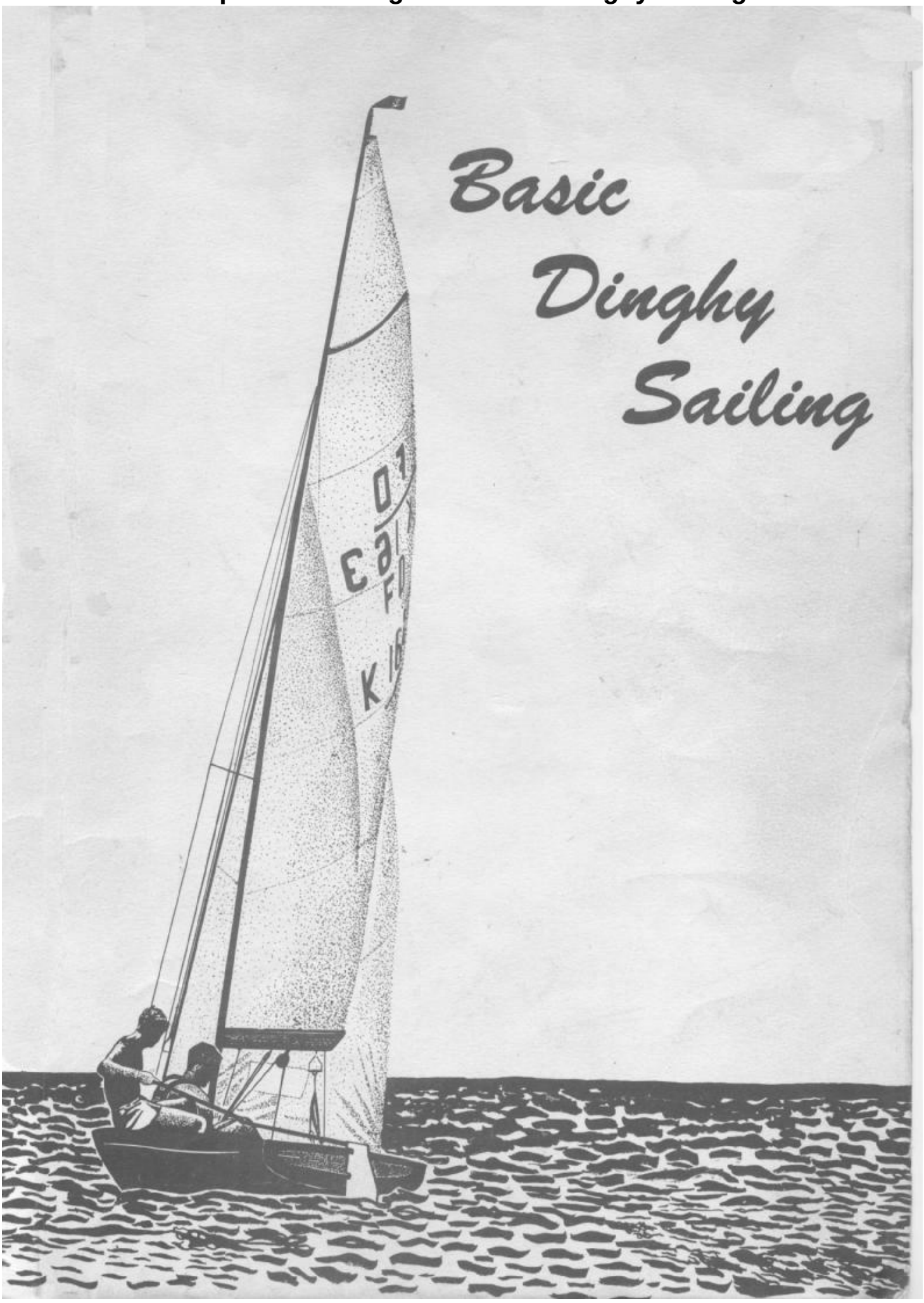
Aquarius Sailing Club Basic Dinghy Sailing



AQUARIUS SAILING CLUB

BASIC DINGHY SAILING

April 2009

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Acknowledgements

The following publications were referred to in the preparation of this training handbook.

RYA Start Sailing Beginners Handbook (RYA 2002)

The Handbook of Sailing (Pelham Books 1990)

The Complete Sailing Handbook (Tiger Books International)

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1. INTRODUCTION

Welcome to the Aquarius Sailing Club. I hope that you will find this training manual useful and that it helps you to get the most out of your sailing whether you choose to cruise, race or just muck about in boats! As you may know there are literally hundreds of sailing books on the market, some better than others.

It is essential that the RYA Start Sailing Beginners Handbook (G3) is used in conjunction with this manual and it is referenced as G3 throughout. Also the RYA National Sailing Scheme Syllabus Logbook (G4) or RYA Youth Sailing Scheme Log Book (G11) should be used to record your progress.

We have tried to do is put down, in logical order, those things that you need to know and follow each of these informational stages with practical exercises for you to do, on and off the water, to enable you to develop your skills.

Sailing on the river is different from most other types of water and some of the techniques in this manual are specific to the river as practiced at Aquarius. Also much of it assumes training in a two handed dinghy.

At each stage you will be given the opportunity to demonstrate that you have understood each point before moving on. The intent is that each stage builds on the last and covers everything that you need to know about how to sail safely and efficiently. As you work through each part of the programme you will be ‘signed-off’ as having demonstrated an acceptable level of competency.

Once you have completed the training manual you will be taken for a sail to verify everything that you have learnt, including a capsize and man overboard drill. Once you pass this stage you will be presented with your club sailing certificate enabling you to use any of the club dinghies and, should you wish to, participate in club racing.

Sailing is a great sport and I would wish you all the best as you start your training.

Tony Hopkins

(Commodore AQSC)

2. GENERAL STATEMENT ON SAILING, CONDITIONS AND SAFETY

Sailing, like many sports, carries with it an element of risk; however, with the right training, equipment and safeguards risk can be greatly minimized. The ability to swim for instance, although an advantage is not mandatory but the wearing of buoyancy aids definitely IS. The following are a few simple tips:-

1. Buoyancy aids MUST be worn at all times when afloat whilst training, using club boats or racing; it is highly recommended that they are always worn when afloat.

2. Be aware of prevailing weather conditions (wind strength, wind direction and strength of stream etc.)

3. Listen to warnings of other experienced sailors. Consider the possibility of worsening conditions.

4. Never take valuables afloat. Items like wallets, rings, mobile phones, keys and non waterproof watches etc. should be left ashore.

5. At all times when afloat be aware of what's going on around you. The river is used by a number of other users, some more experienced than others. Never take it for granted that they have seen you or will take avoiding action especially rowers and motor boats. In a restricted channel like the river sail doesn't always have right of way over power.

6. You must give all possible help to any person or vessel in danger.

7. Deciding whether it is safe for you to start or continue racing, or cruising, is for you alone, not for the people running the race or event.

8. When boarding sit on the bank so you can put your feet into the dinghy amidships rather than step on to the side deck which will cause it to heel.

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3. CLOTHING & BUOYANCY AIDS (G3 Page 4)

Sailing gear can be expensive but shopping on-line or at one of the dinghy/boat shows can sometimes prove a little more affordable. Boat jumbles are another source of good second hand equipment. Initially the only essential item is a soft pair of shoes like trainers. trousers shouldn't have metal studs as they can damage decks.

The following are some typical items of sailing clothing that you may wish to consider acquiring:-

1. Buoyancy Aids – are an essential. These are different from Life Jackets which are more usually used off-shore. Buoyancy aids should be selected by chest measurement and user weight. Initially Aquarius sc can provide one for you use.

2. Sp*ray suits and spray tops*- come in a variety of styles and colours and are usually made of nylon. Their primary purpose is to be worn over undergarments to keep you reasonably warm and dry. As the name implies they are spray proof not necessarily completely waterproof but they are usually windproof.

3. *Trainers or Wet boots* – provide non-slip footing in the dinghy, wet boots aren't essential for the river..

4. *Wet suits/steamers/drysuits* – come in a variety of styles and colours. They are usually made of Neoprene. They are waterproof and their primary purpose is to be worn next to the skin retaining body heat. By their very nature these are usually worn in windy, cold and or wet conditions where the likelihood of capsize is greater. They aren't essential for the river.

5. *'Spec retainers'* – are a good idea if you wear spectacles. These clip onto spectacles arms and ensure your 'specs' can't get inadvertently knocked off and lost over the side. It is worth wearing old specs if you have a pair.

6. *Sailing gloves* – help protect your hands and provide good grip when handling wet ropes. Gloves come in two basic types. Some are made of a knitted material with plastic finger and palm grips and the other are made of hide or synthetic hide material, the later being more expensive. Yellow knitted garden gloves with plastic ribs are very effective and cheap,

7. A *baseball type hat* can help to keep the sun or rain out of your eyes and provide some cushioning should you be unfortunate enough to get clipped by the boom.

