

# **TAMAR YACHT CLUB**

## **RESCUE MANUAL**

**Revised June 2014**

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# 1. Introduction

The purpose of this manual is to provide a common point of reference and to set a minimum standard for rescue duty at the Tamar Yacht Club (TYC). This rescue manual is by no means a complete and comprehensive reference document. It is intended to be an evolving document, its contents will be updated on a regular basis to encourage lessons learned from experience to be shared and communicated to all involved.

Currently, TYC has the following primary rescue craft based at Beauty Point:

- **H R Ferrall**-17ft Southwind fiberglass runabout fitted with 70hp Yamaha outboard motor.
- **John Allum** – 4.75m Mariner aluminium runabout with centre console fitted with a 40HP Yamaha four stroke engine.
- **Tom Bain**-Total Coach 5.4m fiberglass runabout fitted with a 40 hp Yamaha outboard motor
- **Alf Hutton**- a 6.1m fiberglass displacement cruiser with a 16hp yanmar diesel inboard motor used as the PRO start/finish boat.
- **RIB 1**- a Zodiac Pro 500 with centre console powered by a 50hp Yamaha outboard motor
- **RIB 2**- a Zodiac Pro 500 with centre console powered by a 50hp Yamaha outboard motor
- **3.0 m RIB** powered by a two stroke outboard used as a coach boat
- **Crawford**- a 3.0m RIB dinghy powered by a 5hp Suzuki Outboard motor fueled 50:1 two stroke (premixed)

## 2. Power Boat Basics

### 2.1. Fuelling

- All vessels take unleaded fuel only in the fuel tank. The oil injection tank must be checked before each outing and topped up with Yamaha 2 Stroke Oil. The only exception is the Crawford (see above)
- No sail craft are permitted on the water until all the rescue craft are fully fuelled and ready to go.

### 2.2. Boat controls

At TYC any person who uses the rescue craft must have a boat licence. On water, instructions and practice as to how the crafts motors and controls work is carried out for new users prior to manning the vessels.

### 2.3. Starting up

- Always check that the bungs are inserted and secured before launching a rescue boat into the water,
- When launching, never start an engine unless the propeller is submerged in water. The water is sucked into channels which cool the engine. Starting an engine which is not water cooled will cause the engine to overheat instantaneously and can cause permanent damage.

- When in shallow water, make sure the engine is tilted so that it does not touch soil & stones at the bottom.
- Push the boat to a depth where the engine can be lowered without touching the bottom.
- Ensure that the kill switch is in the running position. Rescue boat drivers should ensure that the kill switch is attached properly to both the boat and the driver.
- Ensure the fuel tank(s) are full, connected to the engine and properly secured..
- Make sure the air vent screw on the fuel tank is not tight. It should be half a revolution open to allow the tanks to breathe.
- Pump the small black rubber fuel pump manually until the fuel enters the engine's carburetor. When all the air is out, the rubber will become hard when filled with fuel.
- Open the choke slightly.
- Ensure the engine is out of gear.
- Make sure that there is no-one near the engine in the water.
- Start the engine. Be sure not to flood it with too much open choke. • When an engine fires up, provide sufficient throttle (still out of gear) to prevent the engines from dying, but DO NOT OVER-REV a cold engine.
- Be sure to keep the prop away from shallow water and people. If necessary kill the engine immediately by pressing the kill switch on the engine.

## **2.4. Maneuvering**

When maneuvering a boat, always remember that any adjustment to speed and steering is indirect, i.e. the boat's hull takes time to react on any changes in steering inputs, especially at slow speeds. In other words, decrease speed well before the point where you want to stop, because the boat has momentum and will continue to move. Similarly, the steering takes time to react on the hull at slow speeds.

Before attempting complicated maneuvers, first practice on a stationary buoy before a race starts.

If you have a choice, approach a boat or person in the water against the wind, especially in strong wind. Remember, at slow speeds, the rescue boat is pushed in the direction of the wind, and therefore it is impossible to come to a complete standstill with the wind from behind unless the reverse gear is used.

