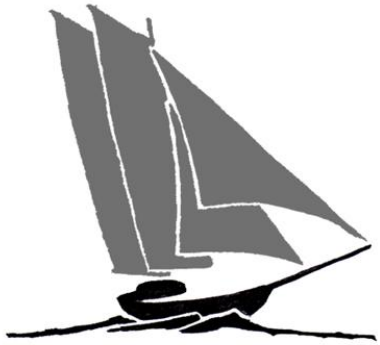


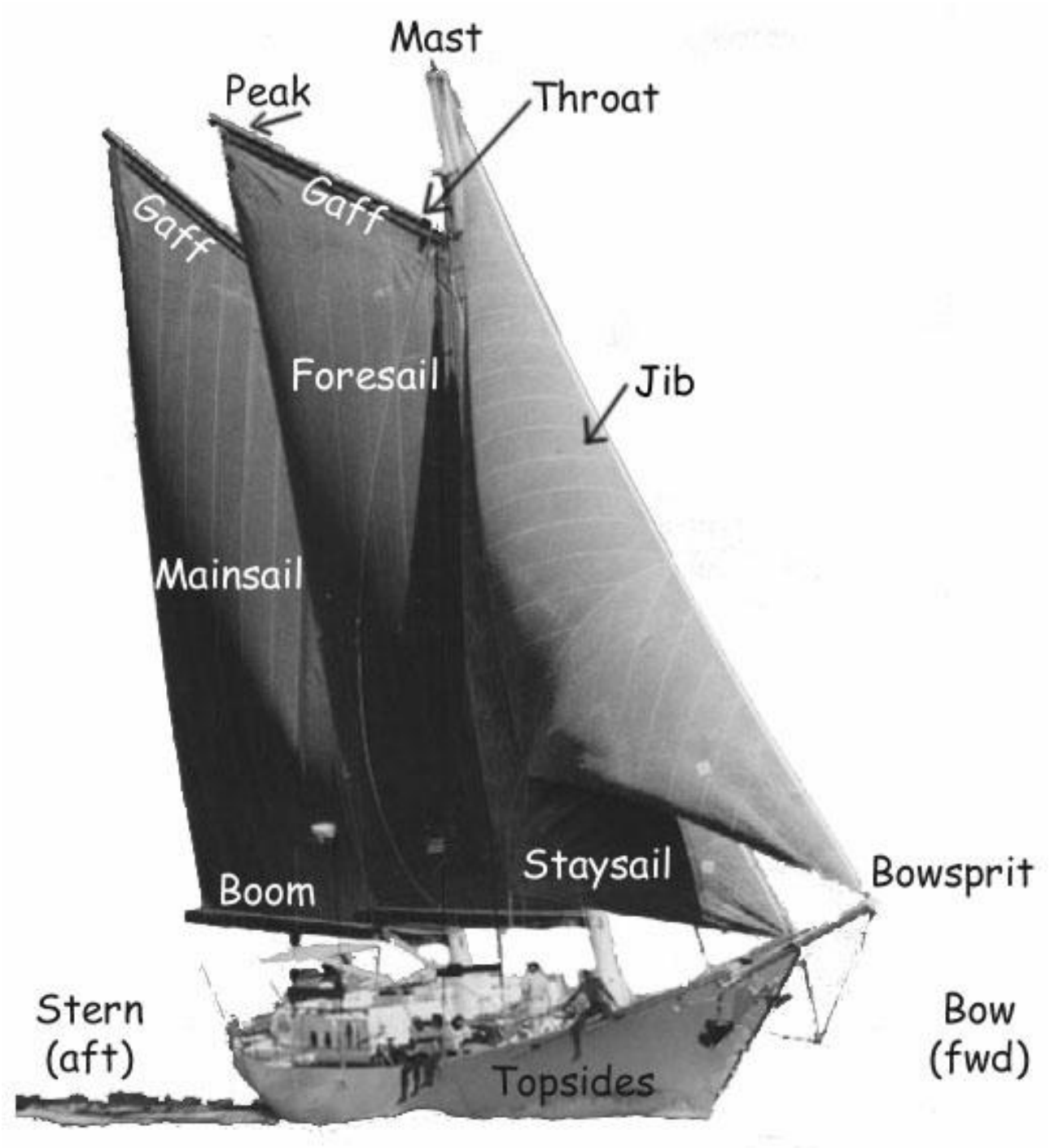
# S/Y ENCOUNTER

## SAIL TRAINING MANUAL

**Welcome aboard the ENCOUNTER!** - a traditional gaff rigged schooner. She was built as a training vessel, so her sails and rigging are intentionally designed to require 'all hands' in order to sail her. There will be plenty of time for sitting back and enjoying yourself but the skipper and crew need your help, particularly when raising/lowering sails and entering/departing port. Also, everyone will have daily duties to help keep the boat clean and shipshape. So, please be prepared to join in. This manual will give you the basics of boat layout, procedures and terminology. The more you take part and get involved, the more you will learn and enjoy your time aboard.

**So let the journey begin!**

The S/Y ENCOUNTER has two masts, which makes her a schooner. She has two headsails (the jib and the staysail) mounted between the bowsprit and the foremast, and two large sails called the foresail (mounted on the forward mast or foremast), and mainsail (mounted on the aft mast or mainmast). Both the foresail and mainsail have a gaff at the top and a boom at the bottom. These are heavy metal beams that help suspend and stretch the sail from top to bottom. The end of each gaff nearest to the mast is called the throat, and the other end of the gaff is called the peak.




**The Sails**

Mainsail, Foresail, Staysail, Jib, Spinnaker.

