



The Nautical Institute



Safety of Navigation in The Straits of Malacca and Singapore

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Safety of Navigation in The Straits of Malacca and Singapore



This proposal is a joint effort between the Singapore Shipping Association, the Federation of Asean Shipowners' Associations and The Nautical Institute



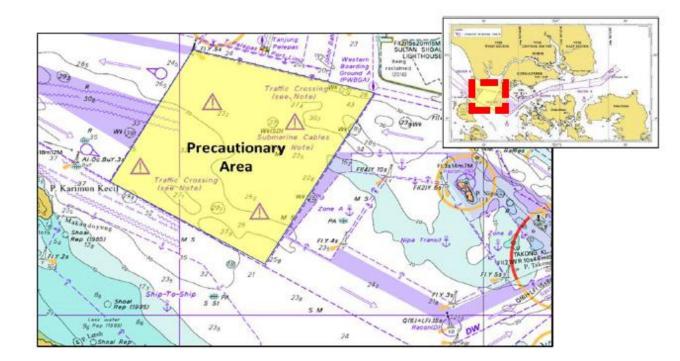




Safety of Navigation in The Straits of Malacca and Singapore



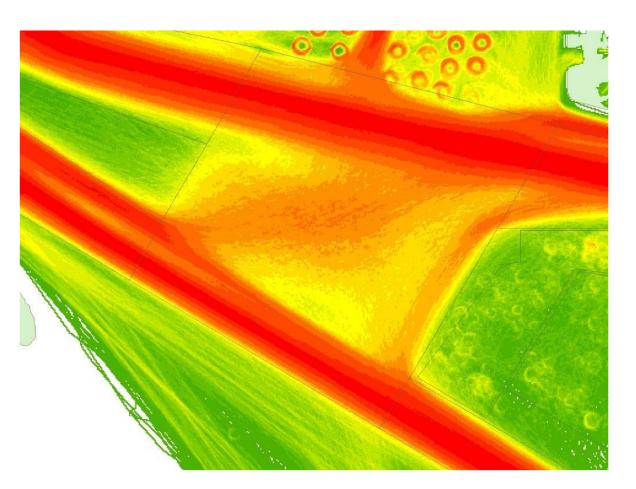
- SOMS remain one of the busiest shipping lanes in the world
- Port development in Tanjung Pelepas and West of Singapore is expected to grow, increasing shipping traffic; especially in the Precautionary Area in STRAITREP Sector 7
- Ensuring safety of navigation and the protection of the marine environment in the Straits is of utmost importance in managing these changes



