Introductory Handbook

for

Sailing Boats

at the

CAL SAILING CLUB

June 18, 1997

CONTENTS

INTRODUCTION

There's no substitute for actual sailing if you want to learn to sail. This book is only intended as a technical reference, to reinforce sailing lessons with information on:

- basic sailing terminology and concepts (see dictionary on the last two pages)
- maneuvers taught in the Lido lessons,
- knots and details of how to rig the Lidos

You also should read the ***Operating Rules Handbook*** to learn about the sailing area boundaries, Novice and Junior Skipper ratings, and other regulations that you are required to know. These are included on the written portion of the Junior Skipper test.

For Beginners

If you're new to sailing, relax--you're in good company. Most new members of the Cal Sailing Club do not know how to sail when they join. Put this book down until later, and go sailing.

Safety First

While sailing is less dangerous than other outdoor sports, there are certain risks you should guard against.

Always wear a lifejacket when out on a boat (that's a club rule), and practice floating in it if you're not comfortable with going in the water. Watch out for the boom, and don't stand up in the boat unless you're absolutely sure it's safe to do so.

If there's wind, sailing can be wet and cold. A wet suit is ideal, but if you don't have one, dress in warm clothing, with a waterproof outer layer. Wear windsurfer booties or shoes that won't slip on wet plastic. Be alert for hypothermia, first signalled by uncontrollable shivering, that can slow your reactions and distort your judgement.

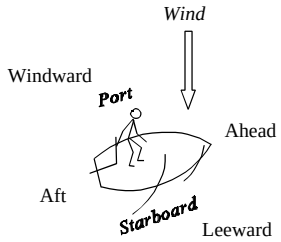
Sunburn can lead to skin cancer. Wear a hat and sunscreen.

If your equipment fails and you can't sail back to the dock, anchor and signal for a rescue. The distress signal consists of waving your arms up and down at your sides. When the rescue skiff arrives, follow the dayleader's instructions.

SAILING BASICS

Directions

A sailboat's **course** is the direction it is heading.

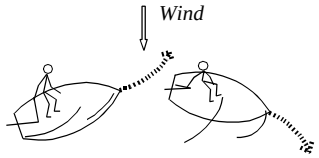


The skipper usually sits on the windward (upwind) side of the boat, and the sails are on the leeward (downwind, pronounced *lew' ard*) side.

The **wind direction** is named for its source. A west wind comes from the west.

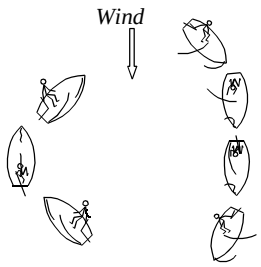
Heading Up and Falling Off

Heading up means turning toward the wind, so the boat is pointed more toward the direction the wind is coming from.



Heading Up Falling Off

Falling off, the opposite of heading up, means turning away from the wind.



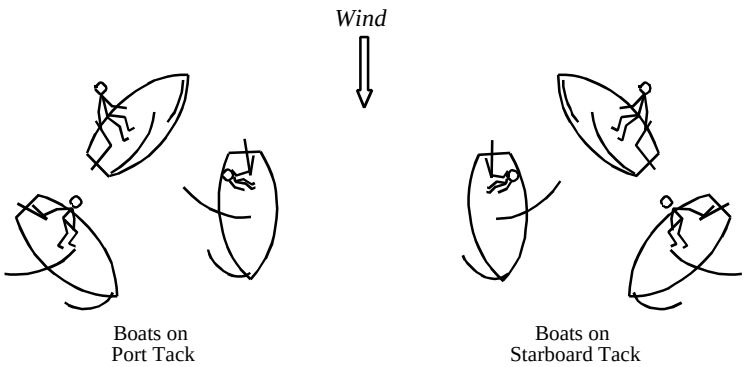
Come About Jibe

Coming About and Jibing

Coming about and jibing are the two ways of turning a sailboat so that the sails switch from one side to the other.

Coming about (also called tacking) means heading up, briefly pointing **toward** the wind during the turn, and falling off until the boat is sailing again. The sails will flap their way across the boat as it turns.

Jibing means falling off, pointing **away** from the wind, and causing the sail to be flipped across the boat. The safest way to jibe is to pull the sail across to the middle while pointing directly away from the wind, then let it out to the other side.



Port and Starboard Tacks
Port and starboard tacks, critical to right of way rules, refer to **which side the mainsail is on**. The port side of the boat is the left one when you are facing forward, and starboard the right. On a port tack, the wind is coming from the port side or from behind the boat (unless you're by the lee) and the mainsail is on the starboard side.

Right of Way Rules
The government right of way rules apply between windsurfers as well as sailboats when there are no docks, rocks, or other obstructions to hamper maneuvering. In order of priority, the rules are:

1) When one boat (or windsurfer) is overtaking another, the **slower** one has right of way.

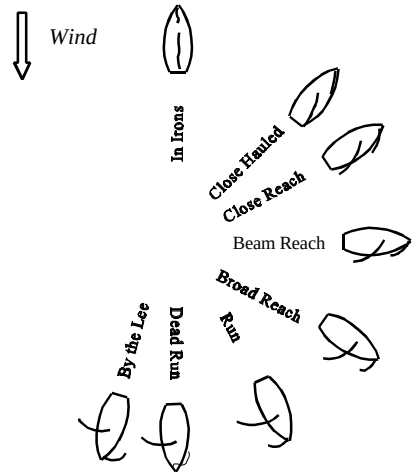
2) When the two boats are on different tacks; the one on **starboard** tack has right of way.

3) If both boats are on the same tack, the **leeward** (downwind) boat has right of way.

If you have right of way, hold your course and signal the other boat. If they don't respond, change your course to avoid the collision.

Collision Courses
Check frequently for other boats or windsurfers coming your way, and always do so before coming about, jibing, or turning suddenly. A boat or windsurfer coming at you is on a **collision course** if it appears to stay in a fixed position relative to an object or landmark on the horizon.

Points of Sail

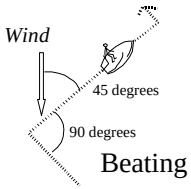


Points of sail are names for the angle between a sailboat and the wind.

In irons means the boat is pointed directly into the wind (an angle of 0 degrees).

Close hauled means the boat is pointed at about 45 degrees to the wind.

The fastest way to get directly upwind is to sail closehauled, coming about in 90 degree turns to switch direction. Zigzagging upwind in this manner is called **beating**, possibly because of the wind and spray suffered by the crew in **heavy weather** (high winds and waves).



