



ROYAL HARWICH YACHT CLUB

WOOLVERSTONE

Guidance for RHYC Safety Boat Drivers and Crew

The purpose of this document is to provide guidance for drivers and crew of a club safety boat operating in familiar waters at the Royal Harwich Yacht Club

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Contents

Guidance for RHYC Safety Boat Drivers and Crew	1
Annex A - Some Basic Safety Boat Manoeuvres	8
Annex B - Emergency Action Plan Checklist.....	12
Annex C - How to Use Hand Flares	13
Annex D – Yellow Box Contents	15
Annex E - Safety Boat Driver Checklist.....	16

What this document is:

The aim of this document is to provide guidance for drivers and crew of a safety boat operating in familiar waters at the Royal Harwich Yacht Club. It forms part of the training document set and is referred to in the RHYC Training School SOPs (Standard Operating Procedures).

What this document is not:

This document does not seek to cover all aspects of safety boat operation or to teach you how to drive and crew a safety boat. Teaching can only be done by an experienced safety boat driver or by attending a safety boat course. If you want to learn more, you should read RYA publication G16, 'Safety Boat Handbook', which comes with a DVD, and covers everything from mark laying to the rescue of different types of craft. There is a reference copy in the club library.

Safety Boat Driver and Crew Guidance

Your role is essential, as without safety boat cover, no dinghy racing or training can take place. Giving up your time to man a safety boat is greatly appreciated by the club, dinghy sailors, instructors and students.

Advance Preparation

As soon as you are notified that you have a duty, use Dutyman to confirm that you will be on duty or if you will be unavailable seek a duty swap as soon as possible.

Ensure that you have a crew for the event.

About five days prior to the event, contact the Race Officer and let him/her know that you will be on duty.

The Essentials

The club rules are that a safety boat should have **TWO** people on board - the driver and the crew. (You may see only one person in a safety boat at other organisations but the RHYC stipulates two.)

One person must be an adult (over 18) and the other at least 16 years of age. This is because both need to be physically able to haul a person on board from the water and a younger child could not do that.

The driver should hold a minimum of a RYA Powerboat level 2 certificate or be under the supervision of an adult holder of a Powerboat Level 2 certificate (or higher).

One of you, but preferably both, needs to know how to operate a handheld VHF transceiver.

Both the driver and crew should wear suitable clothing for the weather conditions and they must wear a properly fitting buoyancy aid or lifejacket - although a lifejacket is not ideal - see next point.

In a genuine emergency, such as an entrapment, the driver and crew must be prepared to enter the water to carry out a rescue - but only one of them should leave the safety boat! Wearing a lifejacket could be a hindrance, especially if it is self-inflating. Hence the recommendation is that you wear a buoyancy aid.

On Arriving for Duty

Please arrive at the club at least one hour before the scheduled start to meet the Race Officer and get the boat ready.

The Race Officer will brief the sailors on the course and the format for the event. Please attend and make notes if it helps.

At the briefing you will find out if the Race Officer wants you to lay any special marks. If so collect these and put them in the boat. Once you are under way, the Race Officer will direct you to where he wants the marks to be laid.

You should be on the water in time for the dinghies being launched and be prepared to give assistance to a dinghy if required.

Boat Preparation

Find out which boat you will be using. There may be a choice, or you may be told to use a specific boat.

Once you know which boat you will be using, collect its yellow box and a VHF handheld radio from the race hut. (It's best to check that everything you need is in the grab-box and that the radio is fully charged and working before walking to the boat.)

If you are acting as a safety boat for a training course, you must also carry distress flares on board. These are kept in cylindrical yellow containers in the race hut. Collect a container and take it with you. Return it after the session. Guidance on the use of flares can be found at: Annex C - How to Use Hand Flares

As you approach the boat do a visual inspection to satisfy yourself that the boat is not obviously damaged or parts missing and that its safety equipment is on board, plus paddles, red flag and tow rope.

