

Adult Learn to Sail

Student Guide

Welcome to Belle Haven Marina and Mariner Sailing School. Our formula for your sailing success is simple: we focus on practical on-the-boat experience under the guidance of skilled instructors who are chosen for their patience, teaching ability, and love of sailing. The Flying Scot is the best daysailer for our local waters and is ideal for challenging all levels of sailing ability.

This manual follows the four water sessions format that has made this course so successful. We recommend students read each section once before the course and review it again after you sail to reinforce the skills learned during your time on the water. Just like riding a bike, the theories presented in this manual will become second nature and soon you'll be able to sail with confidence.



Photo by Anne Charboneau

This course will be the most challenging aspect of your sailing resume. Once you master these skills, it is an easy transition to larger boats. Generally speaking, the larger the boat, the easier they are to sail. Similarly, you will build on this knowledge for smaller and faster boats.



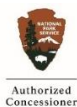
The Mariner Sailing School is an authorized US Sailing provider. This means that at the completion of the course, you will have earned either a Basic Sailing certificate or the optional US Sailing certificate. Total cost for US Sailing Certification is \$65.00. This includes the *Learn Sailing Right* e-textbook, a US Sailing logbook, and a one-year US Sailing membership. With either certificate you can feel confident renting a boat at Belle Haven Marina or most other facilities.

If you have any questions not addressed in this guide, please do not hesitate to reach out to the office at 703-768-0018 and we will be happy to help.

Fair winds!

Tim Staples, President
Belle Haven Marina Inc.

Belle Haven Marina Inc. is authorized by the National Park Service
and the Department of the Interior to serve the public within Belle Haven Marina



Before You Sail

Before we begin with sailing theory, here are some tips on making your lessons more enjoyable. Please make use of the Glossary at the end of this manual to help you understand any unfamiliar terms.

Prior to Arrival

Students are asked to complete their [Acknowledgement of Risk \(https://bit.ly/32WuZ71\)](https://bit.ly/32WuZ71) and resolve any outstanding account balance prior to arriving at the marina. We also recommend reading the entire Learn to Sail manual in preparation for your class.

Getting to the Marina

We suggest that you arrive on foot, bicycle, or via a car share whenever possible. Parking at the marina is crowded, especially on the weekends. You may park in any available spot at the marina, or in the adjacent picnic area parking lot. Do not park on the entrance road reserved for trailer parking, as your car may be ticketed or towed.

Check-In

Plan to arrive 20 minutes prior to the start of your class. The office is located inside the trailer near the entrance to the marina. Please check in here and the office staff will help you get oriented, collect any outstanding balances, and be sure you signed the [Acknowledgement of Risk \(https://bit.ly/32WuZ71\)](https://bit.ly/32WuZ71).

Restrooms

The bathrooms adjacent to the office are accessible via a keypad code you will receive at check-in. There are also restrooms located in Belle Haven Park that are open seasonally.

Food and Beverages

We suggest you pack a lunch each day to make the most of your lunch break at our picnic areas. The marina vending machines sell sodas, water, and juices only. There are also several restaurants and grocery stores nearby, but please be advised that you will likely lose your parking space. Be sure to bring plenty of water with you for your lesson, especially on hot summer days. No alcoholic beverages are permitted on any rental vessel.

Weather

We monitor the weather frequently throughout the day and will sail when conditions allow instructive sailing. In the event of dangerous or very adverse weather conditions, marina management will make the decision to stop rentals and lessons, and those lessons will be rescheduled. In the event of a last-minute cancellation, we will make every attempt to call you before you leave home, however, we recommend calling the office if you have concerns about the weather.

Clothing and Shoes

Students should always make sure to dress for the current and expected weather conditions. A good rule is to wear one layer more than you would be comfortable in on land. In spring and fall, a light windbreaker is desirable as it is always cooler on the water. In the summer, wear light-colored clothes and a hat or visor. Good sunglasses with straps and sunscreen are also suggested.

While nonskid boat shoes are best, any rubber-soled shoe such as tennis shoes will provide safe footing. Please do not wear sandals or flip flops as they do not provide adequate foot protection.

Safety Afloat

Here are a few important safety precautions before setting foot on your boat:

- Listen to the local weather forecast. Locally, WTOP FM 103.5 or WMAL FM 105.9 are good FM stations.
- Bad weather and high seas can be very hazardous even for the experienced sailor. Know the waters you are sailing on.
- When sailing at a new location, ask questions concerning local regulation rules, navigational aids. Ask an experienced local sailor about conditions or hazards you should know before venturing out.
- Leave a float plan. Let someone know where you're going and when you'll be back.

The following is a list of safety items you will need to take with you. Some are required by law and others are things you might need.