Beating

A **close reach** is any upwind course at an angle between about 45 and 90 degrees. A **beam reach** is when the wind direction is at about 90 degrees to the boat's direction of travel.

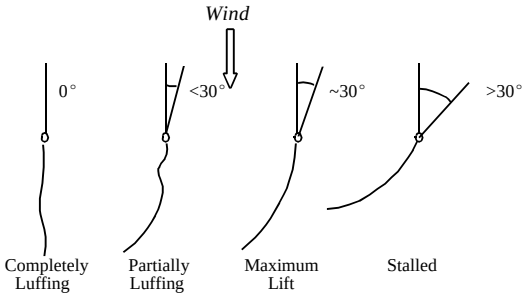
A **broad reach** is more than 90 degrees and less than about 135 (=90+45) degrees.

A **run** is when the wind is behind the boat. A **dead run** is sailing straight downwind.

By the lee is when the wind is coming from the same side of the boat that the sail is on. Sailing by the lee can be dangerous, since if the boat turns farther or if the wind shifts direction, the boat will accidentally jibe when the wind catches the back side of the sail.

Sail Trim
The power from sails depends on the angle between the wind and the sail. Sail trim is the adjustment of that angle.

To go upwind or across the wind, a boat must get lift from its sails. Sails develop the most lift at an angle of about 30 degrees to the wind blowing across the boat*. To go downwind, the wind pushes the sails, and they develop maximum power when let out all the way.



When a sail is not pulled in at an angle to the wind, it flaps in the wind like a flag. In sailing terminology, it is **completely luffing** .

As the sail is pulled in, it becomes **partly luffing**: the back part takes on a curved shape, while the front part (near the mast or forestay) continues to flutter or retain a bubble-like indentation.

At an angle of about 30 degrees to the wind direction across the boat, the sail is **full** and develops **maximum lift.** At angles greater than 30 degrees, the sail is **stalled.** The wind pushes on the sail, but does not create much lift.

Both steering and the **sheets** (lines to adjust the sail's position) affect sail trim. If a sail is luffing, it can usually be filled by either pulling in its sheet or falling off. If it's stalled, either let out the sheet or head up slightly until it starts to luff, then pull it in or fall off until it's full.

To get the most force out of a sail when on a close haul, close reach, or beam reach, pull it in (or fall off) until it just stops luffing. On a broad reach or run, let out the sail as far as it will go.

Telltales are yarn streamers attached to the shrouds and jib. The **shroud telltales** (on the wires that hold up the mast) are useful for judging the direction of the wind blowing across the boat.

The **jib telltales** (sewn through the jib) provide a sensitive indication of sail trim. When both jib telltales stream back, the jib is at the proper angle to the wind for maximum lift. When the windward (near) telltale flutters, the jib is starting to luff; when the leeward (far) telltale flutters, the jib is starting to stall.

* also called apparent wind, since it is influenced by the boat's speed.

SAILING THE LIDO

The maneuvers described below--leaving the dock, coming about, jibing, sailing in small circles, sailing backwards, righting after a capsize, anchoring, and docking--involve skills that are absolutely necessary to safely handle a small boat. For this reason, they are included in a Junior Skipper sailing test.

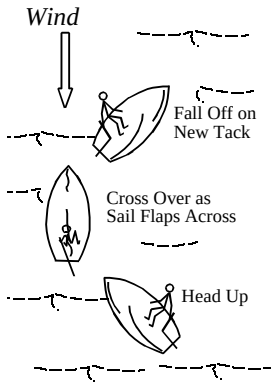
The maneuvers can be done in different ways, and not all the possible ways to do them are described below. Also described below are how to deal with groundings (getting stuck in the mud) and equipment failures on the water.

Leaving the Dock

Before leaving the dock, check the boat over carefully (all hull drain plugs in place? everyone's lifejacket on?) and **make sure the mainsheet is not caught around the rudder**. If it's caught, take off the rudder to free the mainsheet.

Before casting off, check for boats or windsurfers approaching the dock.

Coming About



To come about, you **gently** push the **tiller into the sail**, and the boat heads up from the old tack and then falls off onto the new tack as it continues to turn.

You should **cross from one side to the other as the boom comes across,** so your weight is ready to balance the boat on the new tack. To avoid a capsize, **uncleat the mainsheet** as soon as the sail luffs. You'll have more room to get across if you **lift the tiller up.**

You can cross either **facing backwards or facing forwards**. In either case, you will be passing the tiller from one hand to the other, and also changing the hand you use for the mainsheet. You can let go of the mainsheet, but don't drop the tiller. Facing backwards makes it easier to pass the tiller from one hand to another, although facing forwards lets you watch where you're going.

If you are **hiked out** (sitting out on the rail above the seat to balance the boat in strong wind) before the come about, fold the hiking stick as you come into the boat, and hold both the hiking stick and tiller together as you cross. When you get up on the rail on the other side, you can unfold the hiking stick again.

Always check with your crew before coming about. Call out **"Ready about?"** and wait for their "Ready" signal before beginning; then call out **"Helm's a-lee!"** or **"Coming About!"** as you actually head up.

Also, be sure to check for windsurfers or other boats that may collide with you when you come about.

The crew should **release the jib** when it starts to luff, and let the wind carry it across to the other side, then **bring the jib in** when it starts to fill on the other tack.

Heaving To

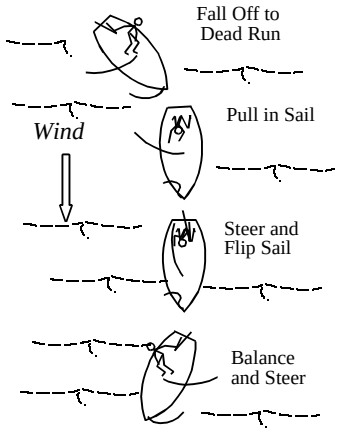
Heaving to is used to stabilize the boat for offshore picnics, changing drivers out on the water, or bailing out the boat. It is done like a come about, but the jib is left in place while letting the mainsail out completely and gradually swinging the tiller to the leeward (downwind) side of the boat as you slow down.

Heaving to can also be used to allow a person fallen overboard to swim back to the boat.

If done immediately, heaving to keeps the boat fairly close.

Jibing

To jibe safely, you bring the mainsail in when the boat is on a run, then turn slightly so the wind catches its other side, and let it swing out onto the other side of the boat. By manually bringing the sail partway across, you prevent its sweeping violently across the boat and possibly injuring someone who may be standing up.



You must be ready to use your weight and steering to prevent a capsize. The boat must be balanced with the mast straight upright, or it may turn unintentionally. After the jibe, you may have to hike out and pull hard on the tiller to prevent a spinout and tipover capsize.