Check the fuel level(s). The club RIBs usually run with two tanks. The tank in use should have sufficient fuel for the event and the spare tank should be full. If you are using a dory, check that the single fuel tank they carry is at least three quarters full.

Start the engine, check that there is a cooling tell-tail and then check that the kill-cord works by pulling it free while the engine is running.

If you are using a RIB, attach the club flags to the A-frame. (The ensign goes to starboard, the pennant to port.

If you find any problems with any of the items above let the Bosun know.

Getting Under Way

The driver should **ALWAYS** wear the kill-cord whenever the engine is running.

Switch on the VHF and set it to Channel P4, which is M2 on some radios (unless advised to use a different channel).

Let the Race Officer know, over the radio, once you are on station. This also acts as a radio check.

Please do not exceed 3 knots or create wash in or around the marina, or near boats on moorings.

Please remember to raise the outboard when in shallow water especially if you are close the slipway. (A broken propeller is expensive to replace and it will put the boat out of service.)

When on Station

Keep a good lookout at all times. Look out for dinghies in trouble and other vessels.

When laying marks continue to keep a good watch on the dinghies and be prepared to abandon mark laying if assistance is required.

Keep a look out for large commercial vessels and let the Race Officer know immediately if you see one approaching that he has not already said [over the radio] that he is aware of. If the Race Officer is using the race hut, he will sound five blasts on the horn as the ship approaches to let the sailors know that a large vessel is approaching.

Select a good position to place the safety boat during the race start and stay well clear of the start line.

During the Race

Keep a good look out over the whole fleet in case assistance is required. In general, you will find that the weaker, less experienced sailors will tend to be nearer the back of the fleet, so keep an eye on them.

The speed limit on the river is 6 knots so drive at a low speed unless you are needed quickly.

Do not get too close to the race fleet in case they want to tack or gybe and they find you are in the way.

If a large commercial vessel is approaching you need to position the safety boat ahead and to the side of the ship, so that you are between it and the race course, while holding a red flag aloft. Be far enough ahead of the ship so that you can be seen from the ship's bridge. Bear in mind, if you cannot see the ship's bridge from the safety boat, the ship cannot see you. It is vital that you ensure that none of the race fleet attempts to cross, or stray into the path of the ship. Large vessels are constrained in their ability to manoeuvre and by their draft in the river. They cannot suddenly change course or stop in a short distance to avoid a collision.

If there is more than one race, the Race Officer may change the course between races, so be prepared to reposition special marks.

Approaching a Capsize

ALWAYS, your first priority is the safety of the person(s) in the water. When approaching a capsized dinghy ensure that you can see the sailor(s) who were on board. Approach the dinghy and stand off the bow of the capsized boat about by about 2 boat lengths. Generally when approaching a dinghy and/or a person(s) in the water, the safety boat driver should aim to keep himself/herself between any people in the water and the outboard motor. This ensures that the people in the water are as far away from the safety boat propeller as possible.

If you cannot see the all of the dinghy crew, you must ensure that no one is entrapped under the dinghy but don't panic if you do not see them straight away, usually they are just out of sight on the far side of the dinghy.

Once you are satisfied that the dinghy crew are safe, remain standing-off while they right the boat. Experienced dinghy racers, are very good at this and will right their boat very quickly. However, keep a careful watch over less experienced, very young or older sailors, who may have difficulty getting back on board their boat.

If the dinghy crew are unable to right the boat and need help, the easiest way is to drive to the tip of the mast, lift it high and "walk" your way down the mast with your hands until the boat is upright. If the dinghy is inverted you will need to pull the hull of dinghy away from the direction the mast is pointing so that the mast does not impale itself in the river bed.

Righting a capsized dinghy can be tricky as wind and tide will have an effect which can suddenly change as the boats rights and the sail(s) catch the wind.

Depending on the water temperature, and the quality of the sailors sailing gear, even a fit and healthy person in the water can become very cold and/or exhausted in a short time. You need to

make a judgment call on whether they are going to be able to quickly get back aboard or if they are simply going to exhaust themselves. If, in your opinion, they are struggling tell them that you are going to assist, then get them into the safety boat.

