



Keelboat Safety Forum

11 October 2023

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Presenters

- Phil Darling – National Safety Equipment Auditor
- David Staley – MHYC Sailing Manager, National Race Officer



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Agenda

- Session Aims
- MHYC Risk Management Framework
- Harbour Hazards
- Groundings & Keel Inspections
- Vessel & Crew Preparation
- Man Overboard Retrieval Techniques
- Open Forum Discussion



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Session Aims

- Inform and educate
- Reduce personal injury
- Reduce property damage
- Increase awareness
- Make safety a priority



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Risk Management Framework



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Risk Management Framework

■ Accredited Officials

- Safety Equipment Auditors
- Race Officers

■ Documentation

- Australian Sailing Special Regulations
- Transport NSW Aquatic License Exemption
- Marine Safety Regulations
- Sailing Operations Plan
- Incident Management Plan
- Sailing Handbook
- Transport NSW Maritime Incident Reporting Process



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Risk Management Framework

■ MHYC Incident Reporting Process

- Website > Keelboat Club Racing Noticeboard > Incident Reporting
- On Shore or On Water Incidents - [MHYC Incident Report Form](#)

■ NSW Maritime Incident Reporting Process

- If the incident has resulted in death or injury, or damage in excess of \$5000 to a vessel or any other property, the report must be forwarded to Transport for NSW (TfNSW) within 24 hours, unless the particulars have already been given to a TfNSW officer

- <https://www.service.nsw.gov.au/transaction/submit-vessel-incident>



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Risk Management Framework

■ Safety Equipment Audits and Free Get Checked Days

■ Communication

- Annual Skippers Briefing
- Other Forums
- Notices & Reminders – Noticeboard, Email
- Signals



↑•
L Ashore: A notice to competitors has been posted. Afloat: Come within hail or follow this vessel.



↑•
Y Wear a personal flotation device (see rule 40).



↑—
V Monitor communication channel for safety instructions (see rule 37).



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Risk Management Framework

■ Communication



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Harbour Hazards



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Harbour Hazards



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Harbour Hazards

■ Commercial, Military & Recreational Boating Traffic



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Harbour Hazards

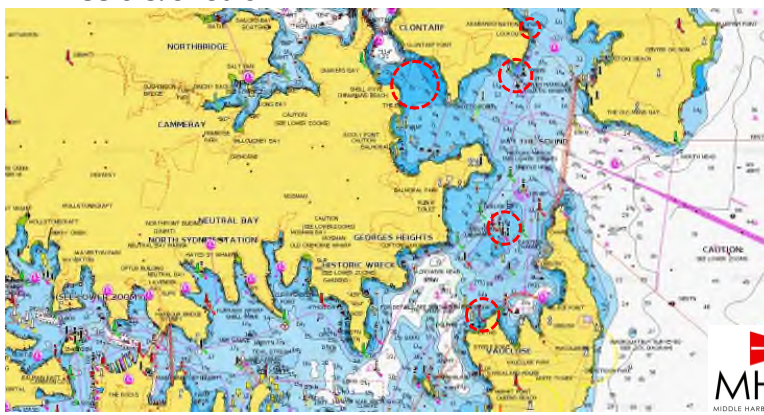
■ Commercial, Military & Recreational Boating Traffic



