

## Patrol Boat Training Level 2 - Capsize recovery

The following topics are covered during Tudor Sailing Club's Patrol Boat Level 2 Training Programme. The programme is aimed at members who have already completed the club's Level 1 Training (or demonstrated equivalence) and who have at least a season's experience (5 sessions or more) operating as a patrol boat crew.

Check experience,

Recommend full RYA safety boat course, explain that this is to give a basic understanding of recoveries. It is always people first and this is the important bit.

### Responsibilities

Explain Basic capsize recovery/ person recovery safely  
If beyond experience collect persons and ask for another Safety boat to help.  
Stress – Count heads – If not familiar look at boat one or two person?  
Position middle of the fleet, watch both ends ( boats approaching )  
Don't interfere if crew dealing BUT WATCH,  
If cold watch for Hypothermia, if unable after several attempts – Step in.  
Don't get fixed on one boat – watch rest of fleet as well  
Moor disabled boats and collect at the end.  
Crew injuries evacuate  
Watch approach – safe – as little wash as possible -  
Beware lines / people in the water

Strong points on dinghies – ask crew/ show on dinghy /tow points / setting tow.

Practical – MOB – recovery as per intro training, Drive to/Drift down – safe.

### Spotting Capsize

Count Heads – if cant see the correct number GO!  
If all crew seen head towards but watch others.

Heading towards,

Watch route – shallows – other vessels.  
Wash, plan ahead, don't endanger yourself getting there.  
No right of way!!  
Only exempt speed limit if going to a rescue.

Approach,

Heads if still missing one, approach with caution/ possibility of crew having drifted away.

Ask crew where other member is?  
If drifted away go and get MOB recovery  
If under, lift mast or bow as appropriate, props away, call it in get help running.

Be prepared to cut away, Rope/ clothing / trapeze

release, Person recovery,

If conscious – recover – if swallowed water/ choked, check to club / hospital  
If conscious and injured – Cuts – Bandage to reduce bleeding then back to club,

Bang on head - Concussion , check any doubt Hospital.

Spinal call for assistance, immobilise.

Get second boat launched to cover fleet.

If unconscious –Breathing – recovery position and monitor straight to club,  
Ambulance will be required.

Not breathing - CPR – Don't stop!! To club or landing point,

Ambulance required, Get 2<sup>nd</sup> boat launched to cover fleet.

Both crew OK – Stand off and watch – check rest of fleet.  
Consider cold exhaustion – if so step in

Damaged boat,

Be ready to anchor/ move boat to mooring.  
If unable to move the boat straight away ( Mast over side etc) get crew to pack boat for a short tow and follow their guidance in recovering kit and get them to prepare for tow. Tow them to mooring or anchor in safety and leave them to pack boat and secure items ready for tow back to club. Only if crew cold consider removing them and returning them to shore and recovering boat after race. Place abandoned boat marker on boat if this is the case. Consider getting R/O to telephone Coastguard/Harbour master, advising that crew ashore and boat will be recovered later.

PRACTICAL -

Capsize approach - Mast tip – forestay – CB - Safety.

Singlehander assisting options –

Approach from up wind, up tide to mast tip / forestay – away from Crew / lines. Hold mast to prevent inversion and let crew get sorted and right the boat normally.

Recover crew and lift mast and turn boat into the wind, using wind to help right the boat. Crew to hold it alongside, return crew / moor and derig.

Recover crew, - bow into front of CB, push down on CB hand /foot – pull on side, then hold shroud/ mast alongside and into wind – return crew/ moor and derig.

Double hander assisting options – assuming crew no longer able to right boat alone.

Recover crew - mast/ forestay technique will work but if struggling, use the wind to assist and consider dropping main/ furling jib if you are still having problems. ( do not drop jib as on many boats this holds the mast up! and righting will result in a broken mast)

Recover crew – then bow into CB get hold of jib sheets and pull while pushing down on CB, same as if you were sailing the boat. Once upright hold alongside, get crew in to bail and prepare for tow, consider mooring boat for this. Only tow once most of water out.

Recover crew – then bow in front of CB line tied to shroud/ mast/ thwart, carefully pull at 90 °, pull slow increasing power aim to pull sideways therefore pulling up wind, get hold quick by pulling tow line to bring boat to safety boat, turn bow into wind, BEWARE pulling boat downwind will make it flip right over.