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4. BASIC PARTS OF A DINGHY (G3 Page 6)

Every sailing boat, irrespective of its size has four basic parts (1) hull, (2) sail, (3) keel, centreboard or daggerboard, (4) rudder. Each has a specific role to play in keeping the craft afloat, stable and moving in the required direction.

1. *The Hull* – carries the crew and provides a rigid structure to support the mast and sails. Most dinghies have within the hull some form of buoyancy in the form of tanks or bags.

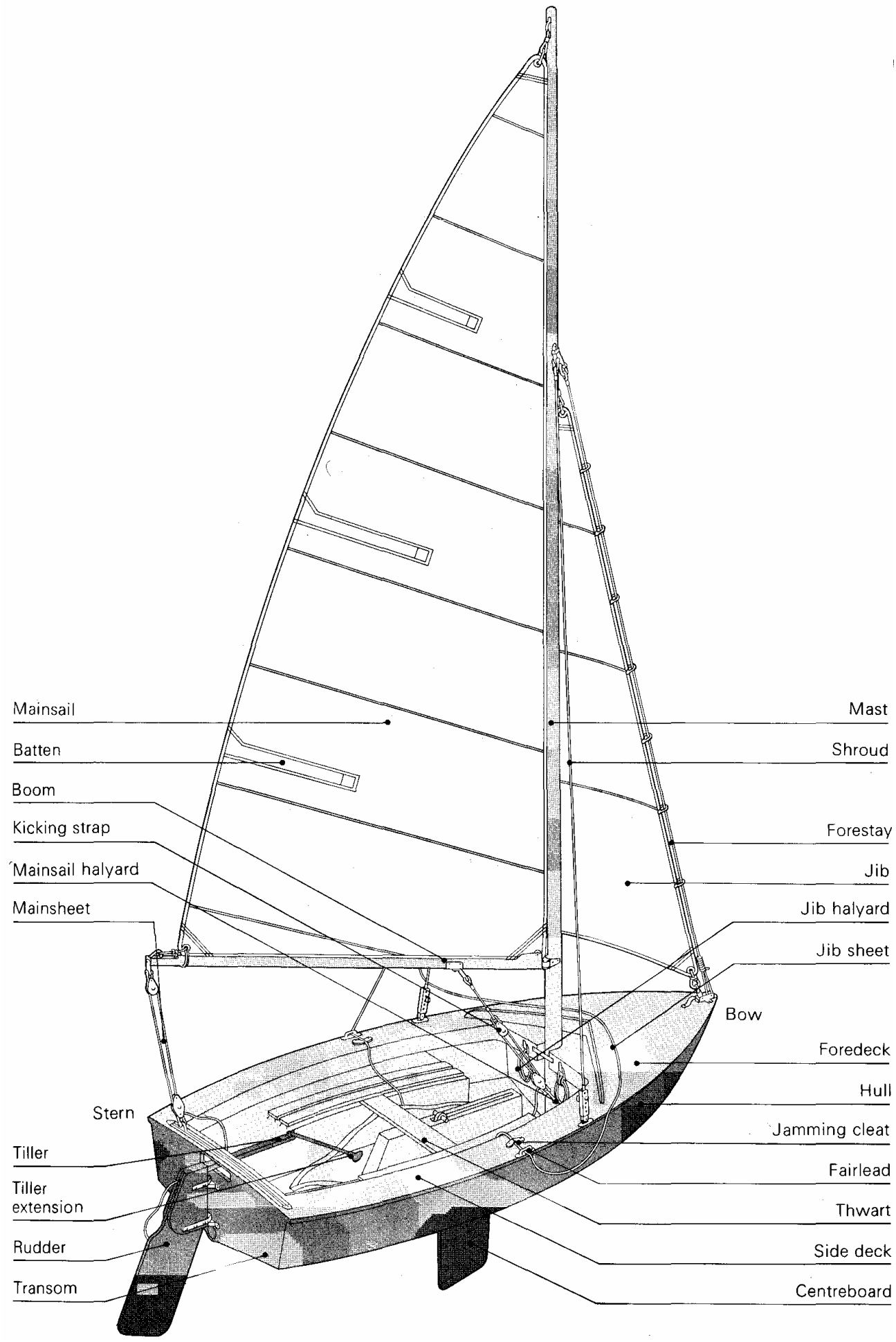
2. *Sails* – can be divided into two principal groups, those used to drive the boat in a given direction (i.e. Mainsail and Jib) and those only used when the boat is sailed away from the wind to increase speed (i.e. Spinnaker). The sails are attached to the mast which is usually secured in a vertical position to the deck by shrouds and stays. The boom is attached to the mast by a gooseneck fitting. The foot of the mainsail is attached to the boom which keeps it tensioned while enabling the mainsail to move easily across the boat when changing direction. The mainsail is controlled by a rope known as the mainsheet. Dinghies can be rigged either as transom main or centre main. Most dinghy's have a kicking strap attached to the boom and to the bottom of the mast to prevent the boom rising. The jib is controlled by the jib sheets. The sails are raised into position using ropes called halyards.

3. *Centreboard* – All sailing boats need to have a certain depth of hull under the water to counteract the sideways movement created by the force of wind on the sails. Dinghies have adjustable centreboards which can be raised or lowered as required. The amount of centreboard used is closely related to the direction, in relation to the wind, in which the boat is sailing. Centreboards often pivot to change the amount they project, ones that slide up and down vertically are also known as daggerboards.

4. *The Rudder* – serves two purposes, to initiate major changes in direction and to provide increased resistance to sideways slip at the back of the boat.

Definition of all parts listed on the illustration:-

MAINSAIL	Sail set on the mast
MAST	Main spar on which the mainsail is hoisted
BOOM	Spar to which the foot of the mainsail is secured
HEAD	Top of sail
HEADBOARD	Top most part of mainsail usually made of plastic plates
LUFF	Forward edge of a fore and aft sail
LEECH	Back of a sail
TACK	Part of sail where the luff meets the foot
CLEW	Lower aft corner of a fore and aft sail
BOLT ROPE	Rope sewn to or into the edges of a sail
JIB	Sail set forward of the mast
JIB SHEET	Rope (sheet) that controls the set of a headsail (jib)
JIB HALYARD	Line for hoisting the jib
BATTENS	Wood, metal or plastic supports inserted in the leech of the sail
KICKING STRAP	Pulley based system between boom and mast designed to tension leech of sail
RUDDER	With the tiller is used to steer the boat
TILLER	Steers the boat through the rudder
MAINSHEET	Rope (sheet) used to control the mainsail
MAINSAIL HALYARD	Line for hoisting the mainsail
TILLER EXTENSION	Extends the tiller enabling the helm to move forward or hike out
STERN	Describes the back of the boat
TRANSOM	Back of the boat to which the rudder is attached using gudgeons and pintles
CENTREBOARD	Metal, wood or plastic board which is lowered through the boats bottom by way of a slot to reduce the leeway
THWART	A seat fitted across the boat
FAIRLEAD	Permanent fixtures on a boat designed to guide a rope
JAMMING CLEAT	A cleat designed to allow a rope to be made fast quickly by jamming it
SHROUD	Wires supporting the mast from the port and starboard. Chain plates
FORESTAY	Wire supporting the mast from the bow
BURGEE	Wind indicator pennant usually carried on head of mainsail or top of mast


Mainsail
Batten
Boom
Kicking strap
Mainsail halyard
Mainsheet
Stern
Tiller
Tiller extension
Rudder
Transom
Mast
Shroud
Forestay
Jib
Jib halyard
Jib sheet
Bow
Foredeck
Hull
Jamming cleat
Fairlead
Thwart
Side deck
Centreboard

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Basic Parts of a Sailing Boat

The profile on the following page illustrates the main parts of one of the most popular of present-day sailing craft — the sloop-rigged dinghy. (For the sake of clarity the drawing is a simplified one.)

1. Burgee (or racing flag): indicates wind direction.
2. Mast: the main spar. Supports the sails.
3. Jib halyard: hoists jib.
4. Forestay: supports the mast (and jib) from forward.
5. Foresail hanks: attach luff of jib to forestay.
6. Jib: the single foresail characteristic of sloop rig.
7. Cleat: fitting for securing rope.
8. Bow plate metal plate to which forestay is attached.
9. Stem: foremost part of hull.
10. Mast step: takes heel of mast.
11. Centreboard: retractable keel.
12. Centreboard case: housing for centreboard.
13. Keel: fore and aft centre member.
14. Knee: strengthening member.
15. Rudder: alters direction of boat.
16. Mainsheet horse: metal traveller for mainsheet.
17. Mainsheet: controls angle of mainsail.
18. Outhaul cleat: for securing outhaul.
19. Tiller: lever for steering.
20. Tiller extension: increases length of tiller.
21. Boom: spar along which foot of mainsail is stretched.
22. Kicking strap: keeps the boom from lifting.
23. Jib sheet(s): control(s) angle of jib.
24. Fairlead: alters ‘lead’ of sheet.
25. Gooseneck: attaches mainsail boom to mast.
26. Shroud(s): lateral support(s) for mast.
27. Outhaul: stretches foot of mainsail.
28. Mainsail: the other sail-component of sloop rig.
29. Battens: support mainsail leech.

