



INTERNATIONAL  
SAFETY@SEA  
WEEK 2025

## Pleasure Craft Safety Forum

# Safe Navigation around Common Grounding Areas

**Capt Sahwan Osman**

# Introduction

- Name: Capt Sahwan Osman
- Master Mariner COC 1, MBA in Maritime Management
- Former Dock Master/Marina Manager
- Senior Manager (Int. Mar. Prog/Senior Lecturer, SMA (SP)
- Trainer of various STCW Courses/Maritime specialised trainings
- STCW PSCRB/PPCDL/APPCDL Examiner
- Committee Member of MPA NMSSC & Co-Chair of PCSWG





# Safe Navigation around common Grounding areas

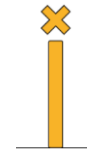
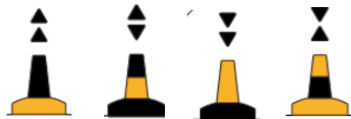
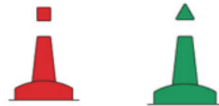
- Dangers to navigation in & around Singapore waters
- Buoyage System/AToNs
- Best practices to avoid grounding.
- Actions to take if aground.

# Dangers to Navigation in & around Sg waters

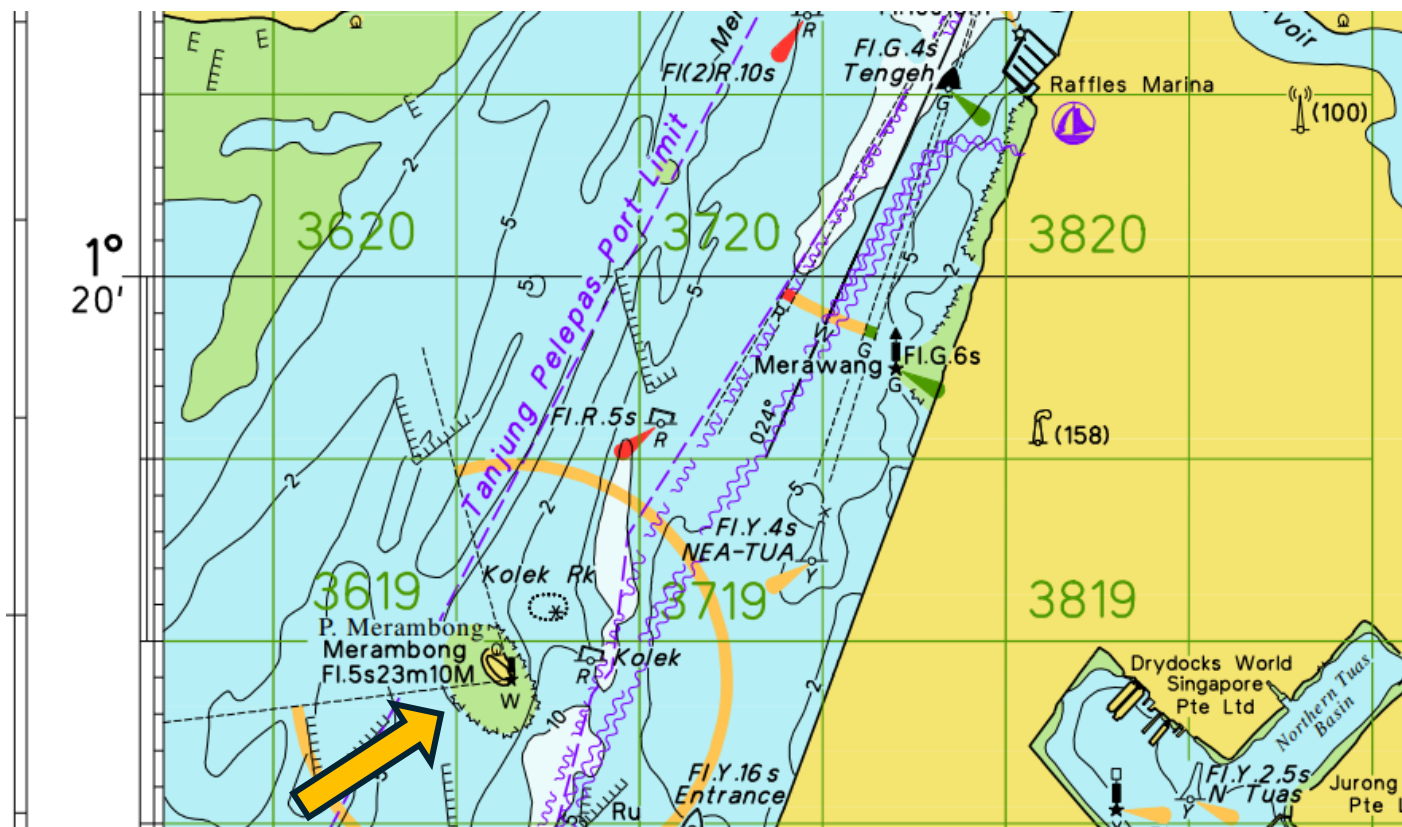
- There are several dangers to navigation in and around Singapore.
- All these dangers are clearly marked by aids to navigation such as buoys / beacons.
- Yet, there have been various grounding incidents.
- Possible reasons:
  - Unsure of the safe side to pass the AtoNs.
  - Poor situational awareness of the dangers.