You can jibe facing backward or forward. If facing backward, you pull in the sail using the mainsheet near the transom, while facing forward you use the mainsheet near the cleat. Whichever way you face, you should not be handling the mainsheet overhead or behind your back, where you could get entangled.

Never start a jibe without warning the crew, since they could get their skull cracked by the boom swinging across, or their nose skinned by the boom vang. You should also remember to stay low during the jibe, lest the boom tell you how it got its name. Call out **prepare to jibe** before starting a jibe, and **jibe ho** (or **DUCK!!**) as the boom starts to cross.

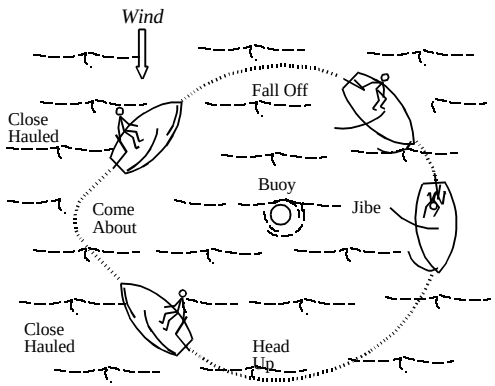
Before jibing, you must fall off (tiller away from the sail) toward a dead run. While on a broad reach, your weight may be needed to balance the boat, but as soon as you reach a run, you may need to move to the center of the boat.

Always move to the center of the boat or the same side as the sail before jibing. If you are in the center of the boat, be prepared to move quickly to balance the boat after the jibe.

Once the boat is on a run, your body should be between the tiller and the sail. The tiller can be rested against your hip, butt, or leg (depending on which way you're facing), so you can steer by pushing on the tiller. Both hands are then freed to pull in the mainsheet. When the boom is in over the boat, grab the tiller and steer to cause the jibe (tiller away from the sail), while holding the mainsheet with the other hand. Don't let go of the tiller!

You can tell when the jibe is about to happen because the mainsheet goes slack.

In heavy wind and waves, try to pull in the boom just as a wave passes underneath the boat, and jibe just as the next wave passes underneath. When the boat is moving fastest, the force on the sail is least.



Circles Around a Buoy

Sailing in a small circle around a buoy requires that you come about and jibe quickly, just as you may need to do to avoid collisions.

The figure shows the steps involved in sailing a small circle. The come about and jibe occur when the buoy, as seen from the boat, is 90 degrees away from the wind direction. The circle has a corner because you have to hold a close hauled course before and after coming about.

Steering While Drifting Backwards

Steering while the Lido drifts backwards is required to leave a crowded dock, and can be useful to recover control if you stop while coming about. As mentioned before, it's difficult to steer while drifting backwards if the centerboard is not fully down.

When the boat is drifting backwards, the tiller works the opposite way compared to when the boat is sailing forwards. If you move the tiller to port, the bow moves to port.

To practice steering while drifting backward, head up until the boat is in irons. Let it coast to a stop while in irons. The bubbles in the water alongside the boat will indicate when you start to drift backwards.

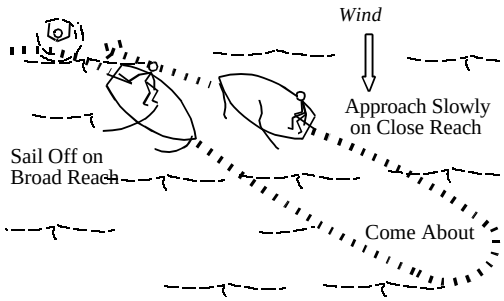
When you start going backwards, steer to keep the boom over the middle of the boat. You have to keep the sails from filling, which would cause the boat to sail forward.

If the boom swings to one side, swing the tiller toward the opposite side, so that the rudder will push the stern back underneath the boom. At first, you will have to hold the tiller hard over to get any effect, but as the boat drifts faster less tiller movement will be necessary. If

you face backwards, you will find that the line of the tiller will indicate the direction the stern will take as the boat drifts backwards.

Man Overboard Drill

When a person falls off a boat, the most important thing to do immediately is to keep them in sight so you don't lose them. Assign someone to watch them.



The next most important thing is to return and pick them up **safely**, going slowly enough that they can be brought into the boat.

The man overboard drill (the man overboard is two plastic jugs tied together) tests these skills, as well as the skills for docking safely. The drill requires sailing slowly with good control, which is the right way to dock a boat.

To go slowly with good control, a boat must be on a close reach with the sails partly luffing.

The figure shows the recommended method for the man overboard drill. After assigning someone to watch the man overboard, sail away on a broad reach, so that you will return on a close reach. Check that you're on a close reach by seeing if the mainsheet will droop to the water when released. Tell the crew to release the jib when you're within about 20 feet from the man overboard.

As you approach, keep the boat pointed at the man overboard, or a little upwind to compensate for sideslip from wind and waves. The boat should come to a near stop with the man overboard on the upwind side.

Avoiding Capsizes, Righting After a Capsize

Capsizes can almost always be prevented. If the boat starts to tip over, let the sheets out (fastest response), hike out, or head up into the wind.

Always keep the mainsheet handy so you can immediately release it if the boat heels suddenly in a gust.

Always be ready to move your weight suddenly if necessary, and scramble for the high side if the boat heels suddenly.

Never sail with the boat heeled over so far that it's only an inch or two away from taking on water That not only puts you closer to a capsize but also slows you down. Head up a little and let the sails luff more.

If you do capsize, keep calm and plan your actions so you'll be back sailing more quickly.

Never swim away from the boat or cling to the high side of a capsized boat.

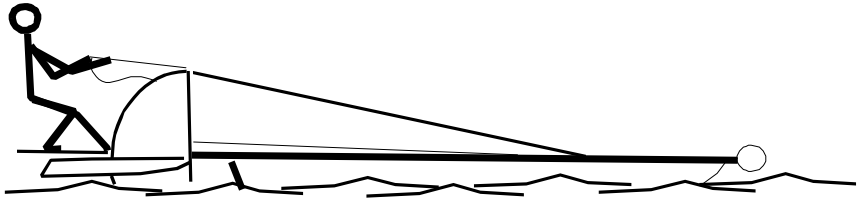
First **check that everyone is OK.** Crew should float alongside the boat, holding onto the bow painter to keep the bow pointing into the wind. Don't leave the boat to swim after any paddles or clothing.

Next make sure all the **sheets** are uncleated. In high winds and big waves, righting will be easy if you loosen the outhaul and unclip it from the mainsail's clew.