Bringing Someone On Board

Once it is decided that someone needs to be brought on board, approach as you would for a man overboard and once you are within 2-3 metres switch off the engine. **It is vital that you ALWAYS, stop the engine as you close-in on people in the water.**

When approaching the dinghy, the safety boat driver and crew should look out for loose lines or rigging that could foul the propeller.

If there is more than one person in the water, decide who to bring aboard first, e.g. if someone appears to be approaching exhaustion get them first.

When you bring someone aboard the safety boat, make sure that they are kept warm. Lend them a sailing jacket or wrap them in a thermal blanket from the yellow box if necessary.

If someone is so cold that they need to be kept warm, get them ashore as quickly as possible to be warmed-up. This may mean temporarily abandoning their dinghy. If you do this, radio the Race Officer and let him/her know what you are doing.

Other Things That May Happen During a Race

It is not possible to list all of the variables that may occur during a race but they include:

The Race Officer may ask you to lead the boats around the course for the first lap. If he does stay well ahead of the lead boats and proceed no faster than the dinghies are sailing. As you go through the start /finish line at the end of the first lap peel away and leave the dinghies to race.

The Race Officer may ask you to finish a very slow boat that is trailing a long way behind the rest of the fleet.

The Race Officer may ask you to notify the race fleet of a change of course.

At The End Of Racing

Once the racing is over for the day and the last dinghy is on the slipway you can return to shore.

As you do, radio the Race Officer to say that all boats are ashore and you are now off-station.

If a dinghy decides to stay out sailing after the racing is finished, it is at their risk. You are not expected to provide safety cover for them.

Packing-up The Boat

Return to the marina and secure the boat to the pontoon.

Switch off the engine and put the keys and kill-cord back into the grab-box, along with the flags from the A-frame.

Raise the outboard from the water, replace the cover if there is one then return the grab-box to the race hut.

Unless you are asked to leave them in the boat, put away any marks and their ground tackle that you have collected.

If there has been any problems with the boat, let the Bosun know so that he can investigate and get the problem fixed. If the Bosun is not around, leave him a note in the race hut. There is no longer a requirement to complete a log after every use - you only need to report problems.

Emergency Action Plans

The club has Emergency Plans for dealing with serious incidents. These were primarily written for junior training but they may also be called into play during racing. There is a copy of the full Emergency Plans in the Race Hut, and there is a laminated copy of the immediate action checklist on board each safety boat.

The Emergency Action Plan Checklist can be found at: Annex B - Emergency Action Plan Checklist

Safety Boat Handling Course

The club offers free of charge instruction for new safety boat drivers and crew, as well as refresher/confidence building sessions for current safety boat drivers.

These sessions, which last 3-4 hours, are available throughout the sailing season and will be run upon request. The session will cover correct clothing and equipment, communication with the Race Officer, laying marks, positioning of safety boats on the race course, action to be taken when commercial shipping is approaching, recovering dinghy sailors from the water, righting capsized dinghies and towing. We will also discuss what constitutes an emergency and the action to be taken should one arise.

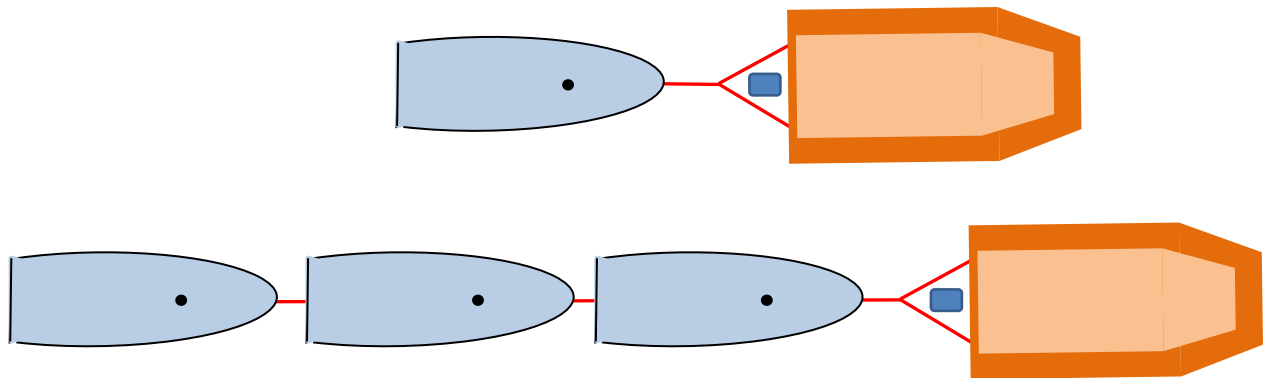
Please note: These sessions are not a path to a RYA Powerboat Certificate or a RYA Safety Boat Certificate.

