



**MHYC**  
MIDDLE HARBOUR YACHT CLUB

# Keelboat Safety Forum

Wednesday 9 October 2024





# Keelboat Safety Forum



## Presenters

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





# Keelboat Safety Forum



## Agenda

- Session Aims
- MHYC Risk Management Framework
- Safety Afloat
- Avoiding Incidents – Harbour Hazards, Scenarios
- Recovering from Incidents – Groundings, Vessel & Crew Preparation, Man Overboard
- Open Forum Discussion





# Keelboat Safety Forum



## Session Aims

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





# Risk Management Framework



## Accredited MHYC Officials

- Safety Equipment Auditors
- Race Officers

## MHYC Documentation

- Sailing Operations Plan
- Incident Management Plan
- Sailing Handbook





# Risk Management Framework



## Other Documentation

- Racing Rules of Sailing
- Australian Sailing Special Regulations
- NSW Marine Safety Regulations
- International Rules for the Prevention of Collisions at Sea (COLREGS)
- Transport for NSW Aquatic License Exemption
- Transport for NSW Maritime Incident Reporting Process





# 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
- [www.service.nsw.gov.au/transaction/submit-vessel-incident-reports](http://www.service.nsw.gov.au/transaction/submit-vessel-incident-reports)





# Risk Management Framework



Safety Equipment Audits and Free Get Checked Days

## Communication

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







# Risk Management Framework



## Communication

- Signals
- VHF



↑ ●  
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).





# Safety Afloat



## Two components:

- Avoiding incidents

Or, if something does happen, then...

- Recovering from incidents





# Part 1 – Avoiding Incidents



## It will never happen to me, will it?

We have had a number of significant incidents – no deaths (that I am aware of), but hospitalisations and vessel damage.

Actual events during MHYC races include:

- Clubhouse start – unexpected gybe in shifting winds, 2 crew hit in the head, one overboard face down in the water unconscious
- Rose Bay mark – skipper overboard, dragged backwards through the water by the main sheet at 6 kts
- Fort Denison – vessel aground on western end, major keel and rudder damage