When the wind is moderate to strong, practice approaching an object in the water (such as a buoy)

both downwind (using reverse gear) and upwind. If at all possible, approach a sailboat or sailor in the water against the wind during a race. It is much easier to approach an object in the water against the wind; an approach with the wind will cause the rescue boat to drift into the object and may require difficult and dangerous maneuvering using the reverse gear.

## **2.5. Safety Procedures**

- Never let an engine run with the propeller not submerged in water. • An engine in gear with the prop spinning is similar to an electric carving knife — keep it well away from people or obstacles.
- If an unsafe situation arises, prepare and instruct your crew to pull the safety cord of the cut-out switch without hesitation. Practice this (not with a person in the water).
- When picking up a person in the water, or even just approaching a person in the water, always keep a safe distance between the engine and the person. If the boat drifts dangerously close to a person in the water, select neutral immediately when the engine is within 3 meters from the person.
- If the rescue boat drifts by accident over an object and the object is beneath the boat, select neutral immediately. In the unfortunate event that a person is in the water and comes close to the engines (or beneath the boat), cut the engines instantaneously.
- If a rope gets caught in the prop, switch off the engine before tilting it and removing the rope.
- When in shallow water, be very aware of stones, tree trunks and the bottom. If you approach the water edge in reverse or sideways with the aft side towards land, switch off and tilt the engine(s) a few meters before you touch the water edge.
- Life jackets are mandatory and must be worn in the boat at all times.

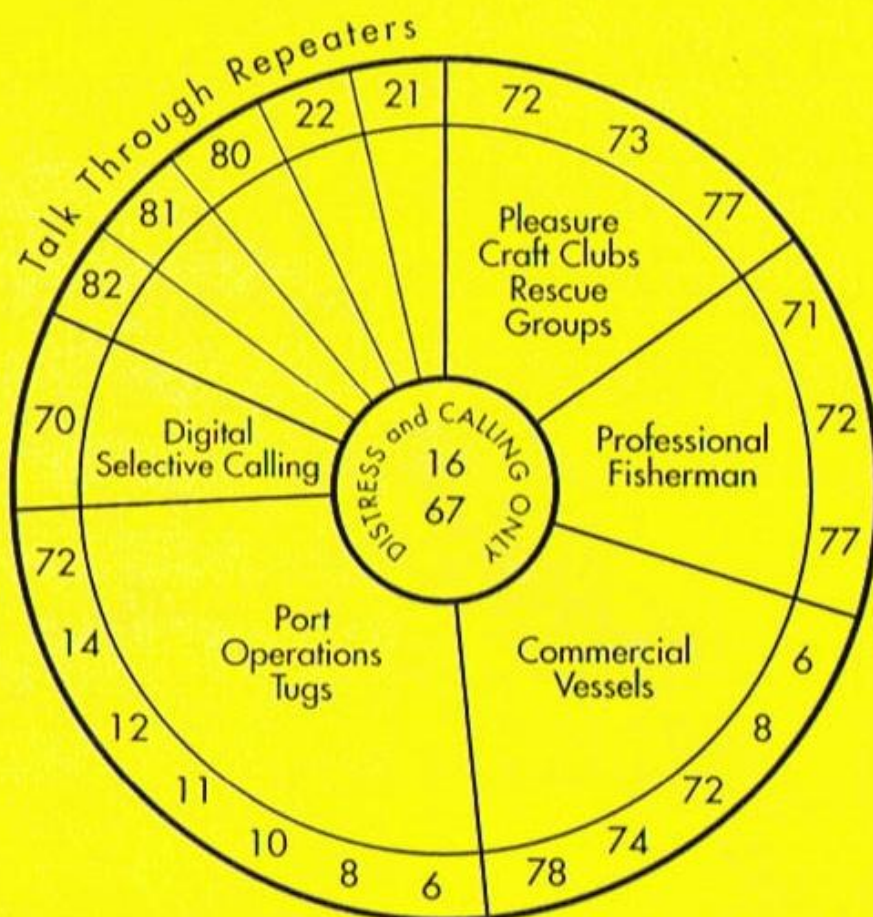
## **2.6. Radio Operation**

TYC has a two-way VHF radios in all Patrol Boats. Some are fixed installations and some boats use hand held units. The Channel used on race days is VHF Channel 9

Each rescue boat is assigned a call ID, typically "Rescue 1", "Rescue 2", etc, while the link to the PRO is through the start/finish boat "Alf Hutton". When using the radio, press the PTT (push to talk) button, speak into the radio handset, and then release the PTT button and wait for a response.

