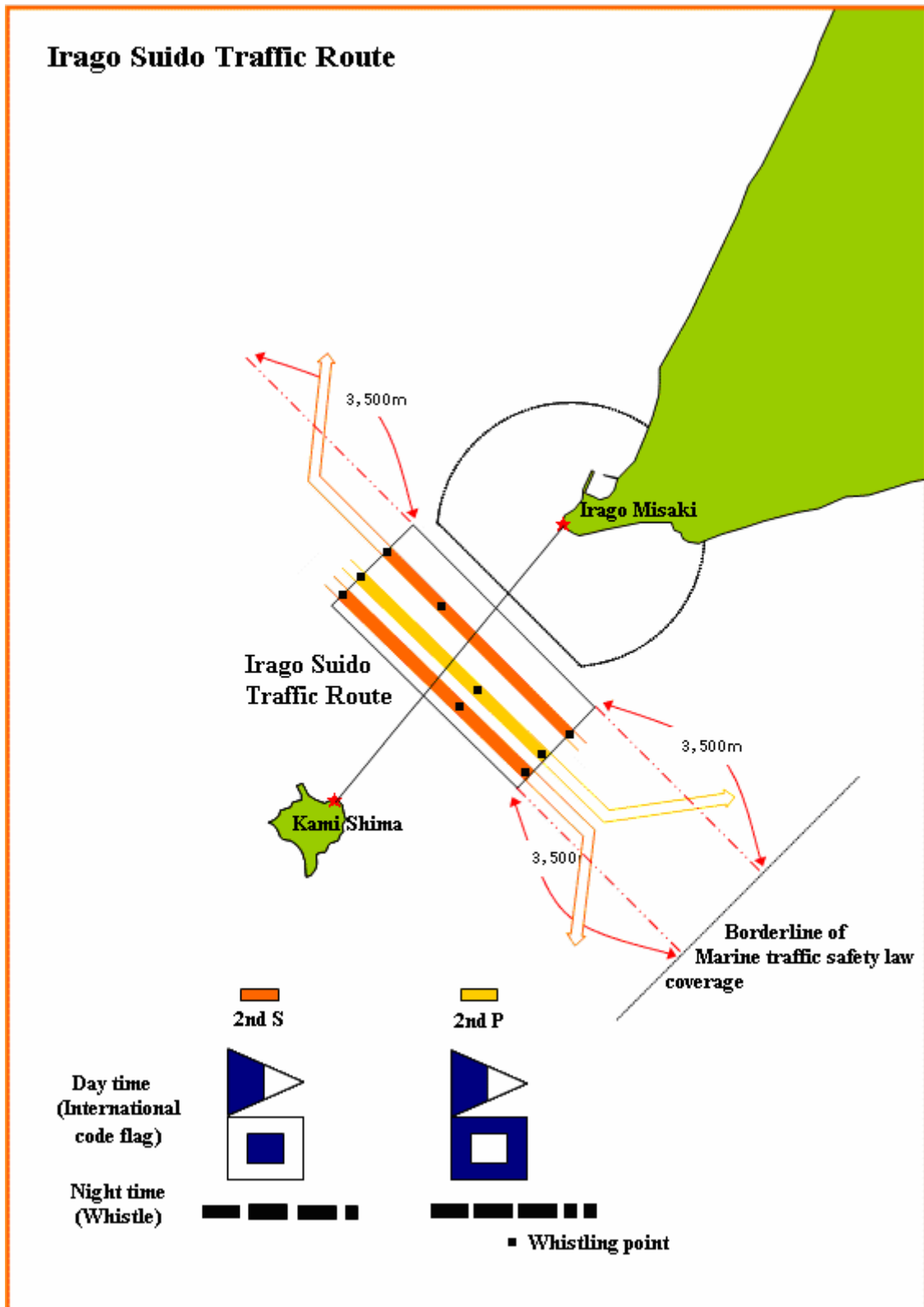


Fig. 2-9

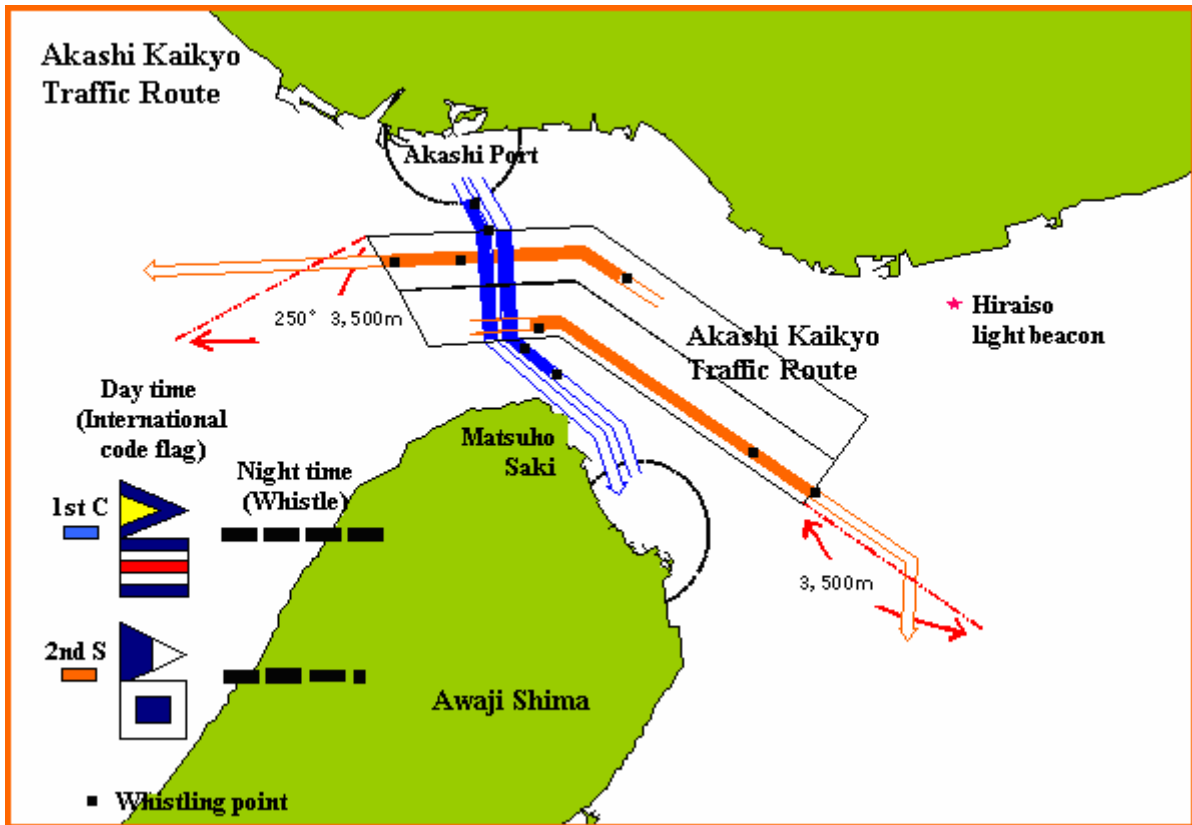


Fig. 2-10



Fig. 2-11

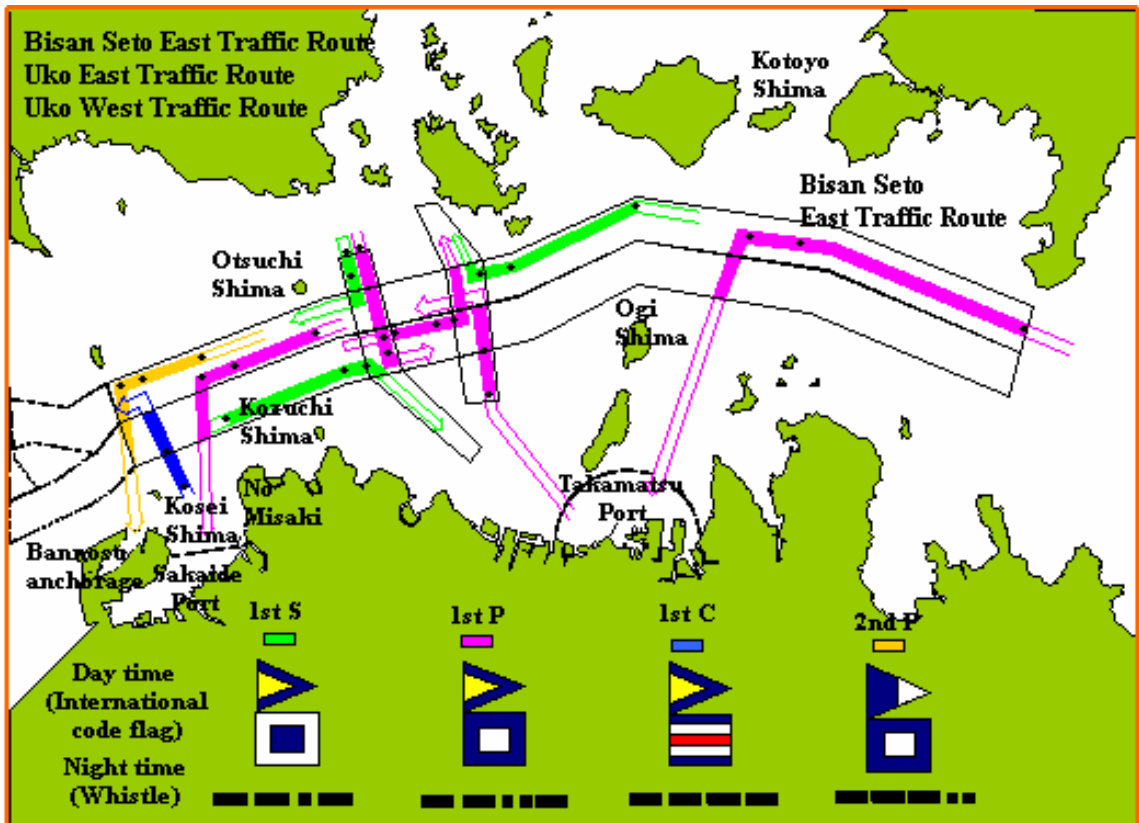
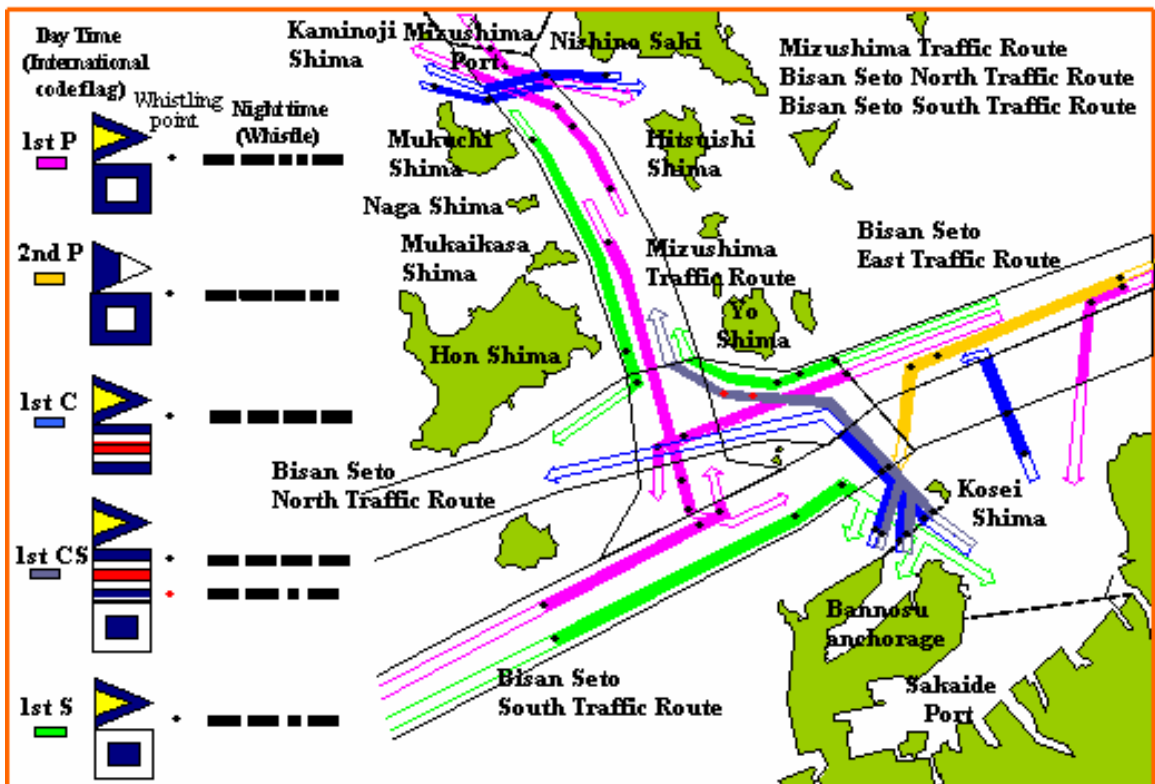


Fig. 2-12



⑥ Signaling in the Case of Overtaking Any Other Vessel

An overtaking vessel equipped with a whistle, shall, when intending to overtake any other vessel in a traffic route, give the following signal provided that this should not apply to the case where overtaking signals prescribed in the Law for Preventing Collisions at Sea are given:

- a. When intending to navigate on the starboard side of the other vessel, they should give one prolonged and one short blasts in succession on the whistle;
- b. When intending to navigate on the portside, they should give one prolonged and two short blasts in succession on the whistle.

⑦ Method of crossing Traffic Routes

Any vessel intending to cross a traffic route shall cross the route promptly at angles as close as possible to the right angles with the traffic route. Vessels crossing traffic routes should cross promptly at angles as close as possible to right angles to the traffic routes.

⑧ Prohibition of anchoring

No vessel is allowed to anchor in the traffic routes. Mooring to vessels at anchor will be regarded as anchoring.

⑨ Traffic separation

- a. Within Uraga Suido Traffic Route, Akashi Kaikyo Traffic Route and Bisan Seto East Traffic Route, all vessels should navigate in that portion of the traffic routes which lies on the starboard side of the central line of such routes. (Refer to Fig. 2-13, 2-14, 2-15)

Fig. 2-13

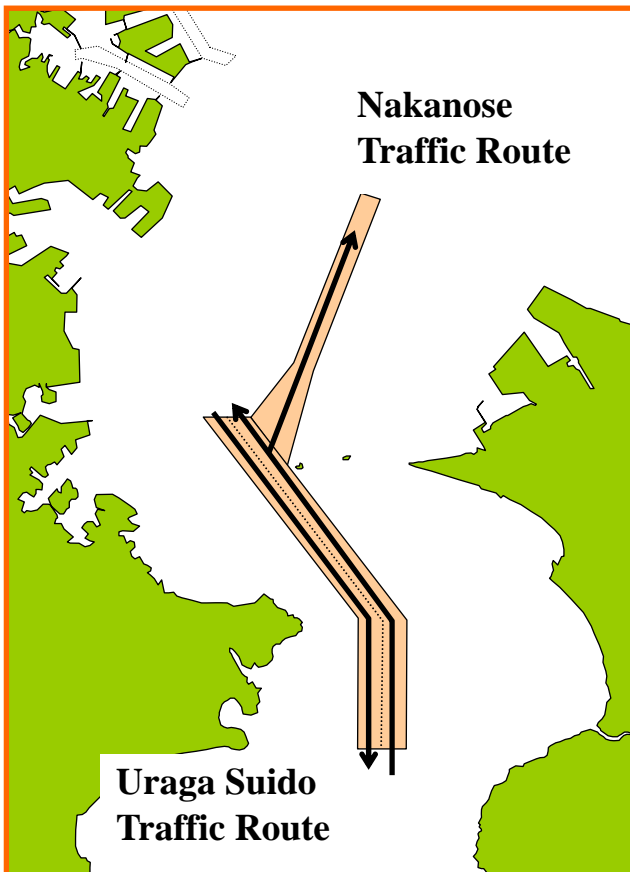
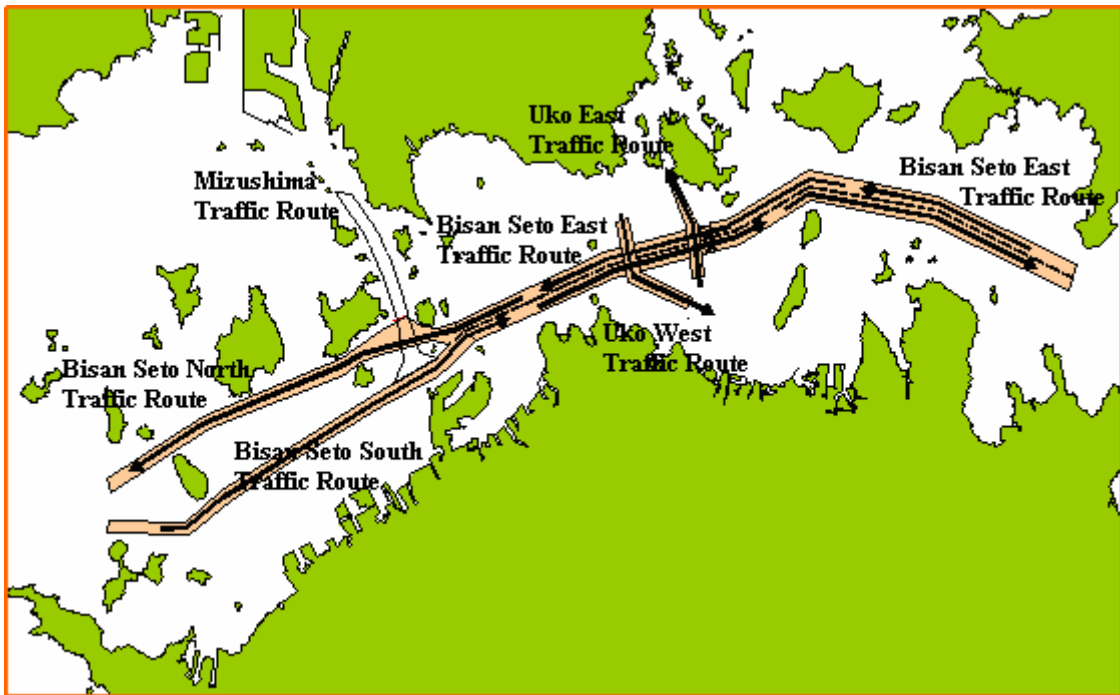


Fig. 2-14



Fig. 2-15



b. In Naka-no-Se Traffic Route, one-way traffic is in effect in the northern direction; in Uko East Traffic Route one-way traffic in the northern direction; in Uko West Traffic Route one-way in the southern direction, in Bisan Seto North Traffic Route one-way in the western direction; and in Bisan Seto South Traffic Route one-way traffic in the eastern direction.

c. In Irago Suido Traffic Route,

- (a) Vessels should keep right side of the traffic route as much as possible.
- (b) As a rule, huge vessels and 2nd class vessels (vessels of 130m and longer and less than 200m in length) may encounter within the traffic route.

However, when one of these vessels is loading dangerous materials, when the traffic route is expected to be closed due to the operational condition of fishing boats etc., navigating width of the route becomes below two-third of the usual width, sea disasters occur inside or around the traffic route, or it becomes difficult to know the movement of vessels inside and around the traffic route due to the trouble with radar equipment, Japan Coast Guard will instruct these vessels to wait outside the traffic route by signaling etc. Then the vessels must follow the instruction. (For signals in this case, see “(6) Traffic control signals in Irago Suido Traffic Route and Mizushima Traffic Route.”)

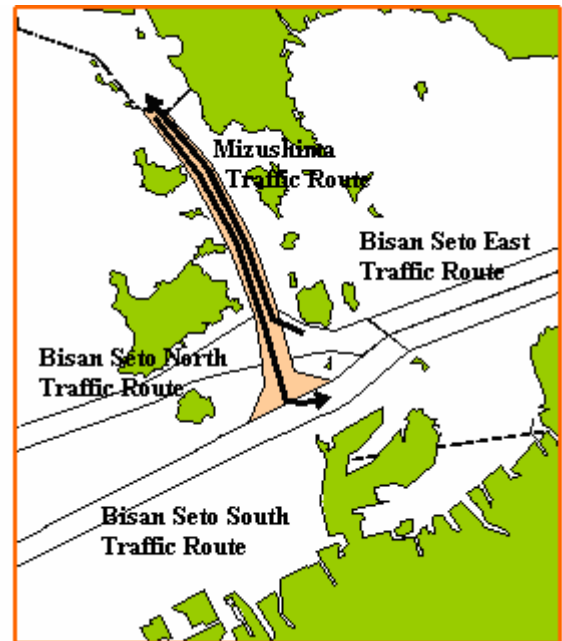
Fig. 2-16



d. In Mizushima Traffic Route,

- (a) Vessels should keep navigating in the right side of the traffic route as much as possible.
- (b) In order to avoid the danger when a huge vessel and other vessel (a vessel of 70m or over and less than 200m in length) encounter within the traffic route, Japan Coast Guard will instruct the other vessel to wait outside of the traffic route by signaling or other method. Then the vessel must follow the instruction. (For signals in the case, see “(6) Traffic control signals in Irago Suido Traffic Route and Mizushima Traffic Route.”)

Fig. 2-17



- e. In Kurushima Kaikyo Traffic Route vessels should navigate Naka Suido (mid-channel) with the tidal current and navigate Nishi Suido (West channel) against the tidal current. (Refer to Fig. 2-18, 2-19)

Fig. 2-18

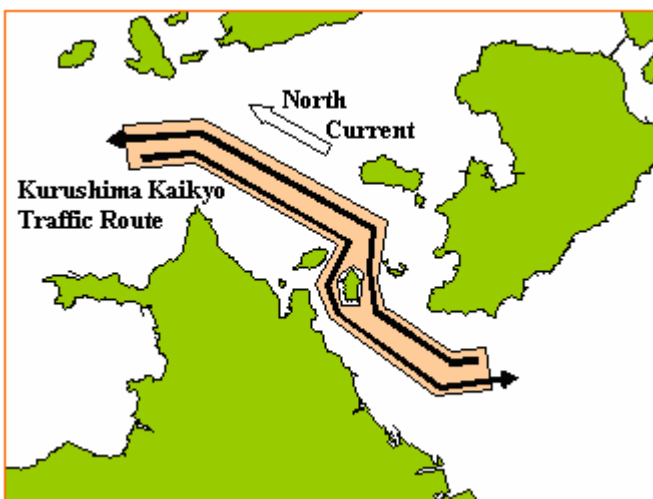
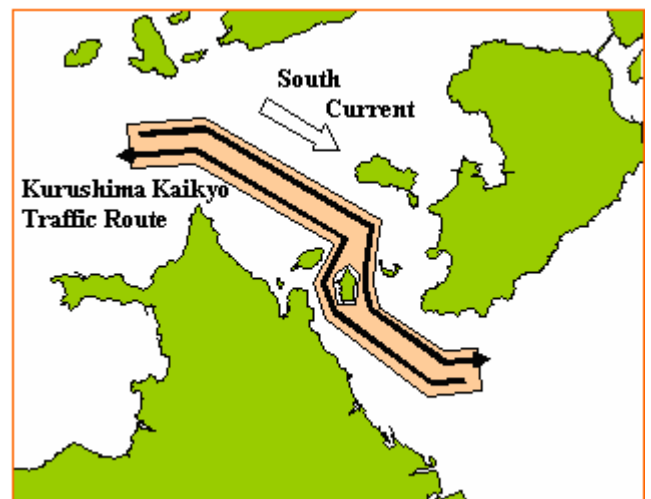


Fig. 2-19



(5) Notification Concerning Navigation of Huge Vessels or Other Particular Vessels and Instructions to be Given to These Vessels

When huge vessels, vessels carrying dangerous cargo or vessels towing or pushing long objects intend to navigate a traffic route, they shall in principle notify the Commander of a competent Regional Japan Coast Guard Headquarters, Chief of a Japan Coast Guard Office or of Vessel Traffic Service Center, including the estimated time of navigation of the traffic route.

(Note) Further details are given in Article 22 of the Maritime Traffic Safety Law, Article 13, 14 of the same Regulation and Japan Coast Guard Notification No. 109 of 1973.

① Time of notification

Time of notification	Type of vessel
By noon of the day prior to the estimated date of entering the traffic route.	<ul style="list-style-type: none"> ● Huge vessel ● Vessel of 25,000 gross tons or more carrying liquefied gas ● Vessel towing or pushing a long object
By 3 hours before the estimated time of entering the traffic route.	<ul style="list-style-type: none"> ● Vessel carrying dangerous cargo

Note:

- In Uruga Suido and Naka-no-se Traffic Routes, vessels of 10,000 GT or more should follow the notification procedure of huge vessels.
- In Irigo Suido Traffic Route, vessels of 10,000 GT or more or vessels of 130m or more in length should follow the notification procedure of huge vessels, and vessels from 3,000 GT to less than 10,000 GT should follow that of vessels carrying dangerous cargo.
- In Akashi Kaikyo Traffic Route, vessels of 10,000 GT or more and tug/push boats from 150m to less than 200m in length should follow the notification procedure of huge vessels. Vessels from 3,000 GT to less than 10,000 GT should follow the notification procedure of vessels carrying dangerous cargo.
- In the traffic routes inside Bisan sea area, vessels of 10,000 GT or more should follow the notification procedure of huge vessels. Vessels from 3,000 GT to less than 10,000 GT (when navigating Mizushima Traffic Route, vessels of 70m or more in length) should follow the notification procedure of vessels carrying dangerous cargo.
- In Kurushima Kaikyo Traffic Route, vessels of 10,000 GT or more should follow the notification procedure of huge vessels. Vessels from 3,000 GT to less than 10,000 GT and tug/push boats from 100m to less than 200m should follow the notification procedure of vessels carrying dangerous cargo.

(b) Matters to be notified

“Notification of Traffic Route” is to be addressed according to the following.

