

Elwood Sailing Club

Race Management Operations and Safety Manual

November 2022

[Document under review. Comments welcomed via email to Club Manager]

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ACKNOWLEDGEMENT

In preparing this document, ESC has reviewed and adopted parts of Sandringham Yacht Club on-water safety and procedure manual for OTB racing. We are grateful for their leadership in this area.

1. INTRODUCTION

Purpose of Manual

This ESC Race Management Operating and Safety Manual provides race management volunteers with a framework for preparing for and conducting races, and responding to on-water incidents and emergencies.

This manual is not exhaustive nor is it a substitute for common sense or crisis management.

ESCs Vision and Values

ESCs vision is to be the off-the-beach sailing club of choice in the bayside area:

- Our purpose is to provide competitive, family friendly sailing for all skill levels
- We are focused on providing opportunities and pathways for more people to become involved
- We provide quality sail training, coaching and mentoring programs

Four core value underpin everything we do:

- Fun – enjoy being around the Club
- Respect – making others feel valued and welcomed
- Integrity – do what is right
- Contribute – be active, get involved

A copy of ESCs strategy one-pager - 'We are Elwood Sailing Club' - can be found under the 'Documents' tab on the Club's website.

ESC Policies and Procedures (Club Level)

At a club level, ESC has a number of rules, policies and procedures that set an overarching safety and governance framework for race management activities, including:

- Club By-Laws
- Risk Management Plan
- Risk Register On-Water Activities
- Code of Conduct
- Code of Conduct for dealing with Children & Young People
- Child Safety Policy
- Child Safety on Duty or Sailing on Race Days
- Guidelines for use of Communal Change Rooms

Copies of these documents can be found under the 'Documents' tab on the Club's website.

Overview of On-Water Race Management Activities

ESC runs club races for OTB sailboats on most Saturday's from October to May, excluding a four-week break over the Christmas / New Year period. In addition to these club races, ESC also hosts from time-to-time class specific regattas, including state and national championships.

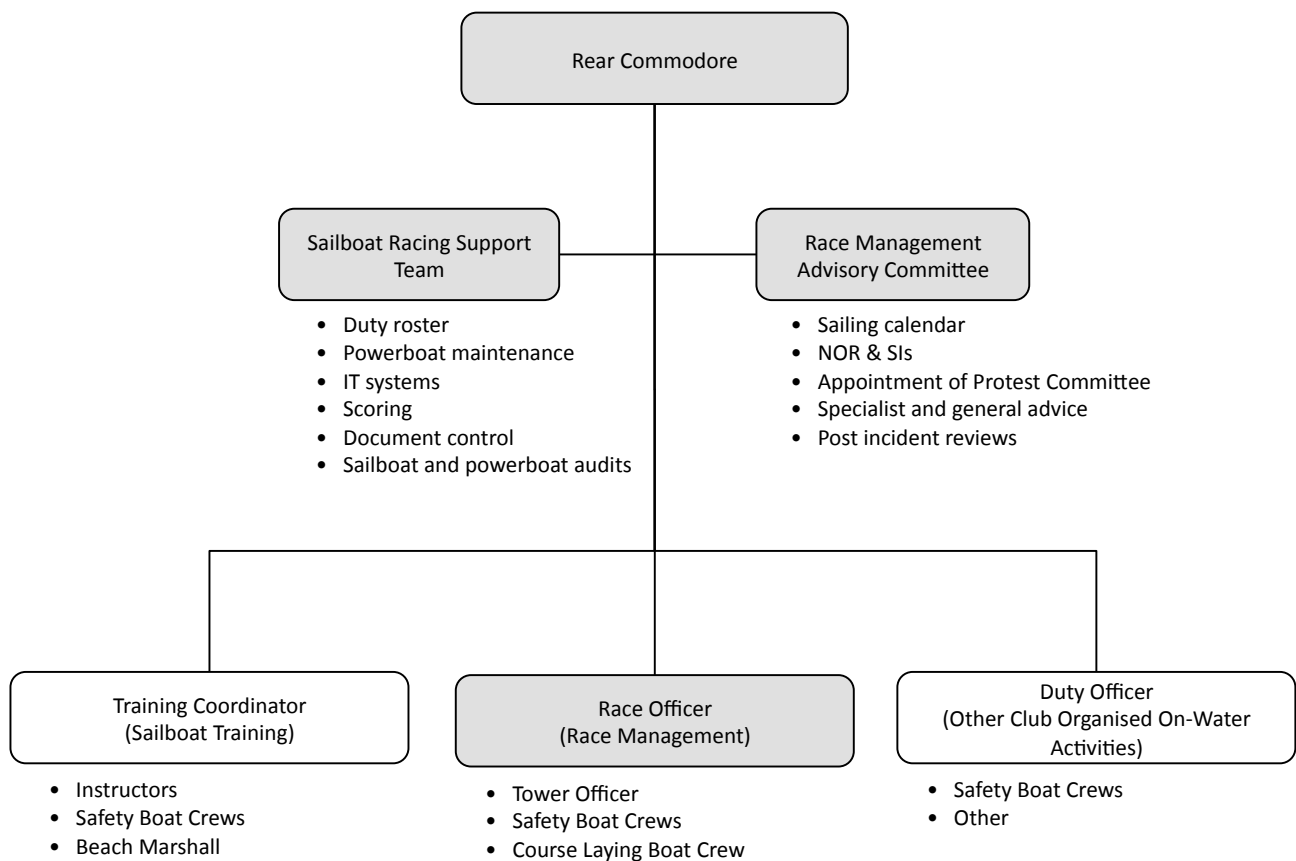
For club races, fleet sizes range from around 30 to 40 boats. Roughly two-thirds of boats participating in club races are single-handed and the remainder are double-handed.