# Harbour Hazards



## Commercial, Military & Recreational Boating Traffic

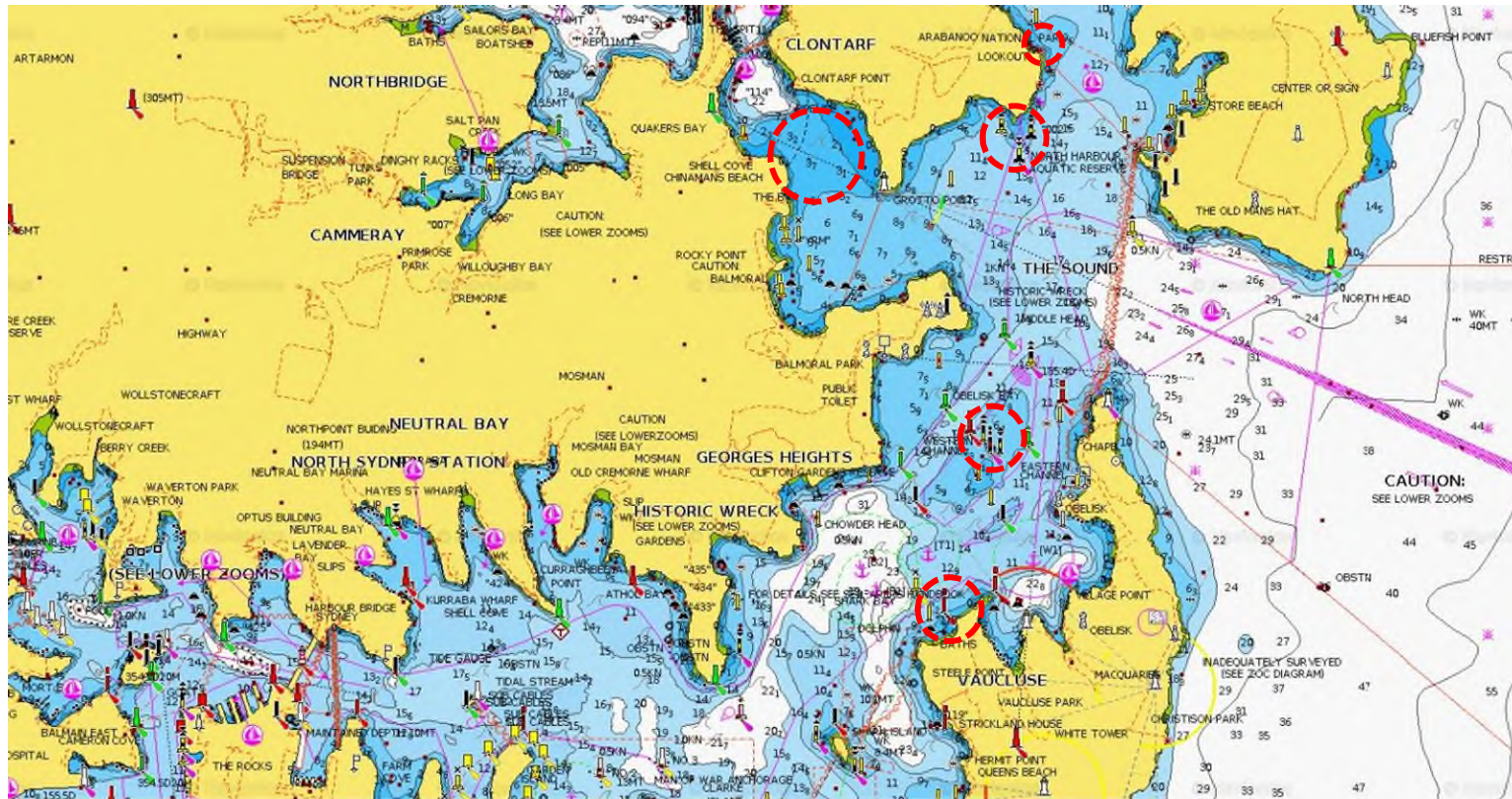




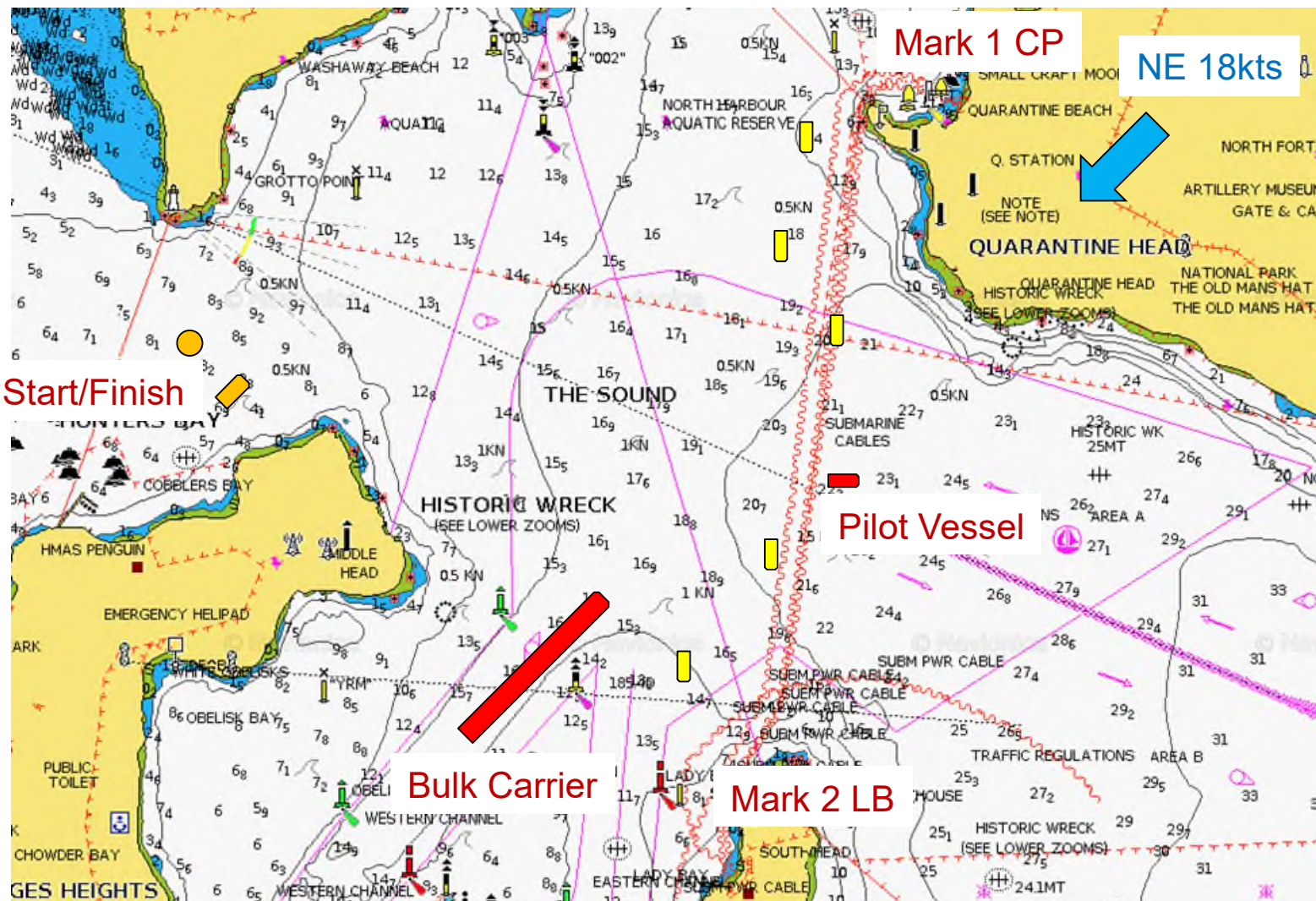
# Harbour Hazards



## Reefs & Shoals



# Scenario 1





# Activated Exclusion Zone



## Competitors shall:

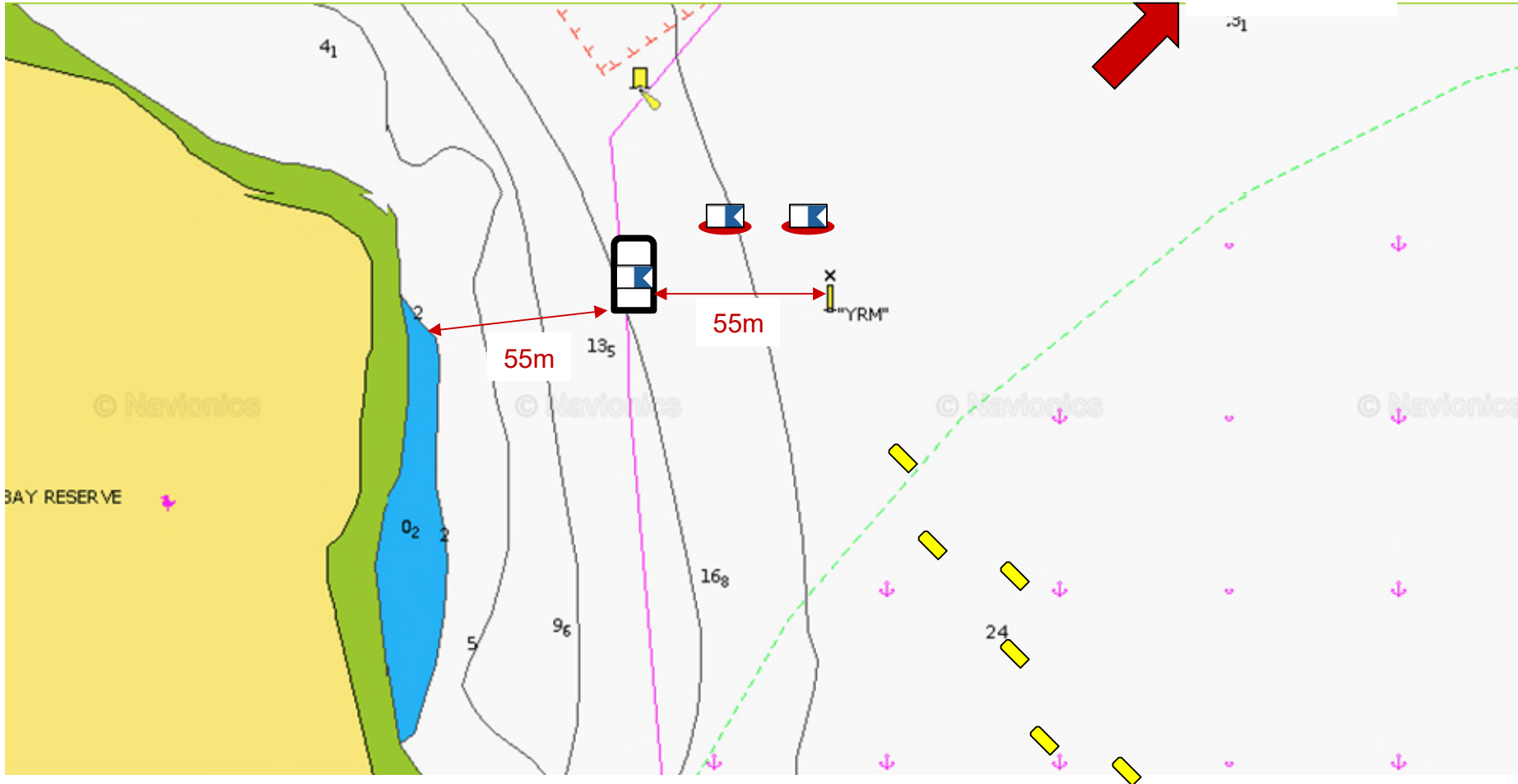
- not pass between the bow of any Seagoing Ship and a dedicated NSW Port Authority escort vessel whilst on escort duty.
- maintain a minimum distance of 500 metres from the bow and 30 metres from the side or stern of any Seagoing Ship underway.
- maintain a minimum distance of 200m from the bow, and 30m from the sides or stern of any Ferry underway.