Items	
(1)	Name of address
(2)	Name and gross tonnage of the vessel
(3)	Length of the vessel
(4)	Maximum draught
(5)	Types of dangerous cargo and amount of cargo by each type (vessels carrying dangerous cargo only)
(6)	Total length of tug boat including the tugged objects or total length of push boat including the pushed objects (vessels towing or pushing long objects only)
(7)	Description of object(s) being tugged or pushed (vessels towing or pushing long objects only)
(8)	Port of destination (only when destination has been fixed)
(9)	Name of the traffic route and the section to be navigated
(10)	Scheduled date and time (shown in 24 hours) of entry to the traffic route
(11)	Scheduled date and time (shown in 24 hours) of leaving from the traffic route
(12)	Call sign or call name of the ship radio station (vessels having ship radio station only)
(13)	Method of communication with Japan Coast Guard (vessels without ship radio station only)
(14)	Name and address of transmitter (when a transmitter is required)
(Remarks)	In case of having standing by vessels equipped for fire-fighting operations, give the names of related vessels and users of the vessels.

Name of Traffic Routes and Name of Address are to be notified according to the following.

Name of Traffic Route	Abbreviation	Name of Address	Abbreviation
Uraga Suido Traffic Route	URAGA	Chief of Tokyo Wan Vessel Vessel Traffic Service Center	TOKYO WAN
Naka-no-Se Traffic Route	NAKANOSE		
Irago Suido Traffic Route	IRAGO	Chief of Ise Wan Vessel Traffic Advisory Service Center	ISE WAN
Akasi Kaikyo Traffic Route	AKASI	Chief of Osaka Wan Vessel Traffic Advisory Service Center	OSAKA WAN
Bisan Seto East Traffic Route	BISAN EAST	Chief of BISANSETO Vessel Vessel Traffic Service Center	BISANSETO
Uko East Traffic Route	UKO EAST		
Uko West Traffic Route	UKO WEST		
Bisan Seto North Traffic Route	BISAN NORTH		
Bisan Seto South Traffic Route	BISAN SOUTH		
Mizusima Traffic Route	MIZUSIMA		
Kurusima Kaikyo Traffic Route	KURUSIMA	Chief of KURUSIMA Kaikyo Vessel Vessel Traffic Service Center	KURUSIMA

③ Method of Notification of traffic routes.

Notification should be made by one of following methods

(a) In the case of radio communications

Notification may be sent directly to the coastal radio station of the Japan Coast Guard given in the following table.

Name of coastal radio station	YOKOHAMA	NAGOYA	KOBE	HIROSIMA
Call sign	JGC 004310301	JNT 004310401	JGD 004310501	JNE 004310601
Call name	Yokohama Coast Guard Radio	Nagoya Coast Guard Radio	Kobe Coast Guard Radio	Hiroshima Coast Guard Radio
Calling frequency	156.8 MHz (16ch) 2,189.5 kHz			
Working frequency	156.6 MHz (12ch) 2,150 kHz 2,177 kHz			
Traffic routes	URAGA NAKANOSE	IRAGO	AKASI, BISAN EAST UKO EAST, UKO WEST BISAN NORTH, BISAN SOUTH MIZUSIMA, KURUSIMA	

If direct communication with each radio station in the table above is not available, another radio station in the same table or radio stations of the Japan Coast Guard listed in the table below may be used.

Name of coastal radio station	HOKKAIDO	SIOGAMA	MOJI	KAGOSIMA	OKINAWA
Call sign	JNL 004310101	JNN 004310201	JNR 004310701	JNJ 004311001	JNB 004311101
Call name	Hokkaido Coast Guard Radio	Siogama Coast Guard Radio	Moji Coast Guard Radio	Kagosima Coast Guard Radio	Okinawa Coast Guard Radio
frequency Working	156.8 MHz (16ch) 2,189.5 kHz				
frequency	156.6 MHz (12ch) 2,150 kHz 2,177 kHz				

(b) Written notification

Written notification made according to the annexed table may be brought to regional coast guard headquarters, coast guard supervision offices, coast guard offices, coast guard aircraft bases, coast guard stations or vessels traffic advisories. It may also be sent to the Traffic Route Department by mail or fax.

(c) Notification by telegram

Submit directly to the Traffic Route Department.

(d) Notification by telephone

Call directly to the Traffic Route Department. However, this is only done by captain of the vessel.

(e) Notification by electronic information processing system

Contact directly to the Traffic Route Department for each traffic route to be navigated.

* Notification by written document or by telephone is accepted only when the transmitter who transmits a message from Japan Coast Guard to the captain of a huge vessel can be chosen.

(b) In the case of written notifications

Written notification may be submitted as shown in the Annexed Table and sent directly to the office

Annexed Table

Huge vessel
Vessel carrying dangerous cargo
Vessel to wing objects, etc.

Notification of estimated date
and time of navigation.

<p>(1) _____ Name of address</p>	<p>_____ Date _____</p> <p>_____ Name of master _____</p> <p>_____ Name of person who forwards this notification and; his address _____</p>
--------------------------------------	---

I hereby notify you of the following in accordance with the provision of Article 22 of the Maritime Traffic Safety Law:

(2) Name and gross tonnage of the vessel	(3) Length of vessel (Huge vessels only)
	(4) Maximum draught (Huge vessels only)
(5) Types of dangerous cargo and amount of each type (Vessel carrying dangerous cargo only)	
(6) Distance between the bow of the towing vessel and the stern of the object being towed or distance between the stern of the pushing vessel and the fore end of the object being pushed. (Applies only to vessels towing or pushing objects).	
(7) Description of the object (Applies only to vessel towing or pushing objects)	
(8) Port of destination (Applies only to vessel for which destination has been fixed)	
Name of traffic route Section to be navigated and time of entry or departure (Time should be denoted by 2400 hrs system)	Name of traffic routes (9) (10), (11) Estimated date and time of entry Estimated date and time of entry Estimated date and time of departure
(12), (13) Method of communications with MSA (Call sign or call name, if a vessel has ship radio station)	
(14) Name and address of message conveyor	
Remarks	

- Notes:
1. The size of paper for this form shall be A-4 (approximately 30cm X 22cm) of the Japan Industrial Standard.
 2. Sections of the traffic route to be navigated shall be entered as "entire area" or "from Southern entry to NO. 4 Buoy" for example.
 3. Description of the object in (7) above shall include information on type, length, width, height, etc. of the object.

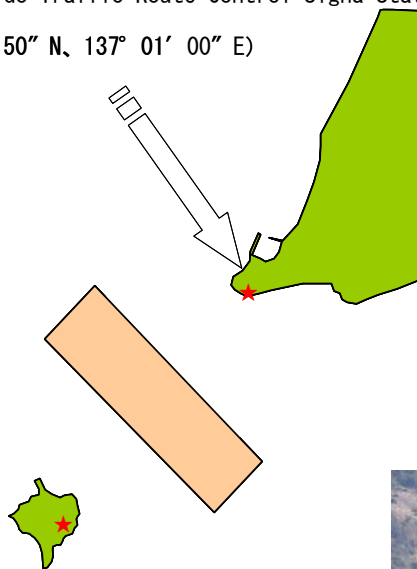
(Note) In the "Remarks" column, give the names of related vessels and users of the vessels if there are vessels equipped for fire-fighting operations standing by.

(6) Navigation Control Signals at Irago Suido Traffic Route and Mizusima Traffic Route

Signalling requiring a big vessel other than a huge vessel to wait outside Irago Suido Traffic Route when the huge vessel navigates in either of such traffic routes, shall be done in accordance with the shapes or lights mentioned in the following table, and by the control signal station ashore (However, in case of signalling equipment failure etc. at the signal station, signalling will be done by vessels):

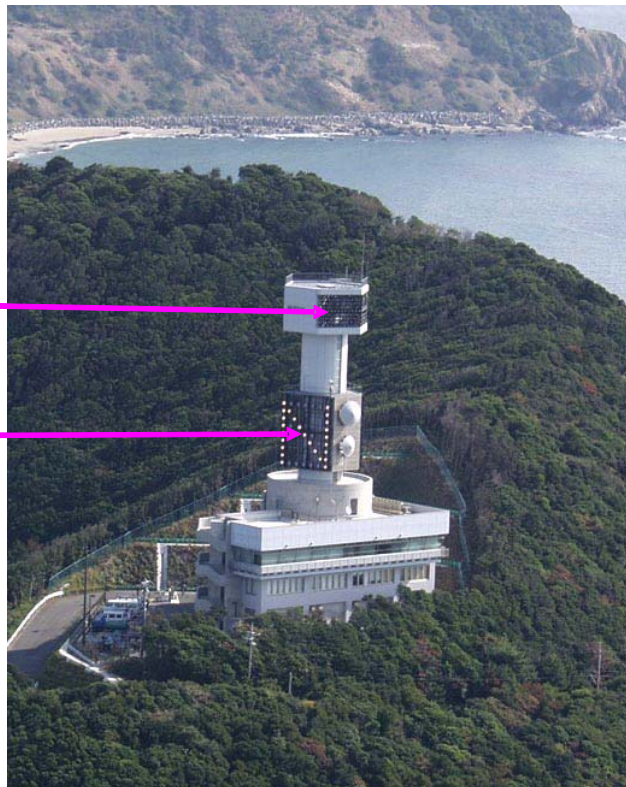
Fig. 2-20 Irago Suido Traffic Route

Ise Wan Vessel Traffic Service Center
Irago Suido Traffic Route Control Signal Station
(34° 34' 50" N, 137° 01' 00" E)



Information board

Traffic control signal board



a. Traffic Control

Traffic control is carried out at the Irago Suido Traffic Route Control Signal Station (Fig. 2-20) in Irago Suido Traffic Route.

Table 2-8

With the following signals, Ise Wan Vessel Traffic Service Center instructs all the vessels with the total length of 130m or more and less than 200m to wait outside the Irago Suido Traffic Route for a huge vessel to pass. In principle, the waiting signal is lit 15 minutes before the huge vessel enters the Route till its passing through it, for both north and south directions.

Signals		Meaning
N	Letter N flashing	All the vessels with the length of 130m or more and less than 200m going southeast direction through the Irago Suido Traffic Route should wait outside the route.
S	Letter S flashing	All the vessels with the length of 130m or more and less than 200m going northwest direction through the Irago Suido Traffic Route should wait outside the route.
NS	Letter N and S flashing alternately	All the vessels with the length of 130m or more and less than 200m going through the Irago Suido Traffic Route in any direction should wait outside the route.

b. Information Signals

Movement of huge vessels within Irago Suido Traffic Route are indicated on the electrical signal board.

Signals		Meaning
→	Flashing every 4 second	A huge vessel enters into the route (heading southward) within an hour.
	Flashing every 2 second	A huge vessel enters into the route (heading southward) within 15 min.
←	Flashing every 4 second	A huge vessel enters into the route (heading northward) within an hour.
	Flashing every 2 second	A huge vessel enters into the route (heading northward) within 15 min.
→ ←	Flashing every 8 second '→', '→', '←'	A huge vessel enters into the route (heading southward) within about 15 min and another huge vessel enters into the route (heading northward) within about 15 min. after its passing through the Route
← →	Flashing every 8 second '←', '←', '→'	A huge vessel enters into the route (heading northward) within about 15 min and another huge vessel enters into the route (heading southward) within about 15 min. after its passing through the Route.

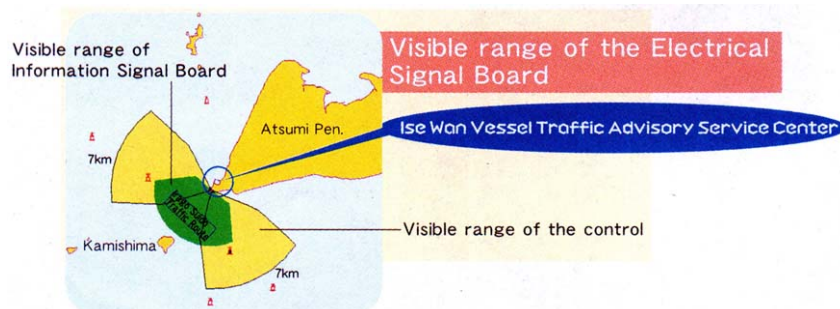
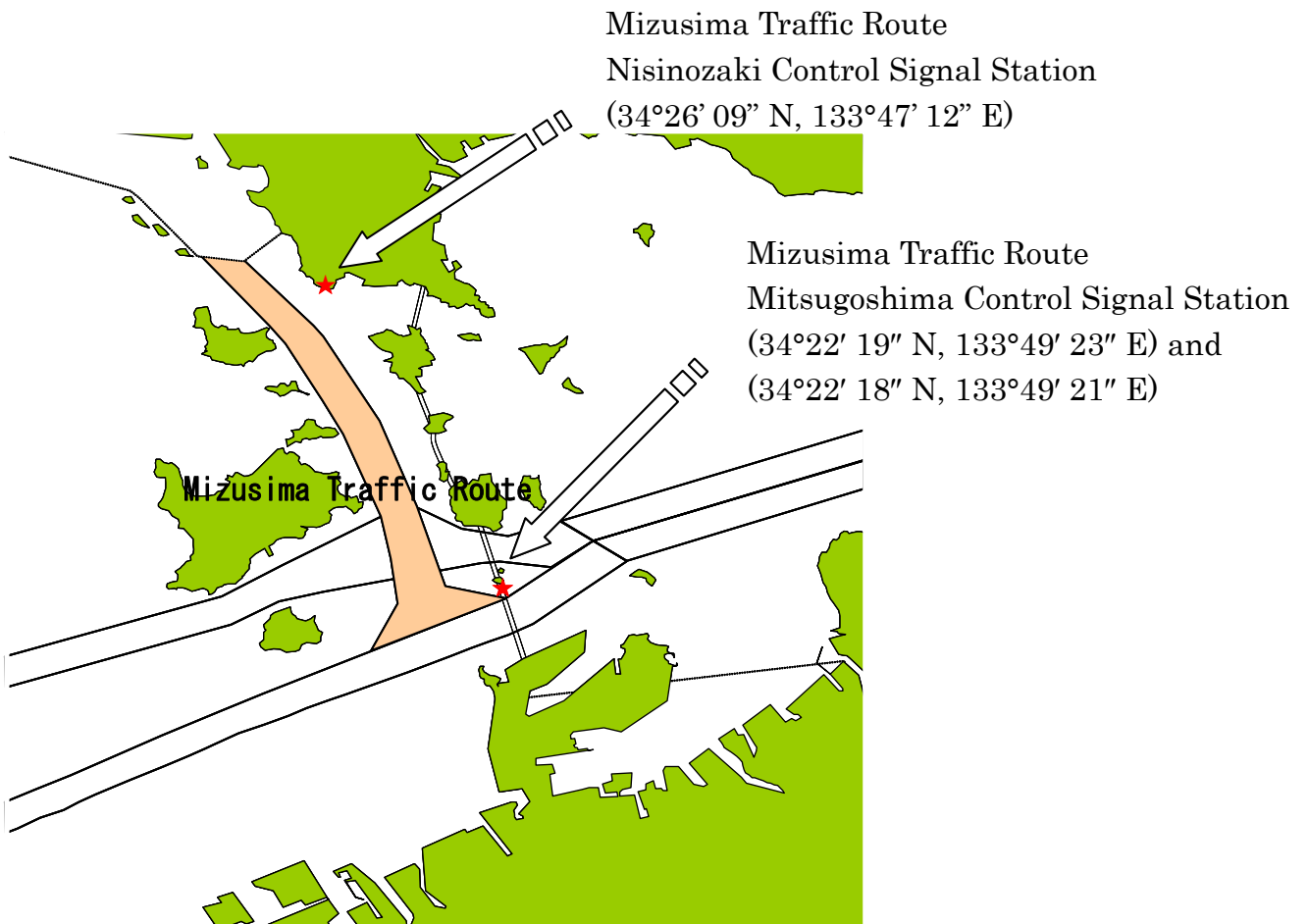


Fig. 2-21 Mizusima Traffic Route



a. Traffic control

Traffic control is carried out at the Mizusima Traffic Route Mitsugoshima Control Signal Station (Fig. 2-21) in Mizusima Traffic Route. (See Table 2-9)

Table 2-9 Control Signals Used at the and the Mitugoshima Control Signal Station

Method of signalling		Meaning of signal
N	Flashing of the letter "N"	Vessels of 70 meters or more in length (excluding huge vessels) intending to navigate southward through Mizushima T. R. are required to wait outside of the traffic route.
S	Flashing of the letter "S"	Vessels of 70 meters or more in length (excluding huge vessels) intending to navigate northward through Mizushima T. R. are required to wait outside of the traffic route.

Note: Vessels longer than 70 meters

b. Information service

Information service on huge vessels in the Mizusima Traffic Route is provided either by regular hourly broadcasts or by telephone. For details, see.

(7) Notification Concerning Designation of Tracks in Obatake Seto

(JCG Notification No. 59 of 1975)

Article 1. A vessel of five gross tons or more shall observe the following items when she intends to cross the line drawn at 341° from Morisige Saki ($33^\circ 56' 52''$ N, $132^\circ 12' 08''$ E) to the shore (hereinafter referred to as "Line A") and thence cross the line joining Myojin Hana ($33^\circ 57' 07''$ N, $132^\circ 11' 26''$ E), Oiso Light ($33^\circ 57' 03''$ N, $132^\circ 10' 47''$ E) and the extremity of the right bank of the Isikami River mouth (hereinafter referred to as "Line B").

1. The vessel shall navigate in the sea area north of the line drawn at $264^\circ 30'$ from the point 940 meters 341° from Morisige Saki to Line B (hereinafter referred to as "Line C"). In case the vessel does not meet any other vessels in the sea area, near the bridge piers of Osima Ohasi, this shall not apply to the vessel in the sea area.

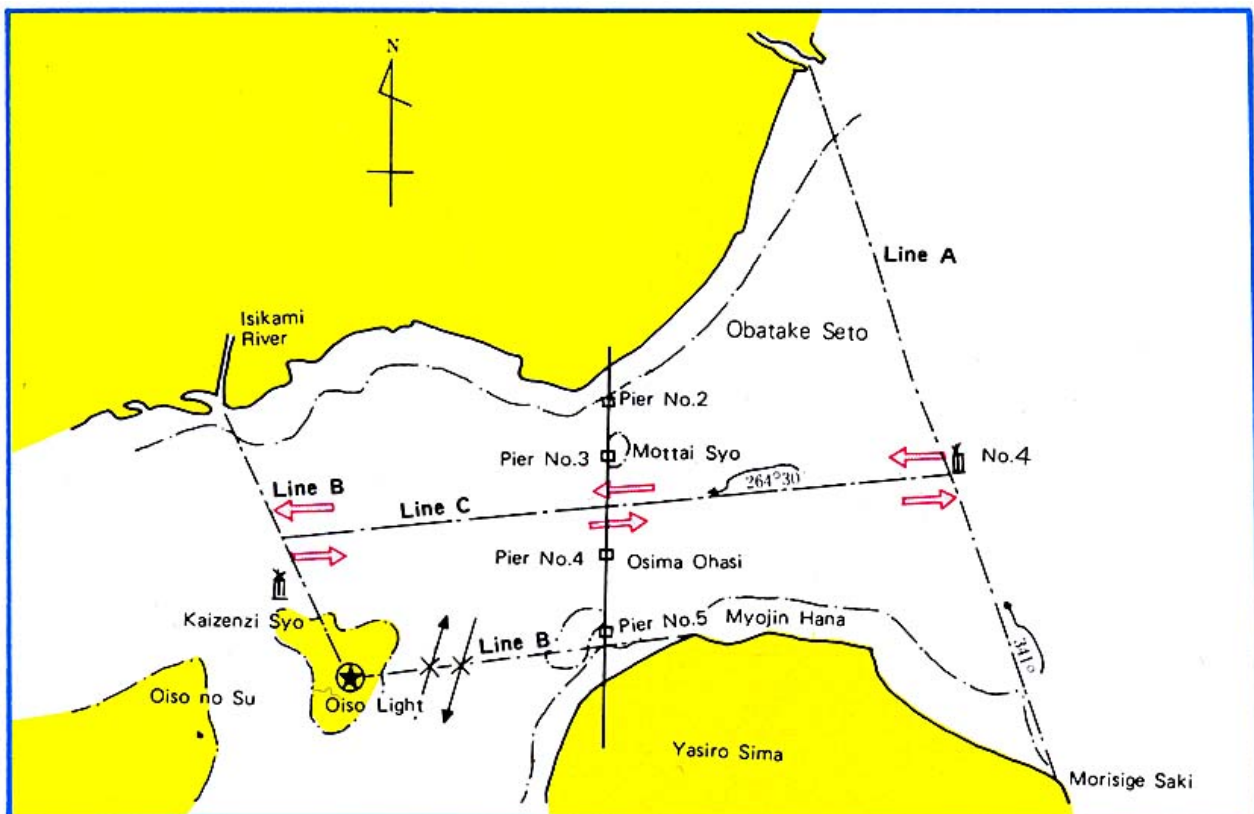
2. The vessel shall navigate between bridge pier No. 3 and No. 4 of Osima Ohasi.

Article 2. A vessel of five gross tons or more shall observe the following items when she intends to cross the Line B and thence cross the Line A.

1. The vessel shall navigate in the sea area south of the Line C, In case the vessel does not meet any other vessels in the sea area near the bridge piers of Osima Ohasi, this shall not apply to the vessel in the sea area.

2. The vessel shall navigate between bridge pier No. 3 and No. 4 of Osima Ohasi.

3. The vessel shall navigate through the sea area north of Kaizenzi Syo.



Chapter 2 Pilotage

1. Pilotage System

Tokyo Bay, Ise Bay and Osaka Bay provide the services of a bay pilot, while the Seto Inland Sea provides an Inland Sea pilot, and other major ports provide harbor pilots. It is therefore strongly advised that masters of vessels proceeding in not only compulsory but also non-compulsory pilotage areas should take advantage of the service of a pilot to prevent casualties at sea.

2. Pilotage District

A water area where the pilot provides his service is called pilotage area, and it is set in such water areas as harbor, bay, and inland sea where many oceangoing ships enter/depart, in accordance with a government ordinance based on the Pilotage Law (Enforcement Ordinance of Pilotage Law). Presently there are 39 pilotage districts which are classified into "pilotage district set for each water area of a port such as Kushiro" and "wide pilotage district set in water areas of bay/strait/inland sea including multiple ports such as Tokyo Bay".

3. Compulsory Pilotage District

Of the pilotage districts, there are ports and water areas where there is a ship traffic congestion, topography and waterway are complicated, or weather and tide conditions are severe. In such areas, the occurrence possibility of sea disasters is high, and from the view-points of maintaining the order of sea traffic and protecting the port facilities and water-area environment, pilot boarding is mandatory for ships of a certain level or higher in accordance with the Pilotage Law instead of entrusting the captain to judge on taking on a pilot or not.

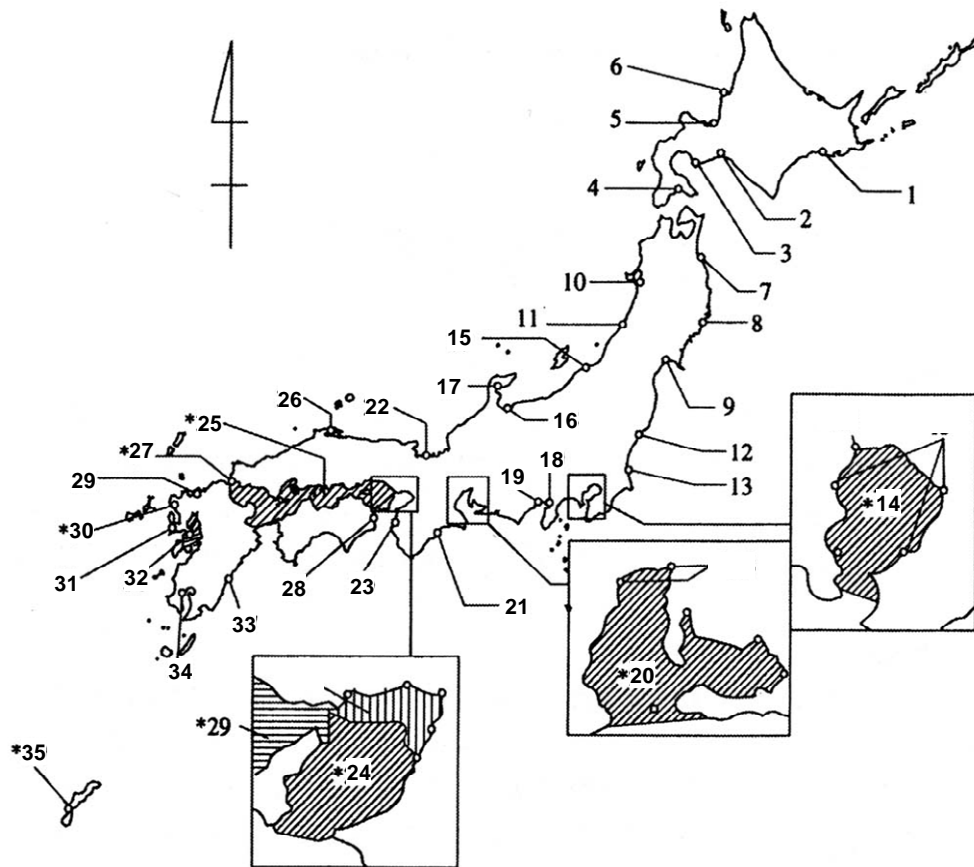
Such ports and water areas are called "compulsory pilotage districts" and such a system is called "compulsory pilotage system".

Presently 10 compulsory pilotage districts are set in port areas and water areas, and the districts and object ships are as follows.

	District	Object ship
Compulsory district set in port area	Yokosuka Sasebo Naha	Foreign ships with gross tonnage of 300t or more, Japanese ships with gross tonnage of 300t or more engaged in international voyage, Japanese ships with gross tonnage of 1000t or more not engaged in international voyage
	Yokohama-Kawasaki	Ships with gross tonnage of 3000t or more, ships with gross tonnage of less than 3000t loaded with dangerous goods
	Kanmon (Kanmon Strait)	Ships with gross tonnage of 10000t or more, ships with gross tonnage from 3000t to 10000t that do not pass Kanmon District area, ships with gross tonnage of less than 3000t loaded with dangerous goods
Compulsory district set in water area	Tokyo Bay, Ise-Mikawa Bay, Osaka Bay, Bisan-Seto (including Mizushima Port), Kurushima Strait	Ships with gross tonnage of 10000t or more

For requesting the pilotage service, the procedure is taken through an agent.