The mainsail is the sail nearest the stern or back of the boat. Then literally, Fore Sail. The sail above the fore cabin. The staysail, is set on the inner fore-stay and suspended between the bow and staysail boom, and the top of the foremast. The Jib is rigged similarly on the outer (forward-most) fore-stay, except there is no boom. The asymmetrical spinnaker, a large sail like a

balloon that is used to sail downwind in light winds (not shown on the diagram above), is mounted in place of the Jib.

**Lines**

To a sailor, ropes are called lines, unless they have a special use—in which case the special name for the line is used.

Sheets, Halyards, Peak Halyard, Throat Halyard, Topping Lift, Mooring Lines, Painter .

Sheets - are two lines that are attached to the bottom aft end (clew) of each sail and used to tack and trim the sails (pull them in or let them out)

Halyard - any line that pulls a sail up or lets it down

Peak halyard is the line that pulls up the top (aft-most) end of the gaff

Throat halyard is the line that pulls up the forward end of the gaff where it is connected loosely to the mast

Topping lift - is the line that supports the weight of the boom when the sail is down

Mooring line - heavy lines used to tie up the boat to the dock

Painter - the mooring line coming from the bow (front) of a dinghy or RIB (Rigid Inflatable Boat)

**Useful words to remember**

Captain, Navigator, Helmsman

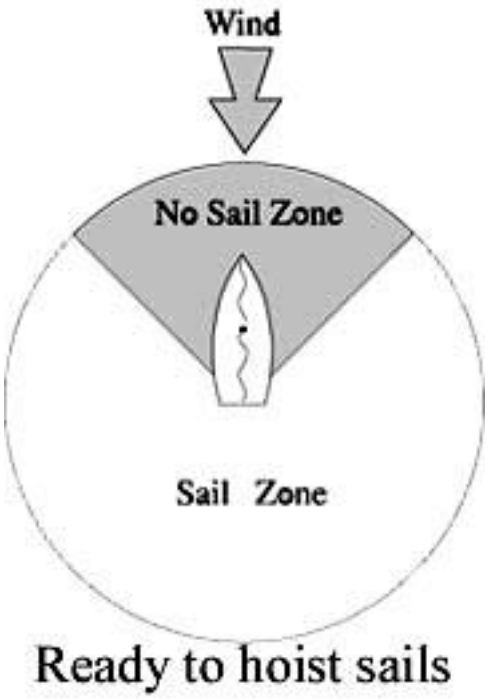
Port, Starboard, Fore, Forward, Bow, Stern, Aft, Helm.

Port - left side of the boat when looking forward, Starboard - right side of the boat when looking forward, Fore - fowards the forward end or toward the front of the boat, Aft - towards the after end or back of the boat, Bow - front, pointed-end of the boat, Stern - back, squared-off end of the boat, Helm - steering wheel.

