

NYC H&S - 008 - SOP - PATROL BOAT OPERATIONS

- Section 1 - Overview of Patrol Boats Operation**
- Section 2 - Patrol Boat Preparation and Checklist**
- Section 3 - On the Water**
- Section 4 - Clean Down**
- Section 5 - Maintenance and Fault Reporting**
- Section 6 - Nelson Tri Club Sea Swims**

- Appendix 1 - Example Patrol Boat Notice**

NYC H&S - 008 - SOP - PATROL BOAT OPERATIONS

Section 1 - Overview of Patrol Boat Operation

Patrol boats are a major investment and an essential safety component of the Nelson Yacht Club activities. This Standard Operating Procedure (SOP) contains detailed information on how the patrol boats are to be operated and maintained and the duties of patrol boat crews.

The boats may be used by Search and Rescue, and the Fire Service and therefore the boats must be maintained ready for use at all times.

NYC operates 8 patrol boats as per the following table.

Name	Where kept	Type and motor	Use and restrictions
NYC Patrol 1	Nelson Marina launching ramp	Macboat600 (5.75m) 115hp Yamaha	Race committee boat (start/finish) Mark laying boat
NYC Patrol 2	Nelson Marina launching ramp	Naiad 5.3m 60hp Yamaha	Outside Haven
NYC Patrol 3	NYC	Wavebreak 4.5m 60hp Yamaha	Outside Haven
NYC Patrol 4	NYC	Southern Pacific 4.7m 40hp Honda	Outside Haven
NYC Patrol 5	NYC	Naiad 3.8 40hp Yamaha	Coach Boat Only Inside/Outside Haven
NYC Patrol 6 (NBTS)	NYC	Naiad 3.8 40hp Yamaha	Coach Boat Only Inside/Outside Haven
NYC Patrol 7 (Sailability)	NYC	Aquamaster rib 25hp <u>2-stroke</u> Yamaha tiller steer	Coach Boat Only. Inside Only
NYC Patrol 8	NYC	Naiad 4.3m 50hp Yamaha	Outside Haven

Approval of Skippers

All persons driving a club patrol boat must be an "Approved Patrol Boat Skipper" or under the direct supervision of an Approved Patrol Boat Skipper who can easily reach the controls at all times.

Nelson Yacht Club recognises a number of "Approved Patrol Boat Skipper Trainers" who are experienced club members, staff or officials with sufficient experience in the club operations to train and/or approve a club member, volunteer or worker as an Approved Patrol Boat Skipper. Any person wishing to be recognised as an Approved Patrol Boat Skipper must have satisfied an approved trainer as to their competence and completed an [Approved Skipper Declaration](#).

Where a direct assessment is required, competence will be checked against the following criteria: [NYC Approved Patrol Boat Skipper Competence Criteria](#)

A register of Approved Patrol Boat Skipper Trainers and Approved Patrol Boat Skippers is maintained on the club's Google Drive: [NYC H&S - 008h - Register Of Approved Patrol Boat Skippers & Trainers](#)

Skipper Responsibility

The Skipper of a patrol boat is directly responsible to the Race Officer and will be clearly nominated by the Race Officer before launching.

It is your responsibility to act sensibly; to ensure the safety of your vessel and crew, and follow the instructions given to you by the Race Officer or a Club Safety Officer.

- Do not leave the course without the Race Officer giving you permission to do so.
- If assistance is required, notify the Race Officer.
- A patrol boat must remain outside the harbour until ALL yachts are back inside or the skippers of the yachts have agreed to continue sailing at their own risk.
- Once again, while the club is responsible for yachts on the water, a patrol boat must be on the water until the last yacht comes in.
- When all yachts are off the water, confirm with the Race Officer concerned that you are then able to put the patrol boat away.

NYC H&S - 008 - SOP - PATROL BOAT OPERATIONS

Trip Report - Club Sailing - Check Out / In & Daily Operations Log

As skipper and crew of a patrol boat, you must complete a radio check and 'Check Out' with the Control Room Operator using the VHF radio on Channel 77, giving the full names of both crew.

The Control Room Operator is responsible for ensuring that all sailing crews and patrol boat crews that Check Out have returned to shore and are checked in. They complete a Daily Operations Log, ticking off boats as they come ashore.

- [NYC H&S - 007b - Daily Operations Log](#)

The completed Daily Operations Log sheets are filed in the NYC Control Room.

Any necessary actions, or reporting of incidents, necessary maintenance etc... should be emailed to the Club Manager on manager@nelsonyachtclub.org.nz

Trip Report - Sailing School Operations

Instructors/Coaches in the club's sailing school operations complete a daily "[Timesheet & Session Review](#)" Google Form that includes all necessary details.