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Harbour Hazards

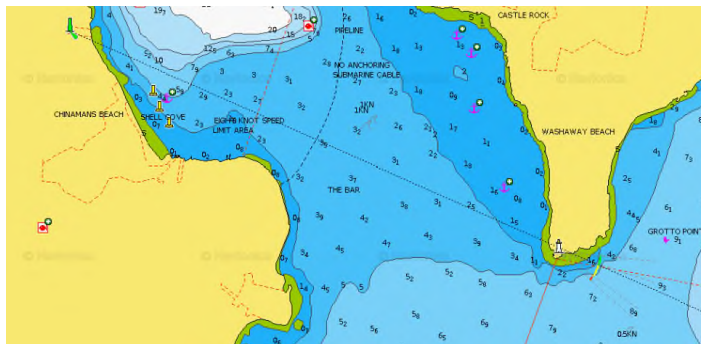
■ Reefs & Shoals



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Harbour Hazards

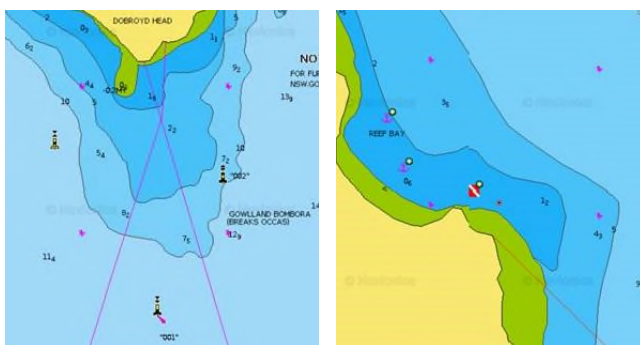
■ Reefs & Shoals – Middle Harbour Bar



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Harbour Hazards

■ Reefs & Shoals – Gowlland Bombora & Reef Beach



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Harbour Hazards

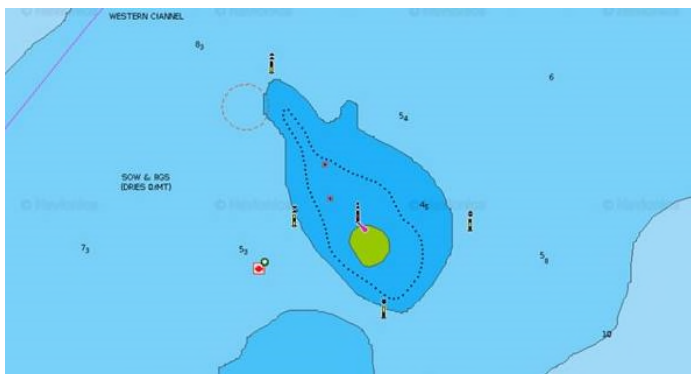
■ Reefs & Shoals – Gowlland Bombora & Reef Beach



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Harbour Hazards

■ Reefs & Shoals – Sow & Pigs Reef



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Harbour Hazards

■ Reefs & Shoals – Neilson Park / Shark Bay



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Harbour Hazards

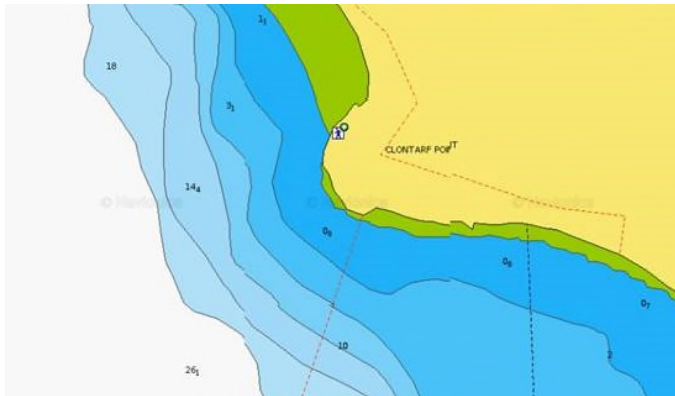
■ Reefs & Shoals – Neilson Park / Shark Bay



