

## Major Navigation Rules in Kurushima Kaikyo

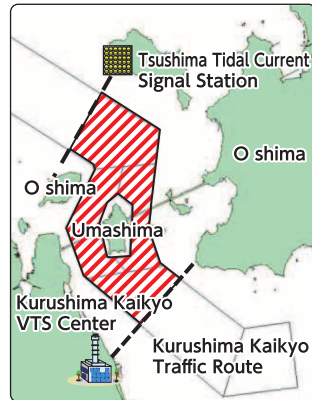
For more detailed information on navigation rules etc., please visit the Kurushima Kaikyo Vessel Traffic Service (VTS) Center website. (The homepage address is on the back side of this leaflet.)

### ◆ Information and Advice ◆

The Kurushima Kaikyo VTS Center [KURUSHIMA MARTIS] provides information to navigating vessels concerning the movements of other vessels, operating fishing vessels, marine weather conditions, and construction work. **The VTS Center also may issue advice to specified vessels whenever necessary to prevent danger. These vessels may be requested to report the actions they have taken in accordance with the advice.**

Information and advice will be provided in Japanese or English, mainly via international maritime VHF radiotelephone. However, other methods, such as maritime telephones, may be used as necessary. Information and advice provided by the VTS Center are solely to assist vessel operators in making their own decisions for their safe navigation. **The intention of providing information and advice should not be interpreted as instructions or orders on conduct or navigation of vessels.**

### ◆ Prohibition of Overtaking ◆



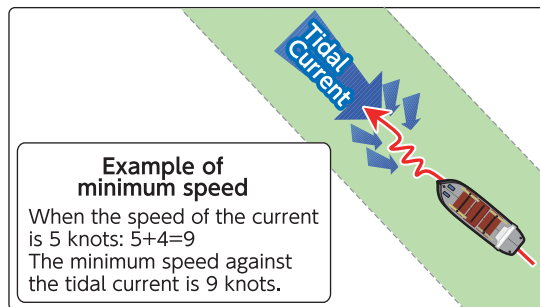
In a narrow and crooked section of Kurushima Kaikyo Traffic Route, **overtaking is prohibited.** Vessels navigating in this section of the Traffic Route should not overtake other vessels excluding those shown below.

- ① Vessels engaging in fishing.
- ② Vessels engaging in construction work under permission.
- ③ Vessels navigating at low speed to perform urgent services.
- ④ Vessels unable to maintain a ground speed of 4 knots.

However, the prohibition of overtaking shall not apply for unavoidable reasons including avoidance of marine accidents.

: Section where overtaking is prohibited (No-passing zone)

### ◆ Securing minimum speed ◆



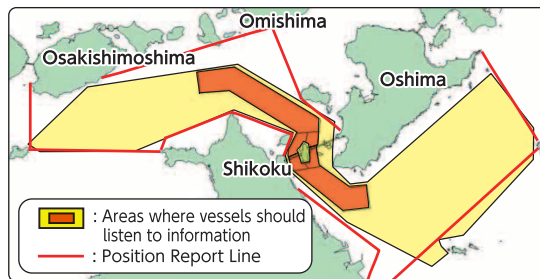
Vessels navigating in Kurushima Kaikyo Traffic Route shall maintain a ground speed of more than 4 knots against the tidal current.

In Kurushima Kaikyo, the maximum speed of the tidal current reaches more than 10 knots. If a vessel does not secure the minimum speed, risks such as the following may occur:

- Running aground
- Obstruction to the traffic of other vessels due to staying or stopping

Vessels unable to secure the minimum speed may be instructed to wait off the Traffic Route for ensuring safety.

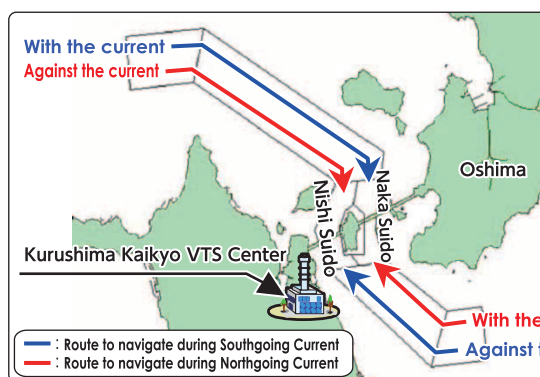
### ◆ Obligation to listen to information / Mandatory report before the turn of tides ◆



Vessels of 50 meters in length or upward navigating in the areas where is obliged to listen to information, should listen to information provided by the Kurushima Kaikyo VTS Center and should navigate while securing their own safety.