The design shown here is a characteristic example of the most efficient sailing craft so far developed. Its most important virtues are simplicity and ease of control. As regards rig, the same basic components are found on larger sloop-rigged craft, both on those with conventional single hulls, and on catamarans and trimarans. The keel arrangement is less typical, however; some cruising boats have centreboards, but these are not common nowadays, and most of the larger types of sailing craft have one or other of the various kinds of fixed keel.

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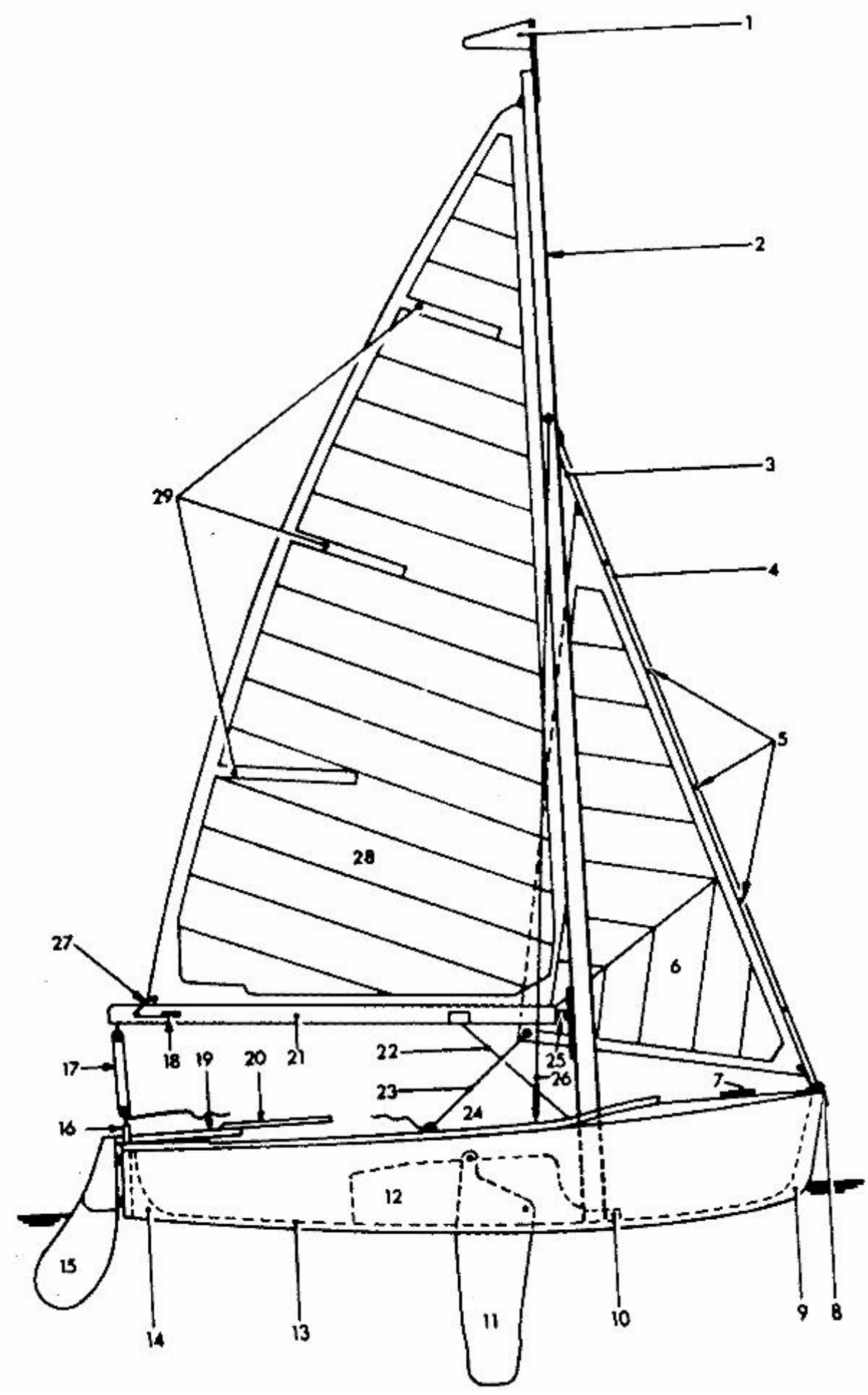

5. HOW A BOAT WORKS (G3 Page 14)

1. The Hull:-

   Most hulls are pointed at the bow and blunt at the stern, but some are blunt at both ends while others are pointed at both ends. Hulls are made from a variety of materials, principally wood, plastics or rarely metals. Racing boats need to be as light as possible. Hull shape and construction method falls into four basic styles as follows:-

   Clinker Built – The planks of the vessel's side run longitudinally from bow to stern, the edge of each plank overlapping its neighbour. The planks may be glued or copper riveted along their sides.

   Carvel Built – The planks, running either longitudinally or diagonally from deck to keel, butt against each other, giving a smooth surface.

   Moulded Construction – Sheets of thin veneer, glass fibre or plastic material are moulded and bonded together. This is light and strong and gives a smooth finish. Most modern boats use this method.

   Hard Chine – This makes a distinct angle (the chine) with the bottom. Usually built of marine ply, is light and strong and very popular with home constructors.

2. How Sails work:-

   Sails are the propulsion unit of the boat; they act like a vertical wing and convert wind energy into lift giving heeling and forward driving forces. The force created by the sail acts roughly at right angles to the boom; But only part of it drives the boat forwards, the rest tries to push it sideways.

3. Trimming sails:-

   a. A sail works best when its leading edge (the luff) is held at a small angle to the wind. For maximum speed the angle is critical; pull in the sheet until the sail seems to be pulling best.

   b. Most jibs and some mainsails have telltales. These are ribbons fitted near the luff, on each side of the sail and help to trim the sail accurately. The telltales will lift in the airflow. When they are parallel the sail is setting correctly.

   c. If the telltales on the windward side flap, pull in the jib sheet.

   d. If the telltales on the leeward side flap, let out the jib sheet.

   e. All sails work best when they are pulled in just enough to stop the flapping at the luff. Any more will slow the boat down.

4. Function of the centreboard or daggerboard:-

   a. A boat's centreboard is designed to resist the sideways force created by the sails; the rudder also plays a part in this. Water flows across the centre board in much the same way as air flows across the sail. It creates sideways force to windward that resists the opposite force on the sail. The two sideways forces cancel each other out leaving a forward force which drives the boat. Without enough centreboard deployed the dinghy would crab sideways as the force on the sail overcomes the resistance of the centreboard.

   b. The force on the sails acts roughly at right angles to the boom. With the sails tight the force acts mainly in a sideways direction. More resistance is therefore required from the centreboard. This is why dinghies have an adjustable centreboard or daggerboard so that the area under the boat can be adjusted to suit the point of sailing.

   c. When beating into wind with the sails tight the centreboard will be fully down.

   d. When reaching across wind with the sails at approximately 45º the centreboard will be only half down.

   e. When running before the wind with the sails goose-winged (The jib on the opposite side to the mainsail) the centreboard would be virtually fully up. Some plate is advisable to provide some lateral stability to prevent the boat rolling).

5. Staying Upright/Balancing the Boat:-

   a. The force created by the sail acts above the boat. The force created by the centreboard acts under the boat. These two opposing forces, acting a long way apart, create a heeling force that will cause the boat to heel if it is not resisted.

   b. When the boat is on a run there is usually no heeling force. Helmsman and crew sit either side on opposite sides or with the crew in the centre to balance the boat.

   c. In moderate wind conditions, on a windward course, such as a reach or close hauled, the heeling force will be great enough to demand that both helmsman and crew sit well out on the same side.

6. Function of the Rudder:-

   a. The rudder works only when the boat is moving. Major changes in direction and course are made by using the rudder in conjunction with other primary controls. Tiller movements should be smooth so that the rudder operates efficiently. Never sit behind the tiller. This severely restricts the tillers movement and can result in disaster.

   b. With the tiller pushed away from the wind (and the helmsman) the front of the boat moves towards the wind, the sails flap if not adjusted and the boat stops if it turns right into the wind.

   c. If the tiller is pulled towards the wind (and the helmsman) the front of the boat moves away from the wind causing the boat to gain speed. The sails must be let out to keep them set correctly.

   d. Remember you can only steer a car when it is moving – a boat is the same and if it slows down too much it will not respond to the tiller/rudder.

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6. THE ROLE OF THE HELMSMAN AND CREW

To sail a two man boat successfully both helmsman and crew have to co-ordinate their activities. To do this they must first understand what their own function is in the boat.

1. The helmsman is in charge of the boat.

2. The helmsman sits at the transom end of the boat holding the tiller, or the tiller extension, in the hand nearest the stern and the mainsheet in the hand nearest the bow. As well as steering the boat he is responsible for setting the mainsail and making all decisions to do with sailing the boat. He instructs the crew, informing him/her of any changes in course giving sufficient time for the crew to respond.