Fig. 2-23 List of Pilotage Districts in Japan



- | | | |
|--------------------|-----------------------|---------------|
| 1. Kushiro | 2. Tomakomai | 3. Muroran |
| 4. Hakodate | 5. Otaru | 6. Rumoi |
| 7. Hachinohe | 8. Kamaishi | 9. Sendai Wan |
| 10. Akita Funagawa | 11. Sakata | 12. Onahama |
| 13. Kashima | 14. Tokyo Wan | 15. Niigata |
| 16. Fushiki | 17. Nanao | 18. Tagonoura |
| 19. Shimizu | 20. Ise-Mikawa Wan | 21. Owase |
| 22. Maizuru | 23. Wakayama Shimotsu | 24. Osaka wan |
| 25. Naikai | 26. Sakai | 27. Kanmon |
| 28. Komatsushima | 29. Hakata | 30. Sasebo |
| 31. Nagasaki | 32. Shimabara kaiwan | 33. Hososhima |
| 34. Kagoshima | 35. Naha | |

PART 3 INFORMATION FOR SAFE NAVIGATION

This chapter mainly deals with measures to obtain the information needed for the safe navigation of vessels. Navigators are requested to make use of the various information.

Chapter 1 Provision of maritime safety information

Japan Coast Guard broadcasts weather information such as high wind warning, information on navigational obstacles such as flotsam and that related to search and rescue such as advising other shipping of a stricken vessel via NAVTEX and INMARSAT EGC so that they may navigate the area safely.

1. NAVTEX

JCG broadcasts concerning Search and Rescue information, navigational warnings and weather information at fixed time (upon reception in case of emergency) by NAVTEX with five coastal stations allocated. (This area within 300 nm)

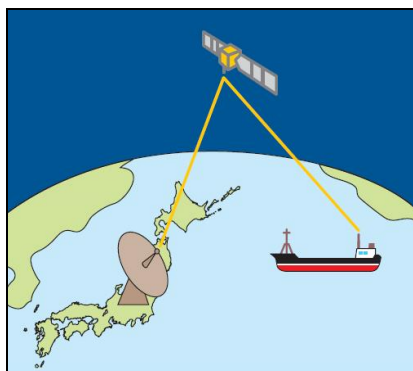
Fig. 3-1



2. INMARSAT EGC

Such maritime safety information as weather warning, navigation warning, and disaster information is broadcast by an automatic receiving system via geostationary satellites from coastal earth stations. Object ships are those cruising the area further than 300 nm, and it can be received anywhere except particular areas.

Fig. 3-2



3. Radio Telephone

Of such maritime information as weather, high water, and waves which are indispensable for safe navigation of ships, those which may cause disasters are broadcast as warnings by radio telephone by 11 District Communication Centers throughout Japan.

Fig. 3-3



Fig. 3-4



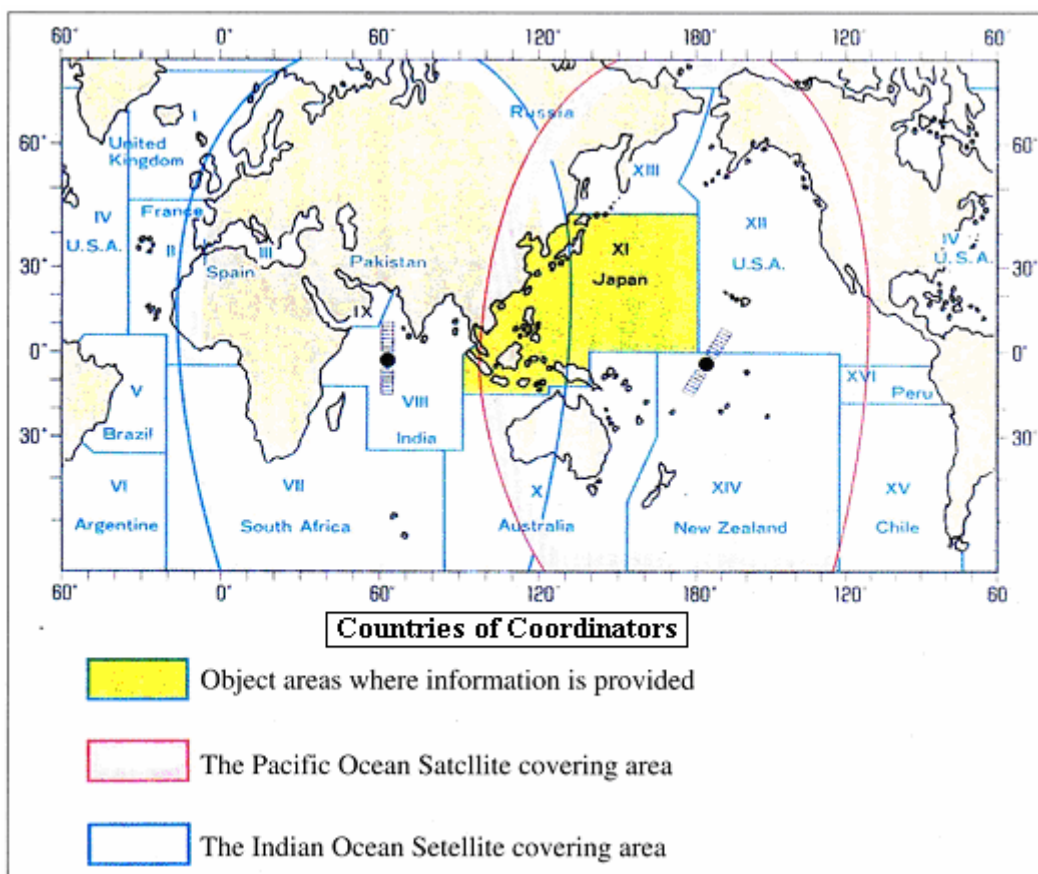
Chapter 2 Navigational Warnings and Maritime Traffic Information

1. NAVAREA Navigational Warning

The whole world is divided into 16 areas, and the countries of coordinators taking a responsibility to each area collect information in the area and transmit necessary information. Japan is the coordinator of NAVAREA XI.

NAVAREA XI Navigational Warning provides information which should be reported urgently for the safety of marine vessels cruising the ocean by auto-print method and Internet home page using an INMARSAT geostationary satellite.

Fig. 3-5

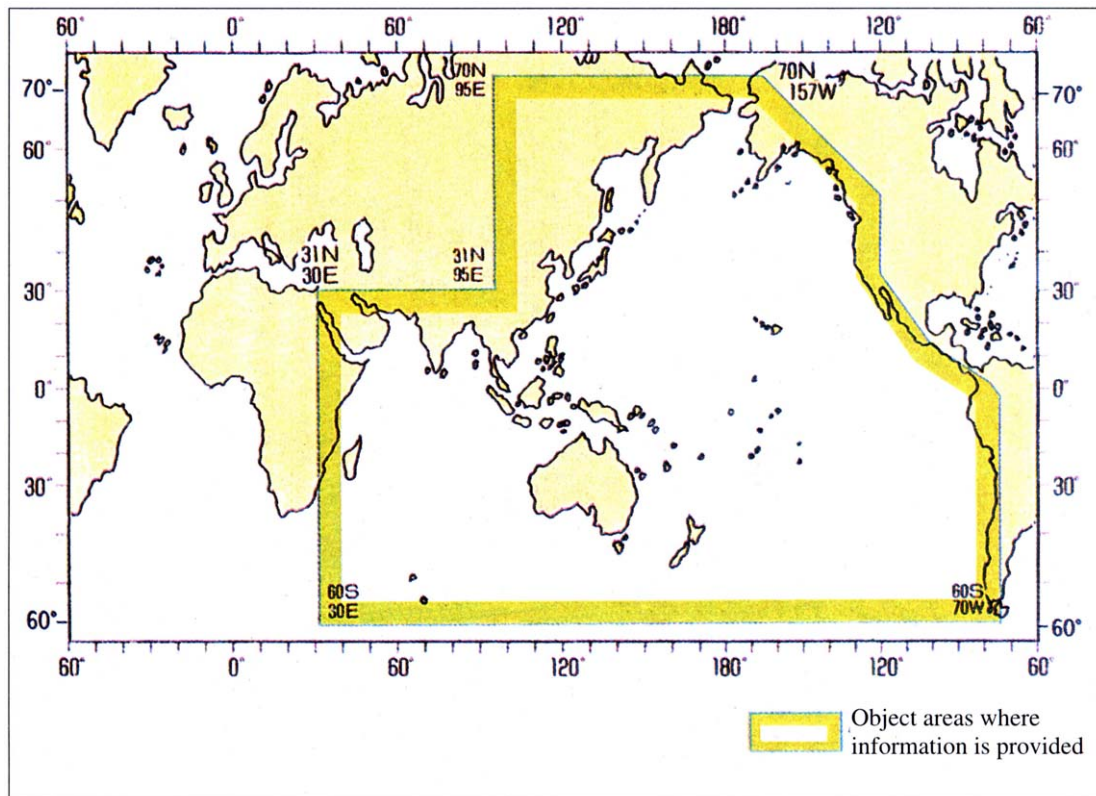


2. Japan Navigational Warning

Japan Navigational Warning provides information which should be reported urgently for the safety of Japanese marine vessels cruising areas from the Pacific Ocean, the Indian Ocean and circumference various sea stage Internet home page, etc..

URL <http://wwwl.kaiho.mlit.go.jp/TUHO/nmj.html>

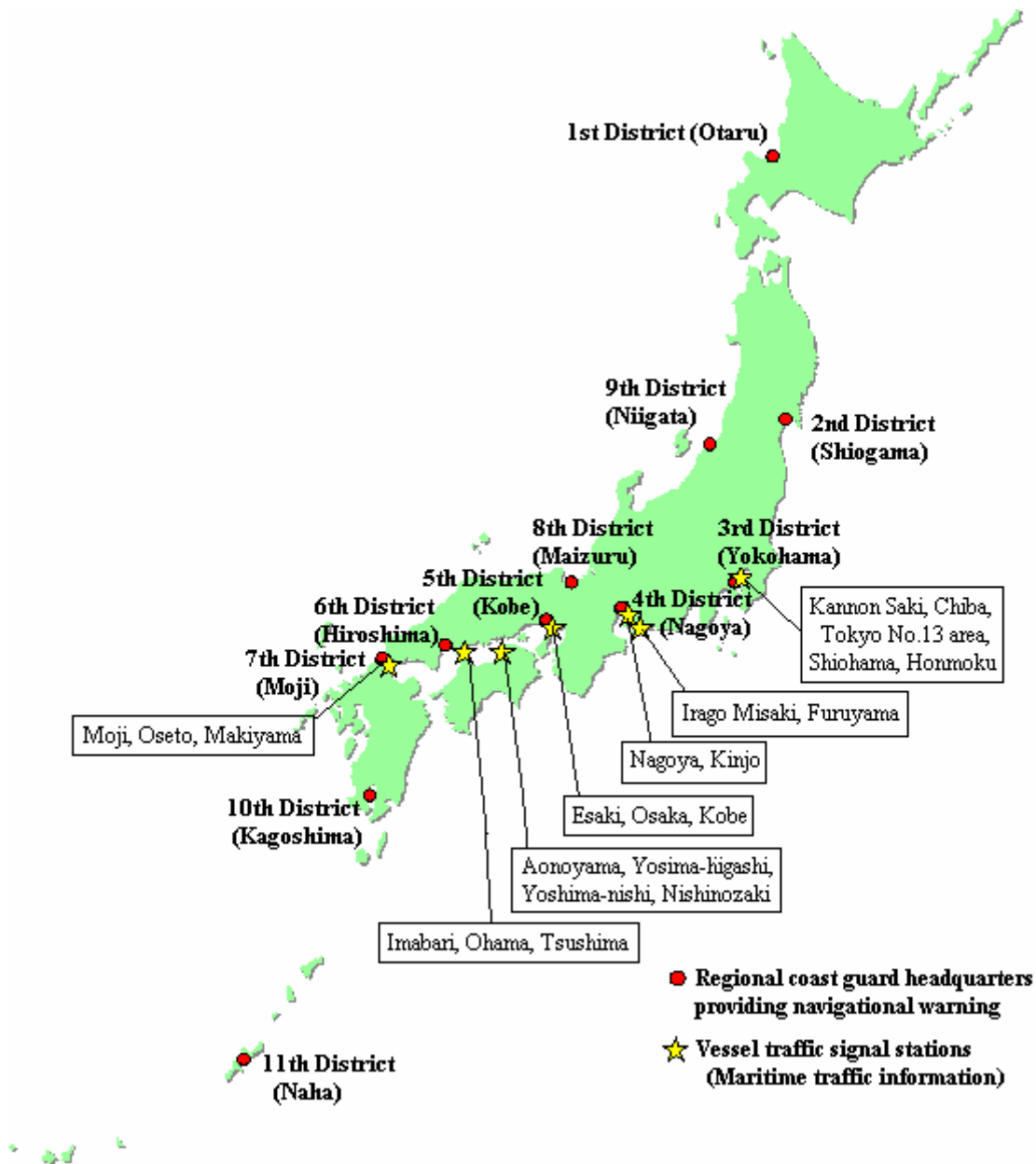
Fig. 3-6



3. Regional Coast Guard Headquarters Navigational Warning. Coast Guard Office Navigational Warning. Maritime Traffic Information

The Regional coast guard headquarters navigational warning, coast guard office navigational warning and maritime traffic information provide information which should be reported urgently for the safety of marine vessels cruising coastal ports in Japan to which Port Regulations Law is applied and adjacent areas thereof (in case of maritime traffic information, congested areas) by radio telephone, etc.

Fig.3-7



Maritime Traffic Information

Vessel Traffic Service Center

Name	Calling name	Radio wave type for communication and broadcasting (kHz, Ch, international VHF)			Communication time	Servicing time	Remarks
		For call or responding	For communication	For broadcasting			
Tokyo Wan	TOKYO MARTIS	CH13, 16	CH14, 22	H3E 1665 (Japanese) H3E 2019 (English)	All times	For 15 minutes from 0 minute and 30 minute of every hour (Japanese) For 15 minutes from 15 minute of every hour (English)	Kannonzaki Vessel Traffic Signal Station
Nagoya Ko	Nagoya Harbor Radar	CH16	CH14, 22	H3E 1665 (Japanese) H3E 2019 (English)	All times	For 15 minutes from 0 minute and 30 minute of every hour (Japanese) For 15 minutes from 15 minute and 45 minute of every hour (English)	Nagoya/Kinjo Vessel Traffic Signal Station
Ise Wan	ISEWAN MARTIS	CH16	CH14, 22	H3E 1665 (Japanese) H3E 2019 (English)	All times	For 15 minutes from 15 minute and 45 minute of every hour (Japanese) For 15 minutes from 0 minute and 30 minute of every hour (English)	Iragomisaki/Koyama Vessel Traffic Signal Station
Osaka Wan	OSAKA MARTIS	CH13, 16	CH14, 22	H3E 1651 (Japanese) H3E 2019 (English)	All times	For 15 minutes from 15 minute and 45 minute of every hour (Japanese) For 15 minutes from 0 minute and 30 minute of every hour (English)	Esaki Vessel Traffic Signal Station
Bisan Seto	BISAN MARTIS	CH13, 16	CH14, 22	H3E 1651 (Japanese) H3E 2019 (English)	All times	For 15 minutes from 0 minute and 30 minute of every hour (Japanese) For 15 minutes from 15 minute and 45 minute of every hour (English)	Aonoyama Vessel Traffic Signal Station
Kurushima Kaikyo	KURUSHIMA MARTIS	CH13, 16	CH14, 22	H3E 1651 (Japanese) H3E 2019 (English)	All times	For 15 minutes from 15 minute and 45 minute of every hour (Japanese) For 15 minutes from 0 minute and 30 minute of every hour (English)	Imabari/Ohama Vessel Traffic Signal Station
Kanmon Kaikyo	KANMON MARTIS	CH13, 16	CH14, 22	H3E 1651 (Japanese) H3E 2019 (English)	All times	For 15 minutes from 0 minute and 30 minute of every hour (Japanese) For 15 minutes from 15 minute and 45 minute of every hour (English)	Kanmon/Oseto Vessel Traffic Signal Station

Vessel Traffic Signal Station

Name	Calling name	Radio wave type for communication and broadcasting (kHz, Ch, international VHF)			Communication time	Servicing time	Remarks
		For call or responding	For communication	For broadcasting			
Osaka Wan	OSAKA HARBOR RADAR	CH16	CH14, 22	H3E 1665 (Japanese) H3E 2019 (English)	All times	For 10 minutes from 20 minute of each hour between 0400 and 2000 (English); for 10 minutes from 30 minute of each hour between 0400 and 2000 (Japanese)	
Kobe		CH16	CH14	—	All times	—	
Honmoku	KEIHIN HARBOR RADAR	CH16	CH14	—	All times	—	
Shiohama		CH16	CH14	—	All times	—	
Tokyo No. 13 area	Tokyo No. 13 area	CH16	CH14	—	All times	—	
Chiba	Chiba harbor radar	CH16	CH14	—	All times	—	
Makiyama	Dokai harbor radar	CH16	CH14, 22	—	All times		

Regional Coast Guard Headquarters Navigational Warning and Coast Guard Office Navigational Warning

Type	Retransmission Start Timing	Name of Coastline Stations
		F3E radiowave Ch16,Ch12
Radio telephone (Japanese and English as necessary)	10:02:40 /16:02:40	Moji
	10:10:00 /16:10:00	Nagoya, Naha
	10:15:00 /16:15:00	Niigata, Hiroshima
	10:20:00 /16:20:00	Yokohama, Maizuru, Kagoshima
	10:25:00 /16:25:00	Otaru
	10:32:40 /16:32:40	Shiogama, Kobe

Chapter 3 Information Service in Tokyo Bay, Ise Bay, Osaka Bay, Bisan Seto Area, Kurushima Kaikyo Area, Kanmon Kaikyo Area and Nagoya Port

1. Tokyo Wan Vessel Traffic Service Center (Tokyo MARTIS)

<Outline of Duties>

Item		Details	Communication method, etc.	
Provision of marine traffic information	General information	Regular broadcast	<ul style="list-style-type: none"> • Schedule of entry of huge ships seaway • Weather warning and advisory issued • Present weather (Kannon Zaki, Izu Oshima (Kazahayazaki). Sunosaki, Tsurugi saki, Honmoku, Tokyo Reclaimed Land No. 13) • Restrictions on seaway navigation • Trouble with beacon • Marine accidents • Construction and other works • Others 	Frequency: Japanese: 1,665 kHz, English: 2,019 kHz Call name: Tokyo Martis Broadcast time Japanese: Every hour 00-15 min nd 30-45 min English: Every hour 15-30 min
		Special broadcast	<ul style="list-style-type: none"> • Restrictions on seaway navigation • Large-scale marine accident • Others 	Frequency: Japanese: 1,665 kHz, English: 2,019 kHz Call name: Tokyo Martis Broadcast time: As necessary
		Telephone service	<ul style="list-style-type: none"> • Schedule of entry of huge ships into seaway • Restrictions on seaway navigation • Present weather (Kannon Zaki, Izu Oshima (Kazahayazaki), Sunosaki, Tsurugi saki, Honmoku, Tokyo Reclaimed Land No. 13) 	<ul style="list-style-type: none"> • Subscription telephone: 046-843-0621 • Subscription telephone: 046-844-4521
		Facsimile service	<ul style="list-style-type: none"> • Schedule of entry of huge ships seaway • Restrictions on seaway navigation • Present weather (Kannon Zaki, Izu Oshima (Kazahayazaki). Sunosaki, Tsurugi saki, Honmoku, Tokyo Reclaimed Land No. 13) 	<ul style="list-style-type: none"> • Subscription telephone: 046-844-2055
		Internet	(Conforming to regular broadcast)	http://www6.kaiho.mlit.go.jp/tokyowan/
	Individual information	<ul style="list-style-type: none"> • Location of ship • Movements of other ships • Others 	<ul style="list-style-type: none"> • VHF telephone Call name: Tokyo Martis Call frequency: CH16 Communication frequency: CH14 and CH22 Subscription telephone: 046-843-3622 	
	Seaway information	<ul style="list-style-type: none"> • Fishing boats operation • Navigation method • Others 		
Special information	<ul style="list-style-type: none"> • Warning for prevention of collision • Warning for avoidance of running and aground and other risks • Warning to correct navigation method • Others 			
Navigation control	<ul style="list-style-type: none"> • Reception of seaway information and instructions regarding navigation based on the Marine Traffic Safety Law Applicable ship: Huge ships, etc. • Reception of seaway information and navigational recommendation Applicable ship: Ships with gross tonnage of 10,000 tons or more (Huge ships excluded) 	<ul style="list-style-type: none"> • VHF telephone Call name: Yokohama Hoan (JGC) Frequency: CH12 and CH16 • DSC: 004310301 • Subscription telephone: 046-843-8622 ~ 4 • Fax: 046-844-4720 • Others 		

<Report of location>

Ships that should report	Details of report	Method of report
<ul style="list-style-type: none"> • Huge Vessel • Ships with gross tonnage of 10,000 tons or more (Giant ships excluded) • Ships with gross tonnage of 100 tons or more and maximum boarding capacity of 30 people or more (total of passengers, crew, and other people on board) 	<ol style="list-style-type: none"> (1) Ship's name and gross tonnage (2) Passing time (Japanese Standard Time in 24-hour system) (3) Abbreviation of passing line or passing line or approx. location with respect to a major target (4) Destination 	<ul style="list-style-type: none"> • VHF telephone Call name: Tokyo Martis Call frequency: CH16 Communication frequency: CH14 and CH22 • Subscription telephone: 0468-43-86223 ~ 4

2. Isewan Vessel Traffic Service Center (Ise wan MARTIS)

<Outline of Duties>

Item		Details	Communication method, etc.	
Provision of marine traffic information	General information	Regular broadcast	<ul style="list-style-type: none"> • Schedule of entry of huge ship into seaway • Present and scheduled traffic control signal • Weather warning and advisory issued • Present weather (Iragomisaki, Daiouzaki, Maisaka) • Current traffic steates • Fishing boats in operation • Marine accidents • Construction and other works • Abnormality Aids to navigation • Restriction of navigation in the route • Others 	Frequency: Japanese: 1,665 kHz, English: 2,019 kHz Call name: Isewan Martis Broadcast time Japanese: Every hour 15-30 min and 45-00 min English: Every hour 00-15 min and 30-45 min
		Special broadcast	<ul style="list-style-type: none"> • Restriction of navigation in the route • Marine accidents • Others 	Frequency: Japanese: 1,665 kHz, English: 2,019 kHz Call name: Isewan Martis Broadcast time: As necessary
		Telephone service	<ul style="list-style-type: none"> • Restriction of navigation in the route • Schedule of entry of huge ship into seaway • Present and scheduled traffic control signal • Present weather (Iragomisaki, Daiouzaki, Maisaka) 	<ul style="list-style-type: none"> • Subscription telephone: 0531-34-2666
		Facsimile service	(Conforming to regular broadcast)	<ul style="list-style-type: none"> • Subscription telephone: 0531-34-2333
		Internet	(Conforming to regular broadcast)	http://www6.kaiho.mlit.go.jp/isewan/
		Information signal	<ul style="list-style-type: none"> • Movements of huge ships 	<ul style="list-style-type: none"> • Electrical Signal Board
	Individual information	<ul style="list-style-type: none"> • Position of your ship • Movements of other ships • Others 	<ul style="list-style-type: none"> • VHF telephone Call name: Isewan Martis Call frequency : CH16 Communication frequency: CH14 and CH22 Subscription telephone: 0531-34-2445 Subscription telephone: 0531-34-2446 	
	Seaway information	<ul style="list-style-type: none"> • Fishing boats in operation • Navigation method • Others 		
	Special information	<ul style="list-style-type: none"> • Warning to avoid collusion with other ships • Warning to correct the navigation • Warning to prevent a ship from running aground • Others 		
	Navigation control		<ul style="list-style-type: none"> • Reception of seaway information and instructions regarding navigation based on the Marine Traffic Safety Law Applicable ship: Huge ships, etc. • Reception of seaway information and navigational recommendation Applicable ship: Huge ships, etc. (1) Ships with gross tonnage of 10,000 tons or more (Huge ships excluded) (2) Ships measuring 130 m or longer in total length • Reception of seaway information Applicable ship: Ships with gross tonnage of 3,000 tons or more and less than 10,000 tons (Huge ships and shorter than 130 m in total length is excluded) • Signal control at Irago Seaway based on the Marine Traffic Safety Law 	<ul style="list-style-type: none"> • VHF telephone Call name: Nagoya Hoan (JNT) Call frequency: CH12 and CH16 DSC: 004310401 • Subscription telephone: 0531-34-2443 • Fax: 0531-34-2444 • Others
			<ul style="list-style-type: none"> • Electrical Signal Board 	

<Port of location>

Ships that should report	Details of report	Method of report
<ul style="list-style-type: none"> • Huge ship • Ships with gross tonnage of 1,000 tons or more (Huge ships excluded) 	(1) Ship's name (2) Abbreviation of passing line (3) Passing time (Japanese Standard Time in 24-hour system) (4) Overall length (5) Port of destination (6) Others	<ul style="list-style-type: none"> • VHF telephone Call name: Isewan Martis Call frequency: CH16 Communication frequency: CH14 and CH22 • Subscription telephone: 0531-34-2443