# Aids to Navigation

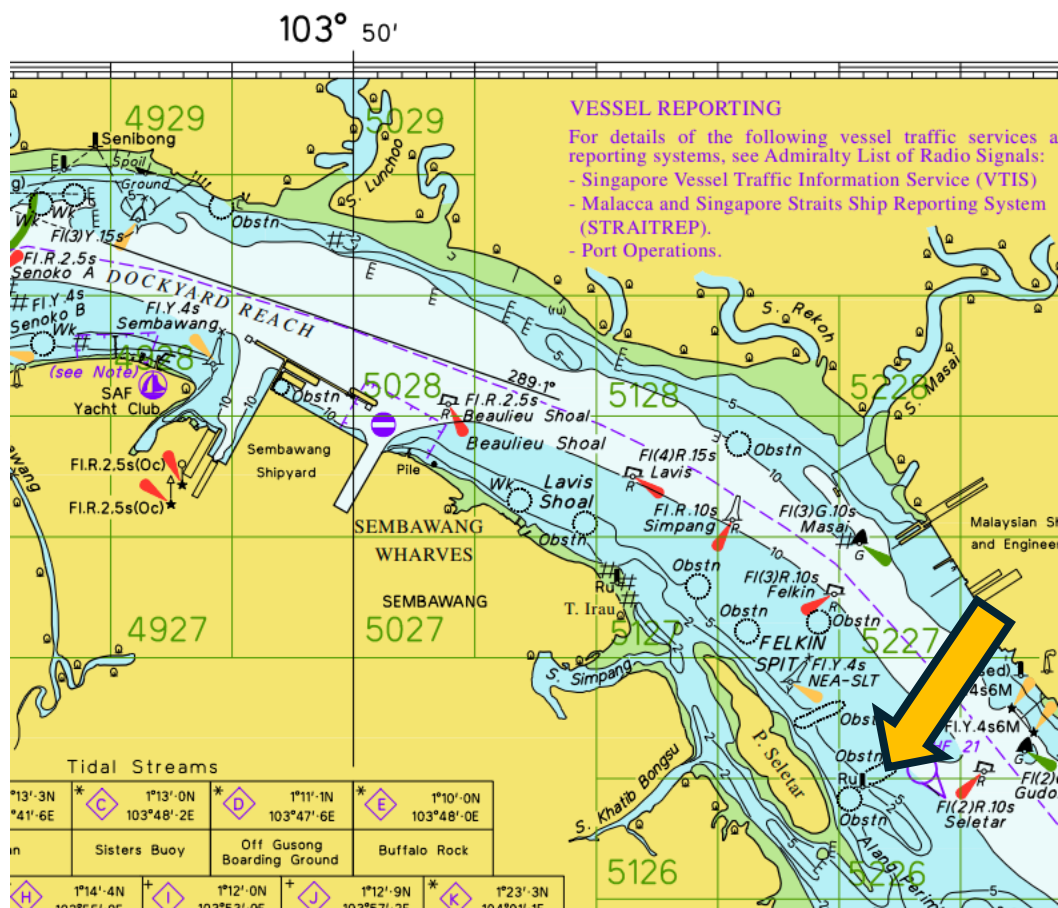
- Lateral marks: general direction approaching harbour, clockwise direction
- Cardinal marks: indicate safe side to pass danger
- Isolated Danger mark: place on or near a danger
- Special mark: indicate special area/feature
- Safe Water mark: navigable water