Always establish radio communications with the other party, before stating your message. For example, say "PRO Boat this is Rescue 1", please come in, over", then wait for an answer. Do not just start to talk, because the receiving party may not be attending to the radio at the time, or busy with something else. The other party should acknowledge the caller by stating "PRO Boat to Rescue 1, go ahead, over". Try to end your speech with the word `over", then release your PTT button immediately, so that the other party know when to reply. When you have completed the dialog, say "Out". If you are on rescue duty, never leave the radio unattended. If you are the skipper, it is often more convenient to delegate the radio operation to a crew member.

# VHF Marine Channels



## Talk Through Repeaters:

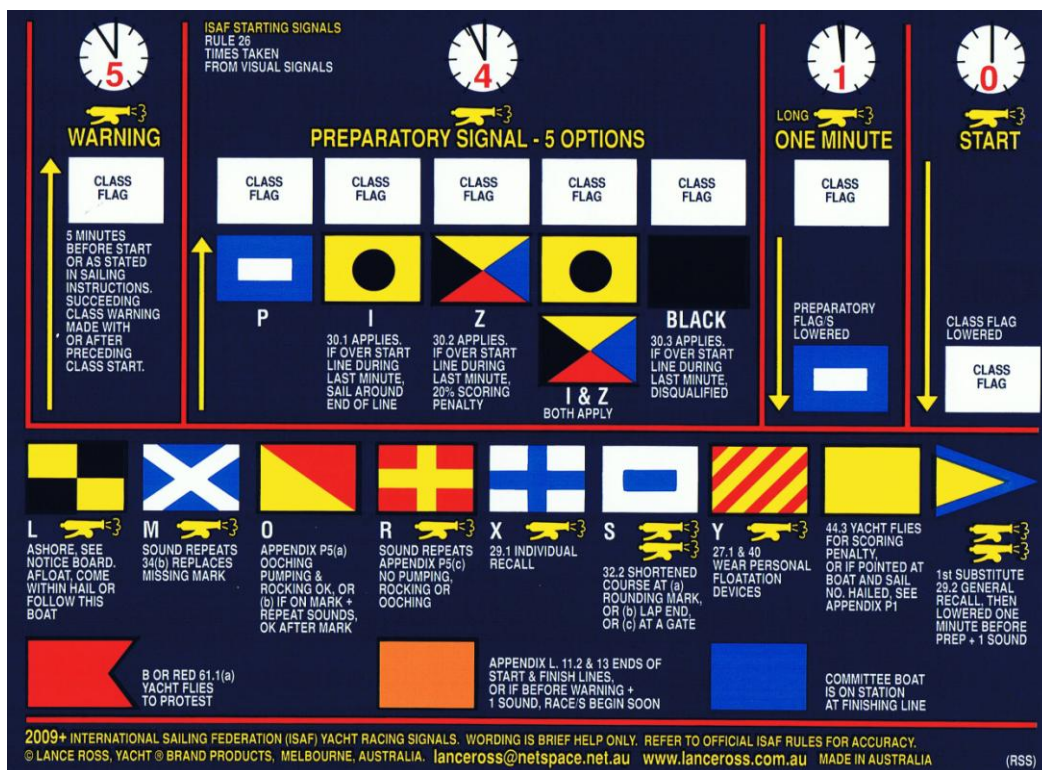
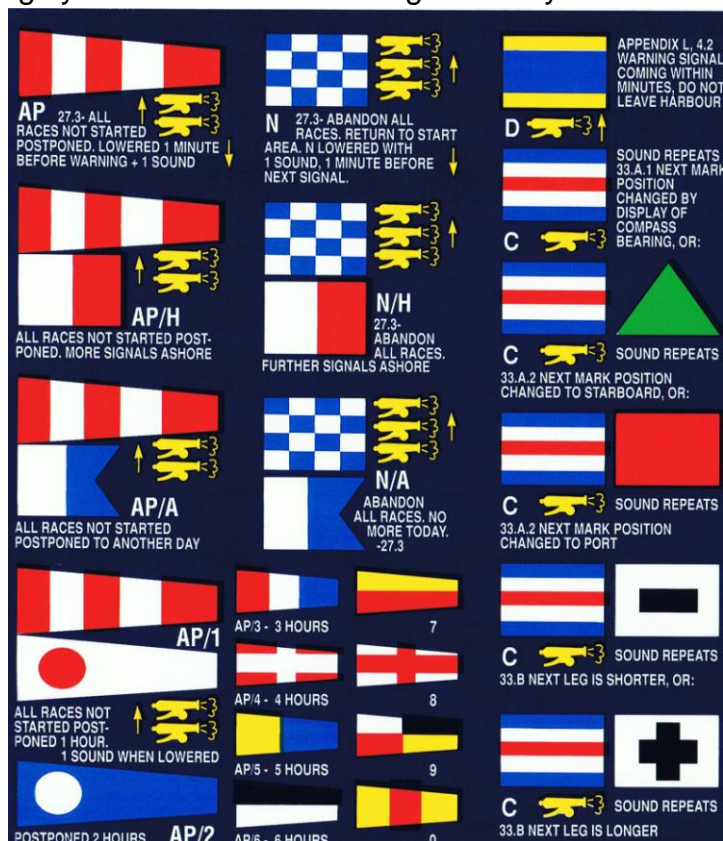
- |   |                                   |
|---|-----------------------------------|
| 21 Three Hummock Island<br>Mt Murray              | 81 Mt Raoul<br>Bluff Hill Point   |
| 80 Cape Tourville<br>Dazzler Range<br>Cape Sorell | 82 Maatsuyker Island<br>Mt Horror |