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Harbour Hazards

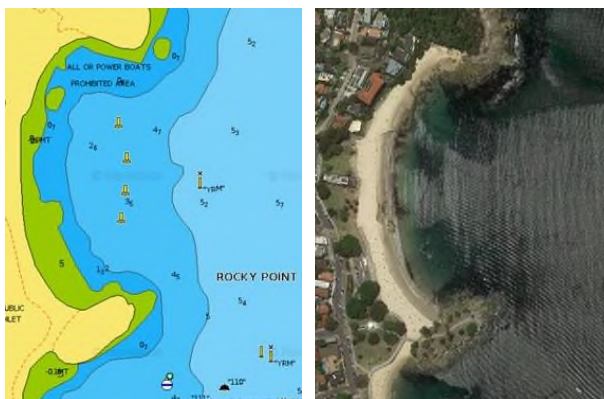
■ Points & Headlands – Clontarf Point



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Harbour Hazards

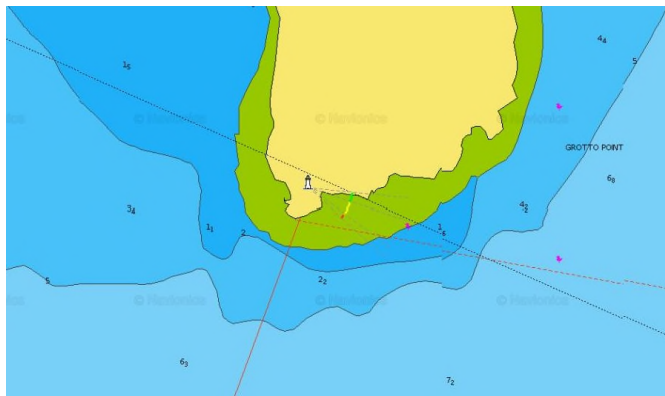
■ Points & Headlands – Rocky Point



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Harbour Hazards

■ Points & Headlands – Grotto Point



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Harbour Hazards

■ Points & Headlands – Middle Head



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Harbour Hazards

■ Points & Headlands – Middle Head



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Harbour Hazards

■ Points & Headlands – Middle Head



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Harbour Hazards

■ Points & Headlands – South Head



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Harbour Hazards

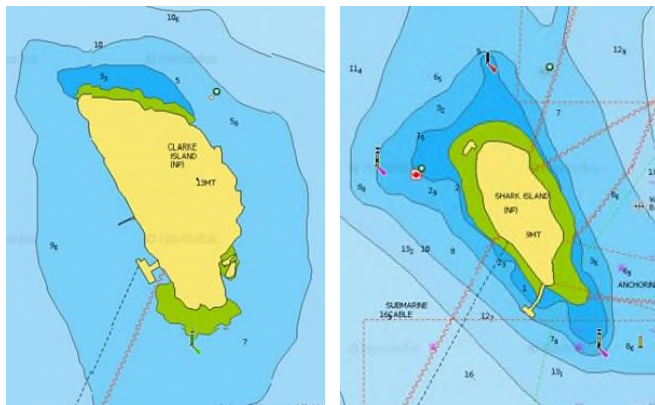
■ Points & Headlands – South Head



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Harbour Hazards

■ Islands – Clarke Island & Shark Island



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Harbour Hazards

■ Islands – Fort Denison



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Harbour Hazards



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Groundings & Keel Inspections



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Groundings & Keel Inspections

- What if we touch the bottom?
- We may (or may not) have done damage - but how do we know?
- Even “soft” groundings (in sand or mud) may have caused damage to the keel, keel bolts or scantlings
- There have been a number of serious incidents where keels have become detached over the years
 - LCE Showtime (Ker 40 - Jan 2020) – returning from Hobart
 - Nexba (Farr X2 30ft March 2022) – off Wollongong
 - Cheeki Rafiki (Beneteau 40.7 – 2014) – mid Atlantic
 - Quite a few other production makes – often near coastal



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Groundings & Keel Inspections

- For Categories 1-3, this is a Special Regs requirement.
 - SR 3.02.5: *Evidence of a structural inspection in accordance with 3.02.4 within 24 months before the start of the race or after a grounding whichever is the later.*
 - SR 3.02.6: *Inspection after Grounding – an appropriately qualified person shall conduct an internal and external inspection after each unintentional grounding.*
- SR 3.02.4 and Appendix C give an outline of requirements
 - External out-of-water check by a qualified person
 - Check all keel bolts & re-tighten if necessary
 - Check for visible stress cracks



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Groundings & Keel Inspections

- For Categories 4-7, there is a MHYC requirement
 - NOR Section 11: *...it is a MHYC requirement that the person in charge satisfies themselves of the continuing structural integrity and safety of the vessel after any grounding, however minor.*



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Groundings & Keel Inspections

- Cats 1-3: SR 3.02.4 and Appendix C give an outline of requirements:
 - External out-of-water check by a qualified person
 - Check all keel bolts & re-tighten if necessary
 - Check for visible stress cracks
- Cats 4-7: we recommend that the “Model Keel and Rudder Inspection Procedure” in Appendix C3 be used as a guide.