Life Jackets

You are required by law to carry one personal flotation device (PFD) for each person on board. It is a good idea to wear PFDs at all times and to carry a throwable cushion or life ring. On a particularly windy day, everyone in the boat should wear a life jacket.



Water and Food

The sun and wind cause the body to need more water. Fill a plastic jug and freeze it ahead of your lesson so as the ice melts, you'll have cool water to drink.

Bailer

You should have a way to empty water from your boat. A one-gallon milk bottle with the cap still on and bottom cut out makes a great bailer. Secure the bailer with a light line so you won't lose it overboard.

Whistle or Air Horn

All boats must have an effective means of making noise such as a whistle or air horn.

Sun & Eye

Waterproof SPF 30 or greater should be applied frequently. Sunglasses should be effective in blocking both ultraviolet A & B to protect your eyes from the sun and glare off the water. We also recommend a strap for your sunglasses, so you don't lose them overboard.

Paddle

If the wind dies, the paddle will help you return to the dock. We'll also send our chase boats out to help you.

Clothing

See "Clothing" on the previous page.

Overview

Our Learn to Sail course is a 10-hour program divided up into four two-and-a-half hour or two five-hour sessions. This manual will follow that format as well. **After completing the course students should be able to rig a Scot, know the points of sail, read channel markers, know the right-of-way rules, perform man overboard drills, and safely dock the boats.**

Session 1: Rigging and Sailing Upwind

Introduction



Picture courtesy
sailboatdata.com

After meeting your instructor, your lesson will begin with a 10- to 15-minute flipchart orientation. The presentation is given to everyone starting the class at the same time. After the introduction, your group will make its way down to the rental dock. Now would be a good time for any last-minute stops to your car or to the restrooms.

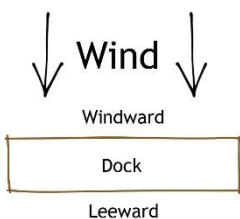
The rental dock is located at the end of the marina on the right-hand side. From this dock you will either be shuttled out to a Scot on a mooring or rig a boat on the dock. The dockmaster will advise your instructor. The dock crew are skilled sailors and are helpful resources as you learn to sail and when you return to practice.

The Flying Scot

The Scot is both a pleasure to sail, and an excellent instructional boat. As the Scot is a 19' centerboard boat, you can easily apply your new-found skills to other centerboarders (which most people buy initially) and will find that sailing larger boats is quite easy. The Flying Scots are stable, fast, and comfortable. You can step anywhere on the deck without fear of capsizing.

Wind Direction

Before we can begin rigging, you will need to know the current forecast and the direction and speed of the wind. There are several ways to determine this before going to the dock. The reason for this is to always have your bow pointed into the wind when rigging and raising your sails so that you do not start sailing until everything is ready. If you rig from a mooring, you are facing into the wind. It would be impossible to hold the bow of the boat into the wind if your boat is on the windward side of the dock. If your boat is on the leeward side however, and tied only at the bow, you are in great shape. The proper procedure, therefore, is to keep all boats to the leeward side of the dock when raising sail.



Which Way is the Wind Blowing?

- Look at flags, smokestacks, trees, and waves on the water.
- Boats on moorings always point into the wind.
- Seagulls and other birds always rest facing into the wind.

The Centerboard

The rigging of the Scot is similar to most other daysailors, as well as most cruising boats with a single mast. While the Scot is exceptionally stable, it is important to lower the center of gravity. This is done by lowering the centerboard. The lowered centerboard helps the boat not slide sideways across the water and allows the skipper to sail a course by preventing the boat from sliding across the water. Whenever we leave the dock or return, the centerboard must be all the way down to maximize this control.

Rigging the Scot

[This video](https://www.youtube.com/watch?v=vZ6O8lB0cII) (<https://www.youtube.com/watch?v=vZ6O8lB0cII>) will provide you with a basic overview of sailboat terminology as we begin discussing rigging.

The phrase “a picture is worth a thousand words” is true when it comes to rigging a sailboat the first time. Your instructor will go over the boat and rigging in great detail on the first lesson. It is nice to have two people rig the main while the third person rigs the jib sail. Rotate rigging positions each time you sail so you are comfortable with both sails.

Beginning with the mainsail, one student pulls the clew out to the end of the boom while another feeds the foot down the boom. Once out, the tack pin is secured and the outhaul is tied and tensioned to current conditions. Another student can clear the luff edge and raise the sail about a foot up the mast. After the battens are inserted, the mainsail is prepared.