MARINE *and* SAFETY TASMANIA

## 2.6. Flags

This is the international flag system from which the flags used by the club are derived.





## **3. Rescue Operations**

### **3.1. The Rescue Axiom**

"Safety comes first, always."

### **3.2. Race control**

All rescue craft are under the control of the PRO during a race and also during preparations to lay the buoys before the race. The PRO, unless otherwise decided, communicates directly with the rescue boats. Rescue boats may return to shore after the race only when the PRO declares that the race is over and gives the rescue teams permission to leave the water.

### **3.3. Returning to the club during a race**

No rescue craft may return to shore during a race unless:

- The skipper requests and obtains approval from the PRO; for a non-urgent return to shore; or
- A passenger is on board that requires urgent medical attention (the skipper should still inform the PRO, but does not require permission if it is a life threatening situation); or
- A dangerous storm is raging and all sailors have safely returned or have been returned to the shore; or
- The rescue craft is in danger of sinking or
- The rescue craft is accompanying a retiring sail boat, or towing a damaged boat.

### **3.4. Right of way**

Sailboats always have right of way. Keep a safe distance from sail boats. Be careful not to create a wake behind the rescue boat which can disturb a sailboat. Also remember that a sailboat can tack at any time, so do not assume a straight line of projection. If a sailboat turns at any time the rescue boat must get out of its way.

### **3.5. Positioning during the race**

During a race, do not enter the race zone, unless there is a sailboat in trouble. Keep well away along the perimeters of the race course, and do not cross the racing course unless there are no sail boats nearby.

A good place to "park," is on the outside of a buoy (i.e. not in the racing area). Keep a safe distance away to allow sailboats sufficient maneuvering space. Try and spread the workload between rescue craft by splitting the race course into sections.

If coaching or photography is going to be part of a race, permission will be sought from the PRO to be on the race course.