The Club also runs non-racing on-water sailboat activities, for example capsized training exercises.

On-water powerboat handling and rescue courses are generally run during the off-season.

Organisational Structure

The organisational structure for Race Management is shown in the chart below.



2. ROLES AND RESPONSIBILITIES

The **Rear Commodore (RC)** is accountable for ensuring the key prerequisites are in place for the safe delivery of all race management activities, including:

- Ensuring all race management control documents, operating manuals, risk management plans and emergency response plans are fit for purpose and up to date
- Coordinating routine checks of equipment and procedures, including ensuring compliance of sailboats with AS Special Regulations Part 2 for OTB Boats
- Appointment of experienced and capable Race Officers
- Training of race management volunteers
- Overseeing the maintenance of race management assets
- Fostering a team culture based around respect

The **Race Officer (RO)** is the person in charge of a sailboat racing event. The RO is responsible for:

- The safety of all on-water race management volunteers and sailors
- Coordination of all on-water sailboat racing activities
- Ensuring the races are fair
- Briefing the race management team and sailors prior to the commencement of on-water activities
- Deciding whether racing should be cancelled due to forecast poor weather conditions, insufficient safety boats for safe operations, or any other reason
- Declaring an on-water emergency situation and coordinating all rescue efforts
- Determining, in conjunction with other rescue personnel, whether an ambulance should be called in the event of injury or illness on-water
- In the event of a missing person or sailboat, immediately notifying the Water Police

Tower Officer (TO) is responsible for:

- Coordinating on-shore sailboat racing activities when the RO is afloat
- Monitoring weather conditions and informing the RO of potential changes
- Keeping a log of all safety critical Tower calls
- Keeping a record of sailboats experiencing difficulty, including time in water
- Keeping a record of boats that have returned to the beach prior to the conclusion of racing and cross checking against the sign-off register
- Keeping a list of competitors removed from their boats and their whereabouts
- Checking the sign-on/off register, following up on anomalies and notify the RO of any concerns

The **Powerboat Master** is the person who is in charge of the boat. The Master is responsible for:

- The safety of his/her crew
- Ensuring crew members are appropriately dressed and, if required are wearing a PFD
- Ensuring compliance with all Victorian boating regulations
- Conducting pre-departure checks
- Assigning tasks and directing crew members as required

Safety Boat Crews are responsible for:

- Patrolling the race course as directed by the RO
- Assisting boats in difficulty
- Rescuing sailors

3. GOLDEN RULES TO PREVENT SEVERE INJURY OR DEATH

Person in Charge

A suitably qualified officer appointed by the RC must conduct all club organised on-water activities:

- **Race Officer** responsible for sailboat racing activities
- **Training Coordinator** responsible for sailboat training activities
- **Duty Officer** responsible for other on-water sailboat and powerboat activities – eg capsized recovery days, powerboat training, supervision of non-racing Club Pacers