Annex A - Some Basic Safety Boat Manoeuvres

You may be called upon to tow one or more dinghies to and from a training area or you may have to tow one or more dinghies back to the shore that cannot make their way under their own power. How you do this will depend on weather conditions, the size of boat being towed, the number of boats to be towed, etc.

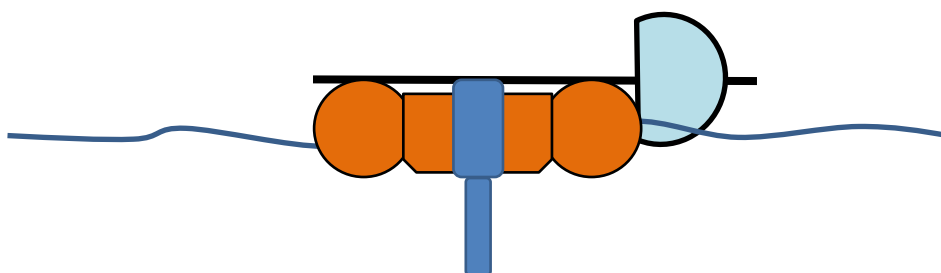
Three basic methods are shown below. Each has its advantages and disadvantages which are highlighted.

Towing line astern



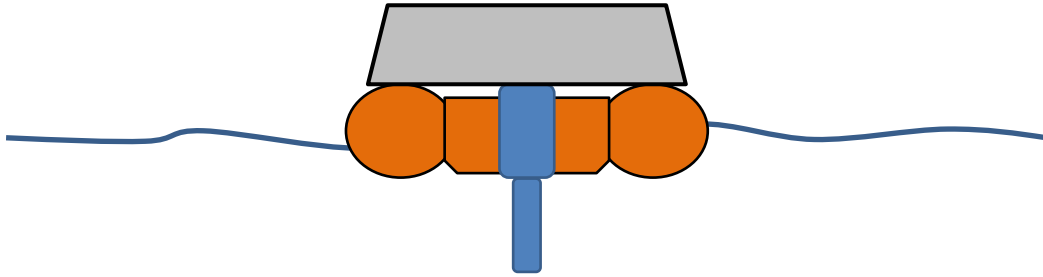
A good way to tow a number of boats some distance or to and from the training area but manoeuvrability and control can be difficult in anything other than a straight line unless the towed boat is steered - especially in heavier seas (only the last boat in a line of boats should be steered). The person being towed can feel out of control if you tie their painter or tow line to the safety boat. It is preferable for them to take your tow line so that they can let go quickly and easily. You need to be careful when slowing down so that the towed boat does not run into the stern of the safety boat.