3. The crew sits further forward controlling the jib sheet and centreboard. He is responsible for setting the foresail and usually controls any additional sails which may be used (spinnaker). Each point of sailing requires a different depth of centreboard and it is the crew's job to ensure the correct setting at any time.

4. It is the responsibility of both helmsman and crew to balance the boat at all times.

7. Both helmsman and crew MUST keep a good lookout at all times.

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7. RIGGING YOUR DINGHY AND GETTING AFLOAT

1. Preparing the dinghy for sailing:-

   The process of attaching and hoisting sails is known as rigging the boat. Early on in your training an experienced sailor will show you how to attach the sails in readiness for hoisting them before you go afloat. Different types of dinghies all have their own way of attaching and hosting sails but the principals remain the same. The order is as follows:-

   a. Attach the jib tack to the bow
   b. Lead the jib sheets through their fairleads (guides for ropes)
   c. Attach the jib halyard
   d. Fasten the mainsail tack (foot) to the boom
   e. Fasten the outhaul (the rope that pulls the mainsail towards the aft end of the boom) to the mainsail clew (aft lower corner of the sail)
   f. Insert the sail battens into the leech of the mainsail
   g. Insert burgee into headboard (if applicable)
   h. Attach the mainsail halyard

2. Using a launch trolley:-

   a. Most two handed dinghies are stored on, launched from and recovered to their launching trolleys. Always ensure that the bow is tied to the trolley handle with the painter to prevent it sliding off.

   b. Take care when moving a dinghy on a trolley. Make sure there aren't any overhead obstructions to foul the mast. Be careful you do not lose control when going down a slipway.

   c. Check that you have all the equipment you need (i.e. rudder, paddle, bailer etc.)

   d. Ensure that the bungs and self bailers are in place and that all buoyancy hatches are closed.

   e. Wheel the boat on its trolley to the launching point.

3. Hoisting the sails:-

   a. It's generally easier to hoist sails ashore but at Aquarius this will need a predominantly westerly wind so the launch can be with the dinghy pointing into to wind.

   b. Normally the foresail can be hoisted ashore. Provided the sheets are loose it will flap freely. If it has roller reefing it can be furled up.

   c. The mainsheet and the kicking strap must be completely slack before hoisting the mainsail.

   d. The dinghy must be pointing into wind before and while the mainsail is hoisted. It may be necessary to hoist the mainsail once the boat is afloat.

4. Launching the boat:-

   a. Check your buoyancy aid is secure.

   b. Undo the painter securing the boat to the trolley handle.

   c. Wheel the boat stern first into the water until it floats off the trolley.

   d. At Aquarius with the bow towards the wind tie the boat to the bank at the shroud. (Note in open water hold the boat by the bow and allow it to swing round to point into wind.)

   e. Pull the trolley clear of the water and park it out of the way of other slipway users.

   f. Attach the rudder and tiller.

   g. Hoist the mainsail if necessary.

5. Getting away from the shore:-

   Your instructor will find an open area for you to practice in.

   a. Check the wind direction before you sail away. On the river also watch out for other river users especially canoes and rowing craft because these are low in the water and not always easy to see.

   b. Lower the centreboard/daggerboard

   c. A paddle can be useful to assist in moving away from the bank. To use a paddle sit forward by the shrouds to help balance the boat.

6. Checking Gear

   When you return from sailing, check up for things such as:-

   a. Broken battens (or lost ones)
   b. Lost shackle pins
   c. Fraying rope ends
   d. Broken and/or lost equipment
   e. You should report problems to the club Bosun.

   Before you leave the boat, check that:-

   a. Centre plate is up and secured
   b. Rudder is unshipped and stored correctly
   c. Painter is secured correctly
   d. Boat is clean and tidy (Bail and clean it out if needed)
   e. Make sure the bung is out
   f. Remove the battens and pack the sails away correctly
   g. (assuming they are not wet)
   h. Coil up all ropes keeping them out of the bottom of the boat
   i. Make sure the boat cover is securely fitted
   j. Covered dinghy is tied down

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8. FIRST SKILLS (2-4 identical to G3 Page 18)

1. No-Go-Zone

Once you have learnt about wind direction you can start sailing your boat. It is vital to remember that a boat cannot sail directly into wind. To achieve an objective lying upwind of the boat you must make a series of zigzag manoeuvres towards the wind (known as tacking or beating). The 'no-go-zone' is the name given to this area which extends approximately 45º on either side of the wind into which you cannot sail. If the boat goes to close to the no-go-zone the luff of the jib will begin to flutter and the boat will lose headway. At this point the tiller must be pulled towards you to bring the bow away from the wind and permit the sails to refill on a close hauled course. Sailing along the edge of the no go area so that the sails start to luff is called pinching.

2. Stopping and Starting

Sailing boats don't have brakes so to stop you have to use the wind. To do this, turn the boat onto a close reach and let the sails out until they flap. The boat will stop in the lying to position. To start sailing again, pull in the sails, pull the tiller towards you and as the boat moves forward, steer onto the new course.

3. Turning the Boat

Although the rudder steers the boat it is not the only control. It is also important to adjust the sails, crew position and the centreboard as you turn. To turn towards the wind (a) lower the centreboard (b) pull in the sails (move your weight to balance the boat).

4. The Five Essentials :-

There are five essentials to sailing a boat efficiently. Whenever one factor changes the other four should be checked to make sure they are still correct. These are as follows:-

a. Sail Trim

Constantly check that the sails are properly set and drawing by using the telltales or by slowly letting out the sails until they start to shake along the luff, and then pulling them in again until the shaking stops. Experiment with the sails all the time. The wind can change direction very quickly and you must be sensitive to wind direction. Keep on trimming the sails, letting the sheet out a little and pulling it in again if needed. If you get overpowered (i.e. the dinghy speeds up, heels dramatically and starts trying to head up, let go of the sheet and keep the rudder amidships. It is better to let go than hang on too tightly.

b. Centreboard Position

The centreboard needs to be adjusted according to the side force. The amount of side force, and hence the centreboard area, varies from maximum when close hauled to virtually zero when on a run.

c. Boat Balance

Most boats sail faster when upright. This is achieved by the crew moving their weight to balance the boat. When sailing close-hauled, the heeling force is so large the helmsman and crew sit out to keep the boat upright. On a run, the heeling force is small so the crew moves to opposite side of the boat to balance the helmsman's weight.

d. Boat Trim

Generally the boat should be level fore-and aft. Depending on conditions, the helmsman and crew sit close together and avoid depressing the bow or stern excessively which causes drag.

e. Course

Keep checking your course and the best route to your destination. If your target is in the no-go-zone, you will have to zigzag upwind to get there.

5. Leaving and Returning to Shore

a. Leaving and Returning from the River Bank

Usually, after launching, the boat will be brought down to the moorings outside the clubhouse. Dinghies are moored facing towards the wind; this usually means pointing upstream.

Try to come on the mooring on a reach or close-hauled, turning sharply to luff up acts like a brake to bring the dinghy to a halt. Be ready to quickly secure the painter and, if necessary take the sails down.

Normally dinghies are moored by being tied up from the bows so they can stream head to wind. In the conditions at Aquarius it is more convenient for dinghies to be moored at the bank by being tied up amidships at the shrouds while pointing towards the wind.

b. Onshore and Offshore winds

Sailing to and from the shore is straightforward if you understand the importance of wind direction. When the wind is blowing along the shore you can sail away and return on a close reach. However, more often than not the wind blows offshore (windward shore) or onto shore (lee shore)

c. Offshore Winds

Launch the boat, hoist the sails and sail away on a broad reach.

To return, sail to windward to reach the shore. Turn towards the wind along the bank, let the sails out and stop.

d. Onshore Winds

Launch the boat with the jib hoisted and flapping. Hold the boat head to wind and hoist the mainsail. To leave, climb aboard the boat quickly and steer onto a close reach lowering the centreplate and rudder. Then sail close hauled to get away from the shore.

To return, turn head to wind just offshore, lower the mainsail and sail in on jib alone. Sail straight in, luff up sharply to de-power the sail and jump out on the windward side. Get the boat ashore quickly.

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9. BASIC SAILING TECHNIQUES

As soon as a boat is launched, it comes under the influence of one dominating force, the wind. One of the first lessons a beginner has to learn is how to establish wind strength and direction.