To appropriately issue instructions of navigation before and after the turn of tides, the captain of the vessel which is navigating or will navigate the Traffic Route during the period from one hour before to the time of the tidal direction turns is requested to report to the VTS Center when crossing the Position Report Line.

### ◆ Instructions of navigation before and after the turn of tides ◆



The Kurushima Kaikyo VTS Center will issue instructions for the appropriate channels to navigate to respective vessels, mainly via international maritime VHF radiotelephone, before and after the turn of the tides.

For this communication, the vessels navigating in the Kurushima Kaikyo should listen to information provided by VTS Center.

The instructions simply indicate the channel to navigate (Nishi Suido or Naka Suido) and should not be interpreted as instructions or orders on conduct or navigation of vessels. (rudder angle, engine operation, etc.)

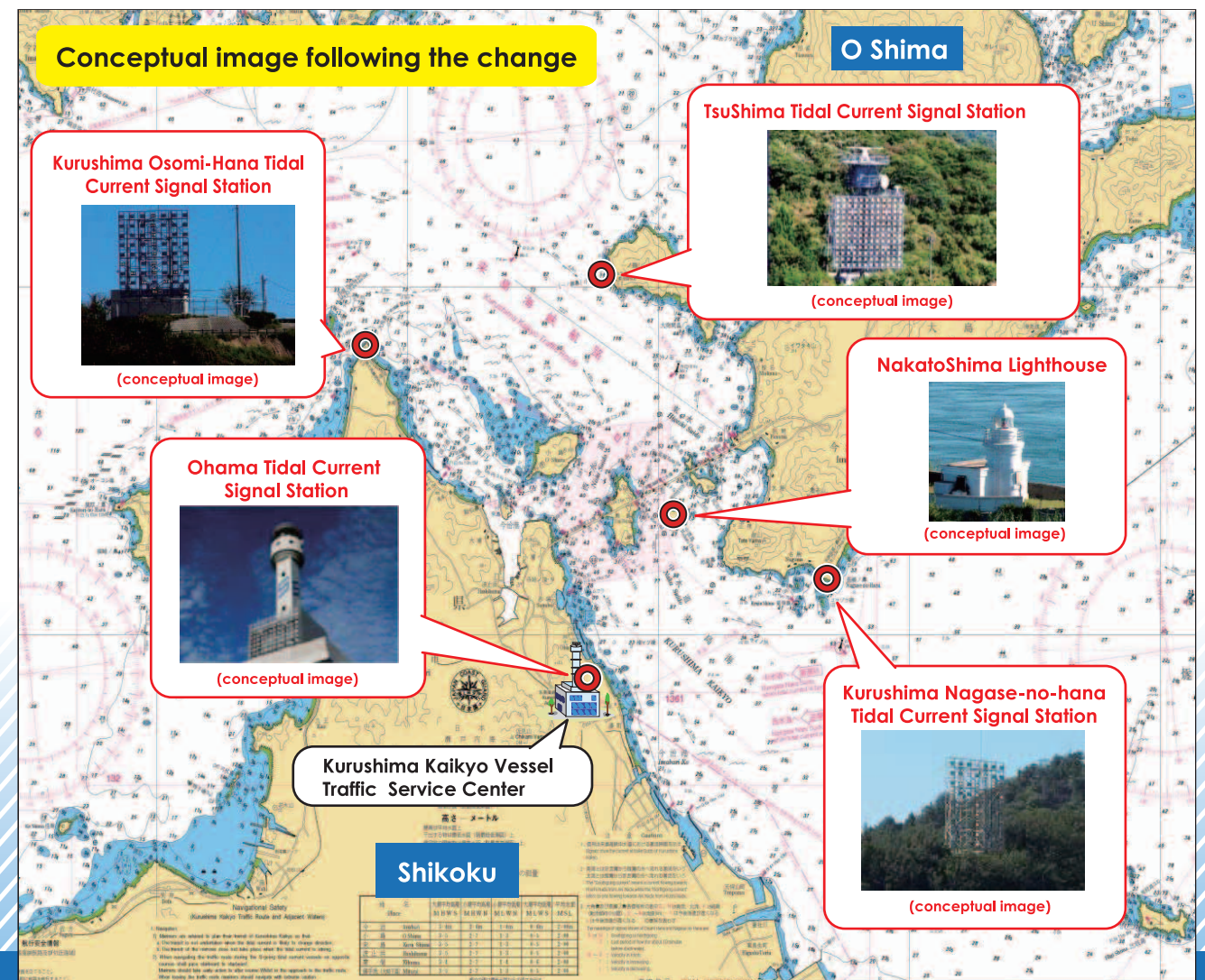
# Change of the Tidal Current Signals in Kurushima Kaikyo



Currently, the information on tidal current in Kurushima Kaikyo is communicated using a mixture of Semaphore, Light, and Electric Sign Methods. By unifying the information provision methods to Electric Sign, we will provide detailed information to navigating vessels and improve both visibility and convenience.