Responsibility for ensuring the safe return of all persons, and the reporting of incidents and any necessary maintenance lies with the Chief Instructor or Senior Instructor overseeing the operation of the sailing school activity.

Good Practice Reminder

A laminated card will be visible on the console of each Patrol boat, with basic safety reminders.

See Appendix 1.


NYC H&S - 008 - SOP - PATROL BOAT OPERATIONS

General Club Rules for the use of the Patrol Boats

- You MUST wear the KILLCORD at all times when the boat is in gear. It should be attached securely above the knee, or attached to the belt of a buoyancy vest or lifejacket.
- The motor must be stopped if there is a person in the water nearby.
- As an Approved Patrol Boat Skipper, you must follow Maritime NZ regulations, local by-laws, YNZ sailing and racing regulations, and all NYC policies and procedures relating to patrol boat use.
- Persons under 15 are not to drive the patrol boats unless under the direct supervision of an Approved Patrol Boat Skipper who is within reach of the controls at all times
- The boats are not to be used other than for normal club sailing without the express permission of the Administration Committee, or in the case of short notice, the Commodore, Vice Commodore, or Club Manager. In some cases permission will be granted on the basis that some or all of the costs of running the boats are met.
- A correctly fitting Lifejacket or Buoyancy Vest must be worn by all persons on the patrol boat, whether a driver or a passenger. Lifejackets/Buoyancy Vests must be certified by a recognised authority as meeting type 401,402,403,404,405 or 408 in NZ Standard 5823:1989 or NZ Standard 5823:2001 or type 401,402,403,404,405 or 406 in NZ Standard 5823:2005
- Patrol boat skippers will normally have a second person to act as a lookout and assist in rescues. They should be ready and willing to get in the water in the event that a sailor needs assistance.
- There are some exceptions to the 'two crew' rule:
 - The delivery of the boats to or from the marina, or from the ramp to the moorings. In these cases the operators are to ensure that they are in radio contact, or are being observed from shore.
 - Coaching/Training.
 - Testing/Maintenance.
- At all times, a handheld VHF Radio should be carried, switched on and set to International channel 77
- Equipment on board the boats must be left in good order.
- You should ensure that any water bottles / personal items / waste items are removed from the boat after use.

Section 2 - Patrol Boat Preparation & Checklist

This section provides more detail on the items on:

 NYC H&S - 008j - Patrol Boat Pre-Launch Checks.pdf

Fuel

NYC has an account with NPD and fuel is purchased using the account card. 20l jerry cans may be used to transport fuel from the NPD fuel station in the port, to refill tanks in the patrol boats.

- Tanks must be secured, with vents closed for transport.
- A maximum of 50l of spare fuel may be stored at the club, in the sealed bund within the locked boat storage area. This will be located as far as practicable from any potential source of ignition - eg. electrical sockets.
- Refuelling tanks must be done on the concrete.
- Any minor spillage should be allowed to evaporate.

All centre-console boats use 91-octane fuel. The only motor requiring pre-mixed 2-stroke fuel is Patrol 7's 15hp Yamaha - the Sailability Nelson tiller steer boat. The mix ratio is 100:1

Refuelling may be completed by Sailing School staff, and/or Approved Skippers.

- Check fuel tanks have sufficient fuel, and add more if necessary.
- Check fuel line is securely attached to one of the tanks
- Prime motor by squeezing bulb in fuel line until resistance felt
- Open the air bleeder valve on the fuel tank; failure to do this will cause fuel starvation and the engine cutting out.

Batteries

Patrol 1,2,4,5,6 & 8 are equipped with a master battery switch to turn off all electrical power. You will need to familiarise yourself with the location of these switches, as it is different for each boat.

- Turn the power on before use.
- Once the battery is turned on check that there is power by either turning the radio on (if fitted) or using the engine tilt switch.
- Turn the power off after the engine has been flushed and the boat put away.

NYC H&S - 008 - SOP - PATROL BOAT OPERATIONS

VHF Radios

Approved Patrol Boat Skippers or Crew should hold a VHF radio licence.

- Turn the radio on.
- Select channel 77
- Select International mode (I in the display)
- Inside harbour operate radio on low power
- Outside harbour operate radio on high power
- Call the Control Room to Check Out with full name of Skipper and Crew and complete a "Radio Check"

The following radio procedures should be used.