## P. Merambong – WJS, Kolek Buoy, Merambong Bn

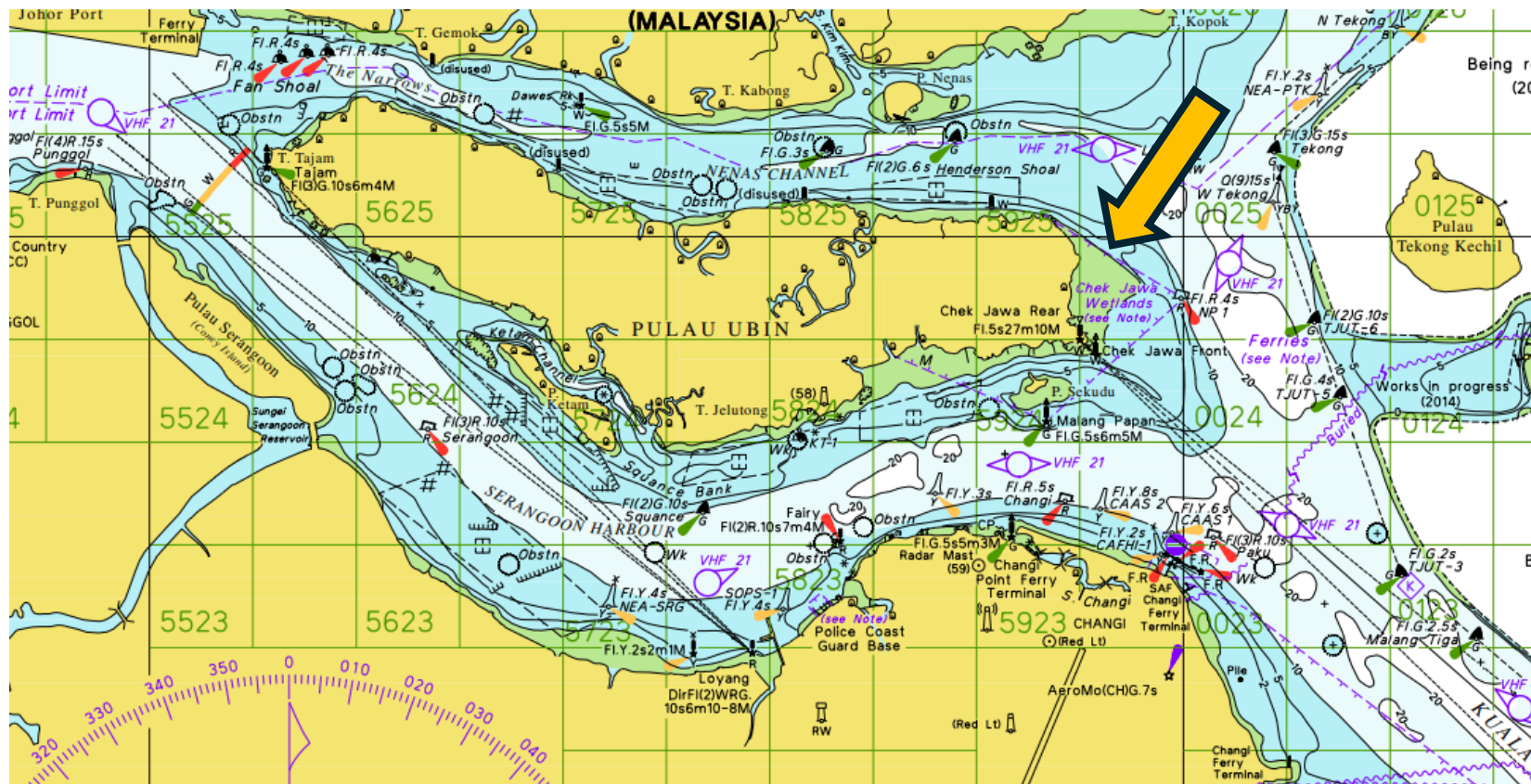


# P. Seletar - EJS





# P. Ubin – Chek Jawa Bn & NP1 Buoy

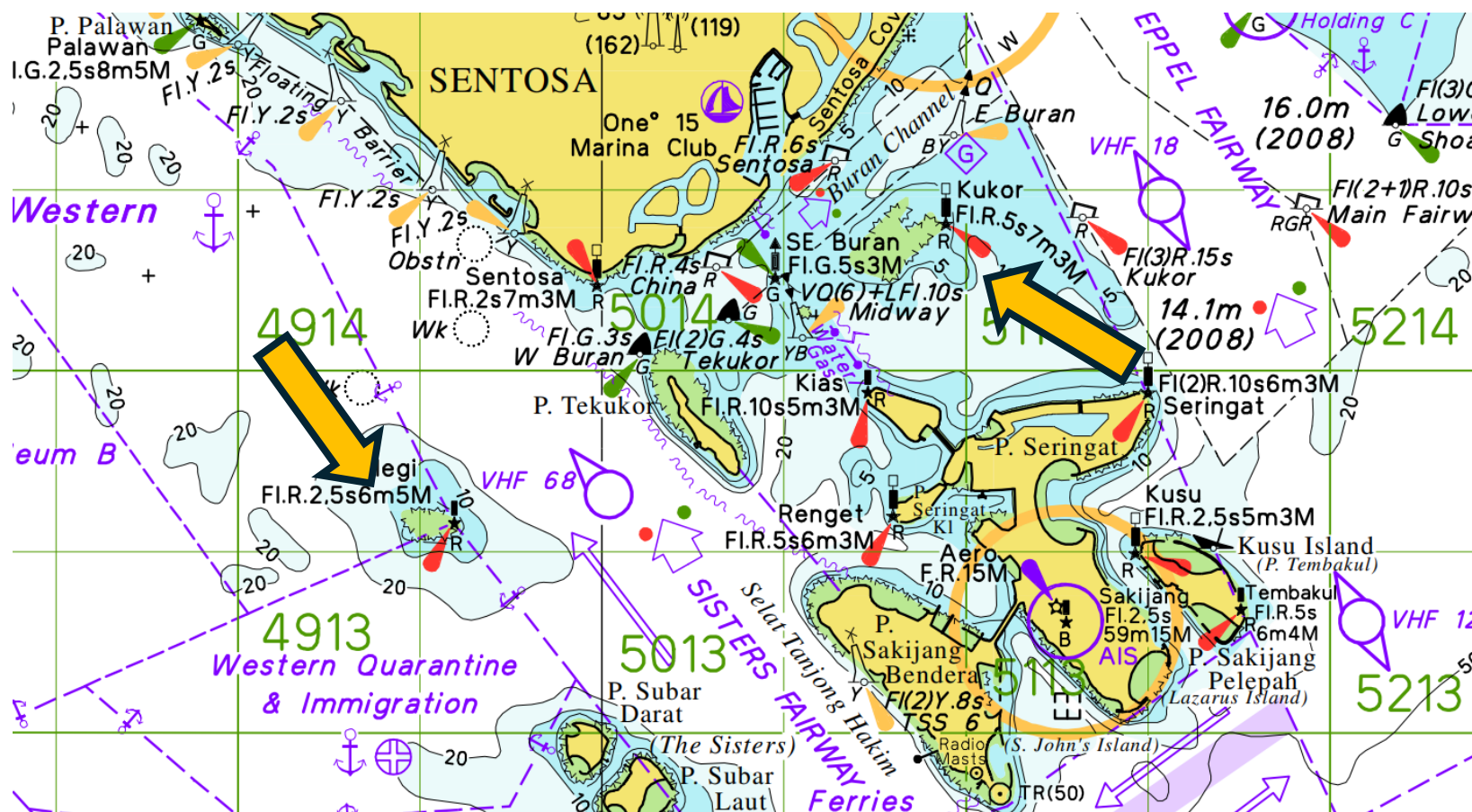




# Superyacht aground 2024



# Terumbu Selegi & Buran



# Buran Channel

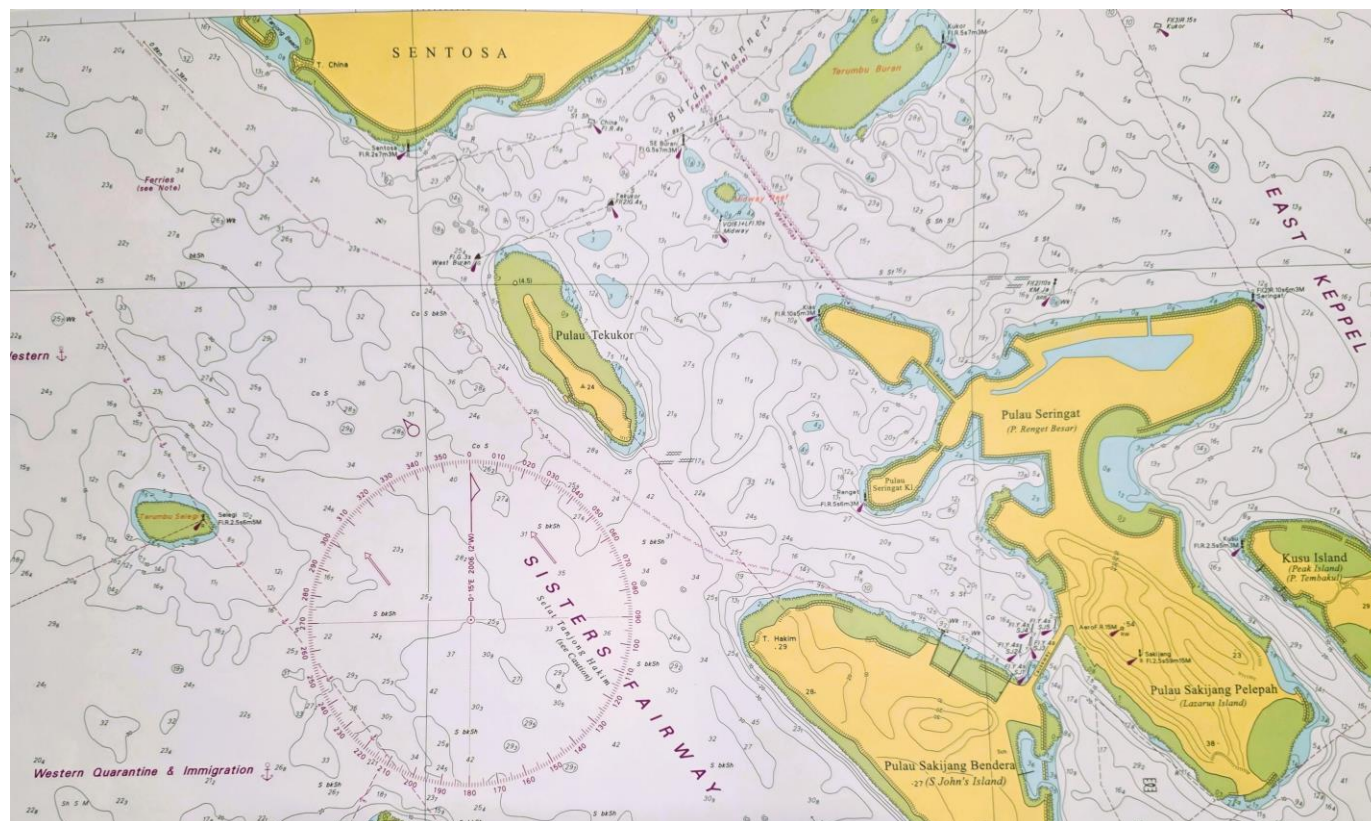
- Lateral marks installed in a W to E direction
- Red “Sentosa” bn mark & Green “W. Buran” buoy the entrance of channel
- S Cardinal “Midway” buoy marks shallow water off “Kias” Bn
- N Cardinal “E. Buran” buoy marks safer side to pass reef at “Kukor Bn”.