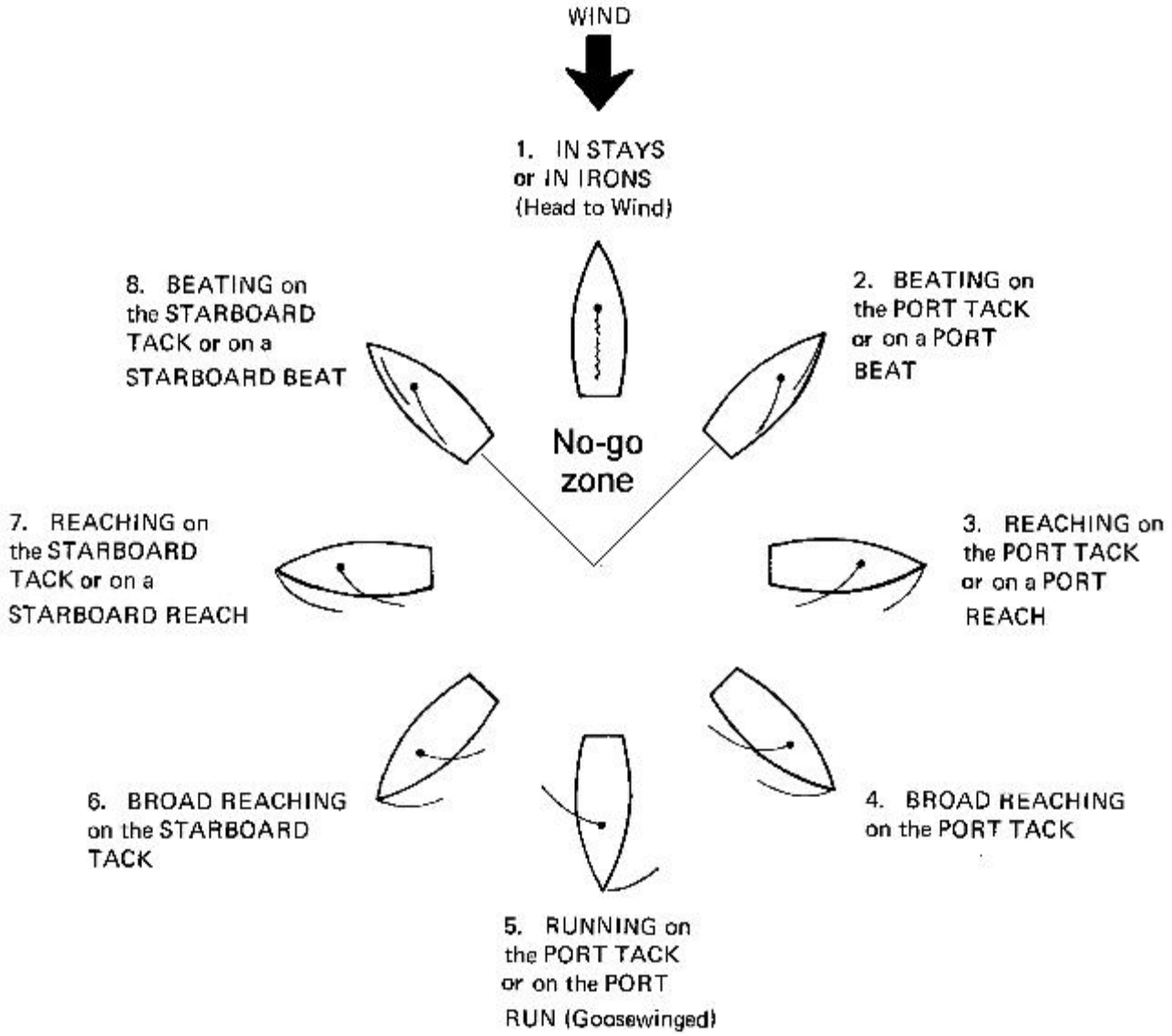
1. Wind Strength – is calculated by something called the Beaufort Scale. This is used internationally to define wind condition as follows:-

Force	**Wind Speed** (in knots)	**Description**	**Signs on Land**	**Effects on Sea**
0	Less than 1	Calm	Flags hang limp, leaves do not move on trees.	Glassy sea, boats drift with limp Sails. Heel the boat to leeward a little to help the sails hold their shape. Move gently & slowly in the boat.
1	1 - 3	Light Air	Light flags start to stir & smoke drifts away from vertical.	Small catspaws & ripples on surface & sails fill. Sit forward in the boat and allow it to heel slightly to keep the sails full. Move gently in the boat.
2	4 – 6	Light Breeze	Flags start to indicate wind direction & leaves rustling on trees.	Steady light wind for sailing. Boats are still underpowered but can be sailed upright. Use smooth movements during manoeuvres to maintain speed.
3	7 – 10	Gentle Breeze	Flags extend outwards but remain below horizontal from the flagstaff.	Ideal conditions for learning to sail. Small waves form & most small boats sail efficiently with full power available from the sails.
4	11 – 15	Moderate Breeze	Small branches move on trees and flags are fully extended horizontally. Small pieces of paper blow along the ground.	Waves have foaming tops. Crews have to work hard to balance Dinghies. Beginners should reef or head for shore.
5	16 – 21	Fresh Breeze	The tops of large trees move and small trees Sway.	Good conditions for experienced crews but capsizes are common. Inexperienced crews should head For shore.
6	22 – 27	Strong Breeze	Wind whistles through telephone lines & large trees sway.	Experienced crews may sail but only if good safety cover is available.

Note: The Beaufort wind scale does go higher, all the way up to Force 12 (Hurricane) but the above is all you need to worry about right now.

2. Wind Direction – can be determined either by natural observation or by using wind indicators. Smoke, flags and ripples on the water are natural indicators. Wind indicators include burgees at the mast head and tell-tales on the shrouds.

3. Points of Sailing:- (G3 Page 16)



a. Sailing Across the Wind (Beam Reach)

This is the easiest point of sailing on which to practice steering.

- On a beam reach the sails are set about halfway out (45º)
- Lower (or raise) the centreboard to about halfway down (or up) to resist the side force from the sails, which is moderate on this point of sailing.
- You can sail in two directions on a beam reach – on *port tack* when the wind comes over the port side, and on *starboard tack* when the wind comes across the starboard side.

b. Sailing Upwind (Close Reach)

- Turn towards the wind onto a close reach (This is the mid point between sailing on a beam reach and being close hauled)
- Pull the sails in until they stop flapping.
- Put the centreboard three-quarters down to resist the increased side force.

c. Sailing Downwind (Run)

- As you turn downwind let the sails out to keep them set at the correct angle to the wind.
- As this reduces the side force, the centreboard can be raised three quarters.
- Bear away more, letting out the sails as you go until the jib falls slack in the wind shadow of the mainsail. The boat is now on a run with the mainsail right out.
- Pull the centreboard almost all the way up.
- Sit on either side to balance the boat.
- Quite often the jib can be goose-winged. This means that the jib is flow on the opposite side of the boat to the main. This is the only time while sailing that the jib is not carried on the same side of the boat as the mainsail.

d. Sailing to Windward (Close-hauled)

- To go upwind, sail as close to the wind as you can.
- The centreboard must be fully down.
- Sailing close-hauled efficiently means sailing on the edge of the no-go-zone without turning into it.
- The crew pulls the jib in tight and can cleat the sheet. The mainsail is also pulled in tight.

e. Tacking and Gybing

- When sailing upwind, to change course from port to starboard tack (or vice versa), turn the bow through the wind. This is known as tacking.
- When sailing downwind, turn the stern through the wind, this is known as gybing.

f. Broaching

- Broaching is when the boat turns violently to windward out of control. It is most common when broad reaching or running but can happen at any point of sailing. A common cause of broaching is rolling, which gives the hull an asymmetrical underwater shape, causing the boat to move in the opposite direction to the way it is heeled. When the force is great enough to overcome the effect of the rudder the boat will broach. If a broach occurs, the mainsheet should be eased out immediately in order to regain control.

Aquarius Sailing Club Basic Dinghy Sailing

10. LEARNING TO TACK AND GYBE (G3 Page 22)

1. Tacking

Tacking involves turning the boat so that the bow passes through the wind when sailing on a windward course. The manoeuvre demands coordination on the part of the helmsman and crew, who have to operate the boat controls smoothly and move their weight quickly across the boat.

The easiest way to learn is to tack from one beam reach to the other. To tack effectively get the boat sailing fast and hold the tiller over until the turn is complete.

2. Tacking with Transom Mainsheet

a. As helmsman:-

Step 1 – Look over your shoulder and check that the area is clear of other boats. Call "Ready about" then change hands on the tiller extension and the mainsheet. Hold the extension in the new hand and ease the tiller away calling "Lee-oh".

Step 2 – Put your front foot across the boat and pivot to move into the middle of the boat facing aft.

Step 3 - As the boom passes over your head turn to sit down on the new side and straighten the tiller as the sail fills. Trim the sails.

b. As crew:-

The crew's job, during the tack, is to check for obstructions and to move across the boat while setting the jib on the new side.

Step 1 - When the helmsman calls "Ready About" check that the area is clear, uncleat the jib sheet and reply 'Ready'.

Step 2 - Aim to be in the middle of the boat at the same time as the boom. As the boat turns and the jib starts to flap let go of the old jib sheet and pick up the new one.

Step 3 - When the jib has blown across to the new side, pull in the sheet to trim the jib for the new course and balance the boat.

3. Gybing

Gybing takes the boat from one tack to the other when sailing downwind by turning the stern through the wind. During a gybe, the sails stay full throughout. Gybing happens more quickly than tacking and the boom swings across the boat more forcefully. Balance the boat throughout the gybe or it may capsize. Raise the centreboard three-quarters up to reduce the heeling effect.