Hull, Keel, scuppers, toe rail, bowsprit, stays, shrouds - The steel wires on either side of the boat that keep the masts up, similar wires running forward or aft are called ‘stays‘, davits - hold up the RIB at stern when sailing, cleat - the brass or stainless steel fittings shaped like a ‘T‘ onto which lines are secured using the OXO method (circle-cross-circle), winch, bollard. RIB (rigid inflatable boat) tender, dinghy. Pilot berth, aft cabins, nav. station. saloon, Galley - The kitchen on a boat, Head - The toilets on a boat

Port and Stbd. side midship cabins, fore cabin, anchor locker, sail locker, lazarette, saloon hatch, midship hatch, fore cabin hatch, port & stbd. rope lockers. Doghouse.

All the above terms and items will be shown to you when you come aboard, being familiar with these terms however will be helpful for you to remember them and refer to them as needed.




**Hoisting Mainsail and Foresail**

1. First, remove the sail covers and all but one of the sail ties (to keep the wind from filling the sail before you're ready).

2. Only remove the last sail tie from around the boom when the command to hoist has been given.

3. Both sheets need to be slack so that the sail will flap in the wind and not fill.

4. There needs to be one team on each halyard with at least two people on each team.

5. When both teams are ready and the boat is pointing into the wind, watch for the helmsman's command. Once given, both teams can pull the sail up. The gaff must come up level or it makes it harder on both teams. WORK TOGETHER.

6. When the sail is all the way up and it becomes difficult to pull any further, team members need to sweat and tail. This will be demonstrated to you.

7. When the throat reaches the top of the mast, the peak must stop until the throat is tight and tied off.

8. Then the peak should continue, until the sail takes the boom's weight.

9. Finally, check that the topping lift is slack and then 'sheet in' (pull in the sheet that's on the leeward side of the boat) until the forward edge of the sail stops flapping.

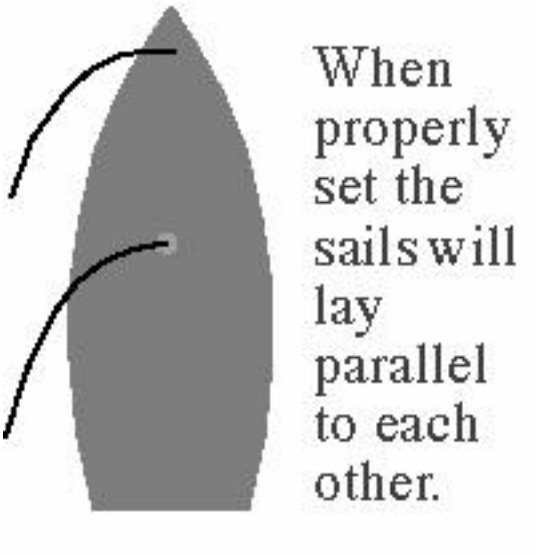
10. We're sailing!

**Teamwork**
This boat's rig requires that you work together. You will need to work as a team, communicating with and looking out for each other—otherwise the work is a lot harder and life will be difficult.

This boat cannot be sailed by anyone on their own, so it is in your best interest to help one another.

**Making off**
When we have finished with any line we will secure it to a cleat. This is done first with a complete loop or 360o turn, then a cross over and then another complete turn. The way to remember this is 'OXO.' More than this does not make it more secure—it only hinders releasing the line quickly in an emergency. Never make knots unless you are told to do so. Note that mooring lines are sometimes secured with a bowline knot, and at other times using the OXO method.

**Sail trim**




We want the sails set at the appropriate angle to the wind in order to get the best speed and still keep the boat fairly upright.

In practice we let the sails out until the front edge just starts to flap (luff) and then tighten up on the sheets enough to stop the flapping.

This is the optimum angle.

Where can we sail?

We can sail at almost any angle to the wind except directly up wind and a few degrees either side - (in our case approx 60%).

**Bringing Down Mainsail and Foresail**

Again we must be pointing into the wind to remove power from the sails. However, this time we only need one person on each halyard, and as many as possible folding the sail when it comes down.