# Shallow water marked by Port hand beacon





# Buran Channel





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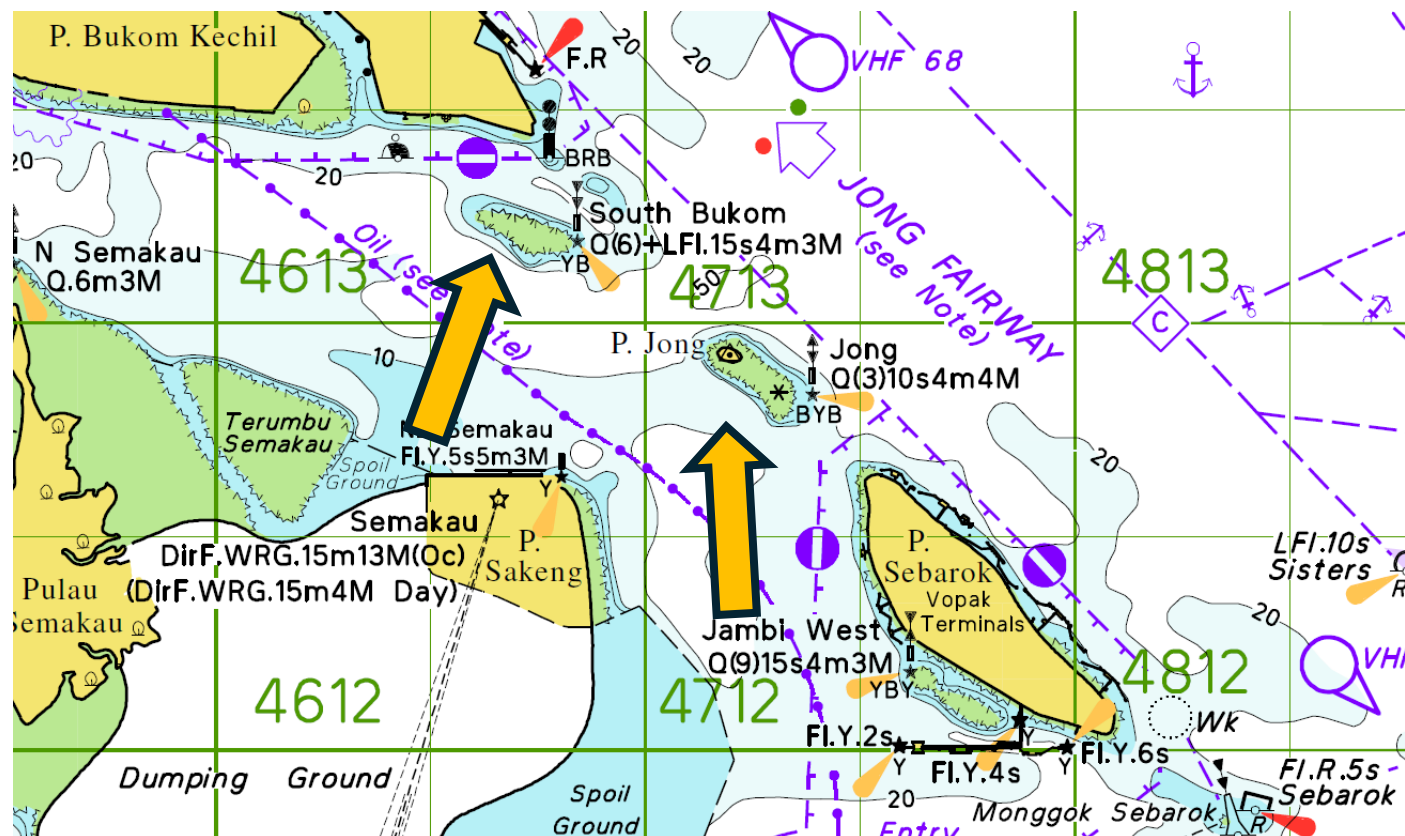
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# Selegi Reef