3. Osaka Wan Vessel Traffic Service Center (Osaka MARTIS)

<Outline of Duties>

Item		Details	Communication method, etc.	
Provision of marine traffic information	General information	Regular broadcast	<ul style="list-style-type: none"> • Schedule of entry of huge ships into seaway • Weather warning and advisory issued • Present weather (Esaki and Jizozaki) • Fishing boats in operation • Restrictions on seaway navigation • Trouble with beacon • Marine accidents • Construction and other works • Others 	Frequency: Japanese: 1,650 kHz, English: 2,019 kHz Call name: Osaka Martis Broadcast time: Japanese: Every hour 15-30 min and 45-00 min English: Every hour 00-15 min and 30-45 min
		Special broadcast	<ul style="list-style-type: none"> • Restrictions on seaway navigation • Large-scale marine accident • Others 	Frequency: Japanese: 4,650 kHz, English: 2,019 kHz Call name: Osaka Martis Broadcast time : As necessary
		Telephone service	<ul style="list-style-type: none"> • Schedule of entry of huge ships into seaway • Restrictions on seaway navigation 	<ul style="list-style-type: none"> • Subscription telephone: 0799-82-3044 (For the day) 0799-82-3043 (For the next day)
		Facsimile service	<ul style="list-style-type: none"> • Schedule of entry of huge ships into seaway • Restrictions on seaway navigation • Fishing boats in operation • Present weather (Esaki and Jizozaki) • Others 	<ul style="list-style-type: none"> • Subscription telephone: 0799-82-3040
		Internet	(Conforming to regular broadcast)	http://www6.kaiho.mlit.go.jp/osakawan/
	Individual information	<ul style="list-style-type: none"> • Location of ship • Movements of other ships • Others 	<ul style="list-style-type: none"> • VHF telephone Call name: Osaka Martis Call frequency : CH16 Communication frequency: CH14 and CH22 • Subscription telephone: 0799-82-3030~1 	
	Seaway information	<ul style="list-style-type: none"> • Fishing boats in operation • Navigation method • Others 		
	Special information	<ul style="list-style-type: none"> • Warning for prevention of collision • Warning for avoidance of running aground and other risks • Warning to correct navigation method • Others 		
	Navigation control	<ul style="list-style-type: none"> • Reception of seaway information and instructions regarding navigation based on the Marine Traffic Safety Law Applicable ship: Huge ships, etc. • Reception of seaway information and navigational recommendation Applicable ship: (1) Ships with gross tonnage of 10,000 tons or more (Huge ships excluded) (2) Ships towing (or pushing) an object measuring 150 m or longer and shorter than 200 m in total length • Reception of seaway information Applicable ship: Ships with gross tonnage of 3,000 tons or more and less than 10,000 tons (Huge ships excluded) 	<ul style="list-style-type: none"> • VHF telephone Call name: Kobe Hoan (JGD) Frequency: CH16 DSC: 004310501 	

<Report of location>

Ships that should report	Details of report	Method of report
<ul style="list-style-type: none"> • Huge Vessel • Ships with gross tonnage of 3,000 tons or more (Giant ships excluded) • Ships towing (or pushing) an object measuring 100 m or longer and shorter than 200 m in total length 	(1) Ship's name (2) Passing time (Japanese Standard Time in 24-hour system) (3) Abbreviation of passing line (4) Others (length of an object towed (or pushed), etc.)	<ul style="list-style-type: none"> • VHF telephone Call name: Osaka Martis Call frequency : CH16 Communication frequency: CH14 and CH22 • Subscription: 0799-82-3030~1

4. Bisan Seto Vessel Traffic Service Center (Bisan MARTIS)

<Outline of Duties>

Item		Details	Communication method, etc.	
Provision of marine traffic information	General information	Regular broadcast	<ul style="list-style-type: none"> • Schedule of entry of huge ships into seaway • Present control signal used for Mizushima Seaway and previous notice • Weather warning and advisory issued • Fishing boats in operation • Restrictions on seaway navigation • Trouble with beacon • Marine accidents • Construction and other works • Others 	Frequency Japanese: 1,651 kHz, English: 2,019 kHz Call name: Bisan Martis Broadcast time: Japanese: Every hour 00-15 min and 30-45 min English: Every hour 15-30 min and 45-00 min
		Special broadcast	<ul style="list-style-type: none"> • Restrictions on seaway navigation • Large-scale marine accident • Others 	Frequency Japanese: 1,651 kHz English: 2,019 kHz Call name: Bisan Martis Broadcast time: As necessary
		Telephone service	<ul style="list-style-type: none"> • Schedule of entry of huge ships into seaway • Present control signal used for Mizushima Seaway and previous notice • Restrictions on seaway navigation 	<ul style="list-style-type: none"> • Subscription telephone: 0877-49-5166 (For the day) 0877-49-5167 (For the next day)
		Facsimile service	(Conforming to regular broadcast)	• Subscription telephone: 0877-49-1041
		Internet	(Conforming to regular broadcast)	http://www6.kaiho.mlit.go.jp/bisan/
		Information signal	<ul style="list-style-type: none"> • Movements of huge ships at intersection in Mizushima Seaway • Others 	• Electric indicator panel
	Individual information	<ul style="list-style-type: none"> • Location of ships • Movements of other ships • Others 	<ul style="list-style-type: none"> • VHF telephone Call name: Bisan Martis Call frequency: CH16 Communication frequency: CH14 and CH22 • Subscription telephone: 0877-49-2220~1 	
	Seaway information	<ul style="list-style-type: none"> • Fishing boats in operation • Navigation method • Others 		
	Special information	<ul style="list-style-type: none"> • Warning for prevention of collision • Warning for avoidance of running aground and other • Warning to correct navigation method • Others 		
	Navigation control		<ul style="list-style-type: none"> • Reception of seaway information and instruction regarding navigation on the Marine Traffic Safety Law Applicable ship: Huge ships, etc. • Reception of seaway information and navigational recommendation Applicable ship: Ships with gross tonnage of 10,000 tons or more (Huge ships excluded) • Reception of seaway information Applicable ship: Ships with gross tonnage of 3,000 tons or more (ships with the total length of 70 m or more voyaging though Mizushima Seaway) and less than 10,000 tons (Giant ships excluded) 	<ul style="list-style-type: none"> • VHF telephone Call name: Kobe Hoan (JGD) Frequency: CH12 and CH16 DSC: 004310501
		<ul style="list-style-type: none"> • Signal control at Mizushima Seaway based on the Marine Traffic Safety Law • Signal control at seaway in Mizushima Port based on the Handor Regulation Law 	• Electric indicator panel	

<Report of location>

Ships that should report	Details of report	Method of report
<ul style="list-style-type: none"> • Huge Vessel • Ships with gross tonnage of 3,000 tons or more (ships with the total length of 70 m or more voyaging though Mizushima Seaway) (Giant ships excluded) 	(1) Ship's name (2) Passing time (Japanese Standard time in 24-hour system) (3) Abbreviation of passing line	<ul style="list-style-type: none"> • VHF telephone Call name: Bisan Martis Call frequency: CH16 Communication frequency : CH14 and CH22 Subscription telephone: 0877-49-2220~1

5. Kurushima Kaikyo Vessel Traffic Service Center (Kurushima MARTIS)

<Outline of Duties>

Item		Details	Communication method, etc.	
Provision of marine traffic information	General information	Regular broadcast	<ul style="list-style-type: none"> • Schedule of entry of huge into seaway • Weather warning and advisory issued • Present weather (Tsushima, Imabari, and Tkaikamishima) • Fishing boats in operation • Restrictions on seaway navigation • Trouble with beacon • Marine accidents • Construction and other works • Others 	Frequency: Japanese: 1,651 kHz, English: 2,019 kHz Call name: Kurushima Martis Broadcast time Japanese: Every hour 15-30 min and 45-00 min English: Every hour 00-15 min and 30-45 min
		Special broadcast	<ul style="list-style-type: none"> • Restrictions on seaway navigation • Large-scale marine accident • Others 	Frequency Japanese: 1,651 kHz, English: 2,019 kHz Call name: Kurushima Martis Broadcast time: As necessary
		Telephone service	<ul style="list-style-type: none"> • Schedule of entry of huge ships into seaway • Restrictions on seaway navigation • Present weather (Tsushima, Ohama and Takaikamishima???) 	<ul style="list-style-type: none"> • Subscription telephone: 0898-31-3636 • Subscription telephone: 0898-31-8177
		Facsimile service	(Conforming to regular broadcast)	• Subscription telephone: 0898-31-4646
		Internet	(Conforming to regular broadcast)	http://www6.kaiho.mlit.go.jp/kurushima/
		Information signal	<ul style="list-style-type: none"> • Movements of giant ships near the channel in the Kurushima Kaikyo Seaway • Others 	• Electric indicator panel
	Individual information	<ul style="list-style-type: none"> • Location of ships • Movements of other ships • Others 	<ul style="list-style-type: none"> • VHF telephone Call name: Kurushima Martis Call frequency: CH16 Communication frequency: CH14 and CH22 • Subscription telephone: 0898-31-9000 	
	Seaway information	<ul style="list-style-type: none"> • Fishing boats in operation • Navigation method • Others 		
	Special information	<ul style="list-style-type: none"> • Warning for prevention of collision • Warning for avoidance of running aground and other risks • Warning to correct navigation method • Others 		
	Navigation control	<ul style="list-style-type: none"> • Reception of seaway information and instructions regarding navigation based on the Marine Traffic Safety Law Applicable ship: Huge ships, etc. • Reception of seaway information and navigational recommendation Applicable ship: <ol style="list-style-type: none"> (1) Ships with gross tonnage of 10,000 tons or more (Huge ships excluded) (2) Ships towing (or pushing) an object measuring 100 m or longer and shorter than 200 m in total length • Reception of seaway information Applicable ship: ships with gross tonnage of 3,000 tons or more and less than 10,000 tons (Giant ships excluded) 		<ul style="list-style-type: none"> • VHF telephone Call name: Hiroshima Hoan (JNE) Frequency: CH12 and CH16 DSC: 004310601
		<ul style="list-style-type: none"> • VHF telephone Call name: Kobe Hoan (JGE) Frequency: CH12 and CH16 DSC: 004310501 • Subscription telephone: 0898-31-9000 • Fax: 0898-31-9666 • Others 		

<Port of location>

Ships that should report	Details of report	Method of report
<ul style="list-style-type: none"> • Huge Vessel • Ships with gross tonnage of 1,000 tons or more (Giant ships excluded) • Ships towing for pushing an object measuring 100 m or longer and shorter than 200 m in total length 	<ol style="list-style-type: none"> (1) Ship's name (2) Passing time (Japanese Standard Time in 24-hour system) (3) Abbreviation of passing line (4) Others <ol style="list-style-type: none"> a. Length: For ships towing or pushing an object b. Destination: For ships that do not need seaway information 	<ul style="list-style-type: none"> • VHF telephone Call name: Kurushia Martis Call frequency: CH16 Communication frequency: CH14 and CH22 Subscription telephone: 0898-31-9000

6. Kanmon Kaikyo Vessel Traffic Service Center (Kanmon MARTIS)

<Outline of Duties>

Item		Details	Communication method, etc.	
Provision of marine traffic information	General information	Regular broadcast	<ul style="list-style-type: none"> • Schedule of entry of huge ships into seaway • Present and scheduled control signal • Weather warning and advisory issued • Present weather (Hesaki and Daibaharia) • Restrictions on or prohibition of seaway navigation • Trouble with beacon • Marine accidents • Construction and other works • Others 	Frequency: Japanese: 1,651 kHz, English: 2,019 kHz Call name: Kanmon Martis Broadcast time Japanese: Every hour 00-15 min and 30-45 min English: Every hour 15-30 min and 45-00 min
		Special broadcast	<ul style="list-style-type: none"> • Restrictions on or prohibition of seaway navigation • Large-scale marine accident • Others 	Frequency Japanese: 1,651 kHz, English: 2,019 kHz Call name: Kanmon Martis Broadcast time: As necessary
		Telephone service	<ul style="list-style-type: none"> • Schedule of entry of huge ships into seaway • Restrictions on or prohibition of seaway navigation 	• Subscription telephone: 093-381-3399
		Facsimile service	(Conforming to regular broadcast)	• Subscription telephone: 093-372-2741
		Internet	(Conforming to regular broadcast)	http://www6.kaiho.mlit.go.jp/kanmon/
		Information signal	<ul style="list-style-type: none"> • Movements of large ships near Oseto in Kanmon Seaway • Others 	• Electric indicator panel
	Individual information	<ul style="list-style-type: none"> • Location of ship • Movements of other ships • Fishing boats in operation 	<ul style="list-style-type: none"> • VHF telephone Call name: Kanmon Martis Call frequency: CH16 Communication frequency: CH14 and CH22 • Subscription telephone: 093-372-0099 	
	Seaway information	<ul style="list-style-type: none"> • Fishing boats in operation • Navigation method • Others 		
	Information on anchorage	• Situation of ships anchoring in the sea area in the north Mutsureshima and the area off Hesaki		
	Special information	<ul style="list-style-type: none"> • Warning for prevention of collision • Warning for avoidance of running aground and other risks • Warning to correct navigation method • Warning for coordination of navigation at Hayatomoseto • Others 		
Navigation control	<ul style="list-style-type: none"> • Reception of advance report based on the Port Regulations Law Applicable ship: (1) Ships with gross tonnage of 10,000 tons (3,000 tons for oil tankers) or more that intend to navigate through Hayatomoseto Channel • Reception of advance report Applicable ship: Ships with gross tonnage of 3,000 tons or more ((1) excluded) 	<ul style="list-style-type: none"> • VHF telephone Call name: Moji Hoan (JNR) Frequency: CH12 and CH16 • DSC: 004310701 • Subscription telephone: 093-372-0099 • Fax: 093-381-4499 • Others 		
	<ul style="list-style-type: none"> • Signal control at Hayatomoseto Channel based on the Port Regulations Law 	• Signal by electric indicator panel (Hayatomoseto Channel)		

<Port of location>

Ships that should report	Details of report	Method of report
Ships with gross tonnage of 3,000 tones (1,000 tons for ships entering or leaving Seitetsu Tobata Hakuchi through Tobata Seaway) or more	(1) Ship's name (2) Passing time (Japanese Standard Time in 24-hour system) (3) Abbreviation of passing line or wharf code No.	<ul style="list-style-type: none"> • VHF telephone Call name: Kanmon Martis Call frequency: CH16 Communication frequency: CH14 and CH22 Subscription telephone: 093-372-0099

7. Nagoya Port Vessel Traffic Service Center

<Outline of Duties>

Item		Details	Communication method, etc.	
Provision of marine traffic information	General information	Regular broadcast	<ul style="list-style-type: none"> • Schedule of entry of control ship into seaway • Present control signal and previous notice • Weather warning and advisory issued • Present weather (Eastern end of the central stoem surge protection breakwater) • Trouble with beacon • Construction and other works • Restrictions on or prohibition of seaway navigation • Marine accidents •Others 	Frequency: Japanese: 1,665 kHz, English: 2,019 kHz Call name: Nagoya Harbor Radar Broadcast time: Japanese: Every hour 00-15 min and 30-45 min English: Every hour 15-30 min and 45-00 min
		Special broadcast	<ul style="list-style-type: none"> • Restrictions on seaway navigation • Large-scale marine accident •Others 	Frequency: 1,665 kHz Call name: Nagoya Harbor Radar Broadcast time: An necessary
		Telephone service	<ul style="list-style-type: none"> • Schedule of entry of control ship into seaway • Present control signal used and previous motice • Restrictions on or prohibition of seaway navigation 	• Subscription telephone: 052-398-0714
		Facsimile service	(Conforming to regular broadcast)	• Subscription telephone: 052-398-1379
		Internet	(Conforming to regular broadcast)	http://www6.kaiho.mlit.go.jp/nagoyako/
		Information signal	• Movements of ships voyaging near intersection in seaway	• Electric indicator panel
	Individual information	<ul style="list-style-type: none"> • Location of ship • Movements of other ships • Others 	<ul style="list-style-type: none"> • VHF telephone Call name: Nagoya Harbor Radar Call frequency: CH16 Communication frequency: CH14 and CH22 • Subscription telephone: 052-398-0712 	
Special information	<ul style="list-style-type: none"> • Warning for prevention of sollusion • Warning for avoidance of running aground and other risks • Warning to correct navigation method • Others 			
Navigation control		<ul style="list-style-type: none"> • Reception of advance report based on the Marine Traffic Law Applicable ship: Ships with gross tonnage of 20,000 tons (5,000 tons for oil tankers) or more 	<ul style="list-style-type: none"> • VHF telephone Call name: Nagoya Hoan (JNT) Frequency: CH12 and CH16 • DSC: 004310401 • Subscription telephone: 052-398-0715 • Fax: 052-398-0716 • Others 	
		• Signal control at the east, west, and north seaway based on the Marine Traffic Safety Law	• Electric indicator panel	

<Port of location>

Ships that should report	Details of report	Method of report
<ul style="list-style-type: none"> • Ships with gross tonnage of 5,000 tons or more • Ships with gross tonnage of 5,000 tons leaving from Kinjo area 	(1) Ship's name and gross tonnage (2) Passing time or navigation start time (3) Abbreviation of location report line (only when entering port) (4) Name of whart location of anchorage (5) Name of planned seaway to pass through	<ul style="list-style-type: none"> • VHF telephone Call name: Nagoya Harbor Radar Call frequency: CH16 Communication frequency: CH14 and CH22 Subscription telephone: 052-398-0712

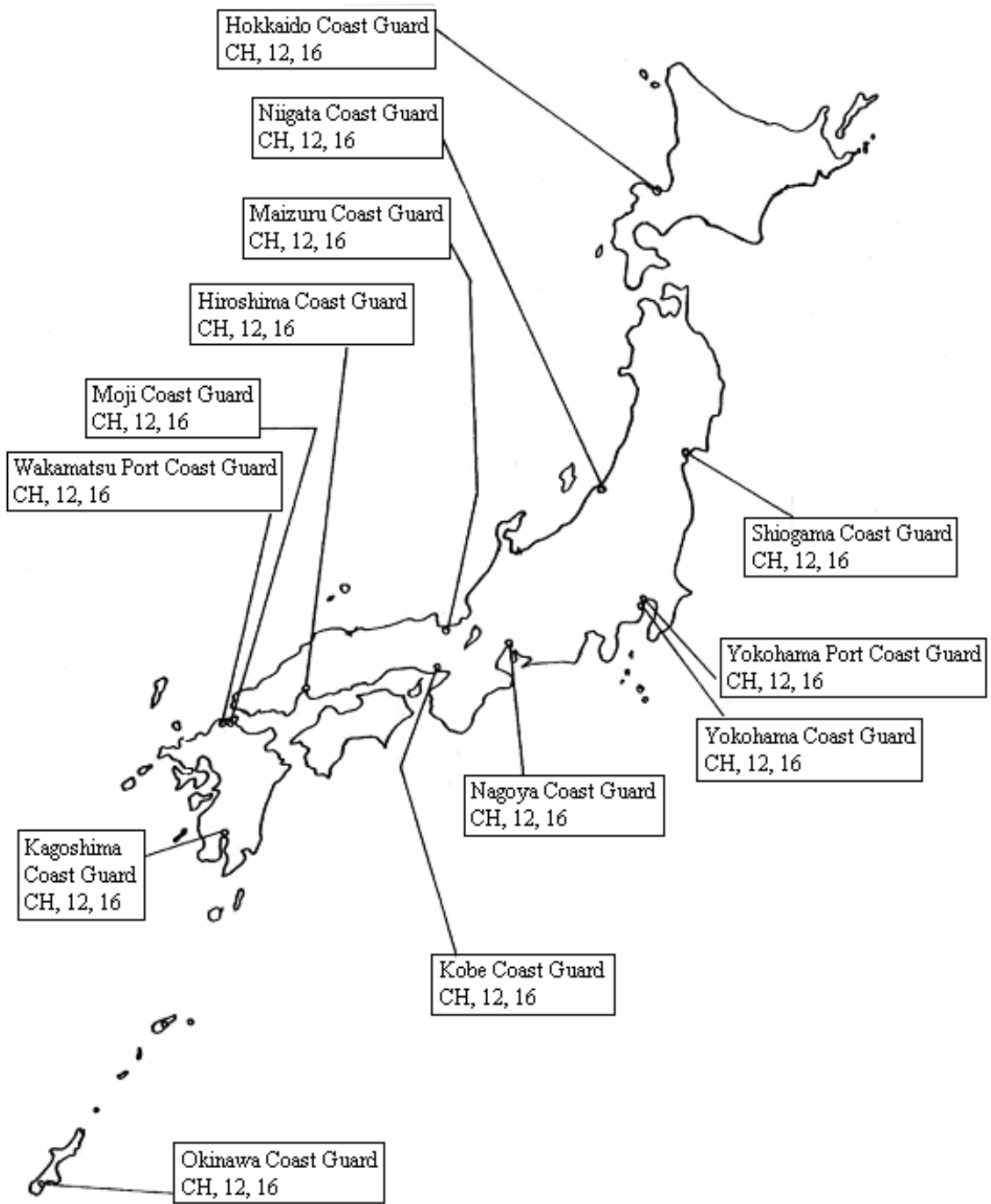
Chapter4 Information in Port

1. Port Operation Communications

15 coastal stations throughout Japan handle reports relating to arrival of a ship and quarantine inspection to secure safe navigation of ship in ports such as Keihin Port and Nagoya Port where ship traffic is heavy.

Call sign	Calling frequencies (kHz)	Working frequencies (kHz)	Name of port In charge
JNL HOKKAIDO COAST GUARD RADIO	156.8 MHz	156.6 MHz	Nemuro Rumoi Tomakomai Kushiro Muroan Wakkanai Otaru Hakodate
JNN SHIOGAMA COAST GUARD RADIO	156.8 MHz	156.6 MHz	Hachinohe Kamaishi Sendai- Shiogama Onahama Akata-funakawa
YOKOHAMA HARBOR COAST GUARD RADIO	156.8 MHz	156.6 MHz	Keihin Kashima
JGC YOKOHAMA COAST GUARD RADIO	156.8 MHz	156.6 MHz	Kisarazu Chiba Yokosuka Shimizu
JNT NAGOYA COAST GUARD RADIO	156.8 MHz	156.6 MHz	Nagoya Yokkaichi
JGD KOBE COAST GUARD RADIO	156.8 MHz	156.6 MHz	Hanshin Tanabe Kochi
HIROSHIMA COAST GUARD RADIO	156.8 MHz	156.6 MHz	Uno Takamatsu Sakaide Onomichi- Itosaki Kure Hiroshima Tokuyama- Kudamatsu Iwakuni Nihama Imabari Matsuyama
JWAKAMATSU HARBOR COAST GUARD RADIO	156.8 MHz	156.6 MHz	Kanmon
JNR MOJI COAST GUARD RADIO	156.8 MHz	156.6 MHz	Kanmon Oita Sasebo Hakata Izuhara

Call sign	Calling frequencies (kHz)	Working frequencies (kHz)	Name of port In charge
JNC MAIZURU COAST GUARD RADIO	156.8 MHz	156.6 MHz	Maizuru Sakai
JNV NIIGATA COAST GUARD RADIO	156.8 MHz	156.6MHz	Niigata Fushiki- Toyama
JNU KAGOSHIMA COAST GUARD RADIO	156.8 MHz	156.6 MHz	Kagoshima Naze
JNB OKINAWA COAST GUARD RADIO	156.8 MHz	156.6MHz	Naha

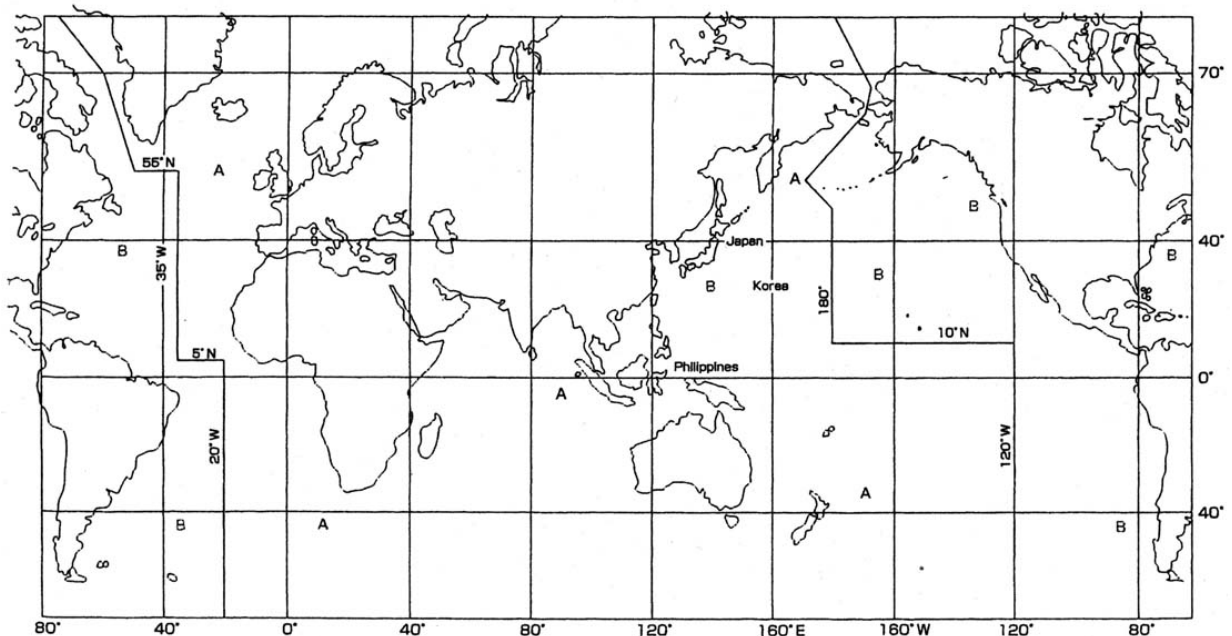


Chapter 5 Uniform System of Buoyage along the Coast of Japan



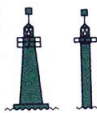



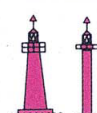



























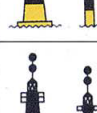



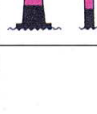





The system of buoyage used in Japan is the B-system. Explanations are given here on the B-system. Caution is to be exercised so that navigating officers not to confuse it with the A-system.