4. Gybing with Transom Mainsheet

a. As Helmsman:-

Step 1 - Make sure that the boat is upright before the gybe. If it heels to leeward it will be much harder to gybe as the boat will try to turn the wrong way. Check the area is clear and warn the crew you are about to gybe by calling “Stand by to Gybe”. Change hands on the mainsheet and tiller extension. Call “Gybe-oh” and push the tiller to windward to start the turn.

Step 2 - Move to the middle of the boat, facing aft. Be ready to duck to avoid the boom. Watch the leech of the mainsail just above the boom; when it starts to curl, the boat is on the point of gybing. Give a tug on the mainsheet to start the boom moving.

Step 3 - Centralise the tiller to stop the boat turning as the boom crosses the centreline.

Step 4 - Sit down on the new side and trim the sails.

b. As Crew:-

The crew’s main job during a gybe is to balance the boat while sheeting the jib to the new side.

Step 1 - Check for obstructions and set the centreboard position three-quarters up.

Step 2 - When the jib blows to the new side, release the old sheet and pull in on the new leeward one.

Step 3 - As in tacking the crew should be in the middle of the boat as the boom swings across and be ready to balance the boat after the turn. Reset the centreboard to required position.

Aquarius Sailing Club Basic Dinghy Sailing

11. CAPSIZE RECOVERY (G3 page 36)

1. Introduction

Knowing how to deal with a capsize is an important part of learning to sail small boats. Once you have mastered a recovery technique that works well for your type of boat, a capsize will usually be little more than an inconvenience from which you can quickly, and safely, recover.

The most common type of capsize occurs when the boats heels too much to leeward. This type of capsize is relatively slow and gentle. Your buoyancy aid will keep you afloat so relax!

If you find yourself in the water under a sail just put your hand above your head to create an airspace and swim to the edge of the sail.

The following is the RYA approved method of righting a two person capsized dinghy. There are other methods which your instructor will show you.

2. RYA method for Righting a Two-Person Boat

Step 1 - As the boat falls onto its side, helmsman and crew lower themselves into the water between the hull and the sail; neither the helm nor crew must put weight on the boat else it will invert. Both helmsman and crew work their way to the stern and check that the rudder is secure on its fastenings and has not floated away.

Step 2 - The helmsman takes the end of the mainsheet as a safety line, and swims round the hull to the centreboard. He checks it is fully down; if not the crew puts it down.

Step 3 - The crew now moves back into the boat and finds the end of the upper jib sheet, throwing it over the hull to the helmsman.

Step 4 - Once he has the jib sheet, the helmsman lets go of the mainsheet and climbs onto the centreboard. The crew floats inside the boat alongside the centrebox.

Step 5 - The helmsman now stands with his feet near the hull and leans back on the jib sheet. The mast and sails will slowly start to lift from the water as the boat comes upright. The crew will be scooped aboard and can help the helmsman into the boat over the side or stern.

Aquarius Sailing Club Basic Dinghy Sailing

12. MAN OVERBOARD RECOVERY (G3 page 40)

1. First Reactions

   Man overboard does not happen very often, but if it does, you need to know what to do and how to react quickly. The first priority is to get the boat under control and to avoid a capsize.

   If you are helming and you lose your crew let the jib sheet go immediately. If it's the helmsman that goes overboard release the jib sheet and grab the tiller to regain control.

   If the boat capsizes, you may be close enough for the person in the water to swim to the boat. If not, you must try to right the boat while keeping the person in the water in sight. DO NOT leave the boat to try and reach them.

2. Getting Back to the Man Overboard

   Once you have the boat under control; steer onto a beam reach and check the position of the person in the water. Let the jib sheet go and ease the mainsheet sufficiently to keep the boat upright while retaining enough speed to manoeuvre. Sail away from the person in the water until you have enough room to get downwind of them, ten boat lengths is typical.

   Check that both jib sheets are loose and tack to the opposite beam reach. Check that you have the person in sight and bear away to a broad reach to get to leeward of him. Make your final approach on a close reach so that you can slow down by letting out the mainsheet, without the boom hitting the shroud. The flapping jib is a useful indicator of wind direction. Aim to stop with the person alongside the windward shroud.

3. Getting the Person Aboard

   As the boat stops alongside the person in the water let the mainsheet run out fully and move forward to grab hold of them. If the boat is still moving it may try to tack around the person in the water so give the tiller extension a tug to windward as you leave it. To get the person out of the water:-

   a. Kneel at the side of the boat and hold the person by their buoyancy aid or under the armpits.

   b. Lean towards them to depress the side of the boat. Now lean backwards and pull their torso over the side.

   c. From here most people can help themselves aboard. If not, have them float alongside the boat, get one of their feet into the boat, then roll their torso aboard horizontally.

Aquarius Sailing Club Basic Dinghy Sailing

13. RULES OF THE ROAD

As with any form of transport there are rules governing the conduct of boats when they are afloat. Some of these are general rules while some also specifically apply to racing.

1. Power gives way to sail – Except in a restricted channel, such as the river, when a sailboat should not obstruct power. It is often necessary for a sailboat to manoeuvre out of the way, particularly in crowded waters or confined channels were there may be a chance that you have not been noticed or your course has been misunderstood by an approaching powered craft.

2. Keep to the Right – Keep to the right in confined channels and if you have to cross a busy channel, do so at right angles to the main flow of traffic.

3. Starboard Tack has Right of Way – A sailing boat on Port tack must keep clear of a boat on starboard tack. If you are on starboard tack, hold your course but be watchful in case the port-tacker has not seen you. Remember you are on starboard tack if the wind is coming from the right had side of the boat. (Write Port Tack on the port side of your boom and Starboard Tack on the starboard side. A glance will tell you which tack you are on)

4. Windward Boat Keeps Clear – When boats are on the same tack, the boat to windward of the other keeps clear. Remember this if you are running towards a boat that is close-hauled. You may have to keep clear.

5. Overtaking Boat Keeps Clear – If you are overtaking another boat, you must keep clear, even if you are sailing past a power vessel. This is a ColReg (International Regulations for Preventing Collisions at Sea) rule, not a Racing Rules of Sailing rule.

Aquarius Sailing Club Basic Dinghy Sailing

14. RACING AT AQUARIUS S.C. (G3 page 46)

1. Signing on & off

   You must enter your details on the race sheet before entering a race; don't give the race officer an extra task and expect him to know you. You enter your boat number, helm & crew names and these details together with your boat and personal handicap and lap times will be used to calculate the race results and your position. At AQSC it is only necessary sign off as retired not for a normal finish; at many clubs you may be disqualified if you don't sign on and off.

2. Start sequences

   The race start sequence used at Aquarius uses the standard RYA sequence, except a postponement signal is not given, there is an additional signal at 6 minutes, and flags are not displayed.

Time	Sound	Display
At six minutes to start:	Warning bell	
At five minutes to start	Buzzer	5
At four minutes to start	Buzzer	4
At one minute to start	Buzzer	1
At Start	Buzzer	Off

3. The Starting Line

   The start line of a race can be a very busy and intimidating place for a novice sailor but hopefully by the time you are ready to helm your own first race you will have experienced start line technique as crew for a more experienced sailor.

   The start line at AQSC is normally the extension of a line from the flag pole to the pole in front of the starting hut. If there is a buoy on either side of the river you must not start between a buoy and the bank.

4. Sailing the Course

   One of the duties of the Officer of the Day (OOD) is to set the course to be sailed. This will be posted on the white board outside the race control box. You must start; pass each mark on the required side in the correct order, and finish. You may correct any errors to comply with this rule, provided you have not finished.

   Each dinghy's lap times are entered on the race sheet and, together with other details, are used to calculate each entrant's position at the end of a race.

5. Finishing a Race

   AQSC races usually last about an hour and at the end of that time a buzzer will sound. From that point each dinghy that crosses the line will be 'finished' with a blast on the buzzer. Races can be shortened at any time. This will be indicated by a double blast on the buzzer. Boats will then be finished as they cross the line.

6. Recalls

   At the starting signal, your boat must be completely on the pre-start side of the starting line. If it is not you must return and start correctly, keeping clear of boats that have started while you do so. If the OOD sees any part of a boat on the course side at the starting signal a sound signal will be given and the boat concerned hailed.

7. Penalties

   During a race penalties can be incurred for a variety of reasons. The two most common types are boat-to-boat requiring a 2 turn penalty and boat-to-mark requiring a 1 turn penalty.

   Penalties that must be taken as soon as possible after the initiating event (*see Chapter 14 – RYA Racing Rules*). If you want a boat to do a penalty for infringing a rule you MUST hail PROTEST

8. Sailing Instruction

   On the club website (http://www.sailaquarius.org.uk/) from the Program and available on the clubhouse notice board.

Aquarius Sailing Club Basic Dinghy Sailing

15. RYA RACING CHARTER

1. Introduction

   Aquarius S.C. has signed-up to the RYA's Racing Charter. This commits the club *to* ensuring:

   a. That the sport of sailboat racing welcomes people and treats them equally.

   b. That we will do our utmost to provide a framework for the enjoyment of the sport of sailboat racing.

   c. That we will ensure that those who experience sailboat racing are encouraged to continue.