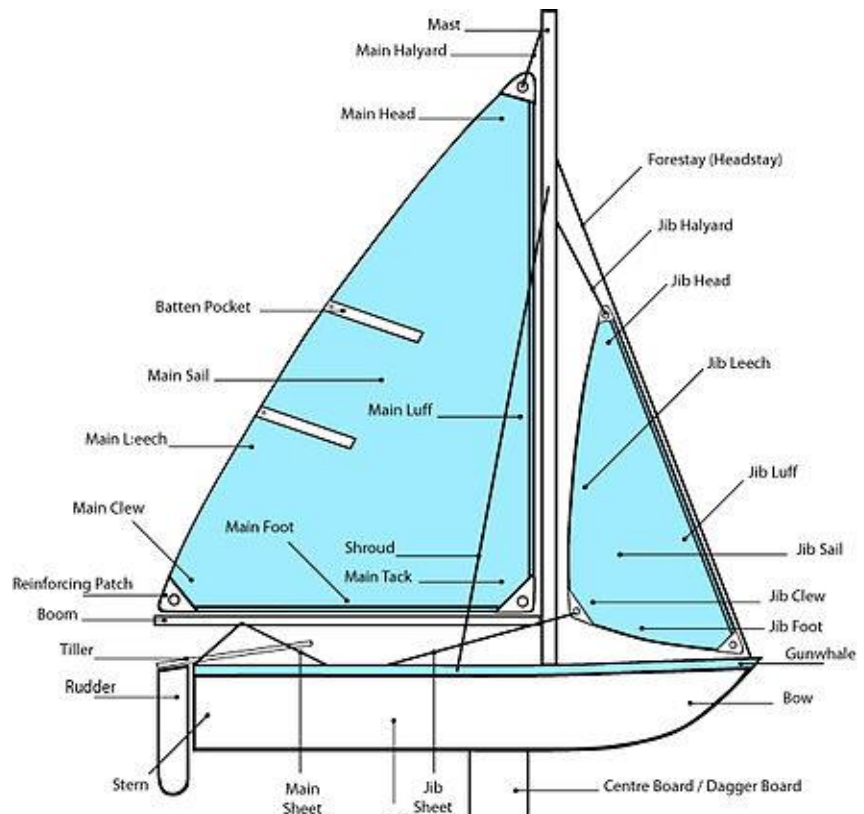


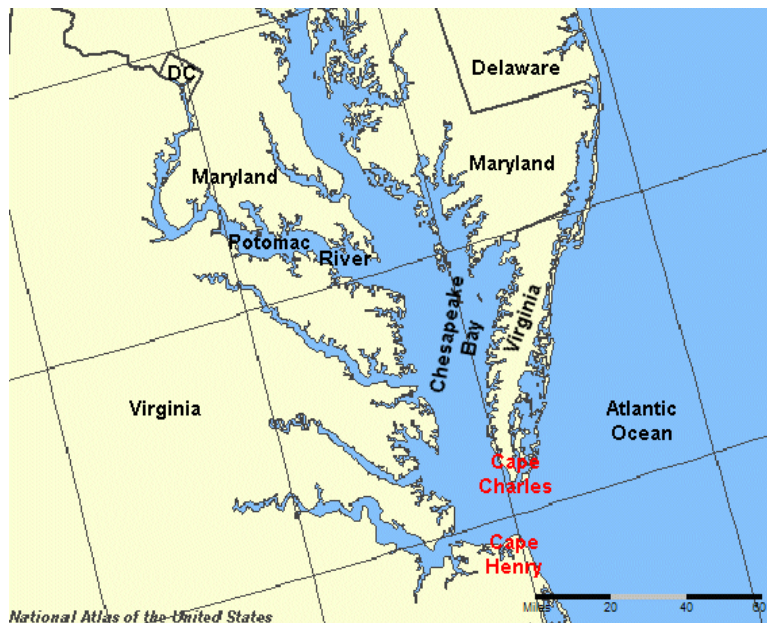
Photo courtesy wikiwand.com

Do not raise the main until the boat is fully rigged and your plan for leaving the area is thought out. Before going up to the bow, release the jib halyard tension, attach the tack, luff edge to the forestay and finally, halyard to the head. Jib sheets are run inside the shrouds, through the fairleads and hexratchets and are then secured with a figure 8 knot. Prior to raising the sails, lower the centerboard and check for all required safety equipment. The main is raised first, followed by the jib. This sequence helps hold the bow into the wind.

Local Waters (Potomac River)

The Potomac River flows into the Chesapeake Bay, located along the mid-Atlantic coast of the United States. The river (main stem and North Branch) is approximately 382 miles long, with a drainage area of about 14,700 square miles (38,000 km²). In terms of area, this makes the Potomac River the fourth largest river along the Atlantic coast of the United States and the 21st largest in the United States.

The Potomac River in the Northern Virginia area is a relatively shallow body of water. Vessels requiring more than six feet of water are restricted to the deep channel or they risk running aground.