Traffic density & pattern in the area of interest

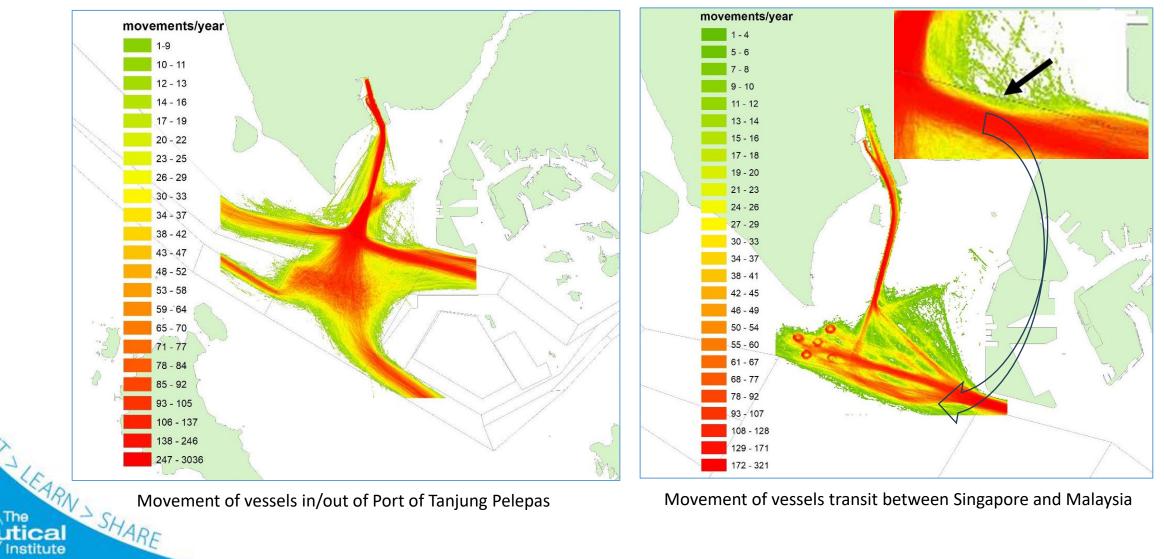


- There are currently over 200,000 movements recorded using the Straits annually
- There is no general direction of flow defined in the zone area
- Ships generally use the shortest distance to cross the Precautionary Area to pilot boarding ground or to join the Traffic Separation Scheme, traversing from multiple directions
- Ships tend to slow down in the middle of the Precautionary Area to adjust ETA



Tanjung Pelepas area specifically





Movement of vessels in/out of Port of Tanjung Pelepas

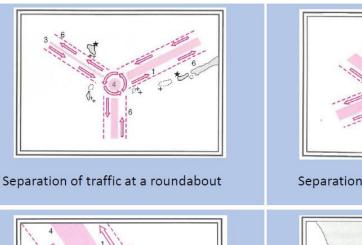
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Movement of vessels transit between Singapore and Malaysia

Possible routing measures for enhanced safety

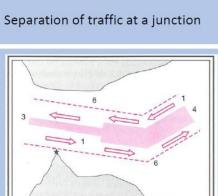


- Survey run in Jan-Mar 2023 by The Nautical Institute worldwide to obtain mariners' feedback
- Four possible configurations of traffic directions in the Precautionary Area (taken from the IMO Routing Schemes) were provided as generic options for participants to consider
- Other areas of the survey solicit feedback from mariners on the challenges navigating through the Precautionary Area
- Preferred choice by mariners: precautionary area with recommended directions of traffic flow





Precautionary area at a junction with Recommended directions of traffic flow



Traffic separation by separation zone and line

Survey Comments

- Over 800 filtered responses
- 2/3rd passing through SOMS at least one/twice yearly
- 52% masters with 1/4th over 20yr experience
- 51% commented on fishing vessels, small craft and tug/barges being an issue