*MHYC Sailing Handbook p14*



# Scenario 2







# Diver Below



2016 NSW Marine Safety Regulation 40 states:

- The operator of any vessel must ensure that the vessel and any towing equipment and any person being towed by the vessel maintains a distance of not less than 60 metres from the location of a dive flag on the surface of the water or, if that is not practicable, a safe distance and speed.





# Part 2 – Recovering from Incidents



## What you need

- Readiness (a mental state) – be prepared for the unexpected
- The right gear – special regs requirements are just the start
- Training – crew readiness:
  - MOB
  - Other possibilities (fire, collision, ...)





# 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:
  - Cheeki Rafiki (Beneteau 40.7 – 2014) – mid Atlantic
  - LCE Showtime (Ker 40 – Jan 2020) – returning from Hobart
  - Nexba (Farr X2 30ft March 2022) – off Wollongong
  - Runaway (Sayer 11m June 2024) – off Lady Elliot Island
  - Quite a few other production makes – often near coastal





# Groundings & Keel Inspections

**For Categories 1–3, this is a Special Regulations 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





# Groundings & Keel Inspections



## For Categories 4-7

- MHYC recommends that the “Model Keel and Rudder Inspection Procedure” in Appendix C3 be used as a guide.





# Vessel & Crew Preparation

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





# Vessel & Crew Preparation



## Hull, Rig & Sails

- Is there water in the bilge?
- Are the sea cocks operational?
- Have we checked the rig? Checked or tightened all shackles?
- Are the sails in good condition? Any un-repaired tears or weaknesses?





# 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?







# Vessel & Crew Preparation

## 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
- Make sure the crew and yourself can use it properly
  - radio (which channel?)
  - flares
  - anchor, MOB gear, first aid kit, and more ...
- The regulation gear is just the minimum – your boat and your crew may need or want more





# Vessel & Crew Preparation



## 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





# Man Overboard!



More common than you think

**Can be fatal**

- Feb 2023 Lincoln Week Cat 6 event – MOB drowned during pre-start





# Man Overboard



## Procedure

- 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?





# Man Overboard



## Preparation

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





# Man Overboard

## Awareness

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





# 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





# 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







# 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)





# Man Overboard



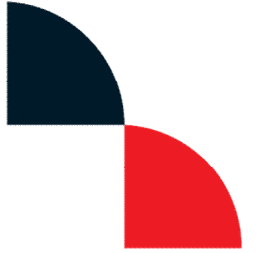
## Check and Treat

- 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?





# Man Overboard



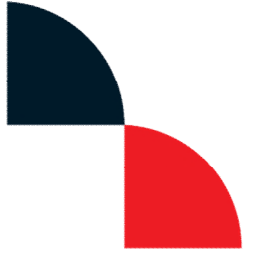
## Final Words

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





# Open Forum





# Thankyou!

*Please stay safe on the water 😊*