System of Buoyage throughout the world

Region	Type of marks		Color		Light Color	Main nations
			Top mark	Body		
A	Side buoyage	Port mark	Red	Red	Red	Germany, UK, France, Spain, South Africa, Saudi-Arabia, India, Indonesia, Australia, Republic of China, Russia
		Starboard mark	Green	Green	Green	
B		Port mark	Green	Green	Green	Canada, USA, Mexico, Cuba, Peru, Brazil, Argentina, Chile, Japan, ROK, Republic of the Philippines
		Starboard mark	Red	Red	Red	



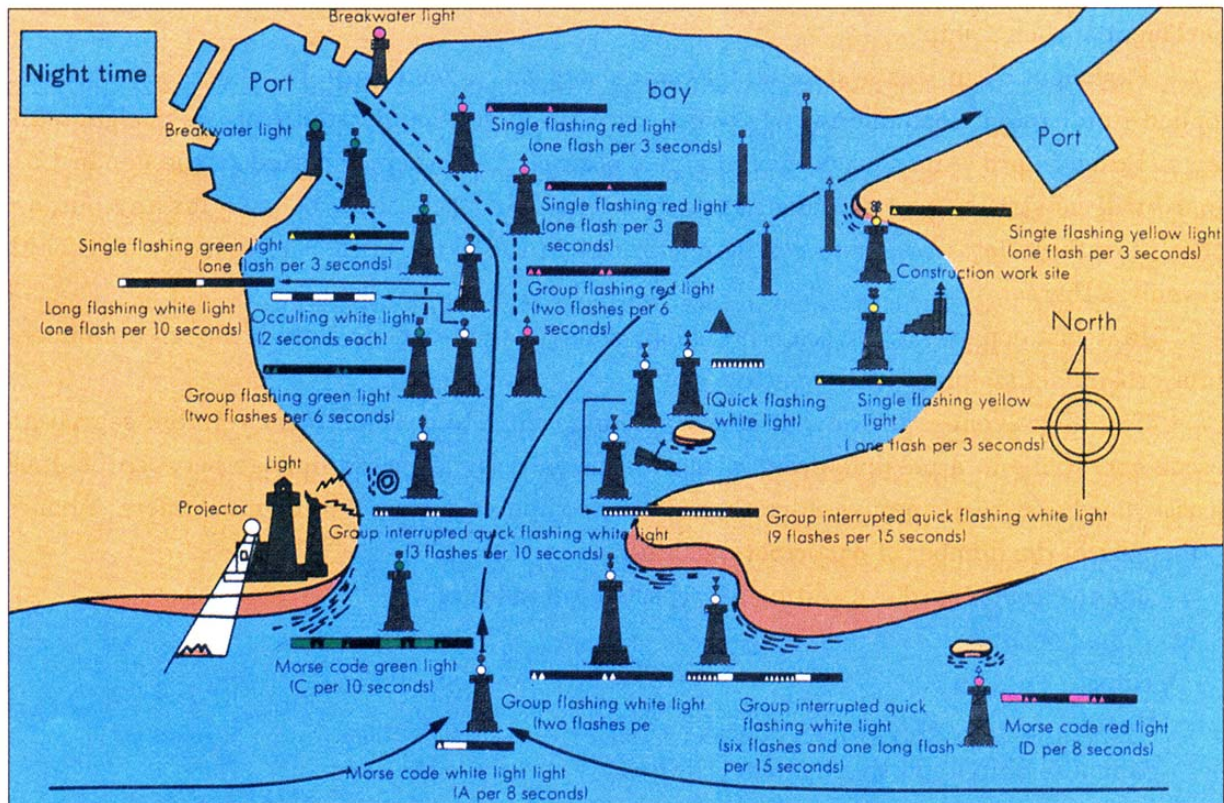
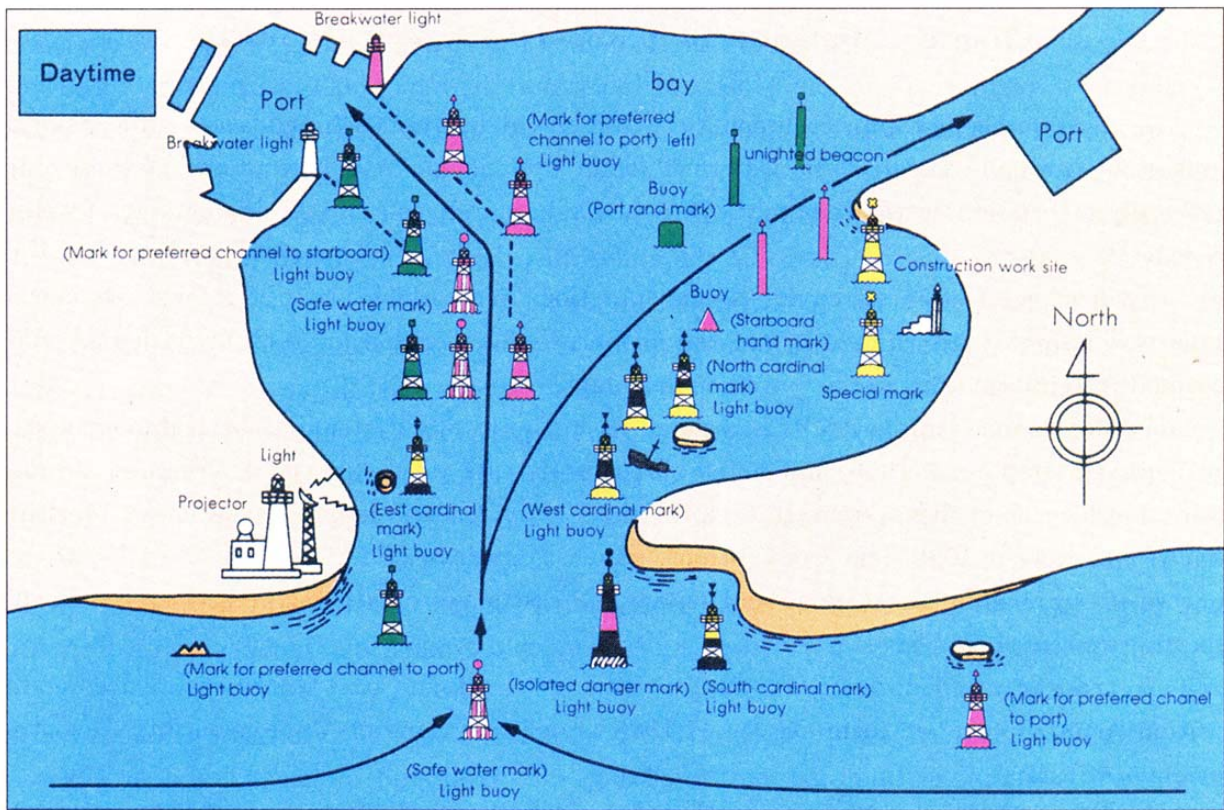
The System of Buoyage in Japan

Type		Body		Top mark		Illustration				Characteristic phases	
		Colour	Colour	Shape	Light buoy	Buoy	Light beacon	Beacon	Colour of light	Characteristic lighting	
Side buoyage	Port hand mark	Green	Green	Gylindrical, 1 pc.					Green	Single flashing (intervals: 3, 4 and 5 seconds) Group flashing (2 Flashes per 6 seconds)	
	Starboard hand mark	Red	Red	Cone, 1 pc.					Red	Morse code light (A, B, C and D; intervals: optional) Quick flashing	
	Mark for preferred channel to port	One green horizontal belt on red back ground	Red	Cone, 1 pc.					Red	Fixed and group flashing light (two flashes and on flash per 7 seconds)	
	Mark for preferred channel to starboard	One red horizontal belt on green back ground	Green	Gylindrical, 1 pc.					Green		
Azimuth buoyage	North cardinal mark	Black top half and red bottom half	Black	Cone, two in vertical tanden (both pointing up)					White	Quick flashing	
	East Cardinal mark	One Yellow horizontal belt on black ground	Black	Cone, two in vertical tanden (with face-to-face bottoms)					White	Group quick flashing light (three flashes per 10 seconds)	
	South Cardinal mark	Yellow top half and black	Black	Cone, two in vertical tandem (both tops pointing down)					White	Group quick flashing (six flashes and one long flash per 15 seconds)	
	West Cardinal mark	One black horizontal belt in yellow background	Black	Cone, two in vertical tanden (both pointing opposite)					White	Group quick flashing (nine flashes per 15 seconds)	
Isolated danger mark	One to mote red horizontal belts on black back-ground	Black	Dianond, two in vertical tandem					White	Group quick flashing (six flashes and one long flash per 15 seconds)		
Safe water mark	Vertical stripes, red and white	Red	Diamond, 1 pc.					White	Occulting light (2 second each) Group flashing (five flashes per 20 seconds) Morse code flashing (A per 8 seconds)		
Special mark	Yellow	Yellow	X-shape, 1 pc.					Yellow	Single flash Group flashing (five flashes per 20 seconds) Morse code flashing (excluding A and U, intervals optional)		

Purpose of Buoyage

Classification		Purpose
Side buoyage	Port hand mark	The term port hand means that side of the channel which will be on the left hand of the navigator when he is going with the traffic route or navigable water (left hand when he faces the source of water).
	Starboard hand mark	The terms starboard hand means that side of the channel which will be on the right hand of the navigator when he is going with the traffic route or navigable water (right hand when he faces the source off water).
	Mark for preferred channel to port	When a channel is branched and priority is clear according to the rule of the road, this buoy is installed at the junction. This shows that the priority channel is on the left side of the buoy.
	Mark for preferred channel to starboard	Under the same principle as that above, this shows that the priority channel is on the right side of the buoy.
Special mark		This is used to mark positions of construction work, dredging or reclaiming areas, pipelines, or such other special purposes to indicate the position of an oceanographic data collection buoy.
Azimuth buoyage	North cardinal mark	This marks that there are navigable water, entrance or exit of a channel, bends or junctions in the direction indicated by the respective buoyage. This also indicates that rocks, shoals, wrecks or other obstructions exist in the opposite direction.
	East cardinal mark	
	South cardinal mark	
	West cardinal mark	
Isolated danger buoy		This marks small obstructions. Although the peripheral waters are generally navigable, careless access is dangerous.
Safe water buoyage		This marks particularly important points such as mid-channel, inlet of a port or bay, where there is no danger.

Examples of Buoyage System



Chapter 6 Japanese Ship Reporting System (JASREP)

A large number of ships including ore and oil carriers and fishing vessels are constantly navigation through the peripheral waters of Japan, and marine casualties caused by these ships are hardly exterminated whereby many of precious human lives and sizable amounts of wealth are lost every year.

To develop effective search and rescue operations in a possible event of unfortunate marine casualty, it is highly instrumental that the authorities responsible for such activities are fully provided with information on the movements of ships.

In this connection, the AMVER System, a ship reporting system, has been implemented in the United States since 1958, and many ships in distress were successfully rescued through positive utilization of this system. In the provisions of the International Convention on Maritime Search and Rescue, 1979 (SAR Convention), which came into effect on June 22, 1985 with a purpose of establishing an international search and rescue system, it was prescribed that a ship reporting system should be established.

In order to respond to such an international move, Japan Coast Guard commenced a ship position reporting system from October 1, 1985 under the name of "Japanese Ship Reporting System (JASREP)."

The JASREP System is almost compatible with the AMVER System of USA where the information including sailing plan, positional data, etc., reported from each ship is processed in the computer of the JASREP System for enabling Japan Coast Guard to recognize the ongoing movement of such a ship.

Participation in this system is not compulsory but is voluntary. No charge whatsoever is applied to all radiotelephonic reports which pass through coastal radio stations designated by Japan Coast Guard. All information of ship's position and others reported to the Japan Coast Guard will be strictly kept confidential and protected and will never be used for any purposes other than those for search and rescue operations in the event of marine casualty and for the prevention thereof.

In a vast expanse of the sea, it is seldom to have other ships in sight although a number of ships are, in fact, making their respective ways.

The effectiveness of the JASREP System serving to develop most reliable search and rescue operations in a possible event of marine casualty by the close linkage between the Japan Coast Guard and participating ships through the computer system will be much more enhanced by increase of the number of participating ships.

Japan Coast Guard is awaiting for reports from many ships.

1. Outline

(1) Name

Japanese Ship Reporting System (JASREP)

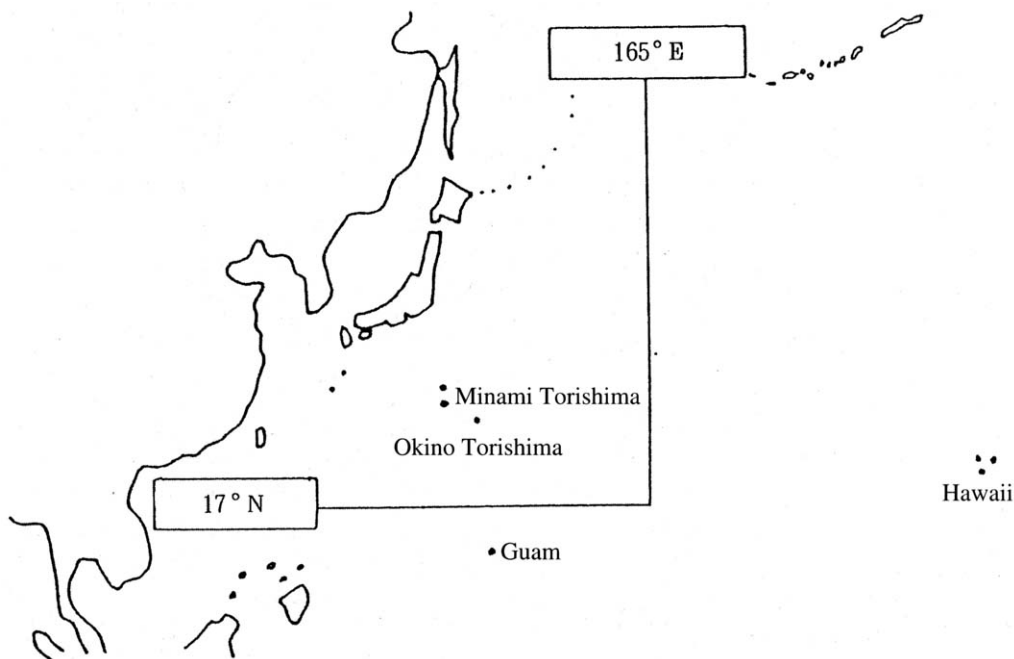
(2) Purpose

The JASREP System provides up-to-date information on the movements of vessels in order, in the event of a distress incident:

- ① to reduce the interval between the loss contact with a vessel and the initiation of search and rescue operations in cases where no distress signal has been received;
- ② to permit rapid determination of vessels which may be called upon to provide assistance;
- ③ to permit delineation of a search area of a limited size in case the position of a vessel in distress is unknown or uncertain; and
- ④ to facilitate the provision of urgent medical assistance or advice to vessels not carrying a doctor.

(3) Service area

The approximate service area covered by the JASREP System is the sea enclosed by the parallel of latitude 17° N and the meridian of longitude 165° E.



(4) Participating ships

Any ship regardless of tonnage, flag or type is welcome in the JASREP System as far as she is within the service area of the system. Participation is voluntary.

(5) Types of reports and timing

There are four types of JASREP Reports: Sailing Plan, Position Report, Deviation Report and Final Report.

① Sailing Plan

Sailing Plan is the basic information to estimate ship's position, and it should be sent at the time when a ship participates in this system. Reports should therefore be made when the ship departs from a port within the service area or when the ship enters the area.

Note: When Sailing Plan is sent after departure from a port or after entering the service area, it should be made as soon as practicable. When Sailing Plan is to be sent before departure from a port, such a report may be sent as a written document.

② Position Report

Position Report is the information to verify if ship's position input according to the Sailing Plan is correct. The 1st report should be sent within 24 hours of departure from a port or entering the service area, and then the reports should be sent subsequently no less frequently than every 24 hours until the Final Report.

Note 1: In case where delayed reporting is anticipated due to change of radio operator's duty hours or for other reasons, reports should be sent earlier than the scheduled time of reporting as far as practicable.

Note 2: Reports should be sent more frequently than the above schedule, when the ship is in heavy weather or under other adverse conditions.

Note 3: In the JASREP service area, no coordination with weather reporting service is made.

③ Deviation Report

Deviation Report is the information to be used for necessary correction of pre-reported Sailing Plan when a ship deviates from the intended course due to a change in Sailing Plan. Reports should be sent whenever the ship's position deviates 25 miles or more from the original track, or the port of destination is changed, or other changes occur with a resultant change in Sailing Plan.

④ Final Report

Final Report is the information to terminate participation in the system. Accordingly, reports should be sent prior to or on arrival at port, or when a ship has departed from the service area of the system.

Note: When Final Report is intended to be sent after departing from the service area, such a report should be sent as soon as practicable.

If the report is sent after arrival at port, such a report may be sent as a written document.

For reporting procedures, see the "Report Examples."

(6) How to participate

Participation in this system is initiated when a ship sends her Sailing Plan and terminates when the ship sends her Final Report to the Japan Maritime Safety Agency.

Note: If any non-participating ship on departure from a port or on entering the JASREP service area wants to participate halfway, it is possible to join the JASREP System by sending the Sailing Plan whenever the decision is made.

If, conversely, any ship wants to terminate participation in the system, it is possible to terminate simply by sending the Final Report at any time.

If no Position Report or Final Report is received from a participant in no less than 24 hours subsequent to the previous report, Japan Coast Guard will verify the safety and whereabouts of the ship through radiotelegraphic calls and inquiries addressed to the relevant coastal stations, shipowners, agents and ships proceeding in the vicinity.

Depending on circumstances, search and rescue operations will be initiated, therefore, Position Report and Final Report must be sent without fail.

2. Reporting procedure

(1) Reporting format

1) Sailing Plan

Sailing Plan							(Notes)	
(Required date items)								
System name		Type of report						
JASREP		SP		//				
Ship name		Identification Signal					①	
A/		/		//				
Time of departure							②	
B/		//						
Port of departure		Latitude		Longitude				
G/		/		/		//		
Port of destination		Latitude		Longitude		Estimated time of arrival		
I/		/		/		//		
Route information								
	Navigation method	Average speed	Latitude	Longitude	Estimated time of arrival	Name of landmark or sea area		
L/	RL	/	/	/	/	//	③	
L/	RL	/	/	/	/	//		
L/	RL	/	/	/	/	//		
L/	RL	/	/	/	/	//		
L/	RL	/	/	/	/	//		
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L/	RL	/	/	/	/	//		
L/	RL	/	/	/	/	//		
L/	RL	/	/	/	/	//		
Up to 65 characters of amplifying comments								
X/							//	④
(Optional date items)								
Current coastal radio station								
M/		//						
Onboard medical resources								
V/		//					⑤	

(Notes)

① Line A (Ship's name, identification signal etc.)

(1) Ship's name

Ship's name is to be written in Kana or Roman letters followed by "(N)" or "(Naiko)."

(2) Identification signal etc.

Express the identification signal or ship's number.

Example1: A/NIHONMARU (N)/JJKN// for ship's name "Nihonmaru" and call sign "JJKN"

Example2: A/KAIHOMARU (N)/105087// for ship's name "Kaihomaru" and ship's number "105087"

② Date/time

All time must be expressed as a six-digit group giving date of month (first two digits), hours and minutes (last four digits). Only Universal Coordinated Time (i. e., Greenwich Mean Time) is to be used. The six-digit date-time-group is to be followed by Z.

Example: 201200Z for 1200 hours on the 20th (GMT)

③ Line L (Route information)

Express route information between the turn points along the intended route in accordance with the following explanations:

And L lines are needed at least three points, twelve point sat maximum. When a ship enters the service area, express latitude and longitude of the point of entrance and the date on the first line without fail.

(Navigation method)

Use RL for rhumb line.

(Average speed)

Express estimated average speed up to the intended turn point in three-digit group in knots and tenths of knots.

Example: 150 for a speed of 15.0 knots

(Latitude, longitude and estimated time of arrival)

Express them by referring to the following examples.

Example 1: Expressing the altering course point in latitude and longitude.

L/RL/120/3438N/13951E/251200J// for a speed “12.0 knots,” latitude “34°38’N,” longitude “139°51’E” and estimated arrival time “12:00 on the 25th.”

Example 2: Expressing the altering course point in standard altering course/passing point code.

L/RL/130/21/251400J// for a speed “13.0 knots,” standard altering course/passing point code “21” and estimated arrival time “14:00 on the 25th.”

Note: If the altering course point is more than 25 miles from the standard altering course/passing point, express the altering course point in latitude and longitude.

④ Line X (Reference data item)

These are optional, but when reported, provide ship’s telephone number, DSC ID number, contents of the cargo and so on.

Example: X/61-1234/gasoline// for ship’s telephone number “61-1234” and contents of the cargo “gasoline”

⑤ Line V (On-board medical resources)

Select as appropriate from the following:

MD (physician), NURSE (nurse)

No entry is required when no medical resources are on board.

2) Position Report

Position Report				(Notes)
(Required date items)				
System name		Type of report		
JASREP /		PR //		
Ship name		Identification Signal		①
A/		//		
Date/time at specific position				②
B/		//		
Latitude		Longitude		
C/		//		
(Optional date items)				
Current course				④
E/		//		
Intended average speed				
F/		//		
Current coastal radio station		Next coastal radio station, if any		
M/		//		
Up to 65 characters of amplifying comments				
X/				⑤

(Notes)

① Line A (Ship's name, identification signal etc.)

(1) Ship's name

Ship's name is to be written in Kana or Roman letters followed by "(N)" or "(Naiko)."

(2) Identification signal etc.

Express the identification signal or ship's number.

Example1: A/NIHONMARU (N)/JJKN// for ship's name "Nihonmaru" and call sign "JJKN"

Example2: A/KAIHOMARU (N)/105087// for ship's name "Kaihohomaru" and ship's number "105087"

② Line B (Date/time)

All times must be expressed as a six-digit group giving date of month (first two digits), hours and minutes (last four digits). Japanese time is to be used. The six-digit date-time-group is to be followed by J.

Example: B/201200J// for 12:00 on the 20th (Japanese time)

③ Line C (Latitude and longitude)

(1) Expressing the position in latitude and longitude

Latitude is a four-digit group suffixed with "N" for north. Longitude is a five-digit group suffixed with "E" for east.

Example: C/3538N/13950E// for lat. 35° 38' N and long. 139° 50' E

(2) Expressing the position in standard altering course/passing point number.

Example: C/25// for standard course altering/passing point number "25"

④ Line E, F and M (Optional data items)

These optional data items are useful, but are not necessarily required to report.

When a report is made, express the current course on the E line in three-digit group, and estimated average speed for the entire passage on the F line in three-digit group in knots and tenths of knots.

Example: E/333//for a course of 333°

F/123//for a speed of 12.3 knots

⑤ Line X (Reference data item)

These are optional, but when reported, provide ship's telephone number, DSC ID number, contents of the cargo and so on.

Example: X/61-1234/gasoline// for ship's telephone number "61-1234"0Z//for the estimated time of next reporting at 1500 hours on the 25th (GMT)

3) Deviation Report

Deviation Report						
(Required date items)						
System name		Type of report				
JASREP		DR		//		
Ship name		Identification Signal				
A/				//		
(One or more from the following optional date items)						
Port of destination		Estimated time of arrival				
I/				//		
Route information						
	Navigation method	Average speed	Latitude	Longitude	Estimated time of arrival	Name of landmark or sea area
L/	RL	/	/	/	/	//
L/	RL	/	/	/	/	//
Onboard medical resources						
M/		//				
Current coastal radio station						
V/		//				
Up to 65 characters of amplifying comments						
X/ //						

(Notes)

①

②

(Notes)

① Line A (Ship's name, identification signal etc.)

(1) Ship's name

Ship's name is to be written in Kana or Roman letters followed by "(N)" or "(Naiko)."

(2) Identification signal etc.

Express the identification signal or ship's number.

Example1: A/NIHONMARU (N)/JJKN// for ship's name "Nihonmaru" and call sign "JJKN"

Example2: A/KAIHOMARU (N)/105087// for ship's name "Kaihomaru" and ship's number "105087"

② Deviation items

Fill in the deviation items if there are any changes in sailing plan or other pre-reported matters.

Example: I/CHIBA201200J// for a case where the port of destination is changed from Tokyo to Chiba.

4) Final Report

Final Report			(Notes)
(Required date items)			
System name	Type of report		
JASREP	FR	//	
Ship name	Identification Signal		①
A/	/	//	
Port of arrival	Time of arrival		②
K/	/	//	
Up to 65 characters of amplifying comments			
X/		//	

(Notes)

① Line A (Ship's name, identification signal etc.)

(1) Ship's name

Ship's name is to be written in Kana or Roman letters followed by "(N)" or "(Naiko)."

(2) Identification signal etc.

Express the identification signal or ship's number.

Example1: A/NIHONMARU (N)/JJKN// for ship's name "Nihonmaru" and call sign "JJKN"

Example2: A/KAIHOMARU (N)/105087// for ship's name "Kaihohomaru" and ship's number "105087"

② Date/time

All times must be expressed as a six-digit group giving date of month (first two digits), hours and minutes (last four digits). Japanese time is to be used. The six-digit date-time-group is to be followed by J.