Whether you leave from a mooring or from the school dock, you will need to sail out toward the white channel marker with three orange cones, which we call BOB. As you can see from the map on the following page, there is a long sandbar running directly in front of the marina. By sailing to the south of the white marker, you will stay in deep water. Draw an imaginary line from our marker to the Jones Point lighthouse and stay east of this line. The shadow areas represent shallow water. Our geographic boundaries are from the Woodrow Wilson Bridge to the north, Ft. Washington to the south. If you are sailing between these limits, we can see you if it becomes necessary to call in the boats. The map of our sailing waters (*see next page*) also indicates the government buoys between Broad Creek, MD, and the Woodrow Wilson Bridge.

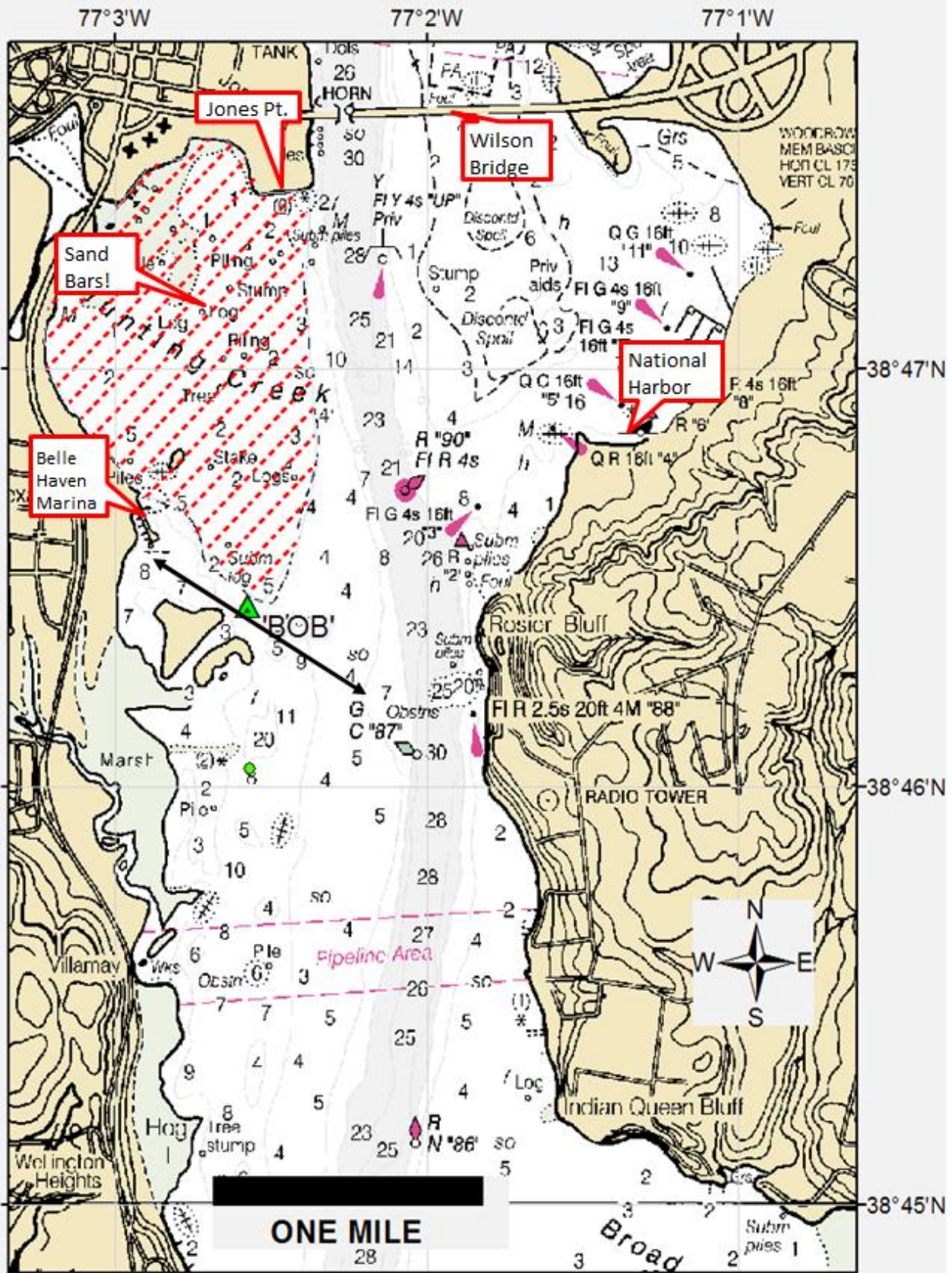


Image Courtesy NOAA Chart 12289

Getting Underway

Because a sailboat cannot sail directly into the wind, sailors need to know all points of sail that a sailboat can sail. We will explain this through the lesson. Please take note of the wind diagrams provided.