In strong wind, it's also best to **point the bow into the wind** by holding onto the bow for a few seconds while the wind pushes the hull downwind. This is the best place for your crew to be while you're righting the boat.

In light winds, your crew can float between the hull and the boom, holding onto the centerboard case lightly. As you right the boat, they'll come up inside the hull.

To right the Lido, stand on the centerboard and pull on the hull to tip it back up. You should pull the jibsheet, making sure that it is uncleated and that you are **pulling against the knotted end, not the end attached to the jib.** Lean back for more leverage. It may



take a few seconds before your weight can break the sails free of the water.

Don't jump up and down on the centerboard; it will break it. It's okay to push down with one foot near the middle of the centerboard, but the other foot should be placed firmly against both the hull and centerboard, parallel to the centerboard slot.

Anchoring

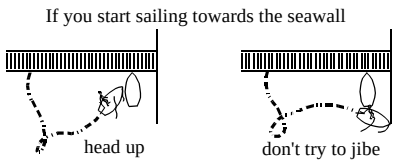
The anchor should always be tied to the bow and ready for use. Anchor if you capsize near the rocks, if the boat breaks and you can't sail back to the dock, or if you need to reef the mainsail while away from the dock.

The anchor should be let out carefully so as not to get the anchor line wrapped around the mast, jibsheets, or shroud, or snarled in its line or in the bow painter. Thread the anchor under the jibsheet, and out between the mast and shroud along its line to the bow.

Docking
Always approach the leeward (downwind) side of the dock on a close reach, so that you can control the boat's speed and direction.

Start your approach from a point well downwind of the dock, so that you have plenty of room. Note the wind direction and strength at the dock, and check carefully for boats or windsurfers that may be leaving the dock.

Let the crew know that they'll have to go forward to tie the boat up. If you're alone, get someone on the dock to catch your boat, come in alongside another docked boat and grasp it, or run forward yourself as the boat reaches the dock



If you have a problem docking or leaving the dock, never try to jibe the boat next to the seawall. Instead, head the boat up toward the dock, even if this means drifting gently onto other boats.
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In Case of Grounding
The Lidos need 3-1/2 feet of water to sail in with their centerboards down. If you go aground, raise the centerboard halfway to get away. Don't raise the centerboard all the way unless you can get away by sailing downwind, because you need some centerboard to sail on a close reach or beam reach.

If the centerboard uphaul line is very difficult to pull, don't force it, as it may break off. Instead, try to point the boat into the wind and get it to move forward, even if this means getting out and standing in the muck.

In very shallow water and very light wind, raise the centerboard all the way, take off the rudder, and use the paddle to steer. Don't try this in strong wind or if there's a risk of going on the rocks; anchor instead and signal for a tow.

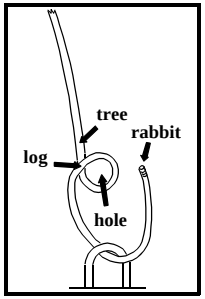
Equipment Failure
If any club equipment breaks while you are sailing, return to the dock immediately and fix it as soon as possible.

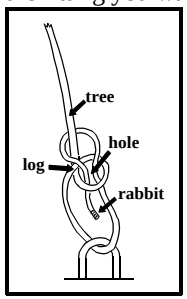
If you can't sail back, anchor and signal for a tow. The distress signal consists of standing up and waving your arms up and down at your sides.

To get a tow from the rescue skiff, you should tie the bow painter to the skiff's tow line with bowline knots. Raise your centerboard before being towed.

KNOTS FOR RIGGING LIDOS

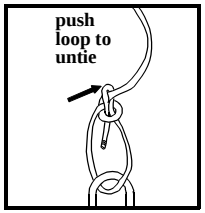
Bowline
Pronounced *bo'-linn*, this is the most useful knot for sailors, since it forms a loop that will not slip or jam, and can be untied easily even after being used for heavy loads.
The diagram at right explains one way to memorize how to make a bowline. The "rabbit" is the end of the line, which you pass through the fitting you want to attach.





The "hole" is a loop formed in the main part of the line (not the end). Note how the loop spirals toward you, so that the "log" is in front of the "tree". If the "log" is behind the "tree", the knot will fall apart.

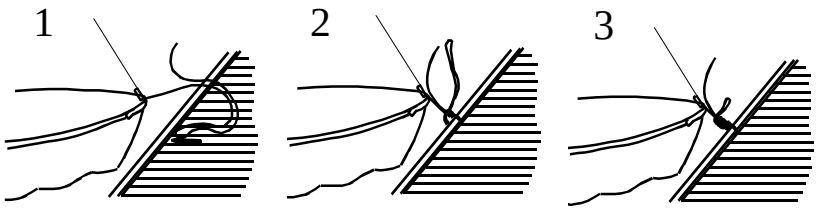
The phrase to memorize: "*The rabbit pops up out of the hole, jumps over the log, runs behind the tree, and pops back down the hole*".



Note that the "rabbit" ends up in the middle of the loop formed around the fitting. If you don't end up with the end in the middle of that loop, you don't have a true bowline, but instead a knot that will jam.

To untie a bowline, you loosen it as shown at right by bending the main part of the line over and pushing on the loop formed around the main part of the line. In the terms used to memorize the bowline, you find the "key" the rabbit left behind the tree.

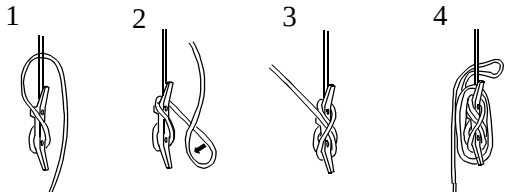
Triple Half Hitch in a Bight



This is the best way to tie Cal Sailing Club boats to the dock. It's just three knots made with a loop of the bow painter around the rail (2 by 4) on the dock.

Be sure to tie the boat up close to the dock--about a foot between the boat and the dock--so that no one falls in trying to jump aboard.

Cleat Hitch



This is the best way to tie a line around a cleat to secure the halyards. First loop the line around the cleat, then diagonally over it.

Next form a loop in the end of the line, and slip the loop over the cleat, twisting the loop so that the end of the line is trapped under a diagonal across the cleat.

You should end up with the line crossing the cleat twice in one diagonal direction underneath another diagonal crossing in the other direction.

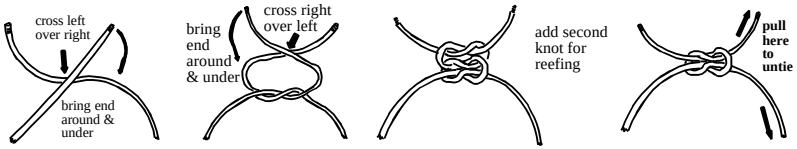
It's a good idea to wrap the halyard around the ears of the cleat as shown, so the jibsheets won't catch on the cleat.