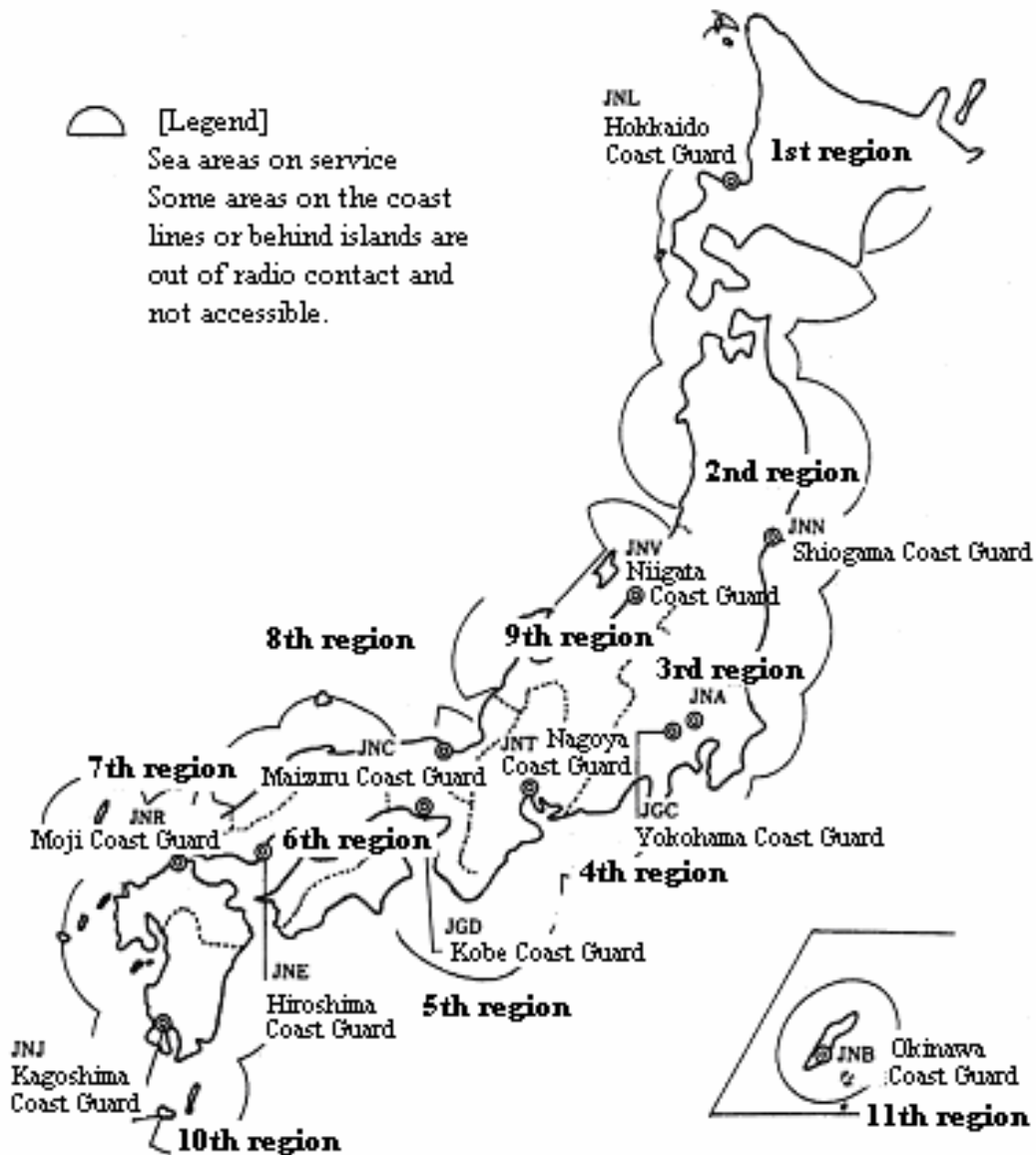
Example: B/201200J// for 12:00 on the 20th (Japanese time)

(2) Reporting instructions

As a rule, reports should be sent through radiotelegraphic calls to the relevant coastal stations of Japan Coast Guard. In this case, there is no reporting charge.

Methods other than radiotelegraphic calls, including TELEX to Japan Coast Guard, written documents, public telegram or public phone to the nearest coast guard station or communication controlling office, are also acceptable with communication charges.

Relevant coastal stations



Where to send TELEX

Japan Coast Guard, Guard and Rescue Department
Control Division, Operation Command Center
TELEX No.222-5193
(Answer back code: 2225193 JMSAHQJ)

② Designated Coastal Radio Station

Identification signals	Receiving frequency (kHz)	Transmitting frequency (kHz)
Hokkaido Coast Guard Radio 004310101 JNL	F3E 156.6 MHz 156.8 MHz F1B 2189.5(DSC)	F3E 156.6 MHz F1B 2177(DSC) J3E 2150 2394.5
Shiogama Coast Guard Radio 004310201 JNN	F3E 156.6 MHz 156.8 MHz F1B 2189.5(DSC)	F3E 156.6 MHz F1B 2177(DSC) J3E 2150 2394.5
Yokohama Coast Guard Radio 004310301 JGC	F3E 156.6 MHz 156.8 MHz F1B 2189.5(DSC)	F3E 156.6 MHz F1B 2177(DSC) J3E 2150 2394.5
Nagoya Coast Guard Radio 004310401 JNT	F3E 156.6 MHz 156.8 MHz F1B 2189.5(DSC)	F3E 156.45 MHz 156.6 MHz F1B 2177(DSC) J3E 2150 2394.5
Kobe Coast Guard Radio 004310501 JGD	F3E 156.6 MHz 156.8 MHz F1B 2189.5(DSC)	F3E 156.45 MHz 156.6 MHz F1B 2177(DSC) J3E 2150 2394.5
Hiroshima Coast Guard Radio 004310601 JNE	F3E 156.6 MHz 156.8 MHz F1B 2189.5(DSC)	F3E 156.6 MHz F1B 2177(DSC) J3E 2150 2394.5
Moji Coast Guard Radio 004310701 JNR	F3E 156.6 MHz 156.8 MHz F1B 2189.5(DSC)	F3E 156.6 MHz F1B 2177(DSC) J3E 2150 2394.5
Maizuru Coast Gurad Radio 004310801 JNC	F3E 156.6 MHz 156.8 MHz F1B 2189.5(DSC)	F3E 156.6 MHz F1B 2177(DSC) J3E 2150 2394.5
Niigata Coast Guard Radio 004310901 JNV	F3E 156.6 MHz 156.8 MHz F1B 2189.5(DSC)	F3E 156.6 MHz F1B 2177(DSC) J3E 2150 2394.5
Kagoshima Coast Guard Radio 004311001 JNJ	F3E 156.6MHz 156.8 MHz F1B 2189.5(DSC)	F3E 156.6 MHz F1B 2177(DSC) J3E 2150 2394.5
Okinawa Coast Guard Radio 004311101 JNB	F3E 156.6 MHz 156.8 MHz F1B 2189.5(DSC)	F3E 156.6 MHz F1B 2177(DSC) J3E 2150 2394.5

Chapter 7 Communication for Maritime Disasters

Japan Coast Guard (JCG) monitors the distress frequency corresponding to GMDSS on a 24-hour basis with the coastal stations and patrol vessels in action and maintain a system of taking prompt actions all times to ensure quick and appropriate maritime rescues.

Along with introduction of the GMDSS, we operate the land facilities of the COSPAS/SARSAT system.

Moreover, JCG will commence operation of the 3-digit telephone number, "118", from May 1,2000. This is the emergency number to report incidents and accidents at sea.

Since this number can be accessed using private and public telephones, shipboard phones and cellular phones, please dial "118" wherever you are when you encounter a marine accident or emergency or observe a ship behaving suspiciously.

1. Distress Communication

In the event that a marine casualty occurs, notice should be directed immediately to the nearest Coast Guard Office Station.

Liaison should be made correctly for the following items as far as practicable.

- (1) Position
- (2) Name of ship
- (3) State of the casualty
- (4) Number of persons carried on board the ship
- (5) Information on persons dead or missing
- (6) Tonnage of the ship
- (7) Availability of power for communication
- (8) Type of ship
- (9) Type of cargo carried
- (10) The sea and weather conditions of the scene of marine casualty

2. List of regional coast guard headquarters and other offices

JCG Offices & Stations	Phone No.
1st Regional Coast Guard Headquarters	0134(27)0118
Hakodate Coast Guard Office	0138(42)1118
Esashi Coast Guard Station	0139(52)5118
Setana Coast Guard Station	01378(7)2634
Otaru Coast Guard Office	0134(27)6118
Muroran Coast Guard Office	0143(23)0118
Tomakomai Coast Guard Station	0144(33)0118
Urakawa Coast Guard Station	0146(22)9118
Kushiro Coast Guard Office	0154(22)0118
Rumoi Coast Guard Office	0164(42)9118
Hiroo Coast Guard Station	01558(2)0118
Wakkanai Coast Guard Office	0162(22)0118
Monbetsu Coast Guard Office	0158(23)0118
Abashiri Coast Guard Station	0152(44)9118
Nemuro Coast Guard Office	0153(24)3118
Rausu Coast Guard Station	0153(87)2274
2nd Regional Coast Guard Headquarters	022(363)0111
Aomori Coast Guard Office	017(734)2421
Hachinohe Coast Guard Office	0178(33)1221
Kamaishi Coast Guard Office	0193(22)3820
Miyako Coast Guard Station	0193(62)6560
Miyagi Coast Guard Office	022(363)0114
Ishinomaki Coast Guard Station	0225(22)8088
Kesenuma Coast Guard Station	0226(22)7084
Akita Coast Guard Station	018(845)1621
Sakata Coast Guard Station	0234(22)1830
Hukushima Coast Guard Office	0246(53)7111
3rd Regional Coast Guard Headquarters	045(211)0118
Ibaraki Coast Guard Office	029(263)4118
Kashima Coast Guard Station	0299(92)2601
Chiba Coast Guard Office	043(301)0118
Kisarazu Coast Guard Station	0438(30)0118
Choshi Coast Guard Office	0479(21)0118
Katsuura Coast Guard Station	0470(73)4999
Tokyo Coast Guard Office	03(5564)1118
Yokohama Coast Guard Office	045(671)0118
Kawasaki Coast Guard Station	044(266)0118
Ogasawara Coast Guard Station	04998(2)7118
Yokosuka Coast Guard Office	046(862)0118
Shounan Coast Guard Station	0466(22)4999
Shimizu Coast Guard Office	0543(53)0118
Omaezaki Coast Guard Station	0548(63)4999
Shimoda Coast Guard Office	0558(23)0118
4th Regional Coast Guard Headquarters	052(661)1611
Nagoya Coast Guard Office	052(661)1615

JCG Offices & Stations	Phone No.
Chubu Airport Coast Guard Air Station	0569(38)8118
Kinuura Coast Guard Station	0569(22)4999
Mikawa Coast Guard Station	0532(34)0118
Yokkaichi Coast Guard Office	059(357)0118
Owase Coast Guard Office	0597(25)0118
Toba Coast Guard Office	0597(25)0118
5th Regional Coast Guard Headquarters	078(391)6551
Osaka Coast Guard Office	06(6571)0221
Sakai Coast Guard Station	072(244)1771
Kishiwada Coast Guard Station	072(422)3592
Kobe Coast Guard Office	078(331)2027
Nishinomiya Coast Guard Station	0798(22)7070
Himeji Coast Guard Station	079(231)0563
Wakayama Coast Guard Office	073(402)5850
Kakogawa Coast Guard Station	079(435)0671
Tanabe Coast Guard Office	0739(22)2000
Kainan Coast Guard Station	073(492)0134
Kushimoto Coast Guard Station	0735(62)0226
Tokushima Coast Guard Office	0885(33)2246
Kochi Coast Guard Office	088(832)7111
Sukumo Coast Guard Station	0880(65)8117
Tosashimizu Coast Guard Station	0880(82)0464
Kansai Airport Coast Guard Air Station	072(455)1235
6th Regional Coast Guard Headquarters	082(251)5111
Mizushima Coast Guard Office	086(444)9701
Tamano Coast Guard Office	0863(31)3423
Hiroshima Coast Guard Office	082(253)3111
Yanai Coast Guard Office	0820(23)2250
Iwakuni Coast Guard Station	0827(21)6118
Kure Coast Guard Office	0823(26)0118
Onomichi Coast Guard Office	0848(22)2108
Fukuyama Coast Guard Station	084(943)5950
Tokuyama Coast Guard Office	0834(31)0110
Takamatsu Coast Guard Office	087(821)7011
Syodoshima Coast Guard Station	0879(82)1279
Sakaide Coast Guard Station	0877(46)5999
Matsuyama Coast Guard Office	089(951)1196
Imabari Coast Guard Office	0898(22)0118
Niihama Coast Guard Station	0897(32)0118
Uwajima Coast Guard Office	0895(22)1256
7th Regional Coast Guard Headquarters	093(321)2931

JCG Offices & Stations	Phone No.
Senzaki Coast Guard Office	0837(26)0241
Hagi Coast Guard Station	0838(22)4999
Moji Coast Guard Office	093(321)3215
Shimonoseki Coast Guard Station	0832(67)1711
Ube Coast Guard Station	0836(21)2410
Kanda Coast Guard Station	093(436)3356
Wakamatsu Coast Guard Office	093(761)2497
Fukuoka Coast Guard Office	092(281)5865
Miike Coast Guard Office	0944(53)0521
Karatsu Coast Guard Office	0955(74)4321
Imari Coast Guard Station	0955(28)3388
Nagasaki Coast Guard Office	095(827)5133
Iki Coast Guard Station	0920(42)0508
Goto Coast Guard Station	0959(72)4999
Sasebo Coast Guard Office	0956(31)6003
Hirado Coast Guard Station	0950(22)3997
Tsushima Coast Guard Office	0920(52)0640
Hidakatsu Coast Guard Station	0920(86)2113
Oita Coast Guard Office	097(521)0112
Saeki Coast Guard Station	0972(22)4999
8th Regional Coast Guard Headquarters	0773(76)4100
Tsuruga Coast Guard Office	0770(22)0191
Obama Coast Guard Station	0770(52)0494
Fukui Coast Guard Station	0776(82)4999
Maizuru Coast Guard Office	0773(76)4120
Miyazu Coast Guard Station	0772(22)4999
Kasumi Coast Guard Station	0796(36)4999
Sakai Coast Guard Office	0859(42)2531
Tottori Coast Guard Station	0857(32)0118
Oki Coast Guard Station	08512(2)4999
Hamada Coast Guard Office	0855(27)0770

JCG Offices & Stations	Phone No.
9th Regional Coast Guard Headquarters	025(245)0118
Niigata Coast Guard Office	025(247)0118
Sado Coast Guard Station	0259(27)0118
Jyoetsu Coast Guard Station	025(543)4118
Fushiki Coast Guard Office	0766(45)0118
Kanazawa Coast Guard Office	0762(66)6118
Nanao Coast Guard Office	0767(52)9118
Nto Coast Guard Station	0768(74)8118
10th Regional Coast Guard Headquarters	099(250)9800
Kumamoto Coast Guard Office	0964(52)3103
Amakusa Coast Guard Station	09697(3)3194
Miyazaki Coast Guard Office	0987(22)3021
Shibushi Coast Guard Station	0994(72)4999
Hososhima Coast Guard Station	0982(52)8695
Kagoshima Coast Guard Office	099(222)6680
Kiire Coast Guard Station	0993(45)0125
Ibusuki Coast Guard Station	0993(34)2999
Kushikino Coast Guard Office	0996(32)2205
Amami Coast Guard Office	0997(52)5811
Koniya Coast Guard Station	0997(72)2999
11th Regional Coast Guard Headquarters	098(867)0118
Nago Coast Guard Station	0980(53)0118
Nakagusuku Coast Guard Office	098(938)7118
Ishigaki Coast Guard Office	0980(83)0118
Miyakojima Coast Guard Station	0980(72)0118

PART 4 GUIDE TO SAFE NAVIGATION

Japan Coast Guard has been providing guidance with stress laid on the following three points on the basis of the results of analytical studies on the recent trend of marine casualties involving foreign ships and major marine casualties.

- ① To obtain information on sea and weather conditions, and early sheltering when there are threats of bad weather
- ② To keep on board nautical charts covering the sailing route of the ship and adjacent sea areas
- ③ To verify operating conditions and performance of the main engine and essential auxiliaries of the ship through starting stopping and go ahead go astern trials and tests before entering heavily congested sea areas.

These three points are fundamental requirements for safe navigation. Nevertheless, they are extremely important. Every master and navigating officer is therefore requested to strictly observe these points.

Chapter 1 Information on Sea and Weather Conditions and Early Sheltering when there is Threat of Bad Weather

Try to obtain the latest information on sea and weather conditions before departure or when the ship is at sea.

When warnings or advisories are issued, or when there are threats of bad weather, the necessary steps must be taken without delay, i. e., cancel the scheduled departure, or leave for shelter as soon as possible.

To select a shelter, use pilots and charts for reference.

Emergency Entry

When the need arises for foreign ships to enter in an emergency the territorial waters or inland sea of another nation for various reasons: not under command due to serious hull or machinery damage, to shelter from bad weather, or to send patients who are badly injured or sick to hospital for immediate medical treatment by specialist physicians, such entry is generally accepted as an international custom.

Japan Coast Guard is always in full readiness to provide immediate and reliable assistance for any ship requiring emergency entry. A foreign ship intending to make an emergency entry to the territorial waters of Japan is requested to observe the following precautions.

1. Request for emergency entry should be based on justifiable need to avoid an imminent danger threatening the ship, cargo, or crew.
2. When an emergency entry is made, a notice of entry including the following particulars should be directed to the nearest Coast Guard Office or Station, or a coastal station of the Japan Coast Guard:
 - (1) Nationality
 - (2) Type
 - (3) Name of ship
 - (4) Call sign
 - (5) Gross tonnage
 - (6) Number of crew
 - (7) Name of ship's owner and ship's agent
 - (8) Reasons for emergency entry and planned position
 - (9) Circumstances of emergency entry
 - (10) Details of necessary assistance such as medical treatment, repair, and supply
 - (11) Other necessary items
3. Sufficient advance surveys should be carried out in the sea area (including port and bay) with assistance given by ship's agents and others, and when entry is made, extreme care must be taken so that no damage is caused to fishing equipment and the installations of the inhabitant fishermen, and that the channel is not blocked by the intended entry.
4. The specified International Code flags should be flown. (The call sign of own ship, "UP")
5. When repairers are to be arranged, a suitable agent should be determined.

Communications with the nearest Coast Guard Station or the Coast Station of the Japan Coast Guard and the ship's agent should be established.

6. During entry, laws and regulations of Japan should be observed, and at the time, a system of communications with the nearest Coast Guard Station or the Coast Station of the Japan Coast Guard and the ship's agent should be established.
7. The ship must leave the area soon after realizing that emergency entry is no longer necessary.

When leaving, a notice should be given to the nearest Coast Guard Station or a Coastal Station of the Japan Coast Guard stating name of ship, date and place of leaving, and other particulars.

Chapter 2 Carrying on Board Essential Charts for Safe Navigations

Standards of Charts Required for Safety of Navigation

Ships sailing in areas around Japan shall carry on board the nautical charts for the sea areas of scheduled navigation according to the following table. Foreign charts with similar size and scale published by foreign governments based on WGS-84 are acceptable.

To grasp the situation of scheduled navigation, it's encouraged to carry on board "Sailing Directions", "Tide Table", "List of Fishing Gear Gixed Places" and so on.

In Ship Safety Law, Ships which are not obliged to carry charts on board should carry charts or "Small Ship's Navigation Guide" as long as possible.

Classification of sea area of scheduled navigation	Charts required for safety of navigation
Outside of Japanese territorial waters (The high seas adjacent to approach to Japanese waters)	Charts of scale larger than 1/500,000
Within Japanese territorial waters	Charts of scale larger than 1/250,000
Sea areas to which the Maritime traffic Safety Law applies	Charts related to sea area of scheduled navigation (See attached table)
Sea areas to where Japanese Port Regulation Law applies	Charts of the largest scale of those related to the sea area of scheduled navigation

Note: When a correction is made by Notices to Mariners, the charts shall be updated immediately.

◇ **List of Charts Required for Safety of Navigation When Sailing in Sea Areas to Which the Maritime Traffic Safety Law Applies (Limited to the charts issued by Japan Coast Guard)**

Navigation sea area	Chart (chart No.) required for safety of navigation (Those marked* should be equipped as much as possible)
Northern part of Tokyo Bay [Northern part of Tokyo Wan]	W1061
Uraga Channel [Uraga Suido]	W90 W1062 W1081
Ise Bay [Ise Wan]	W1051
Mikawa Bay [Mikawa Wan]	W1052
Irago Channel [Irago Suido]	W1051 W1053 W1064
Kii Channel [Kii Suido]	W77 W106 W150C
Osaka Bay [Osaka Wan]	W150A
Strait of Akashi [Akasi Kaikyo]	W106 W131 W150A
Strait of Naruto [Naruto Kaikyo]	W112
Sea of Harima [Harima Nada]	W106 W150B
Northernwest sea area of Shodosima	W1114
Strait of Bisan [Bisan Seto]	W137A W137B W153 W1122
Mizushima Port and Approaches [Mizushima Ko and Approaches]	W1116
Sea of Bingo [Bingo Nada]	W130 W137B W153
Sea of Hiuchi [Hiuchi Nada]	W130 W153 W1128
Strait of Kurushima [Kurusima Kaikyo]	W104 W132* W141 W1108
Sea of Aki [Aki Nada]	W141
Hirosima Bay [Hirosima Wan]	W142
Sea of Iyo [Iyo Nada]	W1102
Strait of Oobatake [Oobatake Seto]	W152* W163
Sea of Suo [Suo Nada]	W1101
Bungo Channel [Bungo Suido]	W151 W1218
Near Strait of Kanmon [Kanmon Kaikyo and Approaches]	W127 W135 W1262

* Besides this chart, please use nautical charts issued by Japan Hydrographic Association.

Items to be Complied to Prevent Casualty of Running Aground

Please comply the following items to prevent the casualty of running aground.

1. Carriage of charts, etc.

The ship shall carry charts to satisfy the attached "Standards of Charts Required for Safety of Navigation."

It should also carry nautical publications required for the scheduled navigation including pilot book and tide table.

Ships for which charts, etc. are not required by the Ships Safety Law should carry charts or nautical publications such as chartlets for Yacht / motor boat as far as practical.

2. Proper use of Charts

(1) The charts shall always be readily available during navigation.

(2) The charts shall be corrected and up-to-date according to the latest Notices to Mariners.

(3) The scales of charts to be used shall comply with the attached "Standards of Charts Required for Safety of Navigation" to meet the sea area of navigation.

(4) Prior to navigation, course line and other notes shall be plotted in writing on the chart.

(5) Prior to navigation, information to avoid obstacles such as danger line shall also be written on the chart.

(6) In case of using WGS-84 charts with Satellite Navigation System such as GPS, the selecting function of geodetic datum on instruments shall be selected to "WGS-84".

3. Prepare Your Course in Advance

The charts and all nautical publications shall be sufficiently studied and updated well before making a navigation plan. All the conditions of the navigation sea area shall be understood in advance.

4. Confirming Ship Position

Keeping in mind the conditions of the neighboring sea area, the exact position of your ship shall be constantly checked and updated.

5. Performing Lookout

(1) Lookout shall be performed during navigation, including the time of anchoring.

(2) At night and when the visibility is poor, careful lookout shall be continued.

(3) Special care shall be taken when using the automatic maneuvering because the lookout tends to be neglected due to nobody at the bridge or dozing.

6. Information of Weather Conditions and Underwater Environmental Conditions

The latest information on weather and oceanographic conditions shall be obtained. Often a

vessel cannot follow the intended course line due to the effects of wind and tidal current.

7. Select Good Anchorage & Do Not Drag Anchor

- (1) The anchorage where the anchor holds well shall be selected by large-scale charts, and the dragging of anchor shall be prevented by two anchor mooring if necessary.
- (2) To discover dragging anchor early, the exact position of your ship shall be confirmed during anchorage, relevant.

8. Obey All Marine Traffic Laws / Regulations

- (1) The contents of maritime traffic laws / regulations such as the Law for Preventing Collisions at Sea, Maritime Traffic Safety Law, and Port Regulation Law, including guidelines, applied to the intended sea area of the navigation shall be understood and complied with.
- (2) Especially as to local rules, items applicable to the intended sea area of the scheduled navigation shall be sufficiently checked in advance.

9. Prevention of Dozing

Since the causes of running aground casualty include dozing, a strict watch-keeping shall be maintained and also the onboard working environment, etc. shall be taken into due consideration.

10. Maintenance of Communication with the Vessel Traffic Service Center, etc.

- (1) Ships carrying VHF radio telephone shall maintain a watch on Channel 16 (156.8 Mhz) during navigation. Especially when it is sailing within the sea area to which the Maritime Traffic Safety Law and Port Regulation Law apply, Channel 16 shall be always watched.
- (2) When navigating the Japanese coast area, officers who understand Japanese or English shall be on board, when sailing within sea area to which the Maritime Traffic Safety Law and Port Regulation Law apply, these officers shall always be on duty. All Information from the Vessel Traffic Service Center is given in Japanese or English All.

11. Others

- (1) When entering or leaving a port or sailing on a traffic route, a ship not familiar with navigating in a congested with traffic area shall have a pilot on board as far as possible, even if the ship is not subjected to the compulsory employment of the pilot.
- (2) If you are not well acquainted with the area do not sail at night or when there is poor visibility or when the tidal current is strong.
- (3) Should any accident occur, the shipowner is responsible for taking actions against spill of oil and removing the hull, and so the shipowner shall contract the insurance (P.I. insurance) of a sufficient amount.

Chapter 3 Verifying Operating Conditions and Performance of the Main Engine and Essential Auxiliaries of the Ship through Starting/Stopping and Go ahead/Go astern Trials and Tests before Entering Heavily Congested Sea Areas

It has been recently reported that the percent share of machinery failure of the total number of ships requiring rescues is 25%, and 22% of this category occurred in sea areas featured by heavy traffic congestion.

Machinery failures in such congested waters can cause secondary accidents such as grounding and collision with other ships.