Safety Boat Coverage for Sailboat Racing Activities

On-water sailboat racing activities are only permitted if the following conditions are met:

- Sailboat to Safety Boat ratio of 12:1 or lower
- Sailor to Safety Boat ratio of 18:1 or lower

For the purpose of determining coverage, the course laying boat (usually Julie Waugh) and the start/finish boat (usually Qucikcat) are deemed to be safety boats. Except for the start/finish boat, all safety boats must carry a dedicated rescue swimmer. All race management boats must have a crew of at least two people including the Master.

If the RO believes the safety boat coverage is insufficient and no additional resources can be secured, then racing must be abandoned.

Note, different safety boat coverage ratios apply to Sailboat Training activities. Refer Training Operations and Safety Manual for further details.

Wind Limits for On-Water Activities

On-water race management activities must not be conducted if a Gale Wind warning for Port Phillip is current for the day of the planned activity. If a Strong Wind warning is current, the event can only take place with the unanimous approval of the RO, RC and Commodore.

At ESC, sailboat racing activities should only be conducted if the average wind strength is 22 knots or less, as measured at:

- The start / finish boat
- St Kilda Marina for SW-W-NW winds
- Fawkner Beacon for N-NE-E-SE-S winds

The sea state and skill level of sailors should also be taken into consideration when making an assessment whether to conduct or abandon racing.

Personal Floatation Devices

Powerboat Masters must ensure there are enough PFD1s on board for all crew members before leaving the marina / boat ramp.

All Ron Ekberg crew members must wear a PFD1 at all times.

All Seahorse 1 crew members must wear a PFD1 or PFD2. A PFD1 must be worn at times of heightened risk.

Crew members on Quickcat and Julie Waugh must wear PFD1s at times of heightened risk.

The designated rescue swimmer on the course laying boat (usually Julie Waugh) must put on a PFD1 or PFD2 before entering the water.

Use of Club Powerboats – Authorised Masters Only

The Club's powerboats can only be launched, operated and retrieved under the direct supervision of an ESC authorised powerboat Master.

It is the responsibility of the Master to check that their boat is seaworthy, has sufficient fuel and the required safety equipment. Refer boat logbook for a list of essential inventory items and a pre-departure checklist.

A list of authorised powerboat Masters can be found on the club website.

Engine Off When Near People in the Water

Propeller strike is a significant risk at ESC.

When rescuing or assisting sailing crews, the engine of a safety boat should be turned off within one (1) boat length of people in the water. Any approach should be made head to wind from leeward. A towrope or throw line can be used to bring people closer to the safety boat.

Additional considerations may apply when rescuing an unconscious person from the water. In most circumstances, turning the engine off within one (1) boat length and deploying the rescue swimmer will be preferable.

4. EMERGENCY PROCEDURES

Declaration of an Emergency Situation

The RO is the person responsible for declaring an on-water emergency situation.

Key Contacts

Victoria Water Police:	(03) 9399 7500
Marine Emergency / Victorian Water Police:	VHF Channel 16 – call “Mayday, Mayday, Mayday” for life threatening emergencies
Ambulance, Police, Fire:	000
ESC Control Tower	(03) 9531 4743
Elwood Life Saving Club	(03) 9531 5755
Volunteer Coast Guard, St Kilda Marina	(03) 9525 3714

Coordination of Emergency Activities

The RO is responsible for coordinating all on-water emergency activities, including:

- Immediately abandoning racing
- Tasking and directing safety boats
- Logging all Committee Boat calls, or requesting someone else keeps a detailed log or makes a recording
- Notifying the Tower Officer if competitors have been removed from their boats and their whereabouts
- In the case of an injury or illness, determining if an ambulance is required and the form of the response
- In case of a medical emergency, calling or having someone call 000
- In the case of a missing boat / crew, immediately notifying the Victorian Water Police

Safety Boat Rescue Priorities

Safety Boat crews should never put themselves at risk of injury or harm.

Rescue people before boats. Safety boat crews must not tow any boat until all dinghy crews have been retrieved and accounted for.

Injuries and Illness

In the case of a **medical emergency**, Safety Boat crews must inform the RO at the earliest practical time.