Figure Eight Knot

This knot is used as a stopper in the end of each jib sheet. Make a loop, then take the end around the main part of the line before bringing it through the loop.

Stopper knots are most easily untied by bending over the main part of the line, then pushing the loop to loosen the knot.

Reef Knot

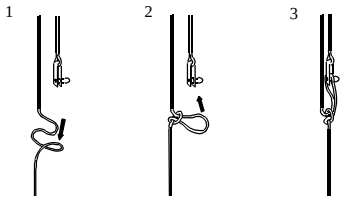


This is the trusty square knot of Scouting fame. In a reef knot, you cross the lines one way for the first knot, then the other way for the second knot.

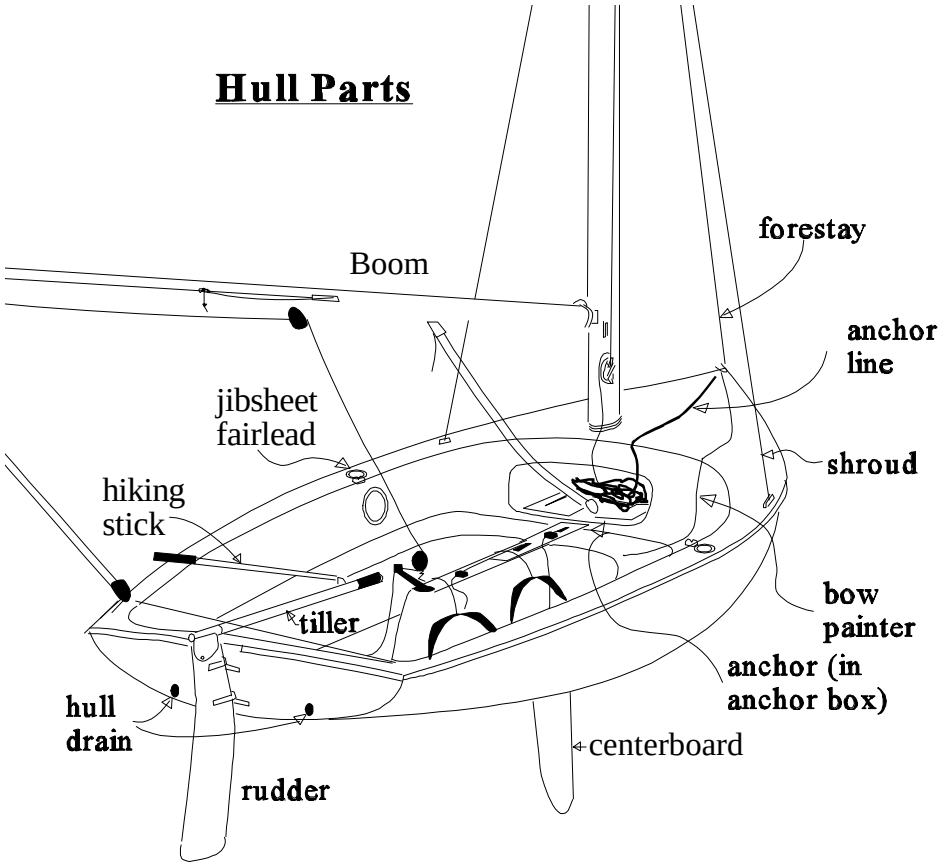
In an ordinary double knot (also called a granny knot) you cross them the same way both times.

The reef knot is more reliable and can be untied easily even after carrying a heavy load. Just pull one end against the main part of the line nearest it.

Slip Knot for Attaching Halyards



To secure the halyards when the sails are off, tie slip knots in them. Use the loop to attach the shackle on the halyard, and tighten the halyard and cleat it.



HOW TO RIG A LIDO

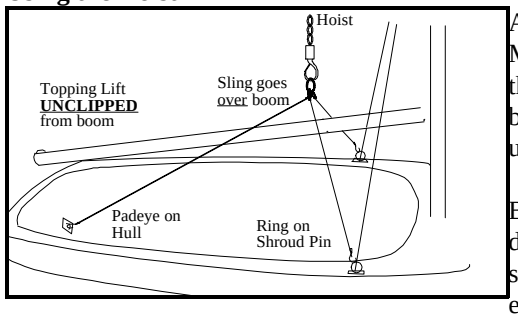
Start with the paperwork. Sign up on the sailboat signout sheet in the clubhouse.

Select a hull from the yard, checking carefully for Do Not Sail signs or missing parts. Be sure the hull has an anchor and a bailer.

If the boat wasn't left propped up in the yard with all the hull drains unscrewed, you have to drain it. Just lean all your weight on the transom, and the hull will tip back, with the metal bar of the trailer preventing damage to the hull.

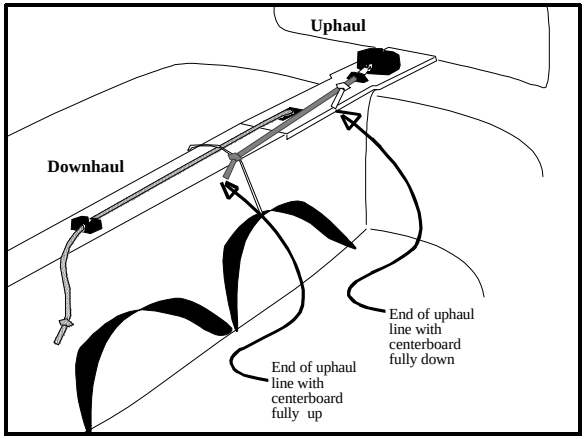
Collect paddle, rudder, and tiller from the container and put them in the hull. If the sling isn't already at the hoist, collect it from the container as well. Get the mainsail and jib from the sail locker next to the clubhouse, and pick up some lifejackets (a.k.a. personal flotation devices, or PFD's) from the container while you're at it.

Using the Hoist



Attach the sling to the hoist and the boat. Move the trailer to position the hook over the boom. Make sure the sling is over the boom, not under it. Make sure the boat is untied from the trailer.

Before hoisting the hull over the water, drape the bow painter around the starboard shroud where you can get it easily. Hoist the hull as high as it will go. **DON'T LET ANYONE GET UNDER THE BOAT WHEN IT'S HOISTED!** Lower the boat onto the water and tie it to the dock under the hoist temporarily (use a triple half hitch in a bight).



Centerboard Controls
Lower the centerboard by uncleating the uphaul line and pulling the downhaul (stretchy cord). You should feel the centerboard go down, and see the uphaul line disappearing into the hull.