1. Check that the topping lift is secured.

2. Take in (tighten) the sheets.

3. Put at least three sail ties between the boom and the sail.

4. Begin lowering the sail, starting with the peak halyard and immediately followed by the throat halyard, keeping the peak of the gaff up as you

lower, keeping the sail flat.

5. As the sail comes down, flake it (fold onto the boom) in approximately half metre folds on top of the boom. To make this easier, have someone pull on the back edge of the sail (leach), to keep it stretched tightly all the way from the mast to the back end of the boom.

6. Stop lowering the gaff when it is just above and parallel to the boom and secure it, tying the sail ties.

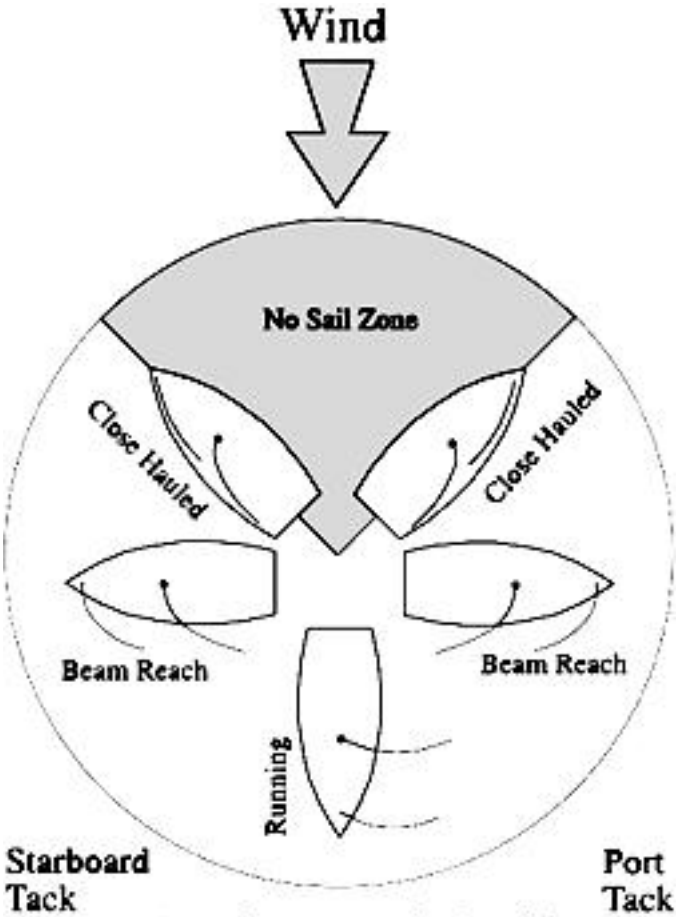
7. When the sails are down, tie the sail ties around the sail and over the gaff. Once the sail ties are on, the throat halyard can be moved away from the mast (to prevent slapping in the night) and both halyards can be tightened and tied off.

8. Finally, put the sail cover on to protect the sail from the UV rays of the sun. This should be done every time we stop unless we plan to put the sails up again within a few hours.