The RO will coordinate the emergency response, including calling or asking someone to call 000 to arrange an ambulance. The RO will decide where the patient is to be brought ashore (St Kilda marina or club boat ramp).

Depending on the situation, it may not be safe nor possible to retrieve an injured sailor from the water. Safety Boat crews should discuss any concerns with the RO.

In the case of a suspected cardiac arrest, the Safety Boat crew will need to balance the urgency of getting the patient to shore against the practicality of administering CPR in a boat travelling at speed over rough water.

Hyperthermia

Safety Boat crews need to be aware of the signs of hypothermia, especially in high risk conditions (cold water, cold wind, wet crew). Do not rely on a sailor to tell you they are suffering from hypothermia – it is likely they will not recognize their symptoms. Children and low BMI adults are particularly susceptible to becoming hypothermic.

Sign of Hypothermia:

- Mild – shivering, goose bumps, cold pale hands and feet
- Moderate – Lethargy, fatigue, confusion, clumsiness, and irrational behaviour
- Severe: shivering stop, slow breathing, slow pulse

If a sailor is exhibiting signs of hyperthermia, remove them from the water, cover and dry the sailor, and seek medical advice (which may require calling an ambulance).

5. RACE MANAGEMENT PROCEDURES

Radio Communications

ESC uses VHF Channel 71 for all on-water radio communication. To minimise interference with other users of Channel 71, radios should be set to low-power mode. Only use high-power mode if the transmission quality on the low-power mode is poor or inconsistent, or outside help is requested for an emergency.

In an emergency, the Victoria Water Police can be contacted on VHF Channel 16, or by telephone on (03) 9399 7500.

All radio communication should be efficient and professional. The following procedures should be followed when using the radio:

- When initiating a call we use "<Receiver> this is <Caller>"
- Use standard identifiers – e.g. Elwood Tower, Quicicat, Julie Waugh, Seahorse 1, Ron Ekberg, Beach Marshal
- Register with the Elwood Tower with radio check, number of people on board and fuel state when departing the dock or beach
- Advise the RO (usually Quickcat) when entering the sailing area
- Request permission from the RO prior to departing the sailing area
- If you don't get an answer, usually the receiver is busy. Wait a minute then try again
- When terminating the communication we prefer "Standing By"
- Sign-off with the Tower when safely ashore and shutting down (use "Out" in this situation)

Incident and Hazard Reporting

The RO and all Safety Boat Masters must document and report all injuries and near misses to the RC and Club Manager as soon as practical to do so.

Powerboat Masters must record in the boat logbook any damage to the boat or associated equipment. All Race Management volunteers are encouraged to report any hazards to the RC and Club Manager.

Incident and Hazard report forms can be found under the 'Documents / Safety & Risk Management' tab on the club website.

Duty Roster

At ESC, volunteers perform all on-water race management roles.

The duty roster is published on SailorApp. It is the responsibility of every eligible roster person to check the duty roster and make note of his/her duty days.

If a member is unable to attend duty, it is his/her responsibility to arrange a swap with similarly skilled person. The swap needs to be approved by the Duty Roster Coordinator.

In the event of a no-show, the responsible Class Representative will need to secure a replacement volunteer. Without adequate on-water rescue boat coverage, on-water sailboat activities cannot occur.

Notice of Race and Sailing Instructions

The Notice of Race (**NOR**) and Sailing Instructions (**SI**) are important race management documents. All duty volunteers must be familiar with the NOR and SI. Copies can be found on the club website or on SailorApp.

Weather Forecast

The RO should obtain the latest possible Bureau of Meteorology weather forecast & wind strength report on the day of the race. The weather forecast and wind strength reports are critical tools for decision making on race day in order to determine which course should be run, what direction, the distance, the duration, the possible need to shorten a race, or the need to abandon the race for the day.