The position of the end of the uphaul line is the only indication of the centerboard position. When the centerboard is retracted all the way up into the hull, the end of the uphaul line comes about halfway down the centerboard case, as shown in the figure above.

When the centerboard is fully down, the stopper knot in the uphaul line is about an inch from the black plastic fairlead that holds the uphaul line.

If the tide is low, raise the centerboard halfway up by releasing the downhaul line and pulling the uphaul line until its end is about midway between the board up and board down positions. Then pull on the downhaul line to hold the centerboard down.

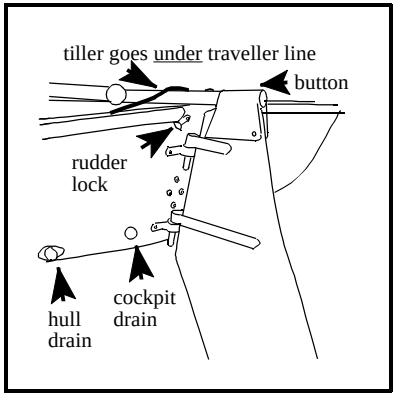
Never release the uphaul line when the downhaul line is under tension. The stretched downhaul line will catapult the centerboard forward with a clunk, slamming it into the hull and splintering the fiberglass.

Boom Topping Lift
The topping lift for the boom should be clipped into one of the holes on the end of the

boom as soon as possible when the boat is in the water, and left on while sailing. It helps prevent damage to the hull from the boom falling onto the fiberglass.

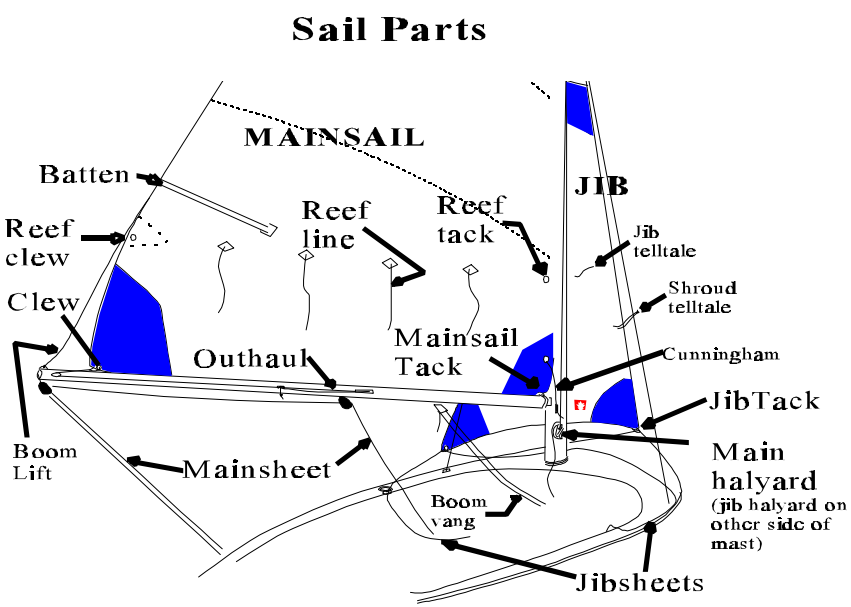
Rudder, Tiller, and Paddle

Put the rudder on the boat, after first swinging the rudder lock aside. Then swing the rudder lock back so that it prevents the rudder from accidentally being lifted off.



Using a bowline knot, tie the rudder's safety line to the boat. Pass it under the traveller line (the rope with the pulley on it for the mainsheets) and tie it to the padeye on the hull where the sling attaches. Put the tiller onto the rudder and make sure the button inside the tiller engages the hole on top of the rudder.

Slip the flat end of the paddle under one of the elastic lines which hold up the forward hiking straps and which cross over the centerboard trunk. Slide the paddle forward to rest the flat end inside the anchor box.



Sails

Attach the mainsail's tack to the boom, using the levered rod in the boom end fitting.

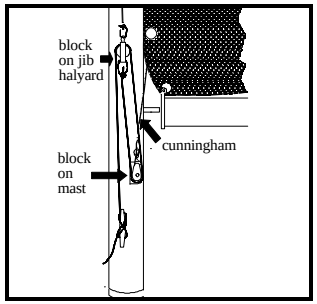
Attach the mainsail's clew to the snap shackle on the outhaul line at the end of boom. You may need to loosen the outhaul.

Undo the cleat hitch holding the main halyard snug. Make sure the mainsail isn't twisted. Thread the metal slide and rope on the mainsail into the groove in the mast. Detach the main halyard's shackle from its slip knot, and check that the halyard isn't twisted overhead. Attach the shackle to the mainsail.

The jib should have a hook on its tack that slips into a hole in the metal forestay fitting at the bow. Attach the hanks (brass snaps) on the jib to the forestay, starting at the tack and working upwards. Pass the jibsheets **outside** the shrouds and through the jibsheet fairleads on the hull. Tie figure eight stopper knots in the ends of the jibsheets. After checking that the jib halyard isn't twisted, attach its shackle to the jib.

Before you raise the sails, be sure the boat is pointed into the wind (in an east wind, this means take the hull to the west side of the dock first). Don't raise the jib until you're ready to go, and lower it as soon as you dock. **In winds over 5 knots at the dock,** leave the mainsail down, too.

Raise the mainsail first. Make sure the mainsheet is uncleated. As you raise the mainsail, feed the rope on the front edge of the sail into the groove in the mast. If it's hard to raise all the way, loosen the outhaul and boom vang. Tie the halyard with a cleat hitch. Wrap the ears of the cleat with the halyard until the cleat ears are buried, so the jibsheets won't catch on them.

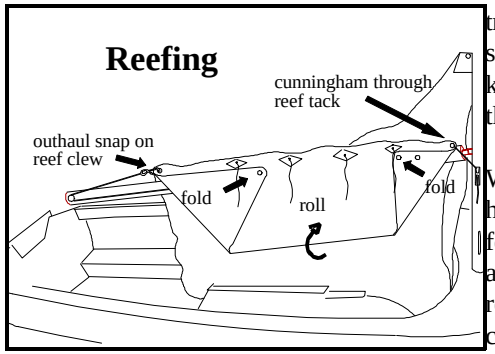


Pass the cunningham up through its hole in the mainsail and down through its jam cleat. Tighten the cunningham and outhaul to adjust the mainsail's shape; pull harder in high winds to make a flat sail. Tighten the boom vang to keep the boom from rising above horizontal.