2. So What Does this Mean?

   a. We will do our utmost to provide fun, fair and safe racing by observing the relevant guidelines endorsed by the RYA.

   b. We will treat competitors and others involved in the sport with courtesy and respect at all times.

   c. We will expect competitors to compete in compliance with the rules, and to behave courteously and in accordance with accepted standards of sailboat racing.

   d. We will act to resolve protests or other disputes promptly using appropriate methods.

   e. We will ask competitors and others involved in the sport to help us by informing us when we fail to meet these standards.

   f. We will not tolerate foul or abusive language, intimidation, aggressive behaviour or lack of respect for others and their property.

Aquarius Sailing Club Basic Dinghy Sailing

16. RYA RACING RULES

1. Introduction

The full set of RYA Racing Rules can be found in RYA publication YR1/05. The following are a simplified view of the basic rules of sailing.

2. Principles

a. Sportsmanship, Fair Sailing and Misconduct

A fundamental principle of sportsmanship is that when you break a rule you will promptly take a penalty, which may be to retire. You must play fairly, if you do not, or bring the sport into disrepute, you may be penalized severely.

b. Helping Those in Danger

You must give all possible help to any person or vessel in danger.

c. Decision to Race

Deciding whether it is safe for you to start or continue racing is for you alone, not for the people running the race.

d. When Boats Meet

A boat is on the tack, starboard or port, corresponding to her windward side. A boat's windward side is the side that is towards the wind (except when running by the lee).

- *On Opposite Tacks* - The port-tack boat must keep clear.
- *On the Same Tack* - The boat to windward (if overlapped) or clear astern (if not overlapped) must keep clear.
- *Tacking* - After a boat passes head to wind, she must keep clear of other boats until she is on a close-hauled course.
- *Avoiding Contact* - A boat must avoid contact with another boat if reasonably possible.
- *Acquiring Right-of-Way* - When a boat acquires right-of-way, she must initially give the other boat room to keep clear (unless she acquires right of way because of the other boat's actions).
- *Changing Course* - When a right-of-way boat changes course, she must give the other boat room to keep clear.
- *Proper Course* - A boat's proper course is the course she would sail to finish as soon as possible in the absence of the other boat. A boat has no proper course before her starting signal.
- *Room at a Mark or Obstruction* - When boats are overlapped the outside boat must give the inside boat room to round or pass the mark or obstruction. If boats were overlapped when one of them comes within two lengths of a mark or obstruction (the two-length zone), the outside boat must continue to give room. If a boat is clear ahead when she

reaches the two-length zone, the boat astern must keep clear even if an overlap is established later unless the clear-ahead boat tacks.

– *On Opposite Tacks at a Windward Mark* - When boats are on opposite tacks, the basic rule applies: the port tack boat must keep clear. When a boat completes a tack within the two-length zone, and the other boat is fetching the mark, she must not force the boat astern to sail above close hauled to avoid her, and if the boat astern gets an inside overlap the boat that tacked must give room.

– *Room to tack at an obstruction* - When you are close-hauled and want to tack to avoid an obstruction, but cannot, you may hail for room. Before tacking you must give the hailed boat time to respond. The hailed boat must either tack as soon as possible, in which case you must also tack as soon as possible, or she must reply 'You Tack' in which case you must tack as soon as possible and she must give room. This rule does not apply at a starting mark surrounded by navigable water when boats are starting.

e. Turns Penalties

If you break a *'when boats meet'* rule you must exonerate yourself by sailing well clear of other boats as soon as possible and making two turns, including two tacks and two gybes.

When you touch a mark, you may similarly exonerate yourself by completing one turn as soon as possible including one tack and one gybe.

f. Propulsion

With some exceptions, you must use only the wind and water to increase, maintain or decrease your boat's speed. You may adjust the trim of the sails and the hull, and perform other acts of seamanship, but must not otherwise move your body to propel the boat. Two exceptions are:-

– You may move your body to exaggerate the rolling that helps the boat through a tack or gybe, provided that, immediately afterwards, your boat's speed is not greater than it would have been in the absence of the tack or gybe.

– Except on a beat to windward, when surfing (rapidly accelerating down the leeward side of a wave) or planning is possible, the boat's crew may pull the sheet and the guy of any sail in order to begin surfing or planing, but only once for each wave or gust of wind.

g. Protesting and Requesting Redress

– Firstly it should be said that protests at Aquarius S.C. are VERY rare. But, if you are involved in an incident and think the other boat has broken a rule you may protest. You must inform the other boat by shouting 'Protest' at the first opportunity she can hear you. You do not have to go ahead with the protest if you later change your mind.

– The person adjudicating the protest has several avenues which he can use to resolve the dispute. These range from 'informal' to the establishment of a full protest committee.

– AQSC has adopted the RYA Racing Charter that provides for Advisory Hearings and RYA Arbitration as an alternative to a Protest Hearing.

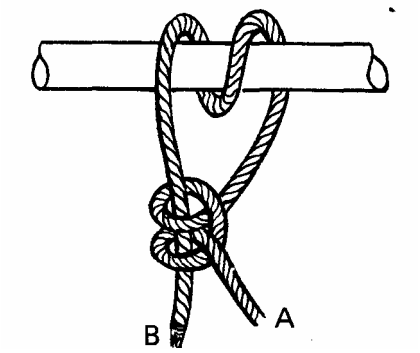
Aquarius Sailing Club Basic Dinghy Sailing

17. BASIC KNOTS (G3 page 28)

Ropes are an essential part of a sailing boat but you only need to know a few knots to cope with most needs. A good knot won't jam and is easy to undo, even when wet, but won't undo accidentally. The following are amongst the most useful, A is the free end and B is attached to something:-

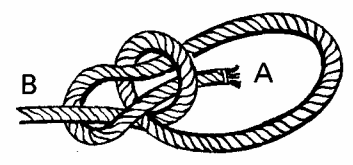
Figure-of-Eight (stop knot) – The figure-of-eight knot is used to put a stopper knot in the end of rope to stop it running out through a fairlead or turning block.

Round Turn and Two Half Hitches – The round turn and two half hitches is a secure knot that is used to tie to a post or ring.

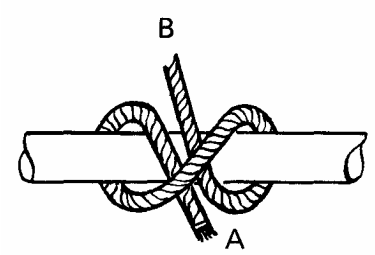


Bowline – The bowline is used to make a loop in a rope or tie to a ring or post. It is a secure knot but cannot be untied when under load.

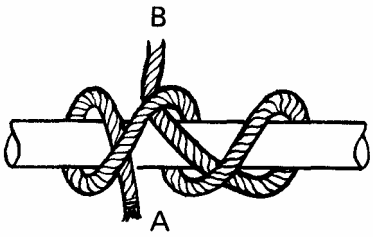
Sheet Bend – Used to join two ropes; identical in structure to the Bowline, more secure than a Reef knot (used to reef a sail by tying a slab to the boom).



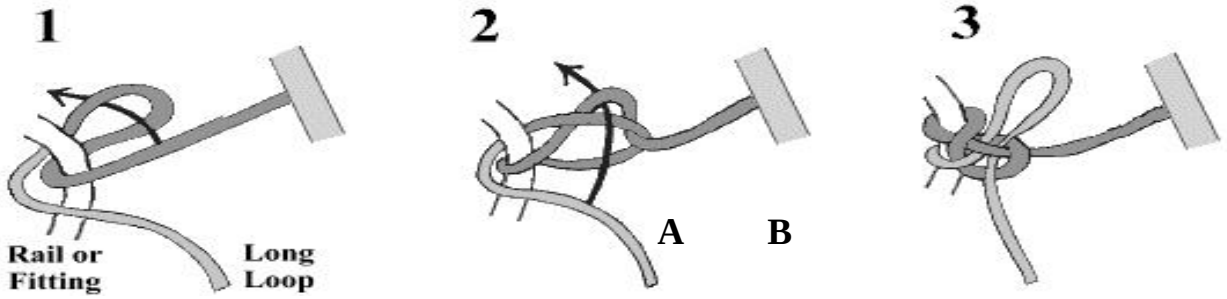
Clove Hitch – A clove hitch can be used to tie a rope to a post or ring. It is quick to tie but a snatching load can undo it, so leave a long working end. It can be untied under load.



Rolling Hitch – The rolling hitch is more secure than a clove hitch and will not slide along another rope or spar. It is useful when you need to take the load off another rope. Has a extra turn to the Clove Hitch.



Highwayman's Hitch – A slippery hitch you are unlikely to find in a sailing book but very useful for tying something in the boat that you might want to undo in a hurry like a bailer; it undoes with just a pull and can be tied using only one hand.