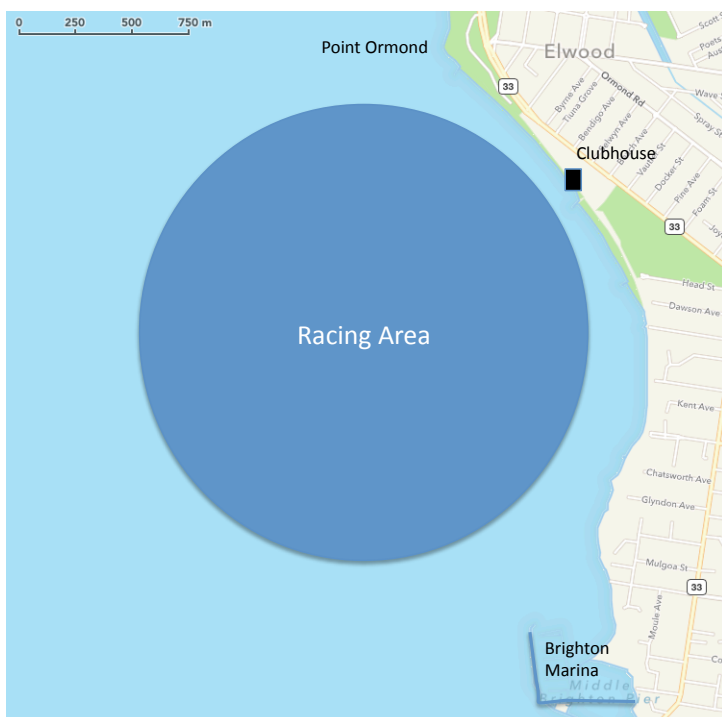
Race Postponement and Abandonment

It is the decision of the RO to postpone or abandon a race or event. This decision should be based on existing and forecast weather conditions and experience of the competitors. The decision to postpone or abandon racing on-water is to be communicated to all rescue boats by all of the following, at the earliest opportunity:

1. VHF radio signal. When safety boats hear the race abandonment signal they are to acknowledge and notify competitors immediately
2. For races already under way, code flag N over H, or N over A is to be displayed on the Race Committee boat and as many safety boats as possible
3. Where there is no race in progress, code flag AP over A or AP over H is to be displayed on the Race Committee boat and as many rescue craft as possible

Racing Area

All Club races and regattas are to be conducted between Point Ormond and the Brighton Marina. No course mark shall be more than 1.2 nautical miles (2.2km) away from the clubhouse / Tower.



Course Layout for Club Racing

The Sailing Instructions describe the layout of the sailing course and the colour of the marks.

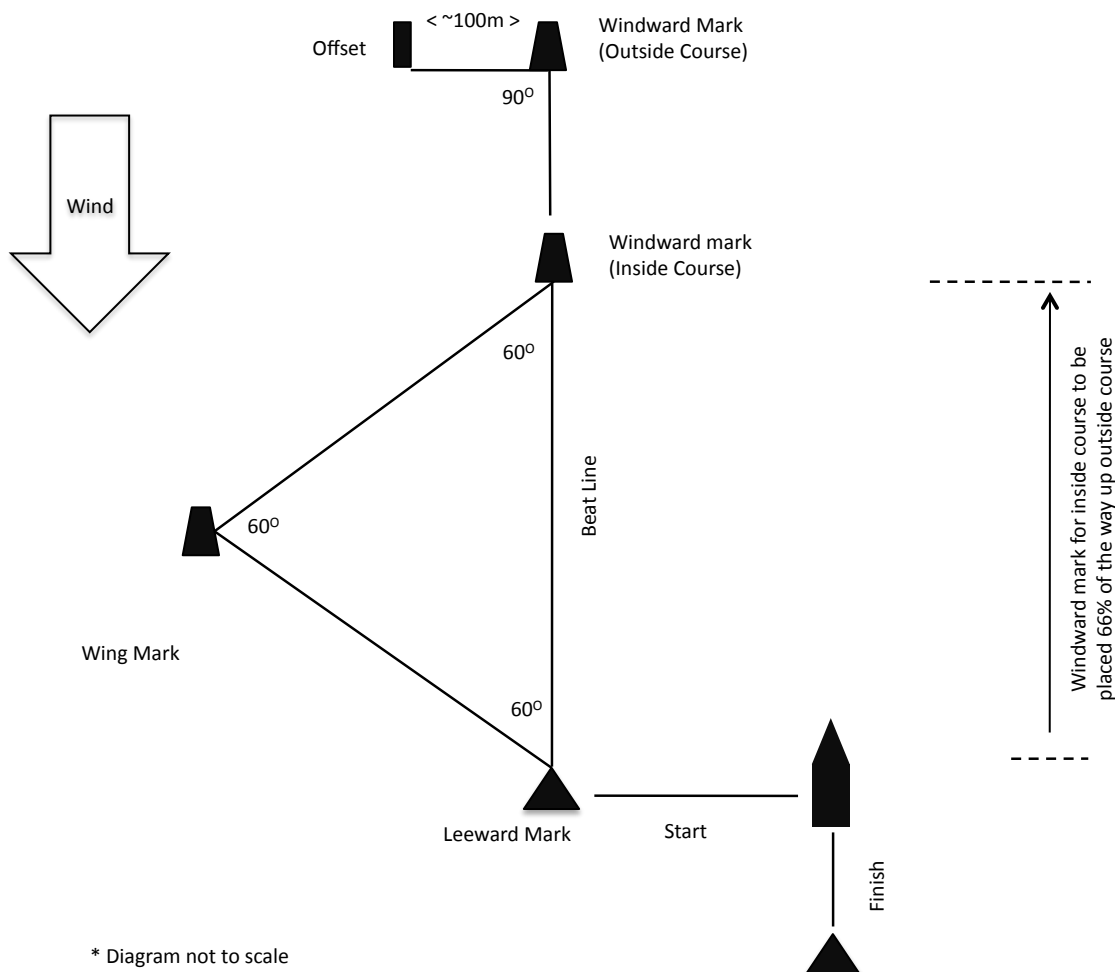
The RO will generally provide the course laying boat with compass bearing for the beat – i.e. for the two windward marks.