Towing a dinghy on its side



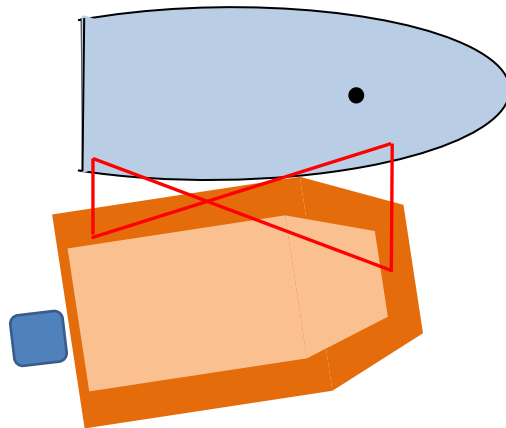
This method works very well with Toppers when the safety boat is a RIB. Simply pull the mast down and lay it over the tube and seat, keeping the hull close to the tube. Quick and easy to set up, it provides good directional control and it is quick to release once your destination is reached. It is possible to put one boat either side of the safety boat but not recommended.

Carrying an Optimist



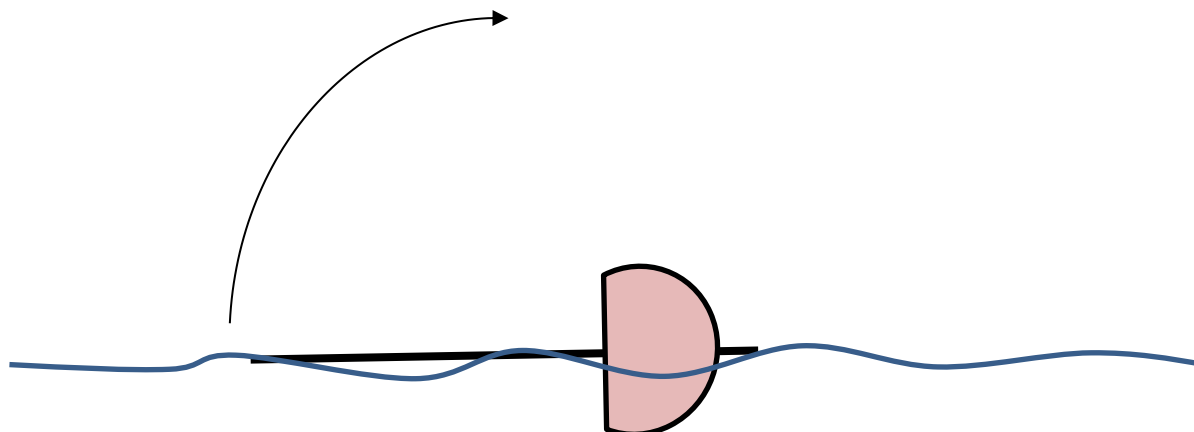
As an Optimist is a small square boat that can be de-rigged fairly quickly, you can lift it aboard the safety boat and rest it across the safety boat on the tubes. It is possible to stack a second Oppie on the first but two should be the limit to avoid damage.

Towing alongside



Towing alongside gives the greatest manoeuvrability in tight spaces, such as when bringing a boat alongside or into the marina. It takes longer to set up the lines which have to be carefully positioned so that the safety boat pulls against a spring whether going forward or astern. It will only work if all of the tow lines are tight and the safety boat outboard is astern of the boat being towed. You will also find that the boat will resist being turned either to port or starboard, depending on which side of the safety boat it is rigged. To overcome this, do a 'three point turn'. This method can also be used to tow two boats - one each side of the safety boat.