To prevent machinery failures, the following points must be observed:

1. Before entering heavily congested sea areas, starting/stopping and go ahead/go astern trials of the main engine, operating condition checks on remote manoeuvring systems, various auxiliaries and steering gears, and if possible, mooring trials must be carried out to confirm that machinery operates properly.
2. Fuel oil should be transferred outside heavily congested sea areas.
3. Before departure, thorough checks on remote manoeuvring systems and other machinery, including the steering gears should be done, and if possible, sufficient mooring trials should be carried out, whereby the proper operating conditions of machinery should be verified.
When unmooring with tug assistance, checks should be made on the performance of the main engine at a suitable water area before tugs are dismissed.
4. If there is a crew transfer, the operating procedures for a variety of machinery and equipment and records of adjustments must be carried over from the persons leaving to the persons arriving.
5. If the ship becomes not under command due to a machinery failure, take all necessary steps immediately for safety of your own ship, and at the same time, notify that the ship is in a state of not under command to other ships in the vicinity through international VHF radiotelephone, lights, shapes and all available means of communication, to prevent collisions.
6. Not only on the event of falling into a state of not under command, but when a ship has machinery trouble affecting its safe navigation, immediately notify the nearest Regional Maritime Safety Office or Station reporting the place of occurrence, outline of machinery trouble and emergency steps taken, etc..

REFERENCE Fisheries in Waters along the Coasts of Japan

Fishing activities are brisk all year-round in waters along the coasts of Japan.

The typical fishing methods and fishing gear used by fisheries in these sea areas are described below.

Masters and navigating officers are requested to make themselves familiar with them to ensure safe navigation in these waters.

1. Fishing Gear and Fishing Methods

(1) Trawl net fisheries

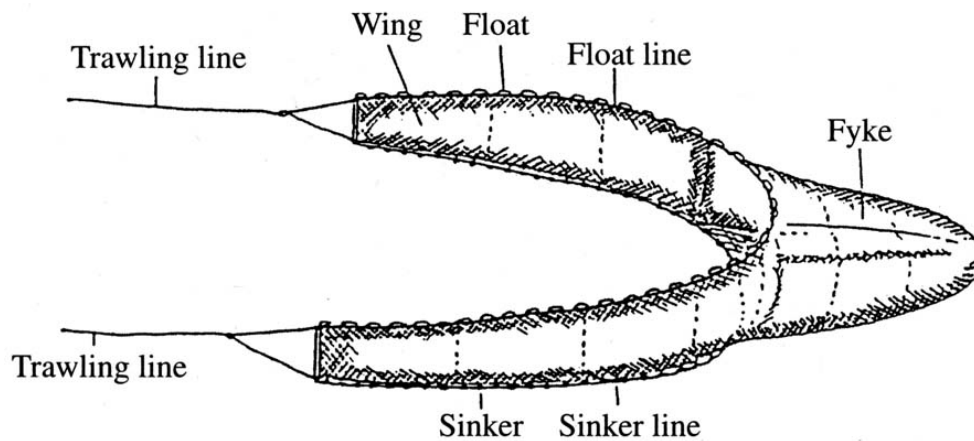


Fig. R-1 Trawl Net

The major trawl net fishing methods are as follows.

1) Small motorboat trawling

This is a trawl net fishing method using a small motorboat with a gross tonnage of less than 15 tons. There are several variations in this trawl net fishing method. Generally, it is carried out by one motorboat but in some cases, it is done by two boats. (See Figs. R-2 and R-3)

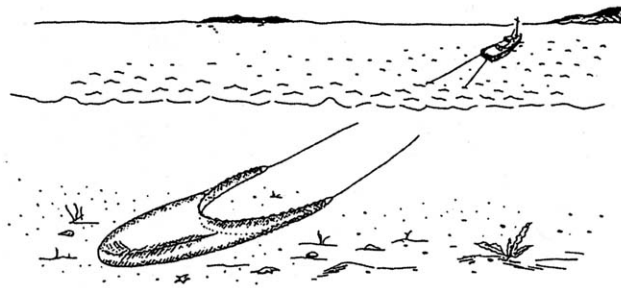


Fig. R-2 Small Motorboat Trawling (trawl by one boat)

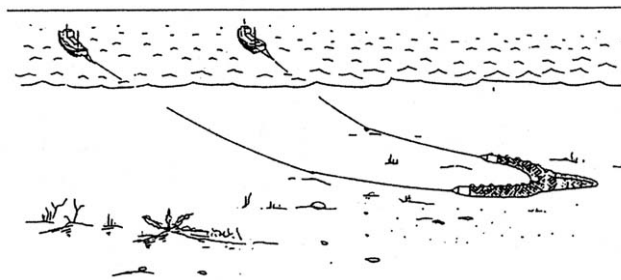


Fig. R-3 Small Motorboat Trawling (two boat)

2) Otter trawling

Otter trawling forms the mainstream of off-shore and deep-sea trawl net fishing. Generally, the trawl net is drawn by one trawl boat, but in some cases it is drawn by two boats. (See Fig. R-4 and R-5)

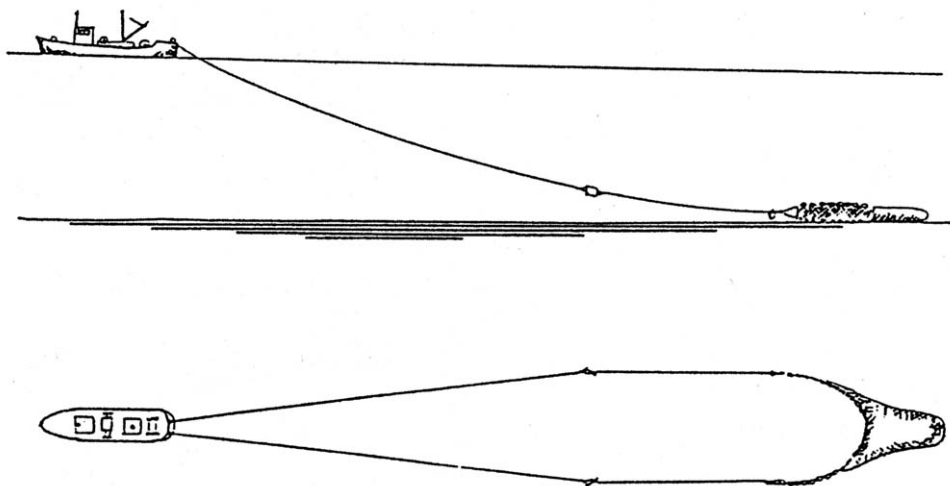


Fig. R-4 Otter Trawling

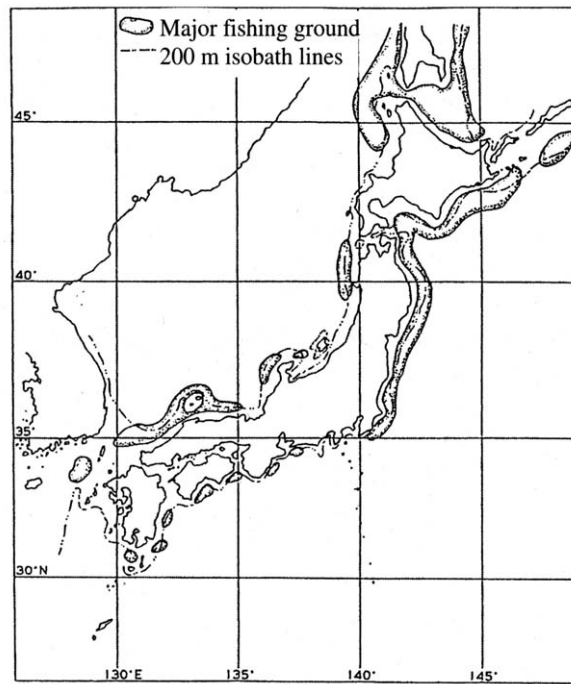


Fig. R-5 Fishing Grounds for Offshore Trawl

(2) Boat seine fishing

Boat seine fishing uses trawl nets in waters other than bottom grounds, i.e., surface of water and intermediate depth. Because trawl nets are used either on the surface or of intermediate depth, numerous floats appear on the surface, and the nets are held near the surface.

The one shown in Fig. R-6 is called a patch net, which is typical of this fishing method.

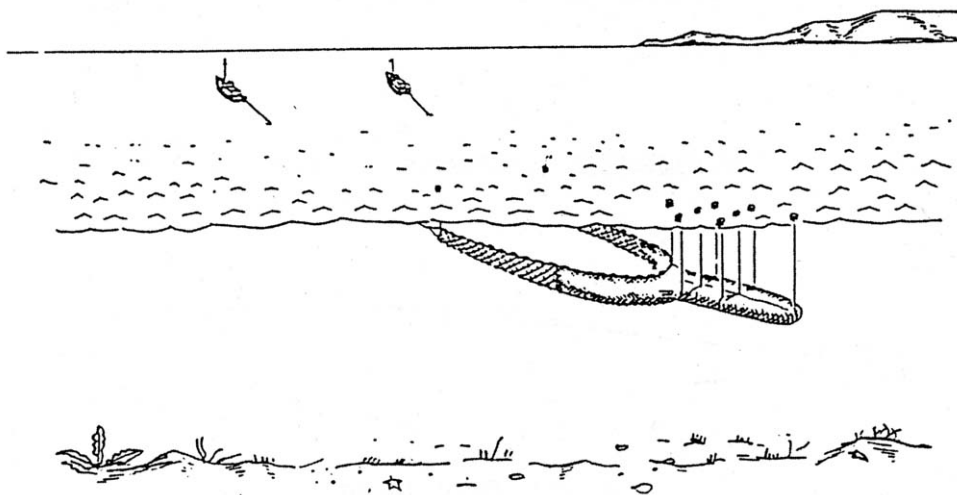


Fig. R-6

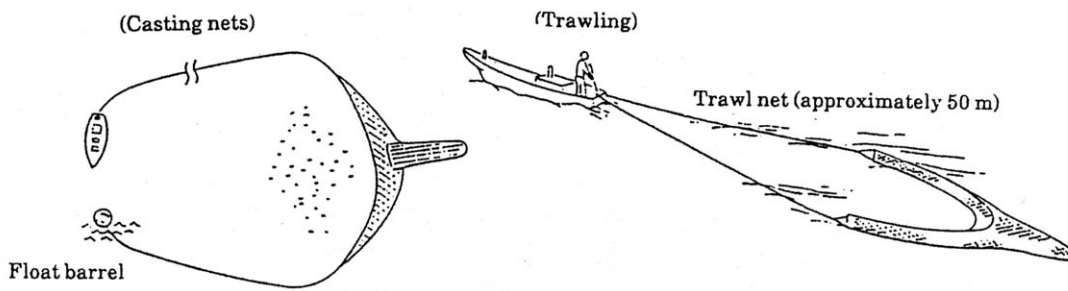


Fig. R-7 Shows the boat seine fishing with one boat.

(3) Purse seine fishing

This is a fishing method to catch fish by enveloping schools of fish in a fishing equipment. Fishing boats using for this fishing method are from 2 to 3 tons for small-scale coastal operations, to about 100 tons of medium-sized or large size. The largest is some 500 to 1000 tons for deep-sea purse seine fishing.

Fig. R-9 shows the setup for two-boat purse seine fishing, where all the floats appear on the sea surface, thus characterizing this fishing method.

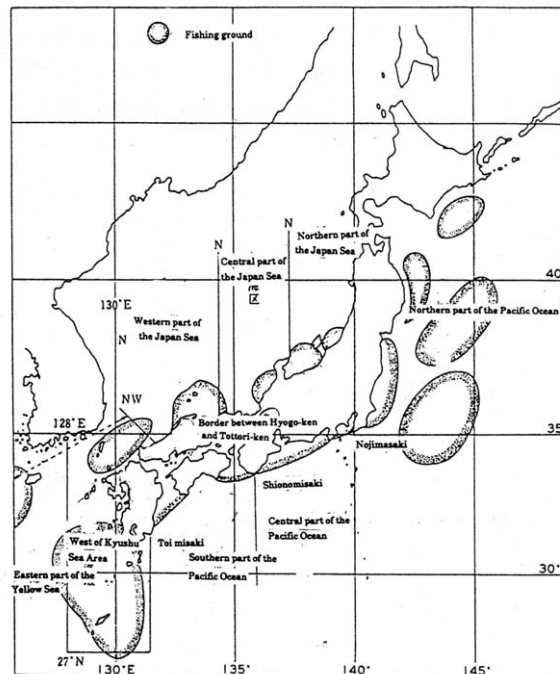


Fig. R-8 Operating Areas of Medium-sized/Large Seine Fishing Boats and Major Fishing Grounds

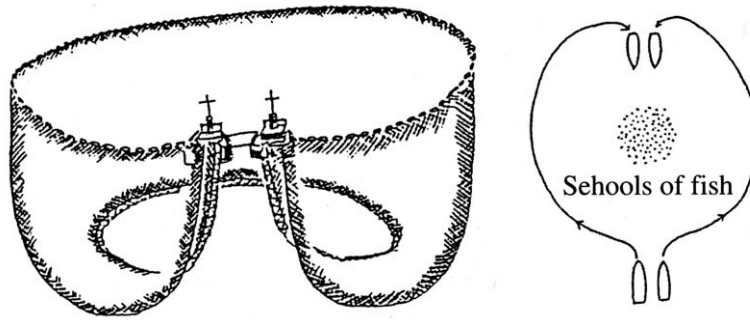


Fig. R-9 Purse Seine Fishing

(4) Gill net fishing

Gill net fishing is a fishing method by which gill nets are set in a direction normal to the stream of moving schools of fish, whereby the nets entangle the gill covers of fish.

(1) Surface gill net fishing

Surface gill net fishing is applied to catch fish in the surface or near surface layers. Gill nets, in this case, are seldom fixed, but are allowed to drift, in many cases, as mentioned later. With the fixed gill net fishing method, the direction of stretching gill nets is irrelevant to the directions of wind and tidal current, but they are normally set approximately normal to the direction of current. Due to the nature of this fishing method, these nets are rarely arranged in congested waters. The length of the float line is greater in the western area (20 to 70 metres) and becomes smaller to north. (See Fig. R-10)

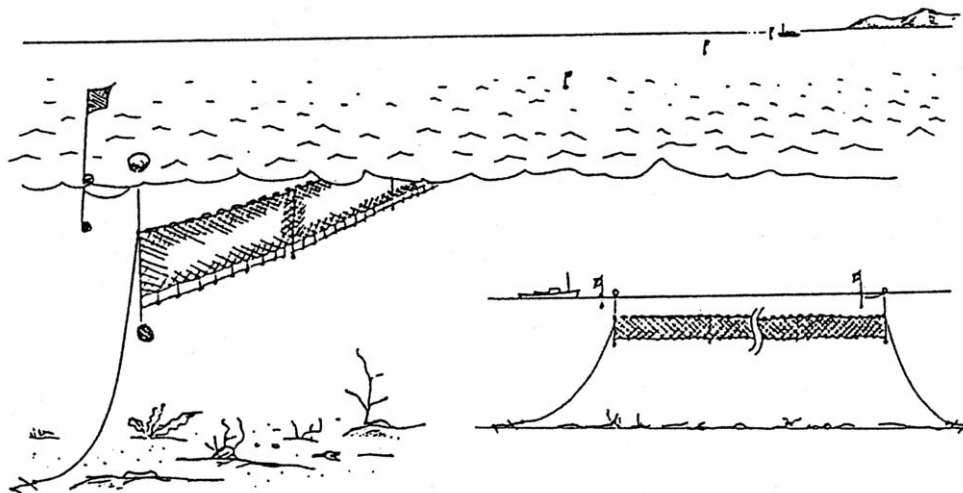


Fig. R-10 Fixed Gill Net Fishing

(2) Bottom gill net fishing

The Bottom gill net fishing is a fishing method to catch fish in the bottom layer of water, and the nets are mostly fixed. Because bottom gill nets are fixed by anchors to the sea bottom, only floats and markers are seen on the sea surface. (See Fig. R-11)

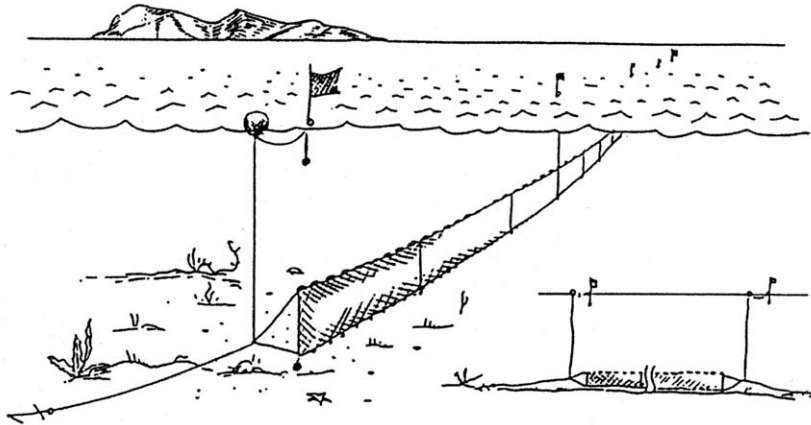


Fig. R-11 Bottom Gill Net Fishing

(3) Drift gill net fishing

With this method, the installed position of gill nets is not fixed—they drift carried along by the wind or tidal current. The drift gill net fishing method is designed to catch schools of fish in the upper and middle layers of water.

Gill nets drift along the directions of wind and tidal current, but their depth varies according to the species of fish sought from the sea surface to a depth of 50 to 60 metres. When a line of floats and markers are seen (at intervals of 20 to 30 cm), this indicates a drift gill net for catching surface fish, and when they are seen in a line but at greater intervals of 20 to 30 metres, this indicates a drift gill net for catching fish in the lower layer or bottom. (Fig. R-12)

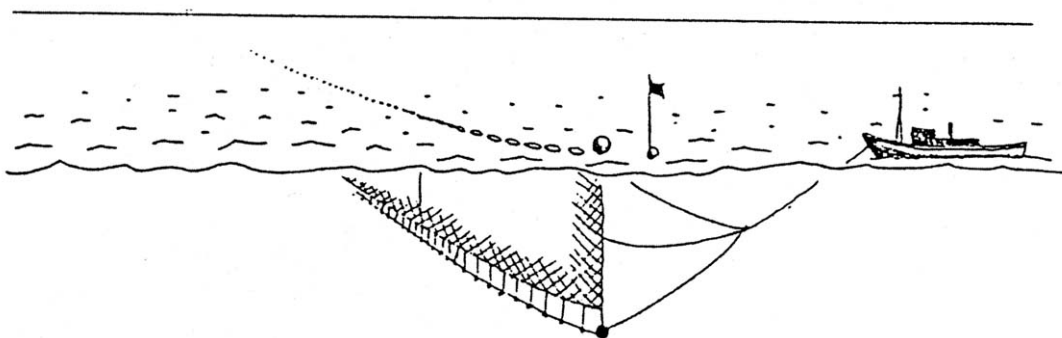


Fig. R-12 Drift Gill Net Fishing

(5) Fixed net fishing

Fixed nets are arranged at a specific area for a considerable period.

Trap net fishing is the principal variation of fixed net fishing.

Trap nets are laid from inshore to offshore, and the bdg' net (a net connected at the end of the network) is fitted with a marker flag, and a marker light is lit at night. Depending on the size, a marker flag and light are not provided. (See Fig. R-13)

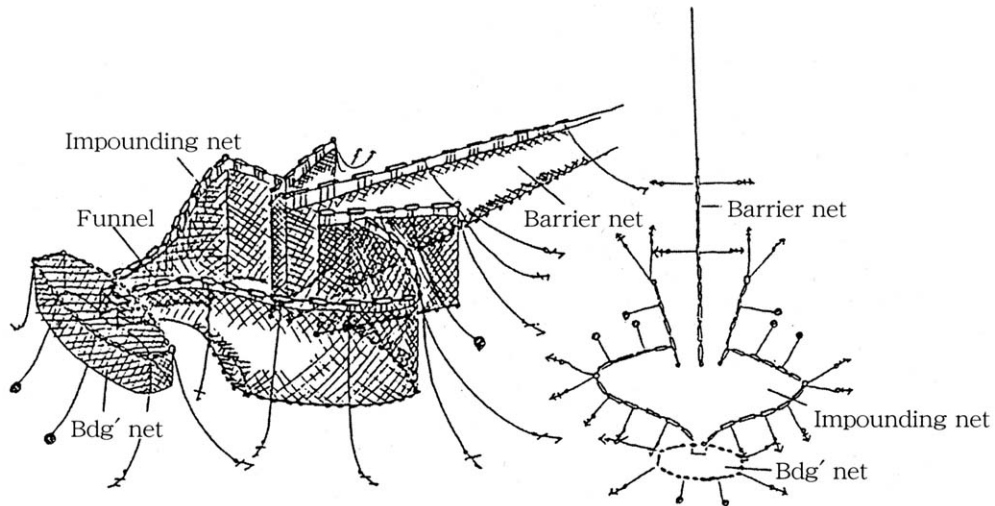


Fig. R-13 Trap Net Fishing

(6) Pole and line fishing

Pole and line fishing is a method by which a number of fishing hooks are attached to a line.

(7) Long-lining

Long-lining is a fishing method in which the long, laterally stretched main line has a number of branch lines attached, and fishing hooks are attached to the ends of the branch lines. Long lines are divided into long floating lines and long bottom lines. (See Figs. R-14 and R-15)

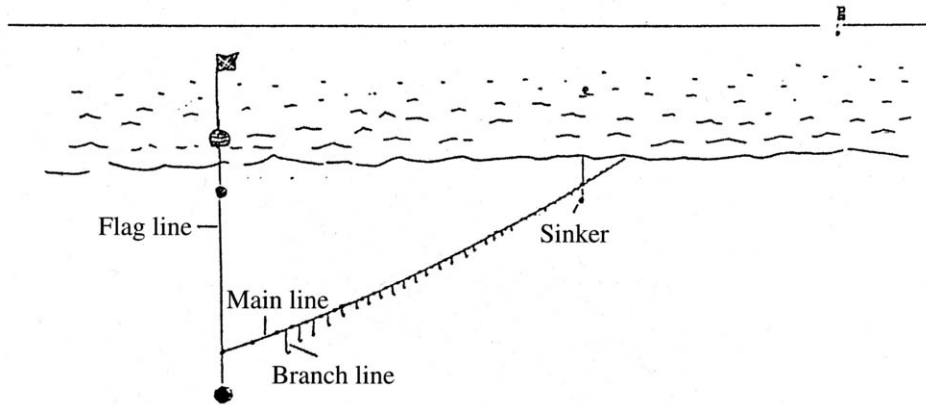


Fig. R-14 Floating Long-lining

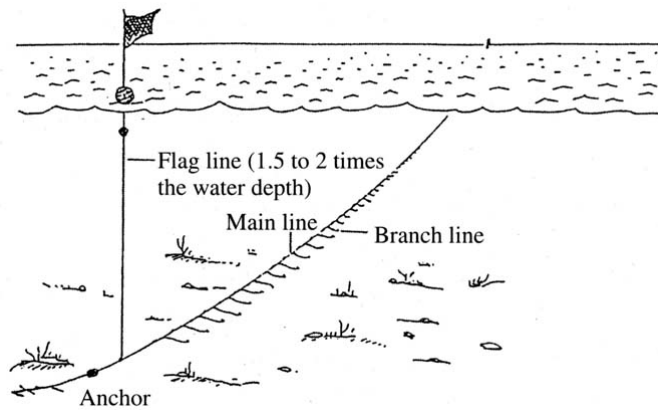


Fig. R-15 Bottom Long-lining

(8) Line fishing

(1) Octopus put fishing

By this fishing method, pots are laid on the sea bottom for two or three days to trap octopus. (See Fig. R-16)

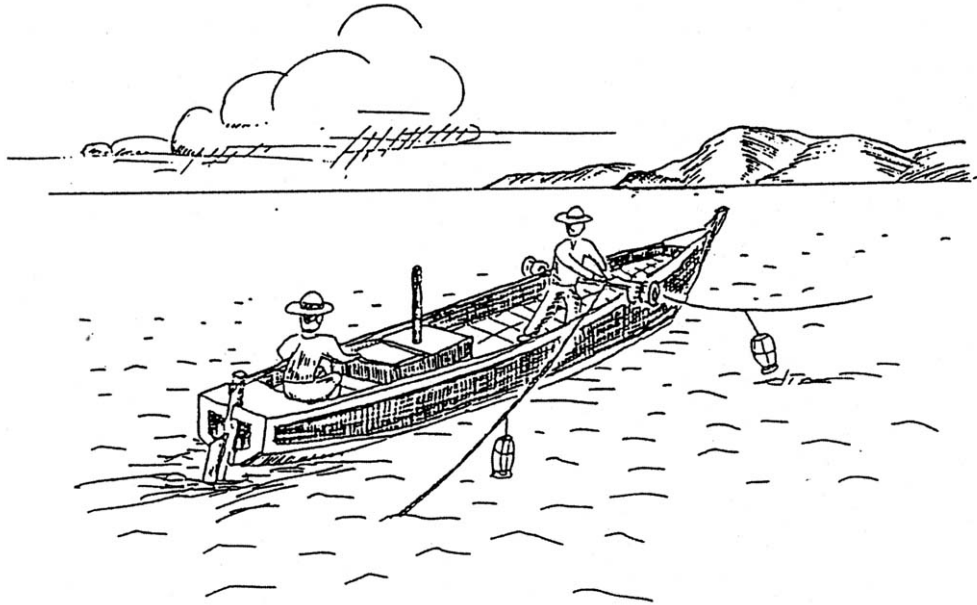
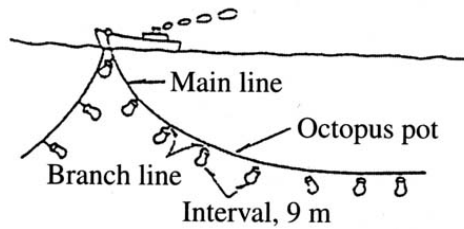


Fig. R-16 Octopus Pot Fishing



(2) Baskets are laid on the sea bottom to trap fish Example: Sea eel basket fishing (See Fig. R-17)