To minimise wait times between club races, the windward mark for the inside course should generally be placed two thirds of the way up the beat line for the outside course. For example, if the RO specifies a distance of 0.9 nautical miles for the outside course, then the windward mark for the inside course should be placed at 0.6 nautical miles.

The course laying boat should commence its bearing run for the windward marks from near the leeward / start mark and measure distance travelled by GPS. There is fixed GPS unit on Julie Waugh. Alternatively, use a GPS distance tracking application on your smart phone (e.g. MapMyRun or Strava).

The offset / spreader mark for the outside course should be laid at a 90 degree angle to the beat line and approximately 100m port of its windward mark.

The wing mark for the inside course should be laid to port at a 60 degree angle to the beat line with a 60 degree angle between the two wing mark legs (i.e. a 60/60/60 course). If the conditions are rough and/or the skill level of sailors is relatively low, the RO may request that the wing mark be laid at a 45 degree angle to the beat line with a 90 degree angle between the two wing mark legs (i.e. a 45/90/45 course).



Length of Start Line

The length of the start line should be approximately 1.3 times the sum of the lengths of the boats starting together.
For example: length of start line for 15 Sabres = $1.3 \times 15 \times 3.8\text{m} = 74\text{m}$

Safety Boat Positioning

As directed by the RO, but generally:

- Seahorse 1 monitors the start, follows the fleet and then concentrates near the wing mark, ideally from inside the sailing area to minimise time to any capsized events.
- Julie Waugh completes course setting, monitors the start then concentrates near the top mark.
- At the discretion of the master and RO, concentrating closer to boats showing signs of trouble or behaving abnormally.

