



MARITIME AND PORT AUTHORITY OF SINGAPORE

PORT MARINE CIRCULAR
NO 99 OF 1997

29 Dec 97

To: Shipping Community
Harbour Craft Community

**HEIGHT RESTRICTION AT THE SECOND CROSSING (BRIDGE) FOR VESSELS
USING THE SINGAPORE CHANNEL TO ENTER OR LEAVE THE WEST JOHOR
STRAIT**

1 The second crossing (bridge) linking Johor and Singapore is completed. An elevation of the bridge seen from the south is shown in the diagram which appears as Appendix 1. The navigable part of the channel under the bridge which lies within Singapore waters is 75 metres wide between Pier 24 and Pier 25. The height of the bridge over this channel is 12 metres above Mean High Water Spring (MHWS). This channel, named Singapore Channel, is marked by green conical buoys whose positions and light characteristics are indicated on the attached chartlet.

2 Pursuant to Section 43 and Section 45 of the Maritime and Port Authority of Singapore Act (Cap.170A), the Port Master hereby directs, that with effect from 1 Jan 1998 0001 hrs, vessel whose height* exceeds 10 metres or whose beam exceeds 15 metres is not permitted to use the Singapore Channel to transit under the bridge as described in paragraph 1 above. Vessel whose height is 10 metres or less or whose beam is 15 metres or less intending to transit under the bridge for the purpose of entering or leaving the West Johor Strait are to call Jurong Control on VHF Channel 22 to seek channel clearance. When doing so, the vessel is to provide Jurong Control with the following information:

- (a) name of vessel;
- (b) height;
- (c) beam;
- (d) whether vessel is under tow;
- (e) current location; and
- (f) intended location.

* The height of vessel referred to in this circular is the height of the vessel measured vertically from the waterline of the vessel to the highest point of the vessel including its cargo, structure or equipment on board.

3 When channel clearance as specified in paragraph 2 above is granted, the Master of the vessel shall comply with the following conditions:

- (a) Navigation under the bridge shall be conducted in accordance with the directions and during the times given in Appendix 2;
- (b) The vessel shall approach and proceed under the bridge at the slowest speed consistent with safe navigation; and
- (c) A vessel under tow shall have at least 2 suitable tugs in attendance.

Lights on the Bridge

4 The following lights are mounted on the Singapore side of the bridge:

- (a) Marine Traffic Control lights;
- (b) Sector lights;
- (c) Bridge lights; and
- (d) Pier lights.

Details of the above lights are given in Appendix 3.

Information on Piers

5 The Public Works Department has advised that the fendering system for the bridge piers No 24 & No 25 (as indicated in Appendix 1) is designed for a vessel of the following parameters:

Displacement of Vessel	: 4000 tonnes
Length	: 75m
Beam	: 15m
Draft	: 3.5m
Design Speed	: 8 knots
Side Impact Angle	: 20°
Light	: Fixed Yellow (marking the edge of fenders)

Navigation under the bridge on the Malaysian side

6 Vessels of more than 10 metres in height intending to use the navigational channel under the bridge on the Malaysian side are advised to call Lima Johor on VHF Channel 67. The calling vessel shall state its name, call-sign, port of registry, air-draft, length, gross tonnage, cargo on board and the intended direction of passage i.e. northbound or southbound. The maximum height* for vessel using the

Malaysia Channel is 23 metres. Vessels transiting under the bridge shall be subjected to the navigational traffic light system. Vessel whose height exceeds 23 metres are not permitted to navigate under the bridge.

7 Mariners are advised to contact the following Malaysian Authorities for information on navigation under the bridge on the Malaysian side:

The Director
Marine Department Southern Region
P.O. Box 139,
80710 Johor Bahru
Johor
Tel : 607-2248093/4
Fax : 607-2248092

CHAN KENG NEE
for PORT MASTER
MARITIME AND PORT AUTHORITY OF SINGAPORE

TEL: 325 2455
FAX: 325 2454

MALAYSIA - SINGAPORE SECOND CROSSING (BRIDGE)

