

RESOLUTION A.375(X)

Adopted on 14 November 1977
Agenda item 8(b)

**NAVIGATION THROUGH THE
STRAITS OF MALACCA AND SINGAPORE**

THE ASSEMBLY,

NOTING Article 16(i) of the Convention on the Inter-Governmental Maritime Consultative Organization concerning the functions of the Assembly,

BEING AWARE of the close relationship between safety of navigation and the prevention of pollution from ships,

BEING INFORMED of the decisions and measures taken by the Governments of Indonesia, Malaysia and Singapore concerning the safety of navigation and the protection of the marine environment in the Straits of Malacca and Singapore, given in the Annexes to this Resolution,

CONSIDERING Resolution A.378(X) by which the Assembly adopted general provisions on ships' routing,

HAVING EXAMINED the Recommendation by the Maritime Safety Committee at its thirty-seventh session,

ADOPTS the new routing system for the Straits of Malacca and Singapore including traffic separation schemes, deep water routes and rules described in Annexes I to V to this Resolution,

ENDORSES the necessity that all oil tankers navigating through the Straits shall be adequately covered by relevant insurance and compensation schemes for oil pollution damage, including clean-up costs,

AGREES that the additional and improved aids to navigation listed in Annex VI to this Resolution will represent an important contribution to the safety of navigation of ships using the new routing system,

INVITES the governments concerned to advise ships to comply with this Resolution from the appropriate date,

REQUESTS the Secretary-General to advise all concerned of the details of this routing system described in the Annexes to this Resolution and to promulgate the date of entry into force as determined by the governments concerned.

ANNEX I

AT ONE FATHOM BANK (new scheme)

(Reference chart: Japanese 622B, edition date: 1 October 1973)

Description of the traffic separation scheme

(a) A separation zone is bounded by a line connecting the following geographical positions:

- (1) 03°00'.7 N., 100°47'.4 E.
- (2) 02°53'.7 N., 100°55'.8 E.
- (3) 02°49'.5 N., 100°59'.5 E.
- (4) 02°47'.1 N., 101°04'.0 E.
- (5) 02°46'.7 N., 101°03'.7 E.
- (6) 02°49'.0 N., 100°59'.5 E.
- (7) 02°53'.4 N., 100°55'.4 E.
- (8) 03°00'.3 N., 100°47'.1 E.

(b) A traffic lane for north-westbound traffic is established between the separation zone and a line connecting the following geographical positions:

- (9) 03°02'.7 N., 100°48'.8 E.
- (10) 02°52'.5 N., 101°00'.0 E.
- (11) 02°49'.4 N., 101°05'.4 E.

(c) A traffic lane for south-eastbound traffic is established between the separation zone and a line connecting the following geographical positions:

- (12) 02°54'.7 N., 100°43'.1 E.
- (13) 02°44'.4 N., 101°02'.2 E.

ANNEX II**IN THE SINGAPORE STRAIT (new scheme)**

(Reference charts: Japanese 622A, edition date: 2 July 1973;
 Japanese 750A, edition date: 4 September 1976;
 Japanese 750B, edition date: 4 September 1976)

Description of the traffic separation scheme

(a) A separation zone is bounded by a line connecting the following geographical positions:

(1) 01°23'12" N.,	103°12'24" E.	(7) 01°07'30" N.,	103°43'43" E.
(2) 01°13'12" N.,	103°23'24" E.	(8) 01°10'21" N.,	103°39'51" E.
(3) 01°07'48" N.,	103°31'42" E.	(9) 01°10'21" N.,	103°33'48" E.
(4) 01°03'36" N.,	103°38'57" E.	(10) 01°13'48" N.,	103°24'00" E.
(5) 01°05'54" N.,	103°43'23" E.	(11) 01°24'12" N.,	103°13'36" E.
(6) 01°08'36" N.,	103°45'26" E.		

(b) A separation line connects the following geographical positions:

(12) 01°08'36" N.,	103°45'26" E.
(13) 01°10'17" N.,	103°48'06" E.
(14) 01°11'42" N.,	103°51'31" E.
(15) 01°13'21" N.,	103°55'00" E.
(16) 01°14'53" N.,	103°59'00" E.

(c) A separation zone is bounded by a line connecting the following geographical positions:

(17) 01°14'53" N.,	103°59'00" E.
(18) 01°15'40" N.,	104°03'24" E.
(19) 01°15'25" N.,	104°03'27" E.

(d) A traffic lane for westbound traffic is established between the separation zones/line and a line connecting the following geographical positions:

(20) 01°25'30" N.,	103°15'00" E.	(25) 01°10'27" N.,	103°47'30" E.
(21) 01°15'12" N.,	103°25'18" E.	(26) 01°11'57" N.,	103°51'12" E.
(22) 01°14'13" N.,	103°30'00" E.	(27) 01°14'00" N.,	103°55'00" E.
(23) 01°11'30" N.,	103°40'33" E.	(28) 01°16'01" N.,	104°00'00" E.
(24) 01°08'39" N.,	103°44'24" E.	(29) 01°16'36" N.,	104°03'19" E.