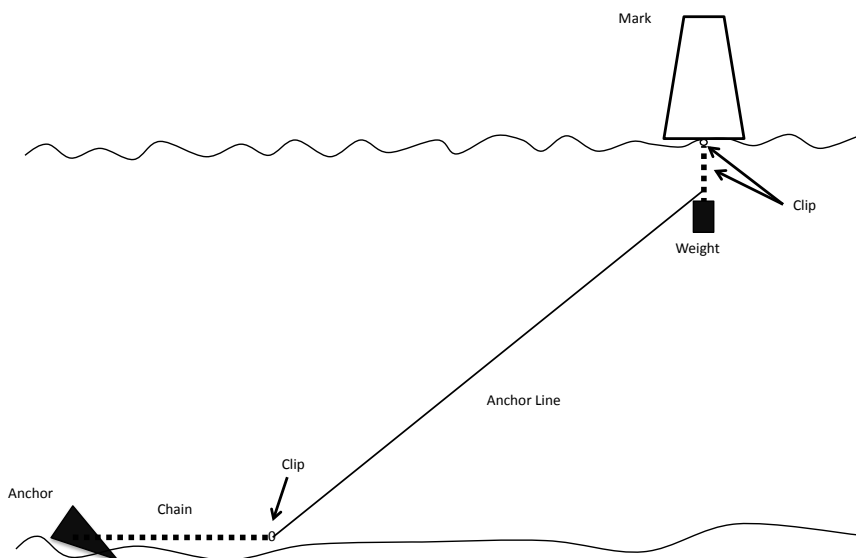
Placing a Mark

Care must be taken when placing a mark to avoid injury. Apart from strain related injuries, the other big injury risk is that someone gets an anchor line wrapped around their fingers when the mark anchor is dropped. When working the marks, please wear full finger gloves (onboard Julie Waugh and Quickcat) and make sure everyone is well clear of the line before the anchor is dropped.

All course marks should to be placed with a weight attached to keep them upright and to minimise the risk of sailboats becoming entangled in the anchor lines.

To place a course mark:

1. Pump up the mark using the 12v pump in the boat glovebox (bungs are in the seatback pockets)
2. Attach the cylindrical concrete weight and chain to the bottom of the mark
3. Uncoil the anchor line and attach one end to the bottom of the weight chain
4. Attach the other end of the anchor line to the anchor chain
5. Place the mark and weight in the water and let drift away from the boat while playing out the anchor line over the "T" shaped bollard on the stern of the boat. Make sure the anchor line is kept taught and stays well clear of the engine. If not, immediately kill the engine
6. When the anchor line is fully out, check all hands are clear and drop the anchor



6. ASSISTING SAILBOATS

Assisting a Capsized Dinghy

In most cases capsizes are righted by the sailboat crew. The function of the Safety Boat is to assist where non-standard situations arise or when the sailboat crew have spent too long in the water.

Rescue boat crews should be alert for the signs of exhaustion and/or hyperthermia. If the crew or skipper is exhausted or suffering from cold, consider getting them into the rescue boat before dealing with the capsized boat.

When it makes sense to do so, it is preferable that Seahorse 1 or Ron Ekberg to undertake the initial rescue as their soft pontoons and modest freeboard make them better suited to the task.

When approaching a capsized sailboat, safety boat crews should first check that all sailors are visible, conscious and in contact with their boat. When in voice range, ask the crew if they are okay.

After confirming everyone is accounted for, take time to assess the situation. Check for hazards – e.g. no lines in the water, nearby rocks or no-boating zone). Check whether the boat is ready to be righted – e.g. sheets are un-cleated, spinnaker down, boat head to wind.

When appropriate, ask the sailboat crew whether they would like assistance. If yes, tell them what you want them to do or try.

If physical assistance is required, consider:

- Throwing a line to the sailor in the water, pulling the capsized boat alongside and walking the mast up by hand (start at the bow, lift the forestay, then side stay and/or mast)
- Deploying the rescue swimmer (last resort)

Any approach should be made head to wind from leeward. A towrope or throw line can be used to bring people closer to the safety boat. The engine must be turned off within one (1) boat length of people in the water. When the engine is turned off it is good practice to select 'forward' gear to minimise the risk of propeller entanglement and injury. Engaging gear when the engine is off stops the propeller from rotating due to wave action.

Do not try to right a sailboat using the powerboat and a tow rope.

Once righted, ensure that the sailboat is empty from water before letting them go.

Entrapment after Capsize

If it becomes apparent that a sailor has not surfaced and may be trapped, all efforts should be directed towards righting the yacht to bring the sailor to the surface, or untangling the person (depending on the situation).

If a person is trapped in rigging under a sail and the boat cannot be righted quickly, the safety boat crew should cut the sail and assist the person to the surface.

Capsized / Disabled Sailboat on Drift Line to Rocks

Safety boat crews must never put themselves or their boat at risk when attempting to recover a private sailboat. In higher risk situation, the focus must be exclusively on protecting and saving lives.

If a sailboat crew is having difficulty righting or making good their boat and they are on the drift line to Point Ormond or a rock wall, all effort should be given to attaching a towline or anchor.

If the sailboat refuses assistance, the safety boat crew must be clear in their communication – “We need to connect a towline now. We will not attempt to recover your boat close to the rocks. This is your last chance to save your boat.”