When the wind is blowing over the bow, your boat is in “irons” or the no sail zone - the boat will not move, except drifting backwards. It is in this zone that you raise and lower your sails. Another term used when heading into the wind is luffing. Luffing is an excellent way to reduce speed to stop at a dock or mooring by using the sails as a brake. When you luff, the sails will flap noisily in the breeze just like a flag on a windy day.

With the sails raised, you are now ready to fall off the wind (to move the bow away from the wind). Once you have turned the bow so that the wind can blow on just one side of the sails, you are underway. Fall off is typically about 45 degrees or more from where the wind is coming. Look at the wind diagram - in any of the sail zone areas shown other than the no sail zone, your boat will move. As the boat turns away from the no sail zone, or falls off, the sails will fill with wind and you will sail away. Before you untie or cast off, check out the wind, other boats, and figure out a path that will let you leave without banging into anything.

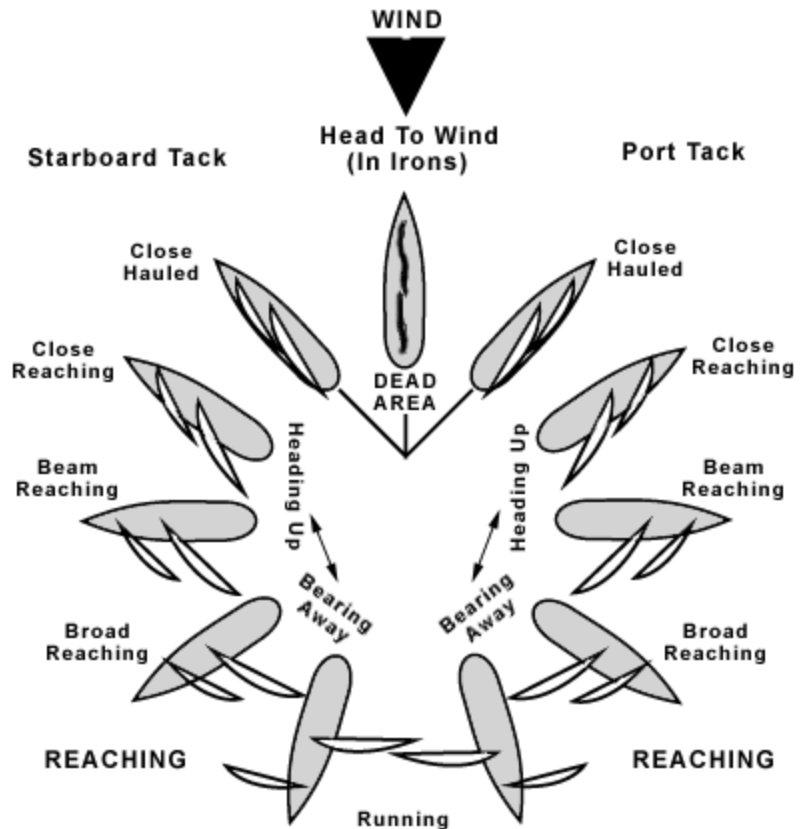


Photo courtesy <http://www.spinnaker-sailing.com/>

The Points of Sail

[This video \(https://www.youtube.com/watch?v=tYo5tvojU0I\)](https://www.youtube.com/watch?v=tYo5tvojU0I) gives a good overview of the points of sail.

As we already know, sailboats can sail 45 degrees (close hauled) on either side of the wind and any angle across (reaching) and downwind (running).

You will find that close hauled sailing is the most difficult point of sail to learn and for that reason, we start with this first.

Close Hauled	Approximately 45 degrees from the wind
Beam Reach	Approximately 90 degrees across the wind
Running	Approximately 180 degrees from the wind

Close Hauled Sailing

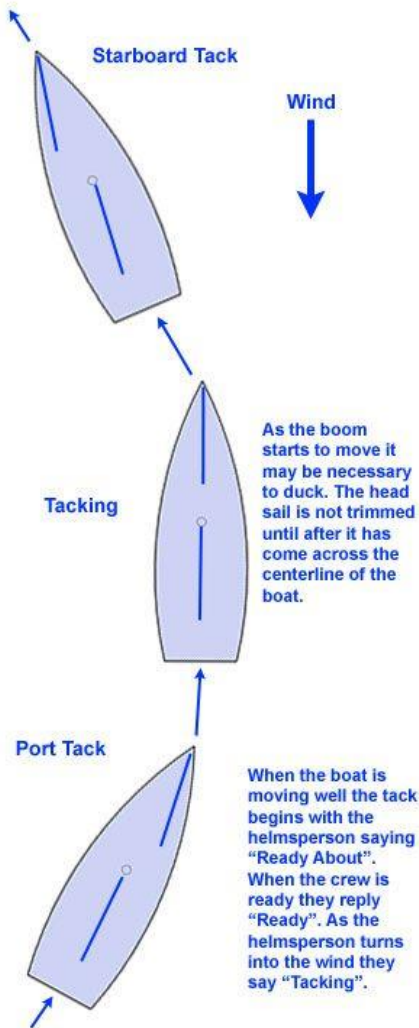


Photo courtesy www.schoolofsailing.net

needs to be cleated so that the skipper knows that if the sail starts to luff, it is because the wind direction has changed and not that the crew has let out the sail accidentally. Sooner or later we will run out of water and have to turn the bow of the boat through the wind and onto a port tack. This process is called tacking or coming about. This is going to be a 90-degree turn if we are planning to sail close hauled on the port tack.