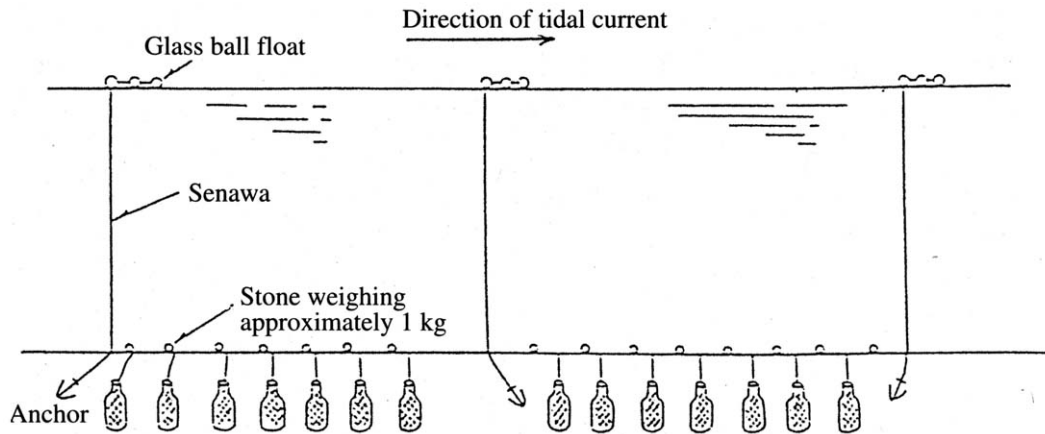


Fig. R-17 Sea Eel Basket Fishing

(9) False shelter fishing

By the fishing method, pieces of wood, bamboo, and rice straw are placed underwater, and fishes entering the false shelter are caught. (See Fig. R-18)

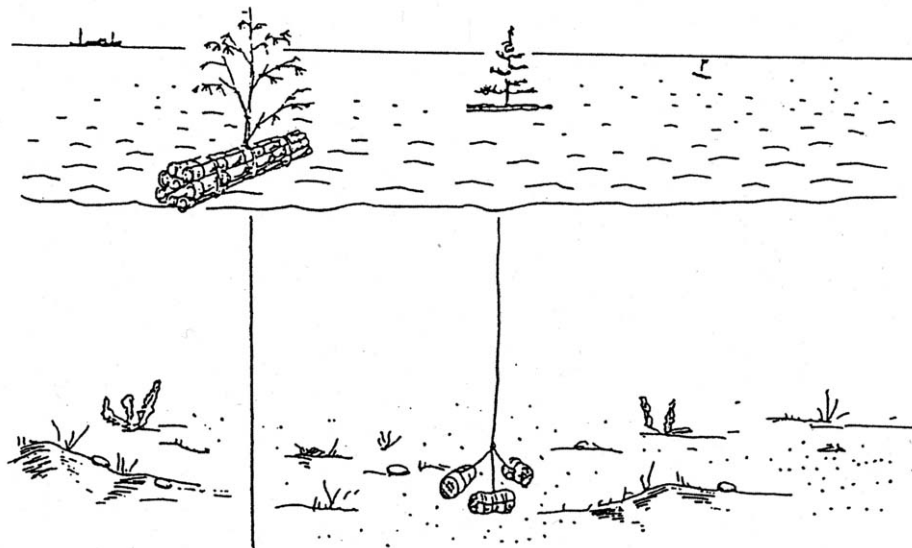


Fig. R-18 False Shelter Fishing for Dorado

(10)Fyke Net Fishing

With this fishing method, a fyke net is laid underwater to catch schools of fish, and is heaved up when sufficient fish are caught in the net. A typical example of this fishing method is fyke net fishing for sand launch seen in the Seto Inland Sea near Okayama-ken. (See Figs. R-19 and R-20)

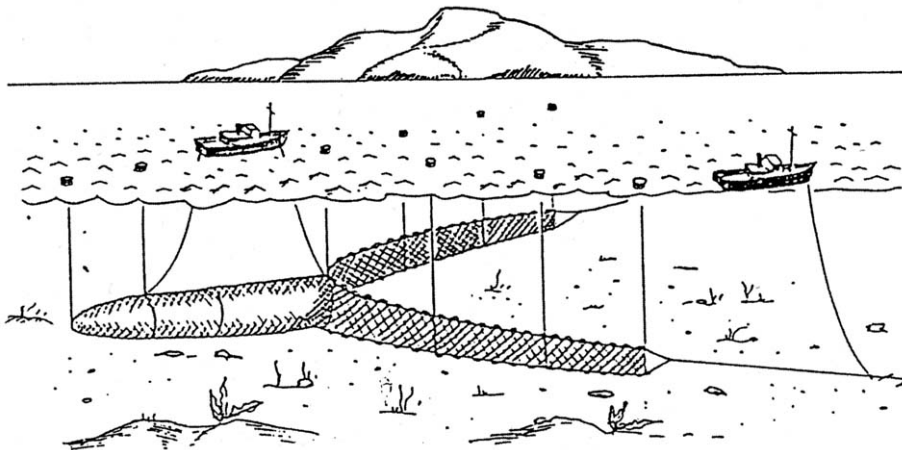


Fig. R-19 Fyke Net Fishing for Sand Launch

Fyke net fishing carried on in Bisan Seto might block the traffic route, and therefore, merchant ships proceeding through Bisan Seto are requested to strictly observe the requirements of the Maritime Traffic Safety Law and Regulations for Preventing Collisions at Sea, and in addition, to follow instructions given by patrol boats engaged in general patrol services to secure the safety of maritime traffic in this particular sea area. In the event of collision, contact or occurrence of damage to fishing gear, immediately notify the Bisan Seto Vessel Traffic Service Center or the nearest Regional Japan Coast Guard Office, Station or JCG's patrol boats.

Pay sufficient attention to the movements of fishing vessels engaged in fyke net fishing operations and other vessels. Try to obtain information, as necessary, on fyke net fishing operations from the Bisan Seto Vessel Traffic Service Center.

Reduce the ship's speed when proceeding through waters in the vicinity of the operating areas of fyke net fishing.

Huge vessels are requested to obtain information on fyke net fishing operations from the Bisan Seto Vessel Traffic Service Center, and top issue early warning signals as necessary.

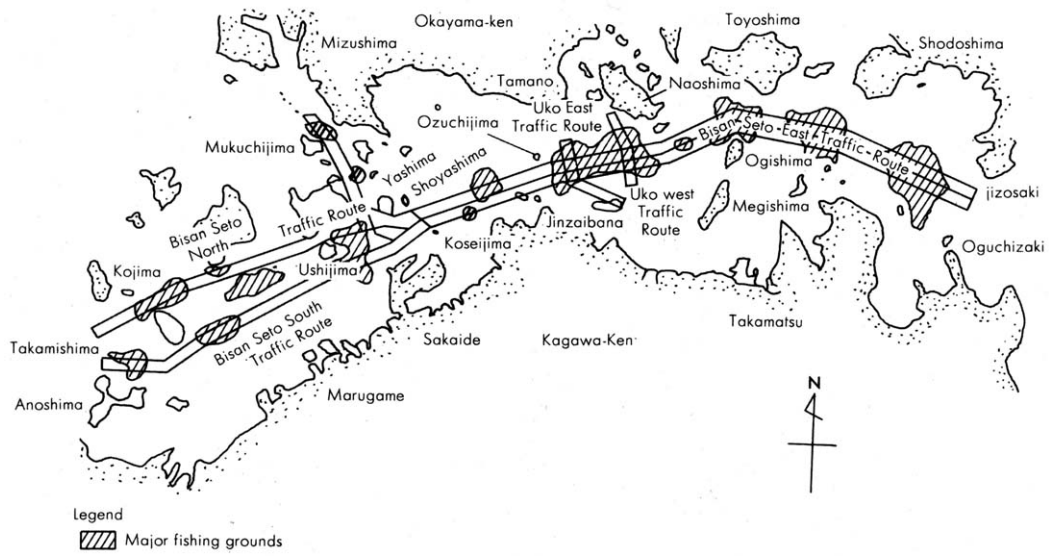


Fig. R-20 Fishing Grounds for Fyke Net Fishing

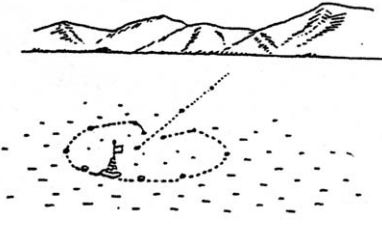
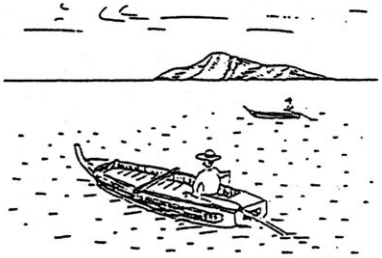
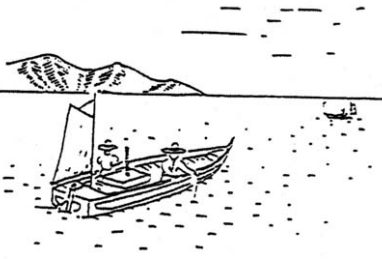
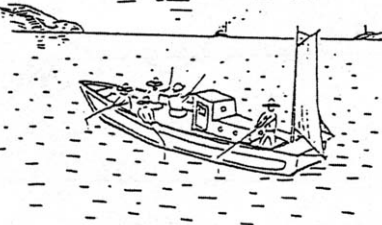

Fishing seasons for fyke net fishing in the Bisan Area:

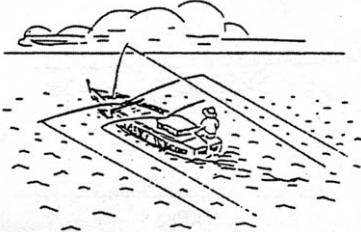
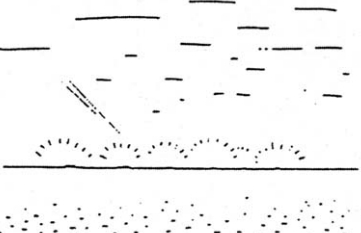
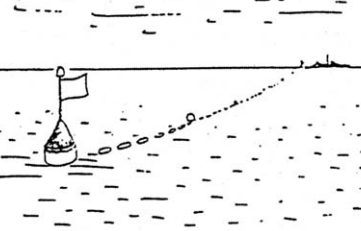
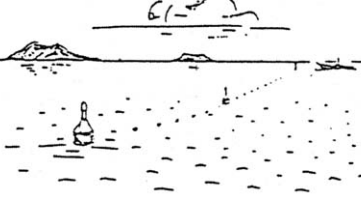
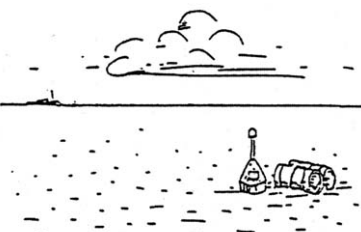
15 January to 30 November; March-August: most active

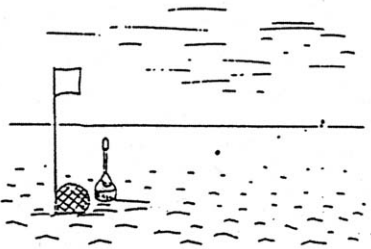
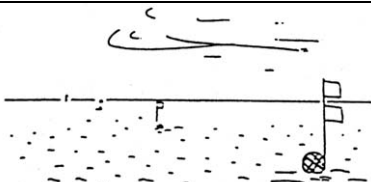
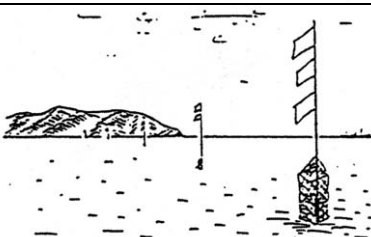
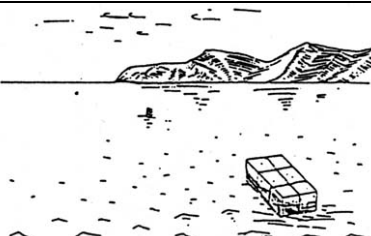
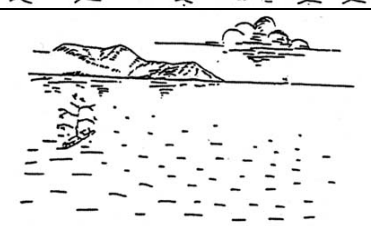
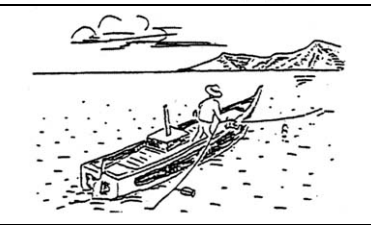
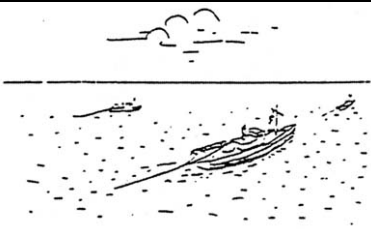
2. Visual Recognition of Fishing Vessels/Fishing Gear and Recommended Measures to be Taken

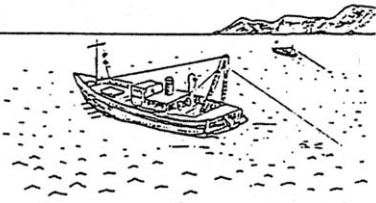
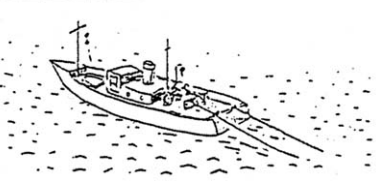
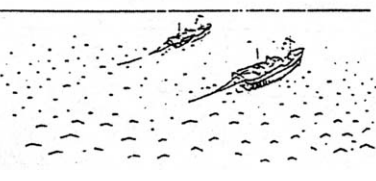

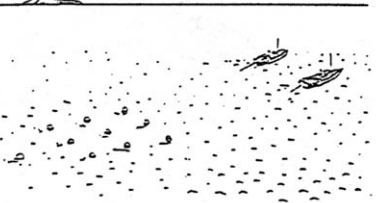
If operating fishing vessels are seen when a ship is proceeding at sea, it can be assumed that fishing nets, lines and other fishing gear are arranged in the vicinity. However, if only fishing gear is arranged in the absence of fishing vessels, their discovery tends to be delayed, and if it is windy with waves, the situation can be worse.

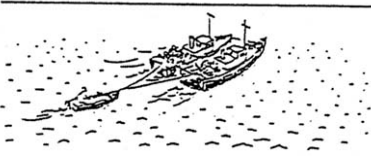
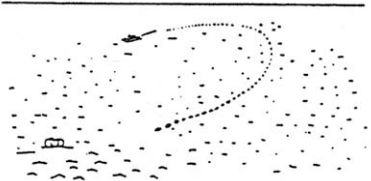
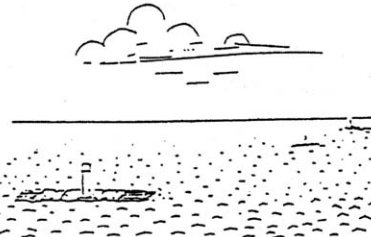
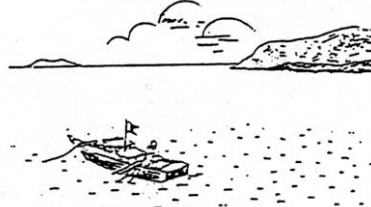
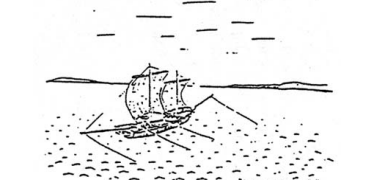
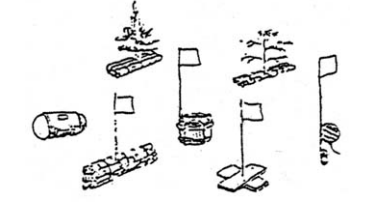
Visual Recognition of Fishing Vessels/Fishing Gear and Recommended Measures to be Taken

Scene	Judgement	Countermeasures	Remarks
	<p>Fixed net fishing Buoys and floats are arranged continuously from inshore to offshore. There are a flag and a light at the outer end, and the light is lit at night.</p>	<p>The fixed net cannot be crossed by a ship. The net stretches to a depth of 27 m (15m in Okinawa, excluding the inland sea). A small one stretches 100 metres from the shore, but a large one reaches 2,000 to 3,000 metres. Special attention must be paid when proceeding along the coast for sheltering, or when the ship enters a bay.</p>	<p>Fishing operations using this method are carried out throughout waters along the coasts of Japan. See the map of set net arrangements issued by the Hydrographic Department of the Maritime Safety Bureau. Pay attention to changes due to updating.</p>
	<p>Pole and line fishing A fisherman is pole and line fishing while rowing with one hand, and without casting anchor.</p>	<p>Fishing boats for pole and line fishing are often seen in groups. Fishermen are often careless about the passage of merchant ships due to their concentration on fishing. It is advisable to attract their attention. When the ship has to clear an area of fishing operations, allow sufficient room on both sides of the ship.</p>	<p>Pole and line fishing is common in inland seas, bay area, and waters near channels.</p>
	<p>Pole and line fishing (motor-driven fishing boat) Motor-driven fishing boats engaged in pole and line fishing do not stay in a fixed area, but drift along the flow of currents.</p>	<p>Boats' engines are normally ready for immediate operation, so averting collision is easy for both parties. In any case, leave sufficient room for manoeuvring.</p>	<p>Often seen in inland seas, bay area and waters near channels.</p>
	<p>Pole and line fishing (motor-driven fishing boat) No anchor is cast. Fishing is carried on with the boat heading windward using a sail</p>	<p>Fishing operations using this method are often performed in traffic routes. Pay careful attention to their movements, and if there is a risk of collision, attract their attention and take collision-averting manoeuvres with care.</p>	<p>Often seen at the mouth of a bay. Pleasure fishing on Saturdays and Sundays by amateur fishermen often adopts this method, and special precautions are</p>
	<p>Pole and line skipjack fishing Pole and line skipjack fishing operations are done while spraying water onto the sea surface.</p>	<p>Fishing operations are often done in a large sea area. It is advisable that collision-averting manoeuvres are taken earlier with an ample allowance of time left.</p>	<p>Fishing operations in day time. Pole and line skipjack fishing is carried on in sea areas along the Kuroshio and its branches, necessary.</p>

Scene	Judgement	Countermeasures	Remarks
	Trolling line fishing	Vessels carrying on trolling line fishing are not fishing vessels in a legal sense. It is, however, advisable that these vessels be avoided while paying sufficient attention to situation. It must also be remembered that the lengths of trolling lines are 40 to 50 metres.	Fishing operations in day time. Trolling line fishing is frequently carried on throughout the waters of bay areas and along the coast of Japan
	Stick-held dip net fishing for mackerel pike Marker fishing Squid fishing	These are often carried on in groups at night. Sometimes search lights are used. It is advisable that no attempt be made to pass through a group of fishing vessels, and collision-averting manoeuvres should be done soon, while paying sufficient attention to neighbouring vessels.	Fishing operations at night. Seen throughout the waters along the coasts of Japan. Stick-held dip nets are stretched out downstream of the tidal current. Mackerel pike fishing is carried on with fishing vessels heading to windward.
	Drift net (drift gill net) fishing Marker flags are normally used for drift gill net fishing, but sometimes they are not used, must be taken	Buoys and floats are arranged between marker flags with lights. Because gill nets are arranged 5 to 6 metres beneath buoys, the ship cannot pass over these nets. Collision-averting manoeuvres in daytime.	Drift gill net fishing at night time. Yellowtail, flying fish, mackerel pike, salmon trout. Drift gill net fishing. Flying fish, mackerel pike. There are only buoys (floats can submerge by 4 to 6 metres).
	Drift net fishing for Spanish mackerel. This is a form of drift gill net fishing.	Marker lights are provided at both ends and at the middle, and a float is provided at the middle. The ship cannot pass over the net. The sketch shows a scene in Setonaikai.	Setonaikai, Ise Wan, and areas in Kyushu. Pay attention to marker lights, as they have different colours.
	Bottom gill net fishing Cod, yellowtail, Rhinoraja, atka mackerel	Bottom gill nets are often fitted with a large buoy and marker lights. An operating boat stands by in the vicinity of the nets. Passing over bottom gill nets poses no problem if no attempt is made to pass directly over the buoy. Bottom gill nets are arranged in a direction normal to the current.	Often seen in the Japan Sea. Bottom gill net fishing is performed both during the day and at night

Scene	Judgement	Countermeasures	Remarks
	Long-lining Salmon, trout long-lining	It is hard to discriminate floating long-lining and bottom long-lining. Marker lights are provided at both ends of the line with an operating boat posted at either end. Pay attention to the fact that buoys are only arranged at intervals of 300 metres. In the case of floating long-lining, the main line is drawn in parallel with the direction of the tidal current. Don't approach buoys.	Northern part of the Japan Sea and off Hokkaido areas where long-line fishing is often carried on.
	Bottom long-lining Basket fishing Surf net fishing	Various baskets, bottom long-lining are often seen in the coastal waters of Japan	A variety of maker flags are used.
	Bottom long-lining Basket fishing Surf net fishing	The sketch shows a case where foam styrole resin is used.	Often seen in the coastal waters of Japan.
	Surf net fishing Octopus pot fishing Long-lining	This sketch shows a case in which foam styrole resin is used. It sometimes gives the false impression that it is merely a floating object.	Often seen in coastal waters of Japan.
	Surf net fishing Long-lining	The sketch shows a case in which natural plants are used as fishing gear.	Bay area and coastal waters.
	Octopus put fishing boat	When an attempt is made to pass over octopus pot lines, a sufficient distance must be kept from the octopus pot fishing boat.	Setonaikai, bay areas and coastal waters of Japan.
	Small motor-boat bottom trawl fishing Lobster net fishing	These fishing operations are often performed in inland seas and bay areas, and boats are sometimes operated in groups. Keep away from groups of these fishing boats.	Often performed at night. Fishing boats are small, ranging between 3 and 5 tons.

Scene	Judgement	Countermeasures	Remarks
	Small motor-boat bottom trawl fishing	Trawling is carried on by one motor-boat, provided with a super-structure at poop. The boat pulls a steel wire connected to the bottom trawl line. Because the trawl line draws for a considerable length, collision-averting manoeuvres must be done with a sufficient allowance of time left.	Often seen in coastal waters facing oceans, and traffic routes in inland waters.
	Offshore motor-boat bottom trawl fishing	Offshore motor-boat bottom trawl fishing is mainly performed by one boat. Because the trawl line is relatively long, collision-averting manoeuvres must leave a sufficient allowance of time.	Motor-boats range from 15 to 124 tons. Fishing grounds are in offshore waters. This type of trawl fishing is carried on in waters with a depth up to 500-600 metres.
	Offshore motor-boat bottom trawl fishing (2-boat trawl)	When trawling is carried on by two boats, the length of the trawl line is relatively short, but a thick line is used. It can be easily identified as two trawl boats move as a pair. Collision-averting manoeuvres must leave a sufficient allowance of time.	In many cases, offshore bottom trawl boats range between 50 and 60 tons. Some are operated in the East China Sea and in the South Pacific Ocean.
	Two purse seine netters	Two purse seine netters and two to three assisting boats operate as a group. Because there are buoys and floats on the sea surface, no attempt can be made to pass over the nets. Fish-collecting lights are scarcely used. The diameter of a purse seine net ranges from about 320 to 470 metres. In the case of one-boat operation, the diameter is about 160 to 320 metres. Collision-averting manoeuvres must leave an ample allowance of time.	Small purse seine netters-motor boats with a tonnage less than 5 tons, or non-powered boats. Medium-size purse seine netters-5 to 60 tons. In addition to the above, medium-sized purse seine netters are permitted to operate within designated fishing areas. Depending on the type of fishing, the use of fish collecting lights is prohibited.
	Sardine drag net (sardine drag net drawn by two boats)	Because it is drawn by two boats, it gives the false impression it is a bottom trawl net, identification is possible from the trailing buoy. No attempt should be made to come close to the net. Pay special attention when the ship passes after the fishing boat.	Often seen in Setonaikai areas and Ise Wan.

Scene	Judgement	Countermeasures	Remarks
	Purse seine netters bound for a fishing ground, or before casting the purse net.	Two boats proceed side by side while drawing a small boat bound for a fishing ground (or on their home-ward trip). They carry a mountain of purse seine nets on the poop.	Often seen in the morning or in the evening.
	Towing net fishing by one boat	A boat engaged in towing net fishing makes a turn toward the buoy marker located at the area where the towing net was first thrown, while towing the net. When the net is heaved up, the boat casts anchor, so care must be taken. Extreme care must be taken when the ship is proceeding close to the coast. Collision-averting manoeuvres must be done giving an ample allowance.	Often seen inland sea and bay areas along the entire coast of Japan. Towing net fishing is frequently carried on by two boats.
	False shelter fishing for dorado	Bundles of bamboo some 10-metre long are fixed to the sea bottom, and marker flags or pieces of natural wood are provided. In some cases, towing net fishing, and net operations are carried on in the vicinity, and the ship must pass with care. The ship must not pass over the false shelter for dorado.	Often seen in the coasts of Kyushu, the Japan Sea side, and the southern part of Shikoku.
	Divers fishing	This is often the case for pen shell fishing. The fishing boat casts anchor and flies flag "A". No attempt should be made to come close to such a boat. Collision-averting manoeuvres must leave ample allowance.	Often seen in the inland sea and bay areas of the Chubu region and farther west.
	Kazeutase ami fishing	This form of fishing is rarely seen these days, but sufficient care must be taken as nets are drawn in waters to the leeward, and collision-averting manoeuvres must be done with care.	With this fishing method, nets are drawn with the aid of the wind (Setonaikai area). Seldom seen today.
	These marker flags are generally used for fishing (long-lining, surf net fishing, octopus pod fishing, basket fishing, etc.) and are frequently seen in the coastal waters of Japan.	It is recommended that these marker flags and buoys are not to be passed over directly. It is recommended to avoid them. They can, in some cases, be connected together, so sufficient care must be taken	Coastal waters, inland sea and bay areas. Marker flags or buoys provided with lights could be for long-lining, drift gill net fishing, etc. So sufficient care must be taken to look out for fishing vessels in the vicinity. Precautions must be taken when casting anchors in the coastal waters or bay areas.