**Staysail and Jib**

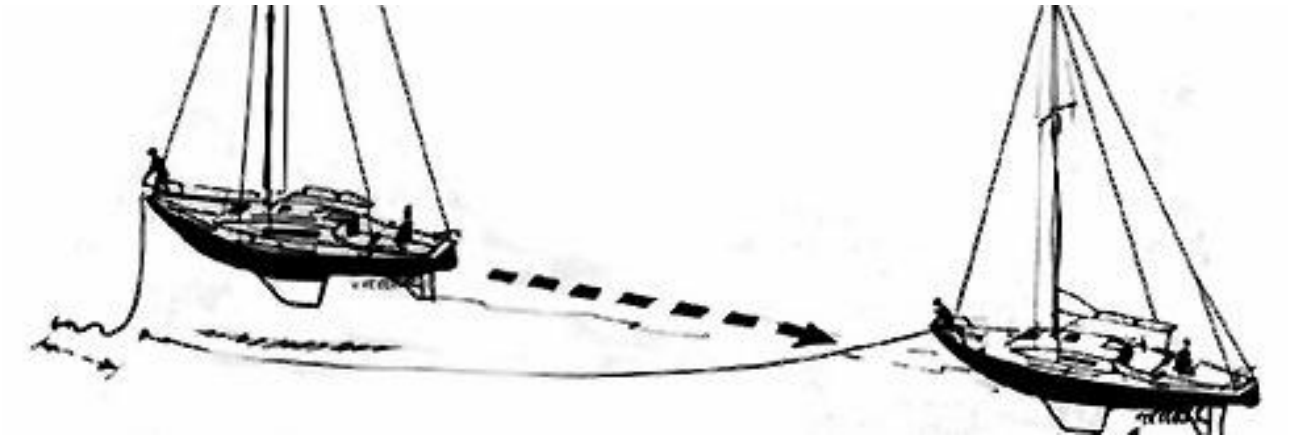
Hoisting and bringing down the staysail and jib is simpler than with the larger sails, but still needs teamwork. The boat must be pointing into the wind and sheets need to be loose so that, once hoisted, the sails can flap freely. Remove all but one of the sail ties until ready to hoist. Hoisting is done by two persons on the halyard—one to pull it up quickly by hand at first and then using the winch on the foremast, and the other person to hold the loose end of the halyard (tailing), so the winch can grip it. Once the halyard is sufficiently tight, the sheets on the leeward side of the boat can be ‘sheeted in‘ so that staysail and jib fills, providing more forward thrust.

Dropping the Jib and Staysail, requires someone to go out on the bowsprit to the sail’s tack from where they will pull the sail down as the halyard is released and put in the folds whilst a third person eases out the sheet then goes up to pull the sail inboard and fold.




Points of Sail

Anchoring



## Anchoring

When dropping the anchor, care has to be taken to watch the helmsman for instructions. He may need you to stop the boat in an emergency and there is not enough time to send someone to tell you what he wants.

The anchor needs to have four times as much chain out as the depth of the water. In practice this means that if we are in five meters of water we need to let our 20 meters of chain. The anchor works like a plough and will only hold if it digs well into sand or mud. It does not "like" weed, which does not allow firm holding, and rocks can jam the anchor and make it difficult to retrieve. There are 100 meters of chain, so we can anchor in a maximum depth of 25 meters.

**Signals** between Helmsman and Anchorman: thumb down = drop anchor.
Finger pointing up and circling = bring the anchor up.

Finger pointing down and circling = let the anchor out slowly.
Fists closed up in the air = stop the chain (use the brake).

Hands forming a 'T' = time out—a delay is required from either end.

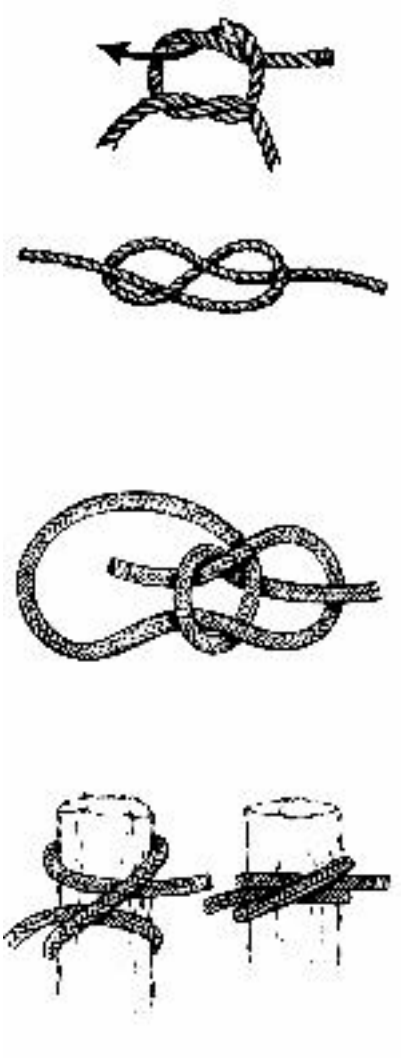
The windlass that brings up and lays out the anchor chain is one of the most dangerous parts of the boat. Keep your hands and feet well clear of the chain as it runs out or comes up, as it can remove fingers or toes in a split second. When taking up the anchor, someone is needed in the anchor locker to spread the chain evenly as it comes in so it doesn't pile up like a pyramid and cause a jam. Gloves are provided and should always be worn when doing this job.