To tack, the skipper does the following:

1. Look for a landmark that is 90 degrees from the current close hauled heading.
2. Announce to the crew to "Prepare to come about" or "tack"
3. When the crew is ready, give the command "tiller to the sail" and turn the bow through the wind until the boat is on course to the new landmark.

You are leaving the dock and decide you want to sail to Fort Washington (downriver). The wind is blowing from the south (upriver). How are we going to get there? We know that we can't sail directly into the wind, and remember your instructor said something about sailing 45 degrees to the wind.

Assuming that we are on a starboard tack headed across the river in a 10-15 mph breeze, the jib sheet is brought in fairly tightly on the port side and cleated off. The jib is our directional sail and the main provides the power. The main sheet is then trimmed in to get the boat moving. The goal of the skipper is to keep the boat at a constant 45-degree course to the wind. This is easy if the wind is steady. But as the wind shifts direction, our course must also shift comparably if we are to maintain the 45-degree line. The skipper steers the boat by watching the leading edge (luff) of the jib sail. If the course is too high, the sails start luffing and the boat slows down. If the skipper sails past 45 degrees, we end up sailing a longer course than necessary. Close

hauled sailing is a balancing act. We point up until we cause the jib to luff and then we fall off to the point that the sail stops luffing. As you can see, the jib sheet

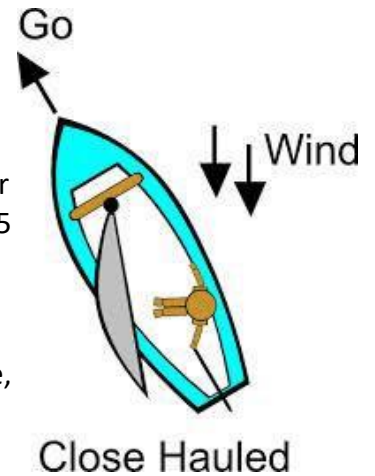


Photo courtesy www.vector.me

A Flying Scot should be heeled no more than 17 degrees. The side decks are sloped to 17 degrees so when the windward deck is parallel with the water, you are heeled over to 17 degrees. In light air, the skipper and crew should sit on the leeward side to help the boat reach 17 degrees. Heeling any further than 17 causes the boat to slow down. As we will learn later, on the reaches keep the boat flat.

The crew does the following:

Let the skipper know you are ready.

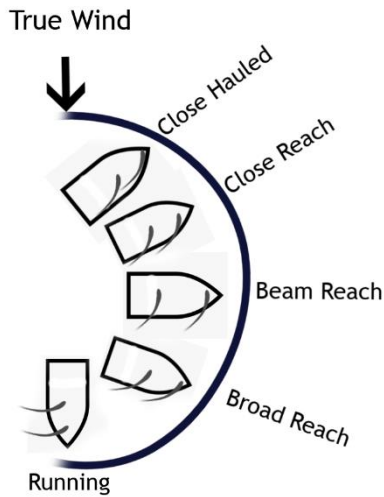
1. Uncleat the jib sheet and hold it.
2. As the bow turns into the wind, release the sheet, and pull in the other sheet once the jib sail passes past the mast.
3. Cleat the jib sheet as you move to the windward side of the boat.

The speed of the turn depends on the strength of the wind and the ability of the crew. In light breezes the turn is slow and smooth thereby preserving the boat's momentum. In stronger breezes the turn should be done quickly so the sails can fill and get the boat going.

Close hauled sailing is fun and exciting. The boat heels more at this angle than at any other. On a breezy day, one of the crew should be responsible for handling the main sheet. The skipper and crew need to communicate as to easing the main. The Scot tends to turn up into the wind on a gust (called weather helm) so the power of the main must be weakened by easing out on the main until the gust goes by.

In summary, when sailing close hauled, the boat is kept at a 45-degree angle to the wind. If the wind shifts, the skipper must shift the course as well.

Session 2: Review Upwind Sailing and Learn Reaches, Runs & Jibing



Prior to going down to the boats today, feel free to ask your instructor to go over any of the pages on the flip charts that need clarification. After completing the first session, you should be able to rig the Scot without the instructor's help. There is only one way the parts fit so work as a team. The second class concentrates on the reaches, run, and downwind turns.