Righting a capsized boat

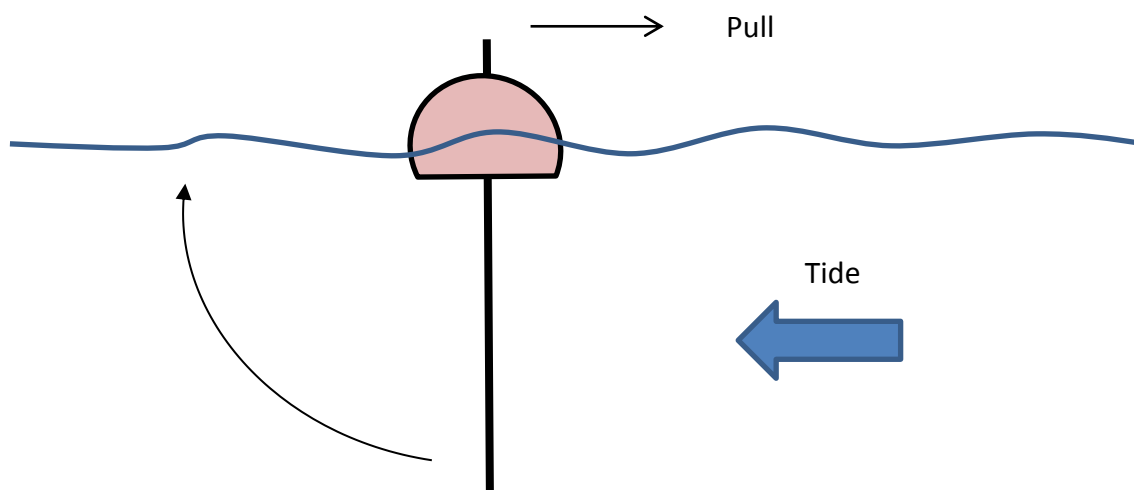


Sometimes the dinghy sailor just cannot get the boat to right and the sail lies on the water surface or just below. The risk is that the dinghy will invert, so the safety boat should drive to the mast head and the safety boat crew should lift the mast to break the surface tension between the sail and the water. Often this is sufficient for the dinghy sailor to continue to right the boat. However, sometimes further assistance is needed so the safety boat crew should lift the mast and 'walk' their hands along it lifting it above their head as they go.

Be prepared that when righting a boat the sail will catch the wind and if the main sheet is tight the dinghy will spin round and possibly immediately capsize again.

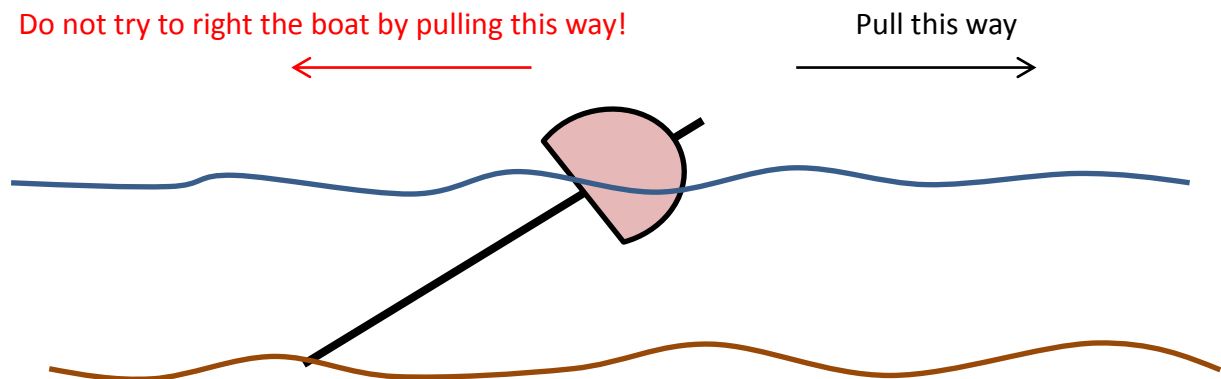
When manoeuvring close to a dinghy, be aware of loose sheets and rigging. Try to come alongside on the windward side so that the boom is away from you.

Inversion



When you are sure that the mast is not impaled into the seabed, you can manoeuvre the dinghy so that its sail is broadside on to the tide. The tide will then assist lifting the mast and sail towards the surface.

Mast impaled into seabed



Always pull the dinghy mast out of the river bed the same way it went in. Pulling in the wrong direction can only make matters worse and you risk badly damaging the boat!

If there is room to manoeuvre continue to pull the dinghy in the same direction until you are in deeper water.

General Guidance

Even on a high spring tide the depth of water outside of the dredged channel means that a mast can become impaled into the river bed.

Always take care when working close to a lee shore. Do not allow yourself to be drifted on to a lee shore, especially on the Nacton side, as you will then need rescuing yourself.