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Vessel & Crew Preparation



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Vessel & Crew Preparation

- Hull, Rig & Sails
- Anchoring
- Emergency Equipment
- Crew Familiarisation & Training



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Hull, Rig and Sails

- Right gear for the day? What if conditions change?
- In good order?
- Enough fuel to get home?
- Bilge pumps OK? Buckets on board?
- Checklist before setting out



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Vessel & Crew Preparation - Anchoring

- If all else fails – stops a bad situation getting worse
- Must be assembled and ready to deploy
- Can the crew get it deployed quickly enough?
- Is it secured at the bitter end?
- Have you checked it in practice?



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Emergency Equipment

- Cat 7 (in-harbour) or Cat 4 (offshore) or as required by the sailing instructions
- Requirement to have equipment on board, in good condition and ready to use
- The regulation gear is just the minimum – your boat and your crew may need or want more
- Make sure the crew and yourself can use it properly
 - radio (which channel?)
 - flares
 - anchor, MOB gear, first aid kit, and more ...



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Crew Familiarisation and Training

- For existing and new crew – have the occasional training day
- MOB
- Anchoring
- Reefing and storm sails
- Water ingress
- Abandon ship/calling for help
- Fire
- Medical emergencies
- Where the gear is kept
- And don't forget to brief new crew/guests



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Man Overboard Retrieval

- More common than you think – we have them regularly
- Can be fatal – eg Feb 2023 Lincoln Week Regatta
 - Cat 6; fell overboard & drowned during pre-start



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Man Overboard Retrieval

- Preparation – Equipment and Training
- Awareness – Recognise they are gone
- Locate
- Return to MOB
- Retrieval (Get them out of the water)
- Check and treat – are they OK? Do they need first aid or medical/hospital treatment?



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Man Overboard - Preparation

- Have the right equipment
- Have a procedure and practice it with the crew
- What if you (the skipper) goes over?



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Man Overboard - Awareness

- Shout and point
- Roll call after an incident
- Buddy system?
- BUT – stay calm don't panic

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Man Overboard - Locate

- Point & Shout (if you can see them - don't lose sight)
- MOB button on your GPS (position to return to)
- Lifering or Danbouy to mark position
- Williamson turn? (motor boat technique – but it does work)
- Search pattern (and call for help – Mayday if necessary)
- At night – hope they have a light or at least reflective gear



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Man Overboard - Return

- Stop as fast as possible
- Headsail/spinnaker down
- Centre the main
- Engine on (even if you don't need it – but be careful of lines in the water)
- Return as quickly as you can
- BUT – keep someone watching the MOB
- AND – stay aware of other vessels and hazards
- AND – keep the rest of the crew safe on board



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Man Overboard - Retrieval

- Return upwind
- Stop next to them (Windward? Leeward?) OR drift down sideways
- If conscious
 - get a line to them (lifesling? Throwline?)
- If unconscious
 - someone needs to go in with them - but don't lose them too! (tie to the boat)
- Get them on board – somehow! (means will vary)



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Man Overboard – Check and Treat

- Are they OK?
- Why did they go over? Any injuries from that?
- Do they need first aid? Do you need to get them to medical or hospital treatment?
- Watch out for secondary drowning
- Sources of help
 - other boats
 - Marine Rescue
 - MHYC (VHF 72)
- OR – is everything OK and you can just continue?



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Man Overboard – Final Words

- Can be very serious
- Best treatment is prevention – keep everyone on board!



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Open Forum Discussion



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