Aquarius Sailing Club Basic Dinghy Sailing

LEGAL REQUIREMENTS

1. River License

   If you use a powered or sailing boat on the River Thames you are required to have an annual license issued by the Environment Agency. This is a personal responsibility. All club dinghies are licensed by the club.

2. Boat Insurance (Third Party and Equipment)

   If you race a personally owned dinghy at Aquarius S.C. or at any other club or venue you will be required to carry, as an absolute minimum, third party insurance (recommended minimum is £3m). When you sign on you are affirming that you have this cover. The club or venue will never ask to see it as this would transfer responsibility to them.

   Insurance to cover (a) your boat, (b) its equipment & (c) launch trolley and road trailer are personal choice but highly advisable.

   All club dinghies are insured for third party risks by the club's insurance.

Aquarius Sailing Club Basic Dinghy Sailing

19. GLOSSARY OF SAILING TERMS

These are useful to know but don't worry about them too much at the moment, in time you will pick them up:-

A

ABACK	The sail pressed backwards by the wind
ABOUT	To go about, to tack
AFT	Towards the back of the boat
AMIDSHIPS	In the middle of the boat
ASTERN	Behind the boat

B

BACKING	The wind changing direction in an anti clockwise direction
BAIL	To remove water from the boat by hand
BEAUFORT SCALE	Scale of wind strength used internationally
BEAM	Breadth of boat at widest point
BEAT	To sail to windward close hauled
BEFORE THE WIND	Running with the wind astern
BEAR AWAY	Change direction away from the wind
BERMUDA RIG	Triangular fore and aft sail set on a tall mast
BOOM	A spar which is used to extend the foot of the sail
BROACH	To come around broadside onto the wind and at the same time heeling over at an extreme angle

C

CAPSIZE	To turn a boat over so that she will not right by herself
CAST OFF	To let go any lines tying the boat to another object
CATSPAW	A very light puff of wind that just disturbs the surface of the water
CAMCLEAT	A fitting comprised of two sprung cams through which ropes can run in one direction.
CLEW	The lower aft corner of a fore and aft sail
CLEW OUTHAUL	Line or tackle for tensioning the foot of a sail
CLOSE HAULED	Sailing as close as possible to the wind
CLOSE REACH	Slightly freer than close hauled

D

DINGHY	Small open boat for either sailing or rowing
DIRTY WIND	Turbulent wind left by a sailboat
DOWNWIND	To leeward; running before the wind
DRAFT	Depth of boat from bottom of keel to the waterline

F

FAIRLEAD	Any boat fitting which guides a rope in the direction required
FALL OFF	When the head or bow of a boat moves away from the wind
FEND OFF	To push another boat away or hold boat off the dock
FOOT	The bottom edge of a sail from tack to clew
FORWARD	Near or towards the bow
FORESTAY	A stay leading from the masthead to the bow to stop the mast falling backwards
FREEBOARD	The distance between the waterline and the deck
FULL	Said of a sail with plenty of draft (fullness)
FURL	To roll up

G

GENOA	A very large jib that considerably overlaps the mainsail
GHOSTING	To move when there is no recognisable wind
GO ABOUT	To change from one tack to another
GOOSENECK	A universal joint fitting on the mast to which the boom is attached
GUDGEON	A fitting into which the pin of a pintle is inserted. It enables the rudder to pivot
GYBE	To change from one tack to the other with the wind from aft

H

HALYARDS	Lines used for hoisting sails
HEADING	Direction in which the boat is pointing
HEAVE TO	To stop the boat with the jib backed and the tiller held to leeward
HEEL	Very bottom of the mast; also said of a boat inclined to either port or starboard by the action of the wind
HELM	General description of the means of steering
HIKE OUT	To sit on the side deck and lean outboard to add stability to the boat
HEAD UP	Turn towards the wind
HULL SPEED	The maximum speed a hull, not capable of planing, can achieve

I

INBOARD	In the boat, also nearer the middle of the vessel
IN IRONS	The boat lays head to wind with the sails flapping

J

JIB	Sail set forward of the mast
JIB SHEET	Line that controls the set of the headsail/jib

K

KICKING STRAP	Pulley system between boom and foot of mast designed to tension the leech of the sail

L

LEACH	After edge of a fore and aft sail
LEE HELM	When the natural tendency of a boat is to turn away from the wind unless rudder correction is applied
LEEWARD	Direction away from the wind; downwind
LIFT	A sail lifts when the wind strikes the leeward side so that it is no longer full
LOA	Length overall, the extreme measurement of a boat including all extensions
LUFF	To change the boats direction towards the wind

M

MAINSAIL	Sail set on the mast
MAINSHEET	Sheet used to control the mainsail
MAST	A spar, placed vertically on a vessel for spreading sails
MONOHULL	Vessel with one hull

P

PAINTER	A rope attached to the bow of a small boat by which it may be made fast
PAY OFF	When the boat's head turns away from the wind
PINCH	To sail too close to the wind
PINTLE	Metal pin on a boat's sternpost or rudder stock on which the rudder hangs by its gudgeons
PLANE	When a sailboat rises up on its own bow wave and reaches speeds far in excess of those normally associated with its waterline length.
POINT	The ability of a sailboat to sail close to the wind well or badly
PORT	Left hand side of the boat facing forward
PORT TACK	When the wind comes from the port side and the boom is on the starboard side.

R

REACH	Any point of sailing between close-hauled and running
REEF	To reduce the working area of a sail
RIG	General term for spars, sails and rigging
ROUND UP	Come head to wind
RUDDER	Moveable underwater part of a boat used for steering
RUNNING RIGGING	The generic term for sheets and halyards. The ropes which hoist and sheet sails

S

SELF BAILERS	Devices in the bottom of a dinghy's hull or in the transom; if they are opened, when the dinghy is sailing fast, any water in the bottom of the boat will be sucked out.
SET	To hoist and trim sails
SHACKLE	U-shaped link with a retained pin used for connecting links and eyes
SPILL THE WIND	Let the sails out so as to decrease the pressure on the sails
STANDING RIGGING	Permanent wire supports for the mast
STARBOARD	The right hand side of the boat looking forward
STARBOARD TACK	When the wind comes from the starboard side and the boom is to port
STAYS	Rigging that supports the mast fore and aft
SPINNAKER	A lightweight three-cornered sail set from a spinnaker pole and the head of the mast controlled by a sheet and a guy.

T

TILLER/TILLER EXTENSION	An attachment to the rudder via the rudder stock by which the rudder is controlled
THWART	A seat running across a dinghy
TRAVELLER	Device for altering the position of the mainsheet lead to suit varying weather conditions
TRIM	Fore and aft adjustment of weigh in the boat

U

UPWIND	In the direction of the wind; to windward

V

VANG (SEE KICKING STRAP)	Tackle to prevent boom rising; kicking strap

W

WAY	Movement of a boat through the water
WEATHER HELM	When a sailboat has a natural tendency to come up into wind unless rudder correction is applied (opposite to lee helm)
WINDWARD	Towards the wind
WIND SHADOW	The area affected by the turbulent air from a sailboat's sails

20. TRAINING PROGRAM

1. Introduction

Hopefully by now you will have read the first chapters of this handbook, at least once, and perhaps are wondering what you have let yourself in for. Relax, theory is one thing but getting out on the water and putting it into practice is another, and far more enjoyable. As you work through your training schedule each significant event will be signed-off by your instructor. This will enable you to see exactly where you are and what you will be doing next. During the programme and at an appropriate time (i.e. when it's a little warmer) you will be taught capsize recovery and man over board drill. Nobody will 'graduate' until these skills have been satisfactorily demonstrated.

This chapter details your training schedule. It lists all the things that you must learn, practice and master to enable you to sail a dinghy efficiently and safely.

2. Commitments

Once you have become a member of Aquarius SC and have indicated that you would like to go on the sail training programme, we will commit to teaching you to sail. The training schedule (i.e. things that you will be taught) are listed at (4) below.

Your commitment to us is simply to turn up on time and enjoy being taught to sail. From time to time during the programme you may find it advantageous to act as crew for an experienced helmsman during racing. This is a great way to see and learn the sailing techniques you are being taught, in a real sailing environment.

3. What you will need

If necessary we will supply a dinghy. It may be a member's or a club craft. When appropriate these will normally be rigged transom main during your training.

We will supply a buoyancy aid, unless you choose to supply your own.

You will need suitable clothing (preferably waterproof), an old pair of trainers, a change of clothing and a towel (capsize is always a possibility).

Aquarius Sailing Club Basic Dinghy Sailing

4. Training Schedule

a. Shore Based

- Parts of a dinghy
- Rigging your dinghy
- Wind direction and strength
- Points of Sailing
- Tacking and Gybing (dinghy tied up to bank)
- When boats meet
- Basic Knots

b. On the water

- Getting afloat
- Basic sailing techniques
- No-go-zone
- Stopping and starting
- Leaving and returning to the mooring
- Across wind (Close, Beam & Broad Reach)
- Upwind (Close-hauled)
- Downwind (Running)
- Tacking
- Gybing
- Man overboard drill
- Capsize recovery