## Scheduled date of change: March 26, 2012

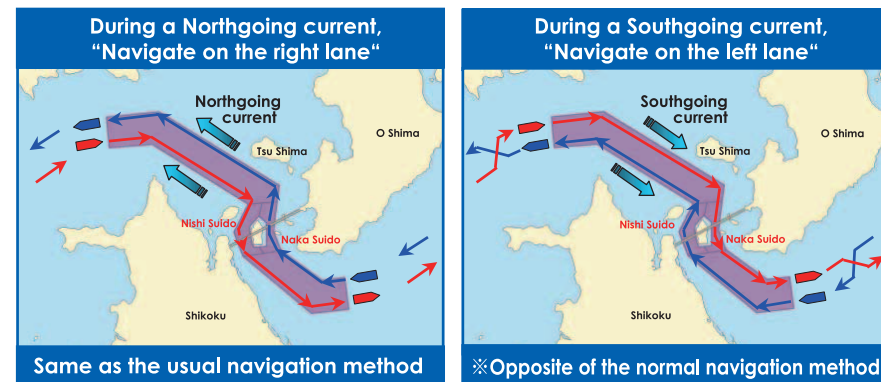
(For more details, please check "Notices to Mariners" and other sources.)



# Navigation Rule and Tidal Current Signal in Kurushima Kaikyo

## Navigation Rule in Kurushima Kaikyo Traffic Route

### Navigation Rule : "Sail Naka Suido with the Current; Sail Nishi Suido against the Current"



In the Kurushima Kaikyo Traffic Route, all vessels are required to follow a unique Navigation Rule which is not found in any other route in the world.

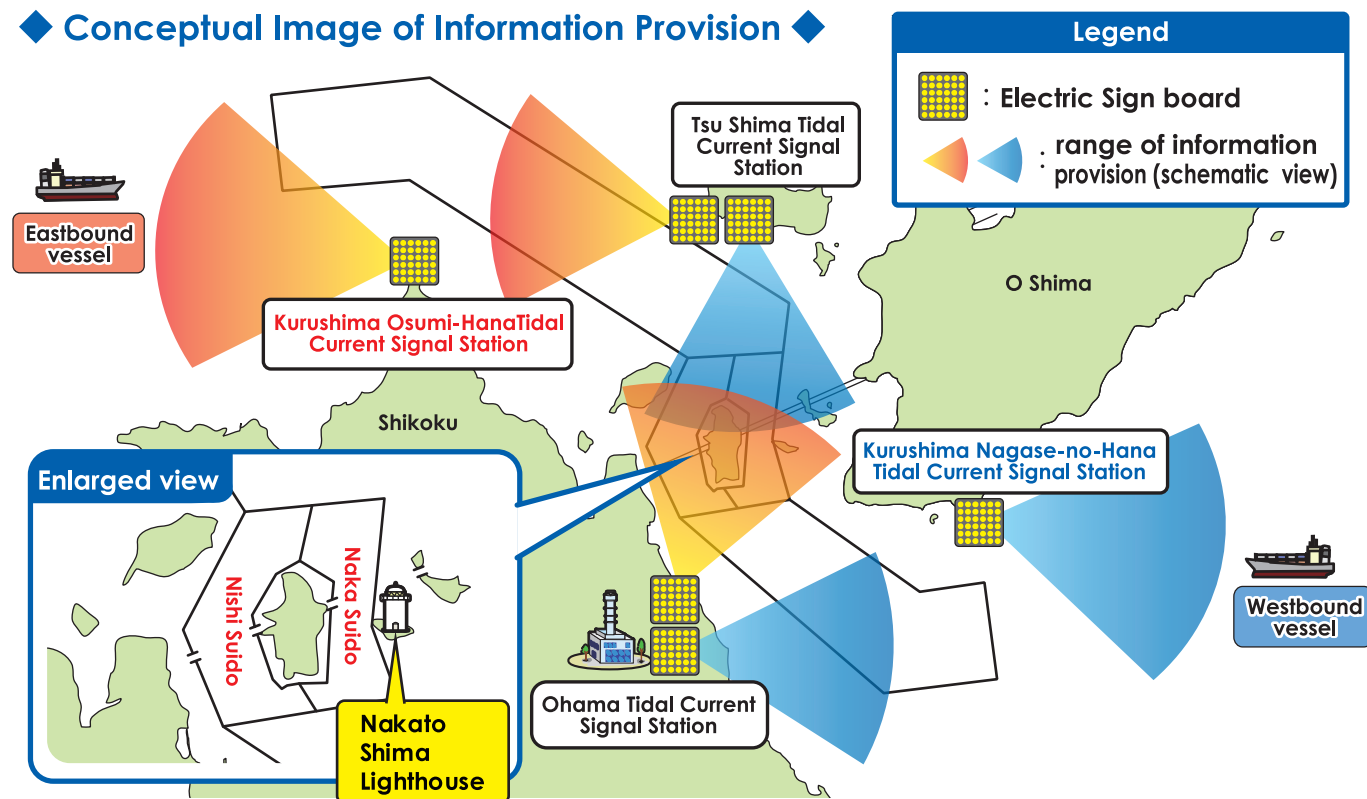
In this rule, the lane to navigate change with the direction of the tidal current : Each vessel is required to navigate Naka Suido when the tidal current is favourable and to navigate Nishi Suido when the tidal current is adverse.