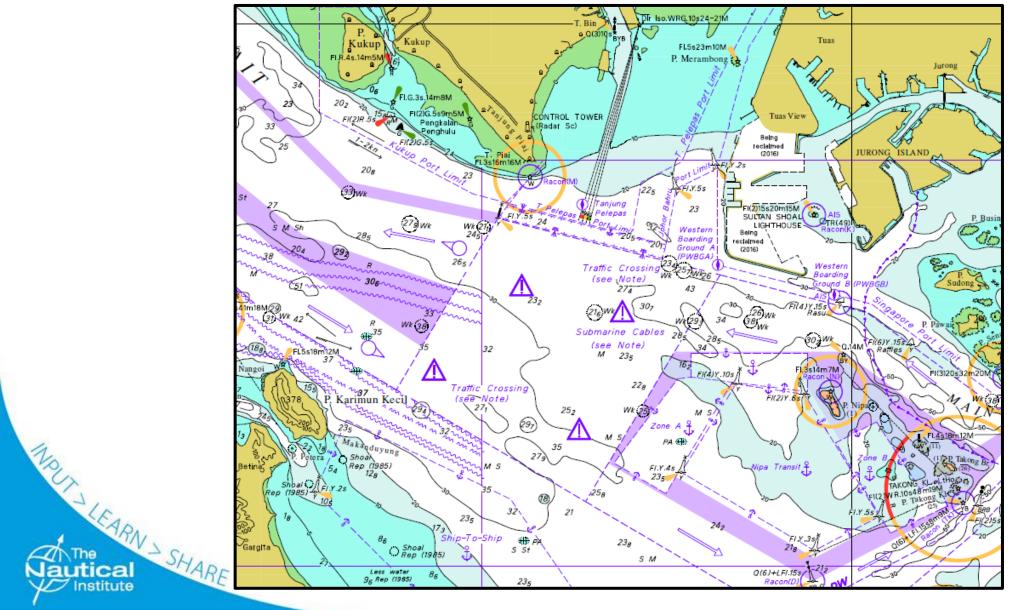


Some reported near-misses:

- Numerous close passes with fishing vessels
- Small vessels not complying with COLREGS, AIS switched off
- Fishing vessels, tug/tow in DW route
- Vessels from Eastbound lane crossing to pilot boarding grounds of Singapore and Tanjung Pelepas were not observing COLREGS
- Too many vessels with same pilot boarding time in a very small area between pilot boarding grounds and TSS
- Dangerous overtaking, head-on situations and cutting across bow in the Precautionary Area

Current Precautionary Area





Suggested changes to Precautionary Area



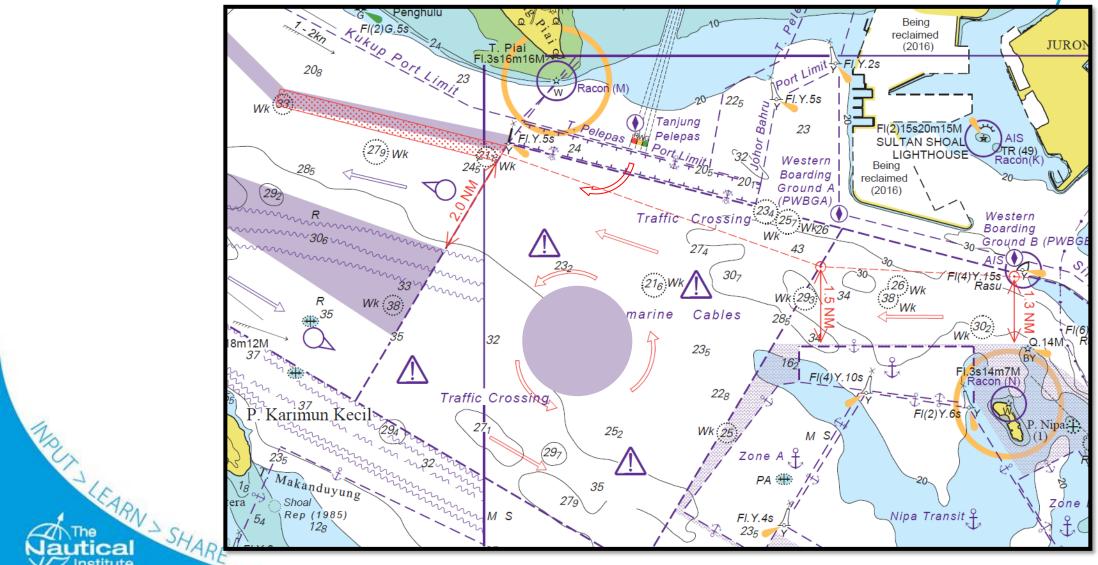
- Addition of roundabout in Precautionary Area with direction of flow arrows
- Shift the TSS boundary line from South of Singapore's pilot boarding ground Bravo till South of Kukup Island
- This will result in:
 - Segregation of traffic for ships coming to pilot boarding grounds of Singapore and Tanjung Pelepas, including those crossing TSS eastbound and ships coming from West crossing TSS
 - Additional space for ships to slow down and approach pilot boarding and disembarking grounds
 - No 'heads-on' situation anymore for ships crossing TSS diagonally towards pilot boarding grounds
 - Additional space for ships leaving Tanjung Pelepas to join westbound lane of TSS



Suggested changes to Precautionary Area

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