Raise the jib. Before cleating the halyard, reach up to the block tied into the halyard. Pull the loop of line from the block on the halyard and pass it around the block on the mast. Then tighten the jib halyard hard until the jib's luff wire is very tightly stretched; the forestay should go slack. Wrap the ears of the cleat with the halyard.

Reefing

Reef the mainsail if the wind speed is high and/or the crew's weight is low. Reefing is easiest with the mainsail lowered. Loosen the outhaul completely and reattach its snap to the reef clew. Take the mainsail's tack off the boom and rethread the cunningham through the reef tack. Fold the clew and tack over in



triangular folds, then roll up the foot of the sail. Tie it up with the reef lines using reef knots. The reef lines should **not** go around the boom.

When you raise the reefed mainsail, pull the halyard and outhaul tight to flatten the sail for high winds. To unreef, lower the sail and detach the reef clew and tack, undo the reefknots, and reattach the clew, tack, and cunningham before raising the sail again.

Don't forget your water wings! Everyone should have a life jacket on. People who can't swim get the bulky Mae West style life jackets; children get the smaller size jackets available in swimmers' and non-swimmers' styles.

And don't forget the paperwork. Sign that boat out.

Taking Over A Pre-Rigged Boat

If you take over a boat someone else rigged, check their job carefully. Make sure the safety equipment (anchor, paddle, bailers) is on board and properly stowed so you won't lose it in a capsize.

Derigging
If someone else wants your boat when you're done, be sure to sign it in and make sure they sign it out. Otherwise you're responsible for derigging it.

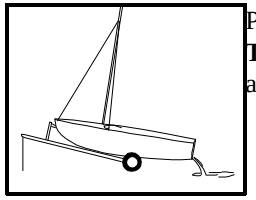
Lower the sails and detach them. Attach the halyard shackles to slip knots tied in the halyards, and cleat the halyards to keep them from banging against the mast. Carry the sails to the container area for folding, being **very careful** not to bend or break the battens in the mainsail.

Move the boat underneath the hoist and attach it with the sling. Bail out any water over 1" deep in the hull. Take the rudder and tiller off. Raise the centerboard and cleat its uphaul. Get the trailer under the hoist before you lift the hull.

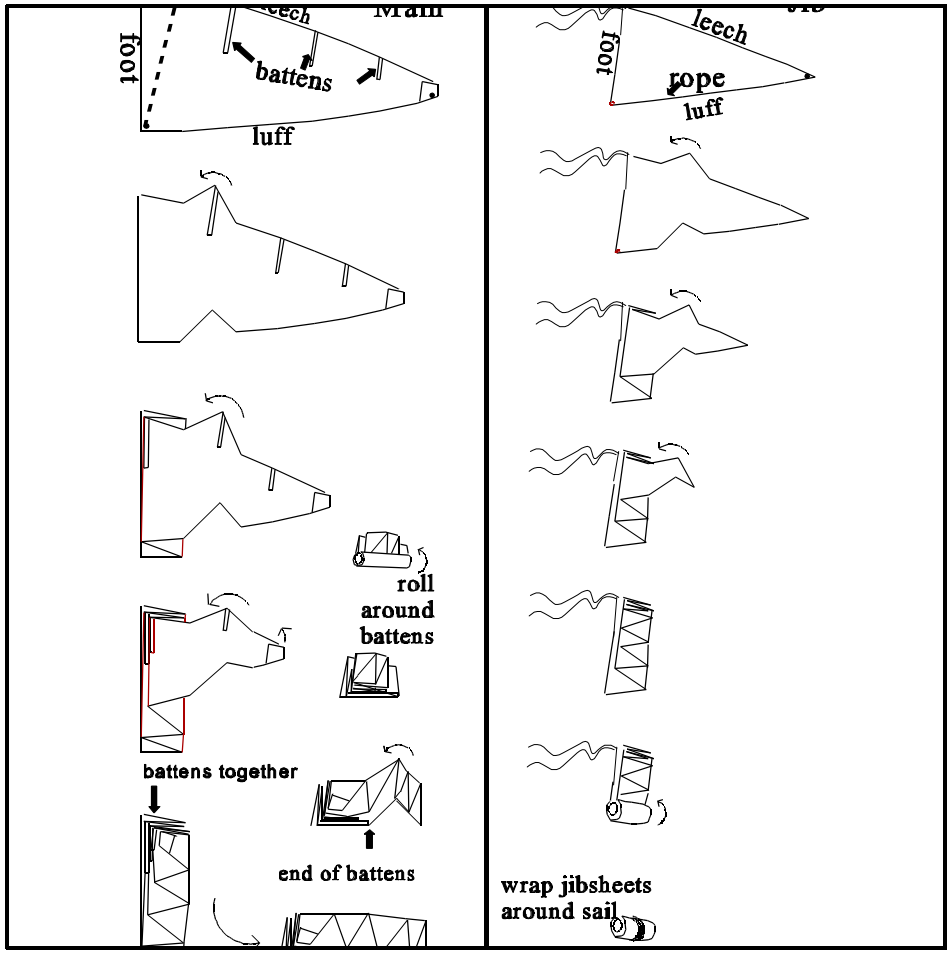
Hoist the hull from the water. Swing the bow around the hoist so the mast and shrouds don't strike the hoist. Lower the hull onto the trailer and take off the sling from the hull.

Drain the hull before you put it away. Take out the tiller, rudder, and paddle, and any other parts that may slide around. First drain the cockpit, then unscrew the hull drains and drain the hull. Make a note in the log if there is more than a quart of water inside the hull.

Using the hose, rinse all the blocks on the hull and mast, and spray off the salt and mud from the hull.



Put the hull away in the yard with **HULL DRAINS OUT AND TRAILER TILTED UP.** Return the paddle, anchor, rudder, tiller, and sling to the container.



Folding Sails

Fold the jib and the mainsail in accordion pleats. The mainsail battens should be kept bunched together.

After folding the mainsail lengthwise, fold it again crosswise to make a bundle the length of the battens, then roll the bundle around the battens to protect them.

After folding the jib lengthwise, roll it up and wrap the jibsheets around it.
Stow the sails away in the sail locker. Don't forget the paperwork. Sign the boat back in.

KEY CSC RULES FOR JUNIOR SKIPPERS *(See Operating Rules Handbook for full text and area maps)*

Junior Skippers may take out Lidos, Lasers, and Bytes in the Junior Skipper area. Unless you are a Senior or Cruising skipper, you can take out boats only when the Dayleader is present and the rescue skiff is operational.