### **3.6. Casual communication between rescue boat crews and sailors**

Casual communication between a rescue boat's crew and sailors is not permitted and may result in unwelcome disqualification of the sail boat. The rescue team should only communicate to sailors to provide official instructions as directed by the PRO, or to ask if rescue assistance is required if and as appropriate.

Coach/rescue boats will be designated for the Green Fleet Sailors. These boats are exempt from the above casual communication rule.

### **3.7. Providing rescue assistance**

When approaching a capsized sail boat, first observe and assess the situation. Providing assistance to sailors results in immediate disqualification.

If it seems apparent that the sailor or sailors are struggling to regain control of a capsized sail boat and become fatigued, the skipper of the rescue boat should ask, at his/her discretion, if rescue assistance is required. If the sailor confirms and requests assistance, the rescue team should immediately assist as appropriate and either help the sailors to get the sailboat upright, or pick up the sailors from the water if they become too fatigued or the situation becomes too dangerous. In either case, the sail boat is disqualified and the rescue boat must radio the status to the PRO.

The skipper of the rescue boat should also exercise discretion and make a decision whether a sailor or sail boat should be rescued. In this event, the skipper has the right to step in and take action against the will of the sailor, and should throw a rope over the bow of the sailboat to indicate that it is being rescued. Although the sailboat is disqualified at that point, the safety of the sailors always takes priority and it is within the judgment of the rescue boat's skipper to decide to intervene for the sake of safety.

If a sailor is taken on board a rescue boat, and their yacht is left at anchor or left to drift until picked up later, TYC Rescue boats have fluorescent green markers to attach to the bow of abandoned boats that designate Abandoned/ Crew recovered.

### **3.8. Towing Sailboats**

Ensure that the rope pulls the bow of the sailboat, or at least a fixture (such as the mast) positioned towards the front of the boat. On some sailboats, the mast is positioned towards the centre of the point of momentum and this can cause the sailboat to change direction under tow.

The tow rope must never be fixed with a knot to the rescue boat, because it must be possible to release the rope instantaneously if something goes wrong. Let the rope wrap around a fixture point two or three times, and let a crew member hold the end of the rope by hand. Releasing the rope by hand must free the sailboat in the event of an emergency.

If possible, also have a sailor hold the other end of the rope in a similar fashion, while operating the rudder to steer the sailboat.

Remember, rescuing a person always takes priority over rescuing a vessel.

### **3.9. Refreshments**



The skipper and crew must ensure that they have sufficient liquids on board (soft drinks and drinking water) for the duration of the race, especially in summer. Energy bars or chocolates should be taken onboard during long races, especially in cold weather.

Note:

The use and consumption of alcohol during a rescue session (i.e. during a race) is strictly prohibited, no alcohol is allowed on a rescue boat at any time.

### **3.10. Essential Equipment and Location**

- Anchor chain and warp sufficient for area– located in the anchor bow box.
- Life jackets for all crew
- VHF two way radios. (Must be switched on and tuned to channel 9).
- Bilge pump – located in the stern. Operated manually or from the Bilge pump switch if electric.
- A sharp knife to cut a rope in an emergency - located near the throttle controls.
- Bucket to bail water out of a boat – located in the bow.
- Two long handled boat paddles with hand grip paddles – located in the boat side storage shelves.
- Boat hook – located in boat side storage shelves.
- V Sheet
- Towline minimum 5 metres in length
- Spare kill cord
- Minimal tool kit
- .
- A supply box inside the bow contains:
  - First Aid kit. With 2 large wound dressings, 2 medium wound dressings and 2 triangular bandages as a minimum.
  - Thermal blanket.
  - Water
  - Sun burn cream
  - Green markers for abandoned boats.

### **3.11 Retrieving and Storage** of each rescue boat

It is the skipper's responsibility to ensure the Rescue Boat is placed on its trailer, washed down with fresh water and engine flushed before returning it to its designated storage area.

- Replace any safety stores used
- Advise the PRO of any losses or damage
- Ensure VHF is Switched Off
- Remove fuel tank if necessary and store in green shed
- Remove any rubbish from the boat

**TYC**