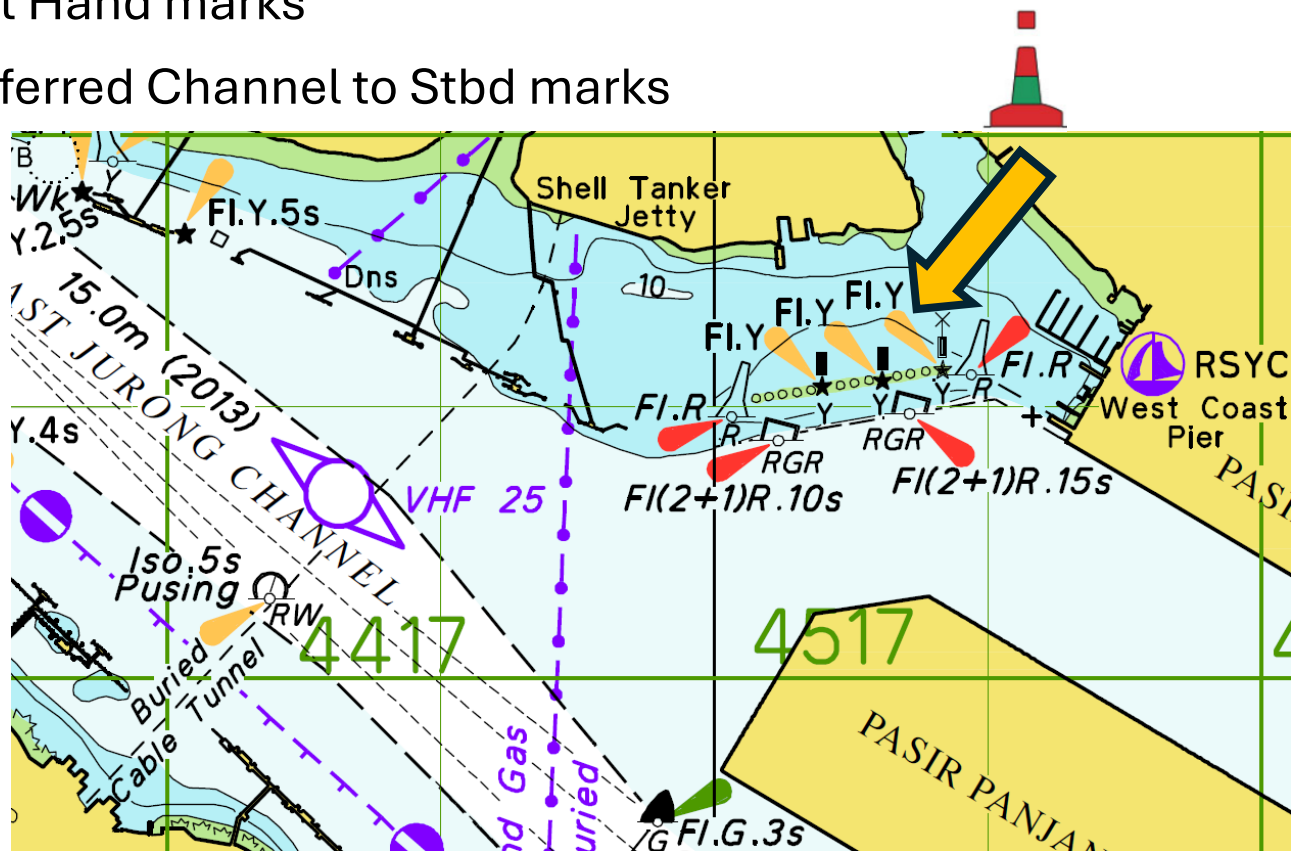
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# Terumbu Bukom & Jong