Navigate on the right lane during a Northgoing current, and navigate on the left lane during a Southgoing current.

## Tidal Current Signal

To enforce this unique navigation rule of Kurushima Kaikyo Traffic Route, information on the tidal current of channels (Naka Suido or Nishi Suido) which vessels shall navigate depending upon the tidal direction is indicated at Tidal Current Signal Station. However, during slack water (※ : on the right side of this leaflet), all Signal Stations indicate the information on the tidal current of "Naka Suido". The information on the tidal current may also be checked on the web site of the Kurushima Kaikyo Vessel Traffic Service Center.

### Conceptual Image of Information Provision



### Nakato Shima Lighthouse

When Tidal Current Signals Methods are unified into an Electric Sign, the Nakato Shima Tidal Current Signal Station (Semaphore and Light Method) will be abolished and replaced by the Nakato Shima Lighthouse.

#### Nakatoshima Lighthouse Key Facts

Position	34-07-05 N 133-00-06 E
Light Character	Single-flashing alternating green and white light every 12 seconds (A I R W 12S)
Range	Green light: 7.5 miles White light: 7.5 miles



### Electric Sign of Tidal Current Signals

The following are the meaning of Electric Sign displayed at Tidal Current Signal Stations.

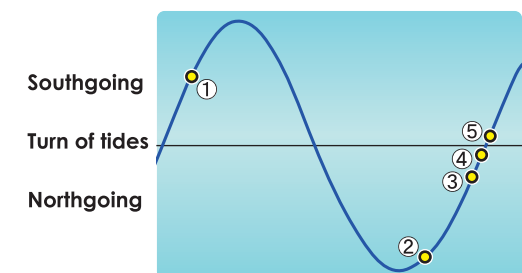
Electric Sign	Meaning	Remarks
S	Southgoing	
N	Northgoing	
0~13	Velocity in knots	Vessels navigating in the Traffic Route shall maintain a ground speed of more than 4 knots against the tidal current.
↑	Velocity is increasing	
↓	Velocity is decreasing	
↓	For 1 hour before the turn of the tides	When this sign is displayed, vessels which are navigating or will navigate the Traffic Route are required to report to the VTS Center.
x	Slack Water	From 20 minutes before the turn of the tides until 20 minutes after the turn of the tides(※)

※The turn of the tides is the time of tidal direction turns in Naka Suido.

### Example of display patterns

Electric Sign of the tidal current information at Signal Stations will be displayed with letters that switch on and off every 2 seconds.

The image on the right figure provides an example of Electric Sign patterns.



- ① S → (switches off) → 3 → (switches off) → ↑ : Southgoing current, 3 knots, Velocity is increasing.
- ② N → (switches off) → 5 → (switches off) → ↓ : Northgoing current, 5 knots, Velocity is decreasing.
- ③ N → (switches off) → 1 → (switches off) → ↓ : Northgoing current, 1 knot, within 1 hour until the turn of the tides.
- ④ N → (switches off) → x → (switches off) → ↓ : Northgoing current, slack water, within 20 minute current will change Southgoing.
- ⑤ S → (switches off) → x → (switches off) → ↑ : Southgoing current, slack water, Velocity is increasing.

### Kurushima Kaikyo Vessel Traffic Service (VTS) Center [KURUSHIMA MARTIS]

#### Homepage Address

For computers: <http://www6.kaiho.mlit.go.jp/kurushima/>

For mobile phones: <http://www6.kaiho.mlit.go.jp/kurushima/m/>



QR code for mobile phone terminals

## Kurushima Kaikyo Vessel Traffic Service Center

2-5-100,Minato-machi, Imabari City, Ehime 794-0003 TEL +81-898 -31-4992 / FAX : +81-898-31-4646