### Bringing up the anchor

1. Engage the clutch
2. Release the brake.
3. After pressing the "on" button on the windlass remote control, press the "up" button when the pressure is not on the chain. Ideally we want the windlass to only pick up the chain, not to pull the boat forward. Point out to the helmsman where the chain lies and he can motor in that direction. When the boat is directly above the anchor, and the chain is tight, the anchor will have to be broken out of the mud or sand. It is better to let the engine do this than put this load on the windlass, so lock the brake and signal for the helmsman to motor forward. After a few meters the anchor chain will go slack again and you can continue bringing it up (don't forget to release the brake). Finally, secure the anchor with the line attached to its head and pull it up level to prevent it from banging against the hull.

Anchoring will on the most part be handled by the crew, however you will be asked to help with flaking the chain in it's locker, and taking a line ashore to tie to a tree or rock.

**Useful knots you'll need to learn**



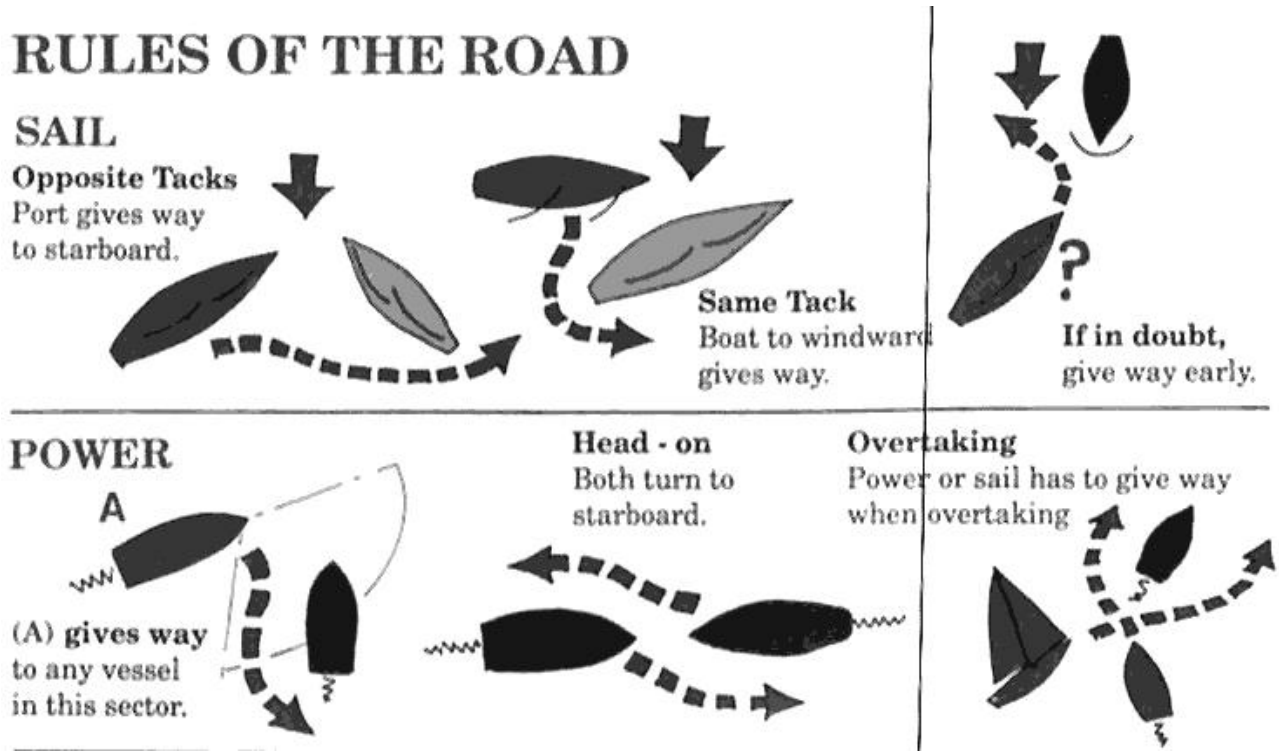
**Reef Knot**
This is used for securing sail ties or, rarely on the Encounter, when reefing the sail

**Figure of eight**
Should be in the end of every sheet and halyard to prevent it from running through the blocks

**Bowline**
Used to moor to the quay ashore and for various other purposes—a very useful knot

**Round Turn and Two Half Hitches** (no illustration)
For dinghy painters and attachment of fenders.

**Clove Hitch**
Temporary attachment of fenders.




The first rule is to avoid collision at all costs! So keep that in mind and always allow plenty of time to call the captain or crew if any other ship appears to be passing close.