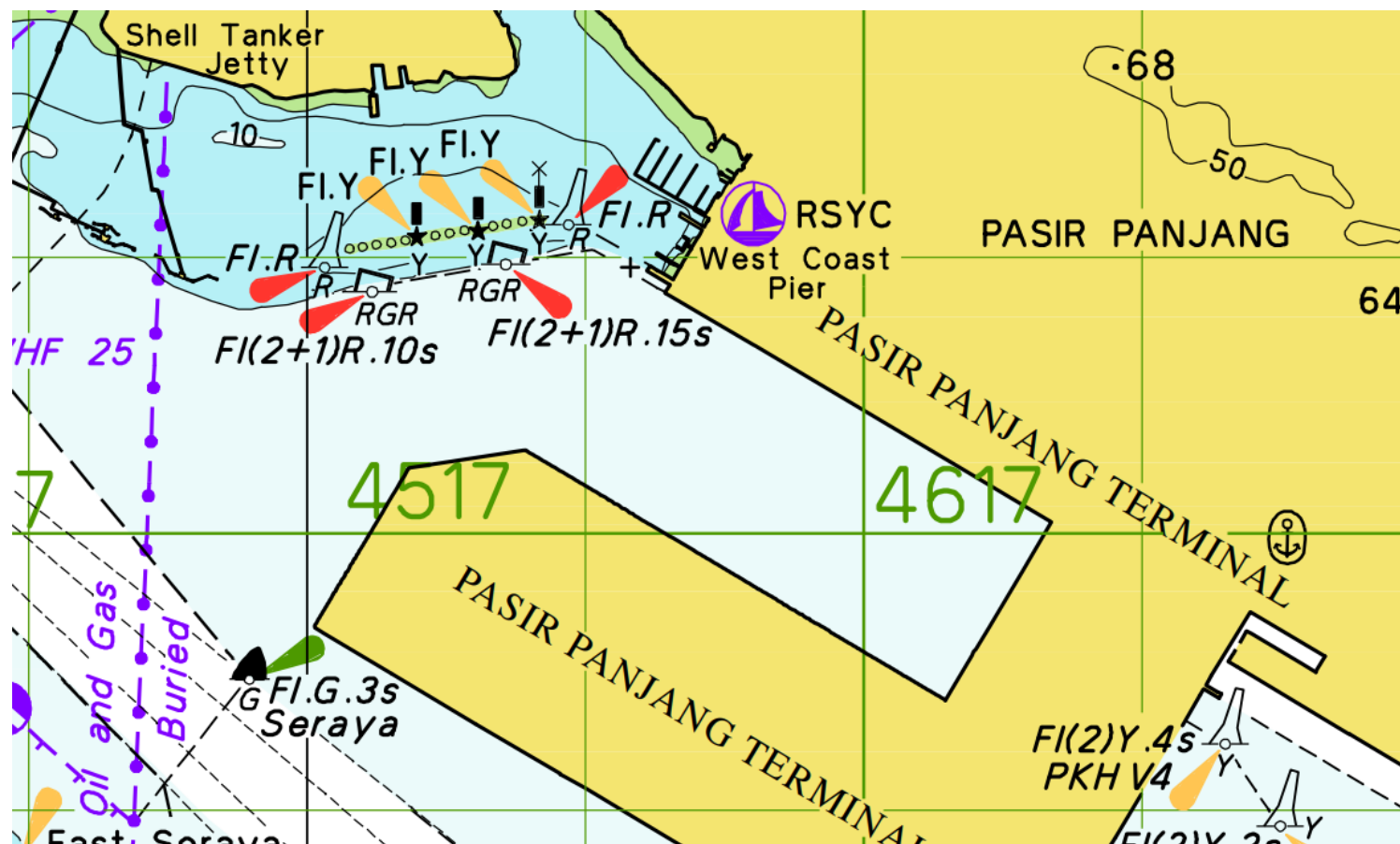


# Breakwater off RSYC/PPT

- Special marks
- Port Hand marks
- Preferred Channel to Stbd marks



# Breakwater





# Aground on breakwater



# Aground on breakwater



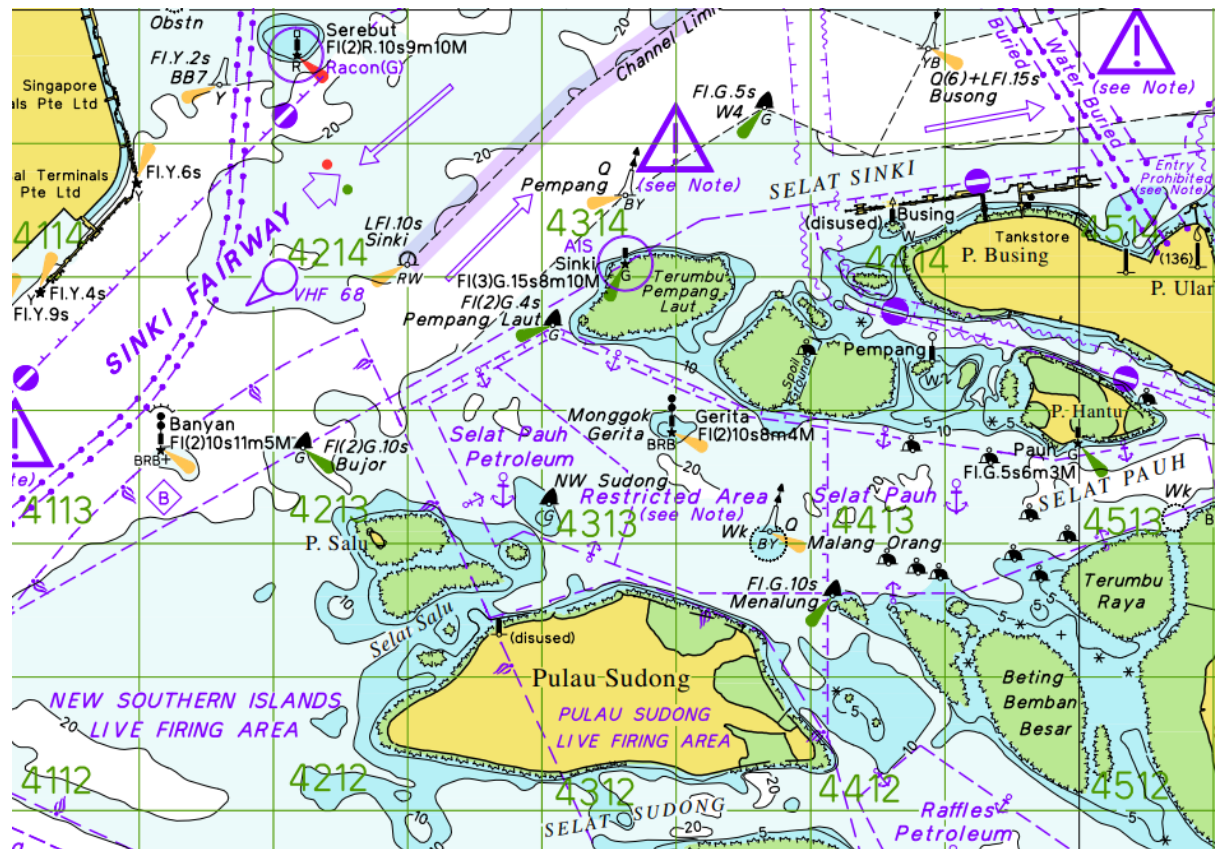


# Terumbu Pempang Laut

- Located along Sinki Fairway
- Marked by stbd hand mark - Sinki Bn & Pempang Laut Buoy
- Another N cardinal mark on the north – Pempang buoy
- Another Isolated Danger mark on the south – Gerita Bn

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# Terumbu Pempang Laut

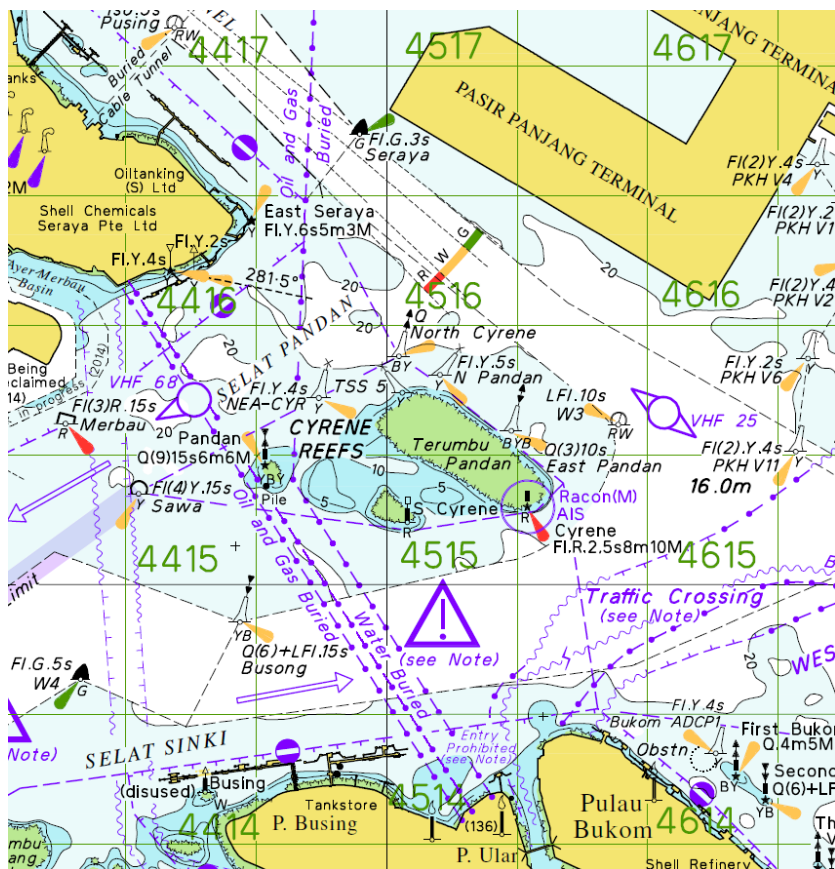




## Terumbu Pandan / Cyrene Reef

- One of the biggest reef in Singapore
- Lies between East Jurong Channel, Selat Sinki & Selat Pandan
- Marked by all 4 cardinal marks; North Cyrene Buoy, East Pandan Buoy, Busong Buoy & Pandan Bn
- Additionally, it is marked by Cyrene Bn (R) & S Cyrene Bn (R)

# Terumbu Pandan / Cyrene Reef



# Best Practices

- Passage planning (safe)
- Identify prominent nav. marks (posn)
- Mark “no go” areas (avoid reefs, shallow waters)
- Check the tides (low tide, tidal current)
- Check wx forecast (heavy rain, strong winds)
- Stock up emerg. equip. (repair, emerg. p/p, spare battery/ies).
- Save emerg. nos. (marina / club / tow)

# Aground Situation

- Carry out a damage assessment following the grounding situation.
- Damage assessment should initially cover:
  - Watertight Integrity of the Hull.
  - Engine Room check, as to Wet or Dry.
  - Casualty Report for injuries.
  - Pollution assessment.



# Aground Situation

- Subsequent actions:
  1. Sound/Check bilges.
  2. Pump out any water (if any).
  3. Assess surrounding depths particular attention to the fwd & aft regions (propeller/rudder).
  4. Carry out repairs wherever possible.
  5. Close all openings on deck.
  6. Find out the next HW/LW times & heights.
  7. Attempt to refloat at next rising tide.
  8. Call for assistance/tow.
  9. Record all events.



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