If you break down, call the Race Officer on VHF Ch. P4/M2. If possible tie up to a mooring buoy, or drop the anchor if you are in shallow enough water. Paddling the safety boat home is the last resort. It is hard work and you might not end up where you want to go if the tide/wind is strong. Better to call for a tow.

Injuries are generally best treated ashore. Carry out only immediate first aid on the water, for example to stem bleeding while quickly bringing the casualty ashore.

Annex B - Emergency Action Plan Checklist

1. Situations when the plan may kick in:
 - Injury on or off the water that cannot be treated immediately by First Aid including inhalation of water and concussion.
 - Multiple capsizes in or near the channel that cannot be dealt with by available safety boats
 - Missing boat
 - Any situation afloat that cannot be handled reasonably promptly and safely by safety boats or other resources available
 - Any situation that seems dangerous and outside assistance is required to resolve it.

2. Action to take immediately - under the direction of the course instructor:

Lost Boat

- Double check group using another observer if possible and whether the boat has returned ashore. Ask them to help search if possible
- If no sign (normally after 15 minutes) call Coastguard on Channel 16 or phone 999 - Coastguard
- Put out a mayday. There may be someone near who can assist the search.

Serious Injury (Immediate evacuation is required)

- Check injury and provide immediate First Aid
- Initiate Mayday on Channel 16 or tel 999
- Information the Coastguard will need:
 - Your description (e.g. 5 metre Rib)
 - Your location
 - The nature of the emergency (e.g. 10 year old male child with serious head injury)
 - Immediate assistance required
 - Who else is on board
 - What safety kit you have (e.g. orange smokes and VHF)

Non-life threatening Injury (Immediate evacuation not considered necessary)

- First Aid
- Take casualty ashore
- Consider phoning for an ambulance
- Warn shore parent if possible - to meet casualty on pontoon

3. Instructor to complete the accident book as soon as possible on return
4. Locations of land lines in/near the club
 - Galley Area
 - Office
 - MDL Marina control (open 24/7)
5. Consult the full emergency procedure as soon as it is practical to do so.

Annex C - How to Use Hand Flares

The flares for safety boats are stored in a cylindrical yellow container that is kept in the locked race hut cupboard when it is not in use.

Inside the container you will find:

2 x red handheld flares

2 x orange smoke flares

1 x pair of protective gloves

1 x instruction sheet

When to Use

The use of distress flares indicates that there is grave and imminent danger to life or to a vessel, so they should only be used in a genuine emergency.

Given that the club's boats always carry VHF transceivers and whistles, and for the most part operate only within sight of the club in daylight, it is most unlikely that a club support boat will ever need to use a distress flare.

Using Hand Flares

The hand flares should only be used if you can see people on land, or if you can see another boat or an airplane.

If you cannot see anyone, then realistically no-one can see you - so don't waste them! Wait until another vessel, or someone on land comes into view. In a panic it is easy to fire them all off in a hurry, so try to be disciplined.

Set one flare off, let it burn and then wait at least 3 minutes to see if anyone stops and looks, or if a vessel changes course toward you.

If no-one appears to have seen you but vessels or people on land are still within view, set off a second flare. As soon as someone on land waves or acknowledges your signal, or when a vessel or an aircraft appears to head in your direction, set off another distress flare to confirm to the person or the vessel that you are in genuine distress.

The red hand flares are best used at night, or in bad visibility. They burn for 60 seconds at an intensity of around 30,000 candle power and are extremely visible in poor light conditions.

The orange hand smoke flares are best used during daylight hours. The dense cloud of orange smoke produced by a smoke flare is unmistakable at sea and in light wind conditions should remain visible for some minutes after the flare has gone out.

Demonstration Video (no sound)

This video, on the manufacturer's website, shows how to strike a hand flare. The method is the same for both the red flare and the orange smoke flare:

<http://www.hansson-pyrotech.se/handheld-signals/video/>

Safety Tips

NEVER point a distress flare at someone

NEVER allow children access to distress flares

NEVER use a distress flare unless there is grave and imminent danger to life or a vessel

NEVER use a flare near a fuel tank

ALWAYS use the gloves in the flare container to protect your hands

ALWAYS read the instructions printed on the flare before use

ALWAYS hold a hand flare downwind, over the side of the boat, at arm's length and above your eye level, to prevent burning debris being blown back at you or into the boat.