- Listen before you talk to ensure the channel is clear.
- The station being called should be mentioned first followed by the station calling.
- (Example "Nelson Yacht Club, Nelson Yacht Club, Nelson Yacht Club, this is Patrol 4, Patrol 4, Patrol 4, OVER)
- If you are being called, respond along the lines of "Nelson Yacht Club, Nelson Yacht Club, this is patrol 4 receiving, go ahead, OVER"
- Once you have finished a conversation indicate the fact with "Patrol 4 OUT"

Anchor

Each boat has an anchor attached to the bow of the boat.

- Check the rope and anchor are attached to the boat and are ready for use.
- When retrieving an anchor, bring the boat to a position above the anchor making sure the rope or anchor do not damage the soft sides of the boat.
- Ensure the ropes are coiled up and tidy when not in use.
- The anchor and / or anchor rope must not be used for any other purpose or removed from the boat.

NYC H&S - 008 - SOP - PATROL BOAT OPERATIONS

Safety Kits

All patrol boats should have a minimum level of safety equipment on board:

- A Safety Knife – easily available for use in an emergency.
- Towline – of suitable length and type of rope
- Throwline - floating line in a throw bag
- Basic First Aid Kit – wound dressing/bandages and strapping tape for stopping bleeding, and Survival Blanket to reduce exposure
- VHF Radio (fixed or handheld)
- Bailer – Eg. Bucket & Lanyard
- An alternative means of propulsion (oars)
- Coloured “Crew Safe” ribbons for identifying abandoned craft where the crew has been removed
- Advise the Club Manager if anything is used so replacement can be arranged.
- Extra Items may be carried for Patrol duty outside the Cut and for major Regattas such as;
 - Drop buoy complete with warp and anchor

Painter

Each boat has a painter (tow rope) attached to its bow to enable it to be tied to a mooring or to be towed by another boat if the need arises. DO NOT remove this rope or use it for anything other than its intended purpose.

Towropes

Each patrol boat must have a towrope for towing other craft. NYC Club Rules for sailors also require every yacht to have its own towrope, For short distances, the yacht's painter can be used. For longer distances and in choppy waters, the Patrol Boat's towline should be either wrapped around the yacht's mast and held by the sailor, or tied with a slip-sheet-bend to the yacht's painter.

Bungs & Venturis

Check bungs and elephant trunks are in secure place before launching. Replace bungs after cleaning.

Lifejackets/Buoyancy Vests

Ensure every person on the boat is WEARING a correctly fitting lifejacket/buoyancy vest. Do not go on the water without one.

A BUOYANCY VEST is designed to help the wearer float easily and be able to swim. They are suitable for active sports such as sailing, where there is patrol boat cover on hand, and/or you are not sailing far from the shore. They are also suitable for patrol boat crews supporting club sailing activities.

A LIFEJACKET is specifically designed to float the wearer on their back, face-up. They may also be self-inflating, with either a manual or automatic switch. They are more suitable for use on larger yachts and powerboats, and especially when operating further from the shore.

Buoyancy Vests for the patrol boats stored at Nelson Yacht Club are stored on the rack in/just outside the Opti Shed. If you cannot find enough lifejackets/buoyancy vests, ask a senior club member to help. If you are launching Patrol 1 or Patrol 2 from the marina, make sure you take a buoyancy vest with you.

Personal Preparation

As Patrol boat crew you must be prepared to get wet and cold.


- Second form of communication (Eg. mobile phone in waterproof case)
- Adequate clothing and waterproof covering should be worn.
- Gloves are an advantage when handling ropes for marks or anchors.
- A hat, sunscreen and sunglasses are recommended.
- Water, and snack food are also recommended, but please remember to remove any bottles or rubbish at the end of the day.
- The crew should be prepared and willing to go in the water to assist a sailor in difficulty if necessary – on windy days this may mean wearing a wetsuit.

Pre-Launch Equipment Checks

There is a poster in the boat storage areas at the club and at the marina shed with the necessary pre-launch checks displayed. Each boat should also have a laminated copy of

NYC H&S - 008 - SOP - PATROL BOAT OPERATIONS

the checks on board. It is the responsibility of the Approved Patrol Boat Skipper to ensure that these checks have been carried out.

If the boat is already on the water DO NOT ASSUME that the checks have been done - do them yourself! ( NYC H&S - 008j - Patrol Boat Pre-Launch Checks.pdf)

Check the engine, propeller, propeller guard, sponsons, hull, controls, and safety equipment for any damage and correct operation and that any bungs are in if the boat has them.

Check the fuel level and add fuel if necessary.