(e) A traffic lane for eastbound traffic is established between the separation zones/line and a line connecting the following geographical positions:

(30) 01°22'00" N.,	103°11'06" E.	(35) 01°09'28" N.,	103°48'42" E.
(31) 01°11'33" N.,	103°22'48" E.	(36) 01°11'27" N.,	103°52'51" E.
(32) 01°01'36" N.,	103°39'39" E.	(37) 01°13'30" N.,	103°57'40" E.
(33) 01°05'00" N.,	103°43'40" E.	(38) 01°14'03" N.,	104°03'35" E.
(34) 01°07'48" N.,	103°46'15" E.		

Note:

Deep water routes forming part of the eastbound traffic lane are established in the Singapore Strait westward of Batu Berhanti.

ANNEX III

AT HORSBURGH LIGHT AREA (new scheme)

(Reference chart: Japanese 749, edition date: 2 June 1973)

Description of the traffic separation scheme

- (a) A separation zone is bounded by a line connecting the following geographical positions:
- (1) 01°17'19" N., 104°15'00" E.
 - (2) 01°18'00" N., 104°19'42" E.
 - (3) 01°24'33" N., 104°27'03" E.
 - (4) 01°24'18" N., 104°27'15" E.
 - (5) 01°17'48" N., 104°19'51" E.
 - (6) 01°17'06" N., 104°15'00" E.
- (b) A traffic lane for south-westbound traffic is established between the separation zone and a line connecting the following geographical positions:
- (7) 01°25'24" N., 104°26'19" E.
 - (8) 01°19'24" N., 104°19'30" E.
 - (9) 01°18'38" N., 104°15'00" E.
- (c) A traffic lane for north-eastbound traffic is established between the separation zone and a line connecting the following geographical positions:
- (10) 01°15'24" N., 104°15'00" E.
 - (11) 01°16'18" N., 104°19'51" E.
 - (12) 01°23'24" N., 104°27'57" E.

ANNEX IV**DEEP WATER ROUTES FORMING PART OF THE EASTBOUND TRAFFIC LANE OF THE TRAFFIC SEPARATION SCHEME IN THE SINGAPORE STRAIT**

(Reference charts: Japanese 622A, edition date: 2 July 1973;
 Japanese 750A, edition date: 4 September 1976;
 Japanese 750B, edition date: 4 September 1976)

Description of the deep water routes

(a) The deep water route is established within the eastbound lane described in paragraph (e) of the traffic separation scheme "In the Singapore Strait". The deep water route is bounded by a line connecting the following geographical positions:

- (i) 01°03'36" N., 103°38'57" E.
- (ii) 01°05'54" N., 103°43'23" E.
- (iii) 01°08'36" N., 103°45'26" E.
- (iv) 01°10'17" N., 103°48'06" E.
- (v) 01°09'57" N., 103°48'17" E.
- (vi) 01°08'54" N., 103°46'49" E.
- (vii) 01°04'57" N., 103°42'52" E.
- (viii) 01°02'58" N., 103°39'06" E.

(b) The deep water route is established within the eastbound lane described in paragraph (e) of the traffic separation scheme "In the Singapore Strait". The deep water route is bounded by a line connecting the following geographical positions:

- (ix) 01°10'17" N., 103°48'06" E.
- (x) 01°11'42" N., 103°51'31" E.
- (xi) 01°12'04" N., 103°52'15" E.
- (xii) 01°11'48" N., 103°52'38" E.
- (xiii) 01°09'57" N., 103°48'17" E.

ANNEX V

**RULES FOR VESSELS NAVIGATING THROUGH
THE STRAITS OF MALACCA AND SINGAPORE**

I. DEFINITIONS

For the purpose of these Rules the following definitions should apply:

1. A vessel having a draught of 15 metres or more shall be deemed to be a deep draught vessel.
2. A tanker of 150,000 dwt and above shall be deemed to be a Very Large Crude Carrier (VLCC).

Note:

The above definitions do not prejudice the definition of "vessel constrained by her draught" described in Rule 3(h) of the International Regulations for Preventing Collisions at Sea, 1972.

II. GENERAL PROVISIONS

1. Deep draught vessels and VLCCs shall allow for an Under Keel Clearance (UKC) of at least 3.5 metres at all times during the entire passage through the Straits of Malacca and Singapore and shall also take all necessary safety precautions especially when navigating through the traffic separation schemes.
2. Masters of deep draught vessels and VLCCs shall have particular regard to navigational constraints when planning their passage through the Straits.
3. All deep draught vessels and VLCCs navigating within the traffic separation schemes are recommended to use the pilotage service of the respective countries when they become available.