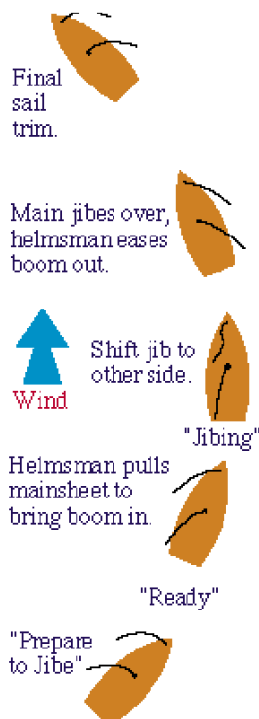
Sailing on a reach is easy. Simply put, aim at a landmark off the wind-let both sails out until they luff and then trim in to stop the luff and keep the boat flat.

Assume you wish to turn from a close hauled course to a beam reach heading. Ask yourself, am I turning **into** the wind or **away** from the wind? If we are turning **away** from the wind, the tiller is moved **away** from the sails and the sails go **away** from the boat. How far do we let the sails out? Answer - **until they luff**.

Assume now that you would like to sail from a broad reach heading to a close reach. Ask yourself the same question: Are we turning into the wind or away from the wind? In this case we are turning **into** the wind. The tiller is moved **into** the sails, the boat turns **into** the wind and the sails come **into** the boat **until they stop luffing**.

In general, the closer you sail to the wind, the closer the sails are pulled or **trimmed** to the midline of the boat. As you sail away from the wind, the sails are progressively eased out.

Always remember to change sail trim as you change course, according to this rule: *First trim the jib, then trim the main.*



As you can see from the diagram above left, we can sail from a close hauled course to a run and vice versa, without changing the tack we are sailing on. When you sail your boat with the wind coming directly from behind, your jib will not fill if left to the leeward side behind the main sail. You can fill the sail with wind if you wing it out opposite the main. In the figure to the left, we have changed the direction of the wind to illustrate the downwind turn or the jibe. Jibing is a turn that needs to be planned in advance with the crew ready. Be aware that sailing dead downwind can be dangerous. If the wind changes direction, or the wake from a large powerboat running too close, or a large wave slues your boat around, the wind may get behind the mainsail. The sail will swing abruptly, and sometimes violently, to the other side. **This is called an accidental jibe.** A boom swinging at full speed can damage fittings and the boom itself, or even break a shroud and cause a dismasting. Furthermore, it can seriously injure you or a member of your crew.

There are two ways to safely jibe. On a Flying Scot or another centerboard dinghy, you can safely do a **"flying jibe."** The boom is let all the way out as you turn to a run. The skipper announces to the crew to "Standby to jibe". When the crew is ready, the skipper says loudly "jibe ho" and moves the tiller away from the mainsail.

The jib sheet is released and the crew shifts to the other side ducking under the flying boom. The course is set and the sail adjusted till they are on the verge of luffing. Always remember that you do not have to jibe. You can always point up to close hauled, come about (tack) and then fall off to your desired course. When in doubt, come about!

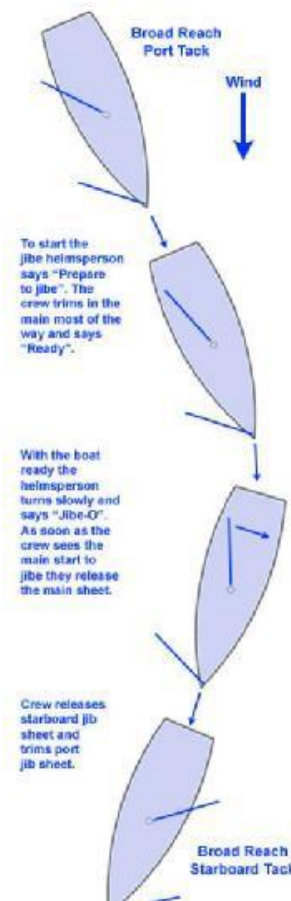
On any larger vessel, you need to control the swing of the boom by executing a **controlled jibe**. As the boat turns on a run, the mainsheet is trimmed thereby centering the boom. The skipper gives the same commands and the boom jibes over and immediately the mainsheet is let out until the sail begins to luff. There is very little swing by the boom causing little wear and tear on the rigging. On a breezy day, the mainsheet has to be let out immediately.

Summary of the points of sail

Close hauled- 45 degrees to the wind allowing you to sail to an upwind destination. When the wind shifts direction, the skipper must shift the boats direction as well.

Reaching - any point of sail between close hauled and the run. The skipper steers a course and the sails are let out until they luff and then trimmed till they stop. If the wind shifts, the sails shift, while the course remains steady.