Towing or Anchoring a Disabled Sailboat

It is best that the crew sail their boat home rather than requiring a tow as this takes a rescue boat off the course. A tow should only be offered where it is clear that the crew will be unable to proceed unaided.

Before towing a dinghy, seek instructions from RO as to where to take the boat. There may be a preference to anchor a disabled dinghy or tie it to the rear of a larger vessel rather than taking it to shore. Any safety boat leaving the racing course must first seek the approval of the RO.

Seahorse 1 and Ron Ekberg carry spare anchors with floats attached near the free end of the rope. Anchoring a disabled or capsized dingy for subsequent recovery may be preferable to towing.

If a long tow is required, it will generally be preferable that Julie Waugh undertakes the tow and Seahorse 1 and/or Ron Ekberg remain on the course. As safety boats must secure the approval of the RO before leaving the course, the RO will ultimately determine which boat should undertake a long tow.

Towing Methods

The main towing methods used at ESC are:

- Side Tow – good for small monohulls (eg Sabre) in light conditions only. Care must be taken given risk of propeller strike in the event the sailboat inadvertently tips over
- Rope Tow – good for catamarans and dinghies in all conditions. Use a bridle rope to keep tow rope clear of engine

In almost all situations, it will be necessary to have a person onboard to steer and balance the boat under tow. Centerboard(s) must be raised before the tow is initiated.

In the case of a monohull, the towline should ideally be wrapped once around the mast and held by the person onboard. If practical, passing the towline through the tow ring on the bow of the sailboat will help maintain directional stability. To allow a quick release, the towline should not be tied off on the sailboat. When under tow, it may be necessary for the person onboard to sit on the floor of the sailboat to maintain a low centre of gravity.

In the case of a catamaran, the towline should ideally be wrapped once around the main beam and held by the person on board. To allow quick release, the towline should not be tied off on the sailboat.

In moderate to rough conditions, consideration should be given to lowering the sails before initiating a long tow. In the case of a capsized A-Cat it may be easier to unhook the sail from the top of the mast (release downhaul first) before righting and then lowering the sail once upright.

If possible, avoid towing a capsized sailboat. Towing a boat on its side (or upside down) risks serious damage to both the hull and rig. With that said, it may be necessary to tow a capsized boat a short distance in order to clear a fixed marker or rocks.

Removal of Crew / Abandoned Boat

If deemed necessary, a rescue boat may request a competitor to abandon his/her boat and transfer to the safety boat. The safety boat crew will then immediately notify the RO. If practical, the abandoned sailed boat should be marked with 'crew-recovered' tape.

7. SESSION RUN SHEET

The run sheet for Club Races is set out below. Except for the Duty Briefing and Sailors Briefing, times are indicative.

	RC to brief RO regarding any equipment issues that could impact racing RO and TO to review weather forecast
11:30am	Duty Briefing Sign-on via SailorApp All race management volunteers to attend In event of a no-show, Class Representative to find an equally qualified replacement RO to conduct briefing Confirm marina transport (via private cars) Confirm launch / retrieval of Ron Ekberg, if being used Boat Masters to collect toolboxes and a back-up handheld radio
12:30pm	Sailors Briefing RO to conduct briefing
12:50pm	Marina boat crews depart clubhouse for marina Boat Masters to complete pre-launch checks and refuel if required
1:10pm	Depart dock, launch Ron Ekberg if required Julie Waugh and Quickcat to commence inflation of marks
1:20pm	Quickcat to lay start/ leeward mark Julie Waugh to commence course laying activities as directed by RO Seahorse to monitor/escort boats from the beach to the starting area or otherwise assist as directed by the RO
1:30pm	Tower to monitor sailboats departing beach. Quickcat ready to record sail numbers at hail-on Seahorse 1 to reposition start mark, if directed by RO
2:00pm	Earliest start time Unless otherwise directed by RO, Julie Waugh to patrol position near top marks, Seahorse 1 near start line moving to wing mark after the conclusion of the start sequence
4:30pm	Target end time for last boat to finish Julie Waugh and Quickcat to collect marks Seahorse to see last boat to beach
	Return to marina, retrieve Ron Ekberg if launched Review end of day checklist items and complete logbook
	Return to clubhouse Sign-off via SailorApp Return toolboxes to Tower Place handheld radios on charge Take down flags