III. RULES

- Rule 1 – (a) Deep draught vessels shall use the designated Deep Water Route (DWR) between positions 01°09'57" N., 103°48'17" E. and 01°02'58" N., 103°39'06" E. Other vessels should, as far as practicable, avoid the deep water route.
- (b) Deep draught vessels are advised to use the deep water route between Buffalo Rock and Batu Berhanti.
- Rule 2 – Deep draught vessels navigating in the deep water route shall, as far as practicable, avoid overtaking.
- Rule 3 – All vessels navigating within the traffic separation scheme shall proceed in the appropriate traffic lane in the general direction of traffic flow for that lane and maintain as steady a course as possible consistent with safe navigation.
- Rule 4 – In the event of an emergency or breakdown of a vessel in the traffic lane it shall, as far as practicable and safe, leave the lane by pulling out to the starboard side.

- Rule 5 – Westbound vessels when approaching Raffles Lighthouse in the Strait of Singapore shall proceed with caution, taking note of locally established signals, and give way to deep draught vessels approaching the Single Buoy Mooring facility (in approximate position latitude 1°11'25" N., longitude 103°47'30" E.) from Phillip Channel.
- Rule 6 – VLCCs and deep draught vessels are advised to navigate at a speed of not more than 12 knots over the ground.
- Rule 7 – All vessels navigating in the traffic separation scheme shall maintain at all times a safe speed consistent with safe navigation, shall proceed with caution, and shall be in a maximum state of manoeuvring readiness.
- Rule 8 – VLCCs and deep draught vessels navigating in the Straits of Malacca and Singapore are advised to participate in the existing voluntary ships' reporting system. Under this system, such vessels broadcast eight hours before entering the Straits/traffic separation schemes, navigational warnings giving names, deadweight tonnage, draught, speed and times of passing One Fathom Bank Lighthouse, Raffles Lighthouse and Horsburgh Lighthouse. Difficult and unwieldy tows also broadcast similar warnings giving the type, length, speed of tows and times of passing the three above-mentioned areas.
- Rule 9 – All vessels navigating in the Straits of Malacca and Singapore are requested to report by radio to the nearest shore authority any damage or malfunction of the aids to navigation in the Straits, or any aids out of position in the Straits.
- Rule 10 – Flag States, owners and operators should ensure that their vessels are adequately equipped in accordance with the appropriate international conventions/ recommendations.

IV. WARNING

Mariners are warned that local traffic which could be unaware of the internationally agreed regulations and practices of seafarers, may be encountered in or near the traffic separation schemes, and should take any precautions which may be required by the ordinary practice of seamen or by the special circumstances of the case.

ANNEX VI

LIST OF NAVIGATIONAL AIDS TO BE INSTALLED OR IMPROVED

PART I

NAVIGATIONAL AIDS TO BE INSTALLED PRIOR TO THE
ENTRY INTO FORCE OF THE ROUTEING SYSTEM

(a) **In the traffic separation scheme "At One Fathom Bank"**

1. The installation of a navigational aid fitted with RACON in approximate position 5.5 miles south-west of One Fathom Bank Lighthouse.
2. The establishment and marking of a 23 metre depth navigable channel in the area specified in (1) above; and
3. The installation of a resilient light beacon at the north-west end of One Fathom Bank (03°02'18" N., 100°49'00" E.).

(b) **In the traffic separation scheme "In the Singapore Strait"**

4. The installation of a resilient light beacon at Batu Berhanti (01°11'45" N., 103°52'36" E.).
5. The installation of a resilient light beacon in position 01°05'48" N., 103°43'48" E.

PART II

OTHER NAVIGATIONAL AIDS TO BE INSTALLED OR IMPROVED

1. Resilient light beacon with radar reflector to be installed.
03°02'18" N., 100°49'00" E.
2. Piled light beacon with radar reflector to be installed.
02°48'15" N., 100°53'30" E.
3. One Fathom Bank to be fitted with Racon.
4. Piled light beacon (Blenheim Shoal 2.4 m) to be installed.
03°04'24" N., 100°56'48" E.
5. Resilient light beacon with radar reflector (18 m patch) to be installed.
02°33'36" N., 101°23'30" E.
6. Light beacon at Tg. Tohor to be improved vis. 10 miles.
7. Light beacon to be installed at Tg. Piai vis. 10 miles.
8. Resilient light beacon to replace existing buoy (north of Pulau Nipa Lt. Bn.).
01°10'04" N., 103°39'56" E.
9. Resilient light beacon with radar reflector to replace existing buoy.
01°03'51" N., 103°39'00" E.
10. Resilient light beacon with radar reflector to be installed.
01°09'39" N., 103°47'06" E.
11. Resilient light beacon to replace existing buoy at Buffalo Rock.
01°09'54" N., 103°48'15" E.
12. Batu Berhanti light beacon to be fitted with Racon.
13. Resilient light beacon in position 01°05'48" N., 103°43'48" E. to be fitted with Racon.