To obtain the Junior Skipper rating, you must complete:
• 2 hrs work in addition to quarterly work requirement for membership
• written test from Dayleader on CSC rules, sailing theory, etc.
• Lido rigging and derigging test from an authorized person*.
• sailing test from an authorized person on sailing in wind over 10 knots

With a separate check-out from an authorized person, Junior Skippers may take out the Rhodes 19, JY15, and 470 in the Junior Skipper area.

The Novice Skipper rating, primarily granted in winter when the wind is seldom over 10 knots, requires completion of the work, written, and rigging tests for a Junior Skipper rating, plus approval from an authorized person. Novice Skippers may take out Lido 14s to practice sailing **only**:
• with explicit permission from the Dayleader.
• inside the Inner Daysailing Area
• only when the wind is clearly under 10 knots
• either single handed or with one other CSC member as crew

No sailing when the wind exceeds 30 knots. Reefing is mandatory when wind speeds exceed 20 knots. Jibs must be lowered at the dock, and mainsails must also be lowered at the dock if the wind exceeds 5 knots.

A maximum of 4 persons is allowed in a Lido 14, 6 in a Rhodes 19, 2 in the JY15 and 470, and 1 in the Laser and Byte (2 in Laser if wind is under 10 knots). The JY15 and 470 requre 2 persons minimum.

All boats must be signed out and in, with membership card shown to Dayleader.

Damage must be reported to Dayleader, and noted in log. Skippers must promptly repair any damage that occurs while they are sailing, and may be assessed up to $100 for damage from negligence or violation of CSC rules.
Personal Flotation Devices (CSC lifejackets or Coast Guard approved PFD's) must be worn at all times when away from the dock.

* A Senior or Cruising Skipper or a Jr. Skipper authorized by CSC's ExComm

SAILING DICTIONARY

abaft extra super salty talk for "aft of", as in "abaft the mast".

aft toward the stern of a boat or behind it.

anchor metal device for taking mud samples and keeping Lidos off rocks.

backwind hold a sail so the wind pushes its backside.

beam reach sailing at 90 degrees to the wind's direction.

beating zigzagging upwind, sailing closehauled and coming about.

block nautical term for a pulley.

boom horizontal pole that holds the bottom of the mainsail; named after the sound it makes when hitting your head.

boom vang line that keeps the boom at right angles to the mast

bow the front (pointy) end of the boat.

bow painter line attached to the bow; used to tie the boat to the dock, etc.

bowline pronounced *bo' linn*, super salty knot with loopy end--see knots section.

broach to round up uncontrollably from a run to a beam reach, heeling over.
"If broaching sideway to the sea, our dropsied ship may founder by the lee".

broad reach sailing at 90 to 135 degrees to the wind direction.

capsize when a boat tips over.

centerboard fin under boat to prevent sideways sailing; swings up for storage.

centerboard downhaul stretchy cord, pull to make centerboard go down.

centerboard uphaul regular line, pull and cleat it to hold centerboard in up or partially up position.

chainplate metal piece on boat that attaches shrouds (wires that hold mast up).

cleat (noun) device for holding lines such as jib sheets or halyards.

cleat (verb) fasten a line using a cleat.

clew aft corner of a sail (where the outhaul pulls it out, "with<u>out</u> a <u>clew</u>").

close hauled sailing at about 45 degrees to the wind direction.

close reach sailing at between 45 and 90 degrees to the wind direction.

come about to turn the boat up into the wind and over to change the side the sails are on (also called "tack").

cunningham line used to pull down on the luff (front edge) of the sail.

dinghy a little open boat.

fairlead ring used to guide lines.

fall off turn the boat more downwind.
foot bottom edge of a sail.
forestay the wire between the bow and mast, which keeps the mast from falling backwards when the jib is off.
gooseneck fitting that attaches the boom to the mast with a flexible joint.
halyard line used to lift the sails; from "haul yard" since square-rigged boats had yards that were hauled up to lift their sails.
hank plastic or metal clip or snap to hold jib on forestay.
head top corner of the sail.
head up turn the boat more upwind.
heavy weather strong winds and waves, possible 60's origin.
heel a boat's leaning over to one side, usually because of the wind.
hike out move your weight out to balance the sails' force, by sitting out on the rail above the seat.
hiking stick extension on the tiller for steering while hiked out.
hull the floating parts of a boat, not including sails, etc.
in irons pointing into the wind.
jib small sail in front of boat, hooked onto forestay.
jibe turn away from the wind to cause the sails to flip over to the other side of the boat.
jibsheet line that controls the trim (angle to the wind) of the jib.
kedging salty talk for throwing out the anchor and hauling in to move the boat.
knots nautical miles per hour; 1 knot = approx 1.1 mph.
leech aft (rear) edge of a sail.
leeward downwind; pronounced "lew' ard".
lido cheap boat that holds 4 and goes 3, both maximum.
luff *verb* when sails flap because they're not pulled in, or to turn the boat into the wind or let out the sails so that the sails luff.
luff *noun* forward edge of the sail.
mainsail big sail in back.
mainsheet line that controls the trim (angle to the wind) of the mainsail.
mast long vertical pole that holds the sails up.
outhaul line that pulls on the clew of the mainsail.
padeye metal dohickey with a ring on it for attaching stuff.

p.f.d. what it’s like when there’s no wind, or lifejacket.
pinching sailing at less than 45 degrees to the wind, with the sails partly luffing.
port left side of the boat when you are facing forward.
port tack sailing with the mainsail on the starboard side of the boat.
reach sailing with the wind coming over the side of the boat.
reefing tying up the bottom of the sail to avoid being overpowered.
rigging the hardware on a boat, or putting the sails and other pieces on a boat.
rudder big movable fin that helps one to steer a boat.
run (opposite of reach) sailing with the wind coming over the stern.
sculling rowing the boat, i.e. by swinging the tiller back and forth.
shackle snap or locking ring used to connect lines, sails, spars, and blocks.
shroud a wire that keeps the mast from falling over sideways.
starboard right side of the boat when you are facing forward.
starboard tack sailing with the mainsail on the port side of the boat.
stern the back end of a boat, usually the square end.
tack *verb* change tacks, usually by coming about.
tack *noun* the forward and lower corner of a sail, (<u>"tack</u> it <u>down"</u>)
tack *noun* as in port tack and starboard tack; a boat's heading as determined by the side that its sails are on.
tiller stick for steering, attached to the rudder.
trailer dolly for moving trailers, looks like push lawn mower.
transom the flat part of the stern.
traveller metal bar or other fitting that holds mainsheet block.
true wind the wind direction as seen by a stationary observer.
whitecaps white foamy tops on the waves caused by high winds.
windward upwind; also called "to weather".

Cal Sailing Club

Sailing Areas for Lidos