Figure 1

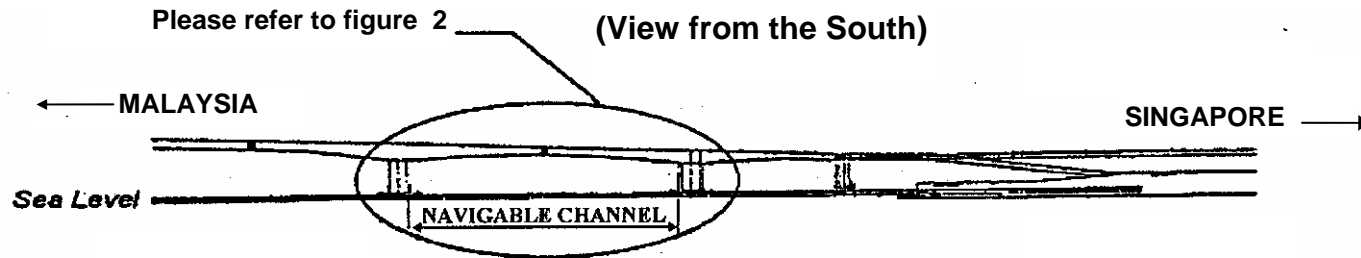
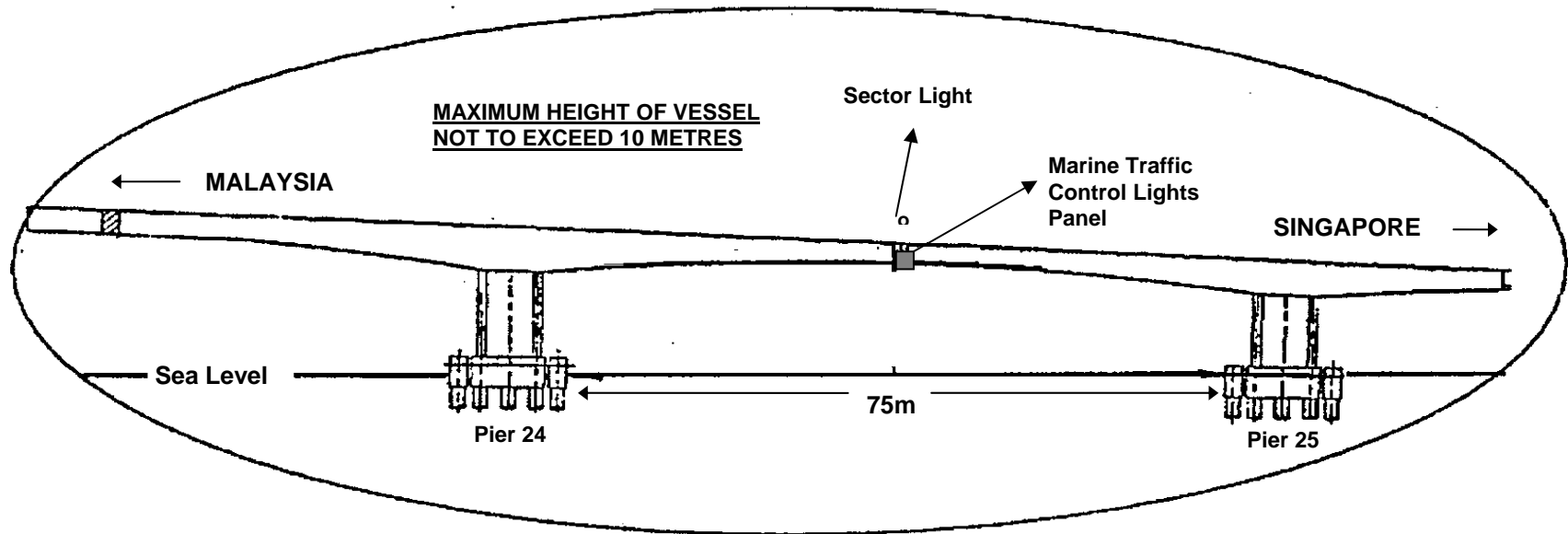


Figure 2



TIMINGS FOR NORTHBOUND AND SOUTHBOUND PASSAGE IN SINGAPORE CHANNEL

Every vessel transiting under the bridge shall only do so according to the times given below:

NORTHBOUND VESSEL	SOUTHBOUND VESSEL
0000 - 0020	0030 - 0050
0100 - 0120	0130 - 0150
0200 - 0220	0230 - 0250
0300 - 0320	0330 - 0350
0400 - 0420	0430 - 0450
0500 - 0520	0530 - 0550
0600 - 0620	0630 - 0650
0700 - 0720	0730 - 0750
0800 - 0820	0830 - 0850
0900 - 0920	0930 - 0950
1000 - 1020	1030 - 1050
1100 - 1120	1130 - 1150
1200 - 1220	1230 - 1250
1300 - 1320	1330 - 1350
1400 - 1420	1430 - 1450
1500 - 1520	1530 - 1550
1600 - 1620	1630 - 1650
1700 - 1720	1730 - 1750
1800 - 1820	1830 - 1850
1900 - 1920	1930 - 1950
2000 - 2020	2030 - 2050
2100 - 2120	2130 - 2150
2200 - 2220	2230 - 2250
2300 - 2320	2330 - 2350

To assist mariners, a panel of marine traffic control lights is installed at mid-point of the bridge above the Singapore Channel. The significance of the lights to mariners is as follows :

- Fixed RED** - Vessel shall not proceed through the channel.
- Fixed GREEN** - Vessel may proceed through the channel.
- Flashing GREEN** - Caution. Light changing shortly. Vessel in channel to proceed and clear bridge.

The marine traffic control lights are operated round the clock. In the event of malfunction of these lights, mariners shall continue to observe the traffic times indicated above.

DETAILS OF LIGHTS

1 MARINE TRAFFIC CONTROL LIGHTS

Nominal Range of Lights	: 1 kilometre (day); 4 kilometres (night)
Light Axis	: 204° 00' 00" (for lights facing South direction)
Light Axis	: 026° 30' 00" (for fights facing North direction)
Fixed Green	: 20 minutes - vessel proceeds
Flashing Green	: 10 minutes - vessel in channel continues to proceed
Fixed Red	: 30 minutes - no go

Note: Traffic direction changes every 30 minutes

Traffic direction	: 1 st half hour - North bound
	: 2 nd half hour - South bound

2 SECTOR LIGHTS

(a) Approach from South

Light Character	: Flashing 2.5 sec
Colour of sectors	: Red(1.5°) - White(10°) - Green(1°)
Axis of Sector Light	: 204° 00' 00"
Nominal Range	: 3.5 nautical miles

(b) Approach from North

Light Character	: Flashing 2.5 sec
Colour of sectors	: Red(1.5°) - White(8°) - Green.(1.5°)
Axis of Sector Light	: 026° 30' 00"
Nominal Range	: 2.0 nautical miles

3 BRIDGE LIGHTS

Light character	: Fixed Yellow
Nominal Range	: 2 nautical miles
Arc of visibility	: 180°

Note: The bridge lights mark the edge of the navigational channel.

4 PIER LIGHTS

Light Character	: Fixed Yellow
Arc of visibility	: 360°

Note: The pier lights mark the edge of fenders.

MALAYSIA - SINGAPORE SECOND CROSSING

Navigational Channels

Scale 1:20000