Launching & Retrieving

Nelson Yacht Club has a fixed winch located at the top of the ramp, used for launching and retrieving patrol boats. There are significant risks involved in Launching & Retrieving a boat. See [NYC H&S - 008a - SOP - Launching & Retrieving a Patrol Boat](#)

Starting the motor

Each boat has a key on the console, which acts as a starter switch.

- Lower the motor into the water using the tilt switch on the throttle lever just enough so that the prop and water intakes are below the surface.
- Ensure the fuel tank is connected and the pump valve full and firm.
- The boats all have relatively new engines and should not require any lifting of the idle revs lever to start (if people do use this, then they will start to need it). You just need to turn the key to start the engine.
- If the engine does not turn over, check that the throttle lever is in the middle “neutral” position and check that the kill-cord is attached.
- Once the engine has started check water is streaming out of the telltale to ensure it is being cooled.
- Once the engine is running, unhook the boat from the trailer and roll/slide it off. Back the boat out to a depth where you can put the engine completely down.

IMPORTANT – If at any time the engine makes a beeping or whistling noise, there is a serious problem and it should be shut off immediately. The siren sounds if the engine is

NYC H&S - 008 - SOP - PATROL BOAT OPERATIONS

overheating or does not have enough oil, either way, get a tow home, do not use the engine as it will probably seize and cost a lot to fix.

Clean Down

Before putting the boat away:

- Flush the motor with fresh water to flush the salt from its cooling system.
- All motors should be flushed by fully immersing the lower leg sufficiently into a drum of water so that the water intakes are covered, or using the 'muffs' and running the engine for a couple of minutes.
- 'Saltaway' can be added to the freshwater.
- Please lower the engine to do this, and then raise it again slightly afterwards. Ensure that water comes out of the engine-cooling outlet.
- Completely wash down the hull, trailer and the interior ensuring water is drained by opening the venturi and or removing bungs – Don't forget to replace bung(s)!

Once the boat is back in the shed:

- Tilt the motor back down and then
- TURN OFF THE BATTERY! (Patrol 3 has no isolator, just make sure the key is off)
- Email the Club Manager on manager@nelsonyachtclub.org.nz with any faults/issues

Lastly, Thank yourself for your efforts and go and join the others in the bar for a drink, you deserve it!

Section 4 - On the Water - Club Racing & Regattas

General Boat Handling Information

For general boat handling guidance and information, please see:

[NYC H&S - 008b - Patrol Boat Operations - General Boat Handling](#)

For a practical introduction to small powerboat driving, we recommend the RYA Powerboat Level 2 Course. This is a 2-day course, and is run locally by the NMIT Maritime School.

Keeping watch

Move around the course area or your designated sector maintaining a constant watch and check on any distressed craft providing assistance as required.

NYC H&S - 008 - SOP - PATROL BOAT OPERATIONS

Designated sectors will depend on the number of sailors and number of patrol boats, and should be identified by the Race Officer. For example:

- <10 sailors - 1 patrol boat - mid-course
- 10-20 sailors - 2 patrol boats - top mark and bottom mark
- 20-30 sailors - 3 patrol boats - top mark, bottom mark and wing mark / mid course

In addition to direction by the Race Officer, the patrol boat skippers should discuss the day, any challenges expected, and identify a lead skipper / coordinator.

Reporting

Once on the water contact the Control Room to confirm the full names of the designated Skipper and Crew on board. Update the Control Room with any crew changes.

Report any withdrawals from a race to the Race Officer - report the sail number and sailor's intentions if known.

Assisting Yachts & Sailors

If the yacht is racing, provision of assistance may disqualify them from the race. If you can see the correct number of sailors, stand off and assess the situation first. Give assistance if requested by the yacht crew. For more information and guidance, please see:

[*NYC H&S - 008c - Patrol Boat Operations - Assisting Yachts & Sailors*](#)

Stay in the course area

Do not leave the course area without first gaining approval from the Race Officer. They need to ensure that sufficient resources are available in the course area to provide adequate safety cover for the racing yachts.

Laying & Retrieving Marks

You may be asked to lay, move or retrieve a buoy that is a racing mark. For more information on the techniques involved see:

[*NYC H&S - 008d - Patrol Boat Operations - Laying & Retrieving Marks*](#)

Adverse Weather Conditions

The Race Officer and race management team will check multiple weather forecasts and take a conservative approach to forecasts of bad weather. However, there may still be occasions where an unexpected change in the weather causes problems. This may result in the Race Officer signalling an ABANDONMENT or an EMERGENCY.