Once a distress flare has been used drop the hot empty case overboard, not in the boat!

Annex D – Yellow Box Contents

Safety Boats

Each of the club safety boats has a yellow box. When the boat is not in use it is kept in the locked cupboard in the race hut. Each box is marked with the name of the boat that it belongs to.

All yellow boxes contain the following:

- 1 x Ignition key on a floating keyring
- 2 x Kill cords
- 1 x Fire extinguisher
- 1 x Small first aid kit
- 2 x Thermal blankets
- 1 x Knife
- 1 x Whistle

In addition, the yellow boxes for the RIBs contain the ensign and pennant to be flown from the A-frame.

Lion

The yellow box for Lion is kept on board the boat in the cabin. It contains a coastal flare pack and a thermal blanket. Lion also carries a full first aid kit and a fire extinguisher which are also kept in the cabin.

Abandoned Boat Marker

If it is necessary to take the crew of dinghy ashore in an emergency, the yellow box can be used to mark the capsized, abandoned boat. Empty the contents of the box into the safety boat (to aid buoyancy of the box) and tie the yellow box to the bow of the abandoned dinghy. This will tell anyone else who approaches the capsized boat and suspects that the crew to still be in the water that the crew are safe and have been taken ashore.

Missing, Damaged or Lost Equipment

If you discover that any of the contents of a yellow box are missing or damaged, please inform the Bosun so that they can be replaced.

A spare ignition key for each of the safety boats is kept in the locked cupboard in the race box.

Annex E - Safety Boat Driver Checklist

- As soon as possible after being notified of your duty, use Dutyman to confirm that you will be on duty, or arrange a swap.
- Find a crew - who must be at least 16 years of age - you cannot man a safety boat alone.
- Familiarise yourself with the club's Guidance for Safety Boat Drivers and Crew.
- Contact the Race Officer during the week prior to the event to confirm that you will be on duty.
- Arrive at least one hour before the start time to meet the Race Officer. Also, attend the briefing so that you know the course and the arrangements for the day. You should be on the water by the time dinghies are launching.
- Find out which boat you are to use and collect its yellow box and a handheld VHF radio from the race hut.
- Collect special marks and ground tackle if the Race Officer wants you to lay them.
- Visually check the boat for damage and that paddles, red flag, etc. are on board. If on a RIB put up the ensign and pennant - the ensign goes to starboard, the pennant to port.
- Check there is more than sufficient fuel for the event. This means at least $\frac{3}{4}$ tank on the dories and more than $\frac{1}{2}$ tank, plus a full spare tank on the RIBs.
- Before leaving your berth, start engine and check that the kill cord works by pulling it out while the engine is running. Also check that there is an engine cooling tell tail from the outboard.
- Make your way to the race area at no more than 3 knots in or around the marina. The speed limit on the river is 6 knots. Unless you are needed in a hurry, stay within the limit.
- Call the Race Officer on Ch. P4/M2 to let him/her know that you are on station - this also acts as a radio check.
- Keep a good lookout at all times for dinghies in difficulty or capsized.
- Lay special marks as directed by the Race Officer.
- Keep clear of racing boats so that you do not impede their progress.
- If you need to give assistance remember the safety of people is your prime objective, the boats come second.
- Keep a look out for large vessels and let the Race Officer know if you see a ship approaching, even if it is more than a mile away.
- Once racing is finished and all dinghies are ashore, head back to your berth and let the Race Officer know that you are off duty. You do not have to stay out to provide safety cover for people who decide to continue sailing after the event is finished.
- Secure the boat and return the yellow box and the VHF radio to the race hut.
- Return any marks and ground tackle used to where they came from.
- Report any faults with the boat or other equipment to the Bosun.