Consider dropping sails for each technique if wind/ waves making it difficult. This may mean holding mast tip while one of the crew goes back to undo the main halyard, or furl the jib ( if no forestay don't drop jib just undo sheets and wrap the sail around the luff wire). Bring sails back to safety boat and roll them up to reduce amount of space they take up. return sails to boat once upright and moored / getting ready for the tow.

### Inverted boat –

Recover crew – bow into leeward side of boat and line attached to the shroud then passed over hull in front of centreboard to windward side, Safety boat then pulls from the windward side at 90° to the boat, watching for lines near the engine, slow increase in power and pull onto side. Once boat on its side then pull safety boat to casualty to keep on side, CB out and recover or shorten line and continue pull to fully right.

On older boats with enclosed transom and IF crew are capable and mast not stuck, then put one on the hull near the stern and get them to add weight to the windward side to help break the suction of the inverted hull and get them to move up to the centreboard as the boat comes on to its side.

For single handers with a dagger board if it is still reachable then simply pulling on the board by the crew or while pulling back on the safety boat will help get the boat on its side. If the Dagger board is not reachable then consider putting a paddle blade first into the centreboard slot as far as possible and carefully using this as a lever to help pull the boat onto its side. Then recover as normal capsize.

On smaller single handers it is often possible just to lift one side of the boat ( usually the windward side) and then get hold of the mast and lift this working your way to the end of the mast to lift boat onto its side and then work back down then mast to lift the mast and right the boat.

### Mast in the mud

If you suspect the mast is stuck in the mud and the crew are still happy to try and right the boat and are able to safely then getting them to lower the mainsail will quite often mean that they can pull the mast out of the mud using a normal recovery without help.

If safety boat help is required try to work out which direction the mast went into the mud. Always pull away from the mast and not over the mast even if this is initially down wind, it is just to get the mast out of the mud initially before completing the recovery. This is done by attaching a line to the upper shroud and gently pull away from the mast.

If the mast is stuck and not pulling out consider attaching a line to both shrouds and across the bottom of the hull to form a bridle and pulling on a long line, directly away from the mast this will allow more power to be used. It is important that you do not pull at an angle as this will break the mast and complicate the recovery.

If you are still struggling try and get the mainsail lowered and removed from the boat and try again.

Once the mast is free then go through a normal capsize recovery as if the was on its side but it would be worth holding the mast to stop it inverting again.

### Mooring vessels

If you are mooring vessels then you are most probably just towing the casualty a short distance very slowly to the mooring or anchor. This can be done either alongside or by attaching a tow line to the vessel and not the vessels painter. This will leave the painter free to be used to tie the boat to the mooring without struggling to attach lines etc, you can then recover the tow line so you don't run out of lines.

If you are removing the crew attach an abandoned boat marker to the boat even if it is the right way up.

If you do not need to remove the crew then leave them on the boat to bail/ pack up the boat and prepare it for being towed. If they need shelter from the sun/rain or wind, remind them they can hide under the sails

Keep an eye on any boats that have been moored and let the R/O know where you have left them.

## Towing

Very short distance tow with sails up ( eg to a mooring ).

This can be alongside the safety boat by holding the shrouds or the side of the boat. Watch your hands and only drive slowly. This can only be done in calm conditions in anything else attach a tow line.

This must be UPWIND ONLY unless no wind as the boat will try and sail and you will have no control over it. Get the crew to steer and keep their heads down and stay still as the sails will flap in the middle of the boat. This sounds obvious but you will be surprised how many sailors forget.

Most of the time it will be sails down, C/b up and weight at the rear of the boat. Get the helm to steer down the side of the safety boat so that if you slow down the dinghy will try and go down the side of the towing boat and not ram it from behind.

Change speed and direction slowly to allow the towed boat to follow, turn into the wind to change direction.

Long tow - long line astern tied to the bridle.

Short tow – Short line / alongside tow.

Multiple tows long line astern and tie each boat to the line using their painter, don't tie them to each other, and get helms to steer parallel to the tow line.

High performance boat towing – most high performance boats with wings are most successfully towed alongside with the wing of the boat on top of the tube of the rib and the crew sat on top to keep it pinned to the tube. Slow tow with dagger board up but still in slot. Mainsail down and jib wrapped around forestay. If recovering for a distance then long line tow with crew onboard at rear to balance, sails must be down/ jib furled and the helm steering.

PRACTICAL - Towing a boat long tow/ short tow.

Last updated 28<sup>th</sup> March 2021