- See [*NYC H&S - 009 - On-Water Emergency Procedures*](#)

NYC H&S - 008 - SOP - PATROL BOAT OPERATIONS

- If the wind becomes too strong or the sea state becomes too rough for racing to safely continue, an abandonment will be signalled. In this case, patrol boats will need to escort the sailing boats back to the club. No patrol boats should leave the water until all sailors have been accounted for.
- If there is lightning in the sailing area, boats should be encouraged to capsize if safe to do so.
- If there is a dramatic reduction in visibility, patrol boat crews should make sound signals and keep any boats nearby whilst trying to attract the attention of others. Keep up communication with the Race Officer, and follow their instructions.

Boat with no Sailor (and no "Crew Safe" ribbon)

This is a MISSING SAILOR and is an EMERGENCY. See [NYC H&S - 009a - Boat with no sailor E.A.P.](#)

These cards will be carried on all Patrol boats

NYC H&S - 008 - SOP - PATROL BOAT OPERATIONS

A BOAT IS FOUND WITH NO SAILOR PRESENT AND NO "CREW SAFE" RIBBON

ENTRAPMENT - are they beneath the boat?
Right the boat ASAP

If no sign of the sailor,
Communicate "MISSING SAILOR"
and your location to the Race Officer and other Patrol Boats
DO NOT attach a "Crew Safe" Ribbon

If possible, have a mark boat hit the MOB function on a GPS at the boat's location
If possible attach the boat to a marker buoy, or anchor, otherwise allow the boat to drift

Start an immediate search UPWIND in a triangle 60° from the marker buoy/boat for 200m
Crew standing if possible
Check other boats for extra people on board
Consider tidal flow, currents and local conditions

If unsuccessful,
Start a search DOWNWIND in a triangle 60° from the marker buoy/boat for 100m
Crew standing if possible
Check other boats for extra people on board
Consider tidal flow, currents and local conditions

If unsuccessful,
The Race Officer will have declared an EMERGENCY, abandoned the racing and
sent all racing boats back to shore with appropriate escort.

**A Mark boat will coordinate a grid search from the GPS coordinates of the
abandoned boat / marker buoy utilising all other powered vessels.**

Vessels 20m apart in a line across the wind 200m below the GPS position

**Sweep UPWIND to the top of the course, then DOWNWIND to the bottom
(and 200m past GPS coordinates)**

If unsuccessful,
Form up at right angles to the course and sweep ACROSS the course

**Meanwhile, the Control Room Operator will be cross-checking entry lists,
Check Out/In records and accounting for all sailors as they come in**

**The search will continue until successful in conjunction with the
Coastguard, Surf Lifesaving, and Maritime Police**

Section 5 -Maintenance and Fault Reporting

Other than the buildings, the patrol boats are the most expensive and important assets the club owns. There are a number of systems in place to ensure they are maintained in a good working condition.

- **Annual servicing** - The boat outboards are serviced when required, and at least annually by local marine mechanics. Currently this is Haven Pleasureboats Ltd. A record of servicing and work is kept through invoices/financial reports held in the club office and maintained by the club administrator and Administration Committee.
- **Pre-launch checks** - A poster with the pre-launch checks is displayed in the boat storage areas, both at the club and at the marina shed. A laminated checklist should also be in each boat. It is the responsibility of the skipper to ensure that these checks are carried out and that any faults/missing items are reported to the Club Manager.
- **Fault reporting & maintenance** - Email to manager@nelsonyachtclub.org.nz who will ensure that the necessary maintenance is carried out.
- Maintenance completed is recorded on a spreadsheet on the club's cloud storage: [*NYC H&S - 008i - Patrol Boat Maintenance Log*](#)

Section 6 - Nelson Tri Club Sea Swims

The Nelson Tri Club uses one club patrol boat on a weekly basis to support their sea swim events. They are provided with and must comply with this Patrol Boat Operations SOP.

They have additional policies and procedures which are specific to their operations, and hold their own records of approved drivers, training, trip reports etc...

Web: <http://www.nelsontriclub.co.nz/nelsonseaswims/>

Email: info@nelsontriclub.co.nz

Appendix 1

PATROL 3

ALWAYS WEAR THE KILLCORD

ALWAYS WEAR A LIFEJACKET / BA

ALWAYS TRAVEL AT A SAFE SPEED

**ENGINE OFF when in contact with someone
in the water**

First Aid Kit under front seat

Normal communication: VHF Channel 77
"NELSON YACHT CLUB, NELSON YACHT CLUB,
NELSON YACHT CLUB, *this is* PATROL 3, *over*"

Emergency: If you can't contact NYC, call
"NELSON COASTGUARD RADIO" on Ch16