Boats operating under engine power (even a sailing boat) are required to give way to boats operating under sail power unless they are fishing or restricted in their ability to manoeuvre.

**Heads (toilets)**
Holding tanks are normally used and emptied while at sea. Since the toilets flush directly to the sea when holding tank valves are open, the holding tanks should always be used (i.e., valves closed) at beaches, in port and when there are people swimming.

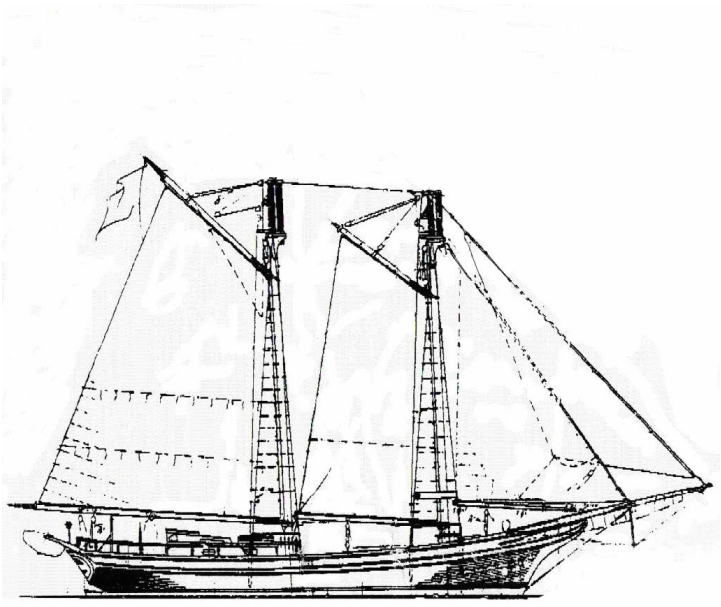
After using the toilet (please sit—men and women), fill the bowl with water by using the lever next to the toilet. Use the black pump on the wall to empty it. Nothing should be put in the toilet that hasn't first been through you. Bins are provided for toilet paper and other items that should not be flushed down the toilet.

**Showers**
Limited Water!!! Please check with the captain first to make sure there is sufficient water for you to take a shower aboard. In most cases you will simply jump over the side for a wash.  Liquid soap only, works in seawater.

If you were to use the shower, first wet yourself then turn the water off. Soap up and then rinse off. Please do not leave the water running throughout your whole shower. If you like water that much, jump in the sea! When you have finished showering, pump the water out of the bilge using the hand pump on the wall. When the bilge is empty you will hear a sucking noise. If this takes more than 30 pumps you have used too much water.

**Washing down**
The decks get dirty regularly, and they need to be scrubbed off and rinsed with water. There are buckets aboard to get water from the sea, but always tie the bucket securely onto a rail before you use it and please do not allow the bucket to touch the side of the boat as you pull it up, as this leaves black marks on the white hull and may even remove the paint. Normally the deck is cleaned with salt water as we only have fresh water in dock.

On deck there are two header tanks that provide salt water for flushing the toilets—one for the forward heads beside the forward mast, and the other for the midships heads beside the main mast. These must be filled on a daily basis. Please take care not to spill water while filling the tanks. The paint or varnish on portholes (windows), hatches and rails is ruined by prolonged contact with salt water. If you do spill, please rinse these as well as the windows and seating areas with a small amount of fresh water immediately after the salt water wash down.



**Finally!**
If you have any uncertainties or are unsure of anything please just ask.

Look forward to sailing together.

**The Captain and Crew of the S/Y ENCOUNTER**.