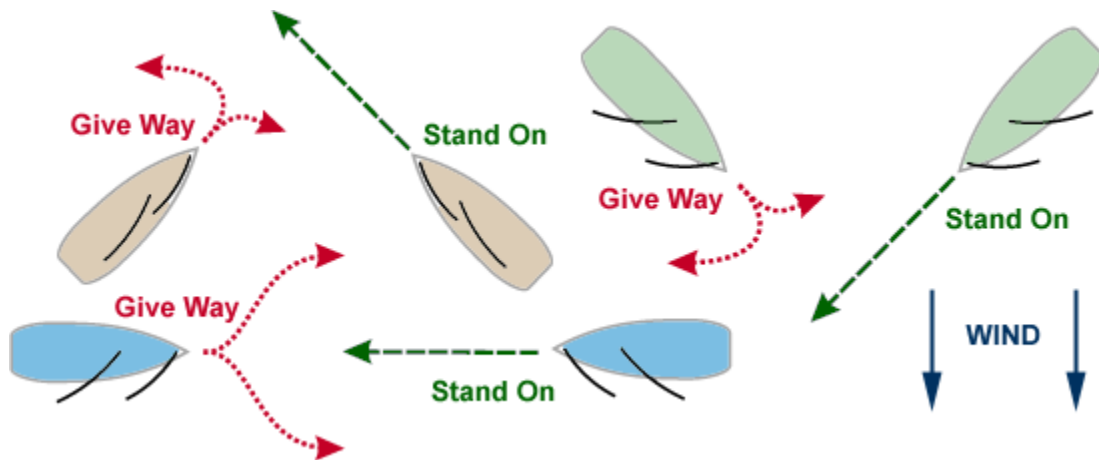
Running - sailing with the wind coming over the stern of the boat. The sails are all the way out. The skipper must pay attention to his course to prevent an accidental jibe.



Session 3: Rules of the Road, Channel Markers, Man-Overboard Drills

Vessels that must stay in the channel to avoid running aground have right of way over vessels that do not. You will see commercial ships, barges, and large yachts on the Potomac.

You must yield way to these vessels regardless of whether they are sail or power.



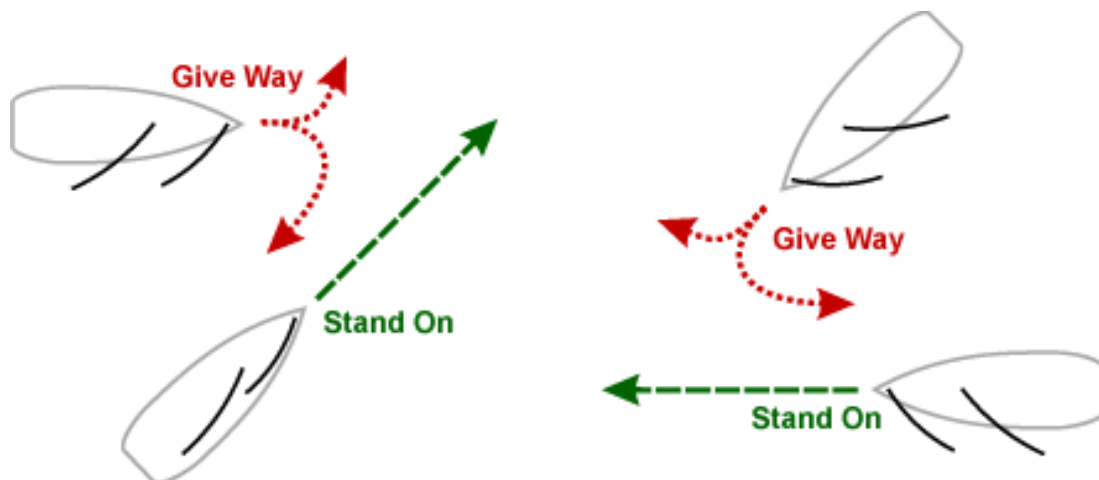
Right of way rules are used to prevent collisions on the water. For your purposes, there are only a few that you need to know. However, if you continue on to racing sailboats, the rule book becomes suggested daily reading.

Opposite Tack - When boats are on opposite tacks, a port- tack boat shall keep clear of a starboard tack boat.

Same tack - When boats are on the same tack, the windward boat shall keep clear of the leeward boat.

Overtaking - A vessel overtaking another on the same tack shall keep clear of that vessel.

Avoiding collision - A skipper must try to avoid a collision at all cost.



Channel Markers

Channel markers are maintained by the United States Coast Guard to aid vessels restricted to deep water. Remember that if a large ship uses these markers, they do not get too close to any marker, nor should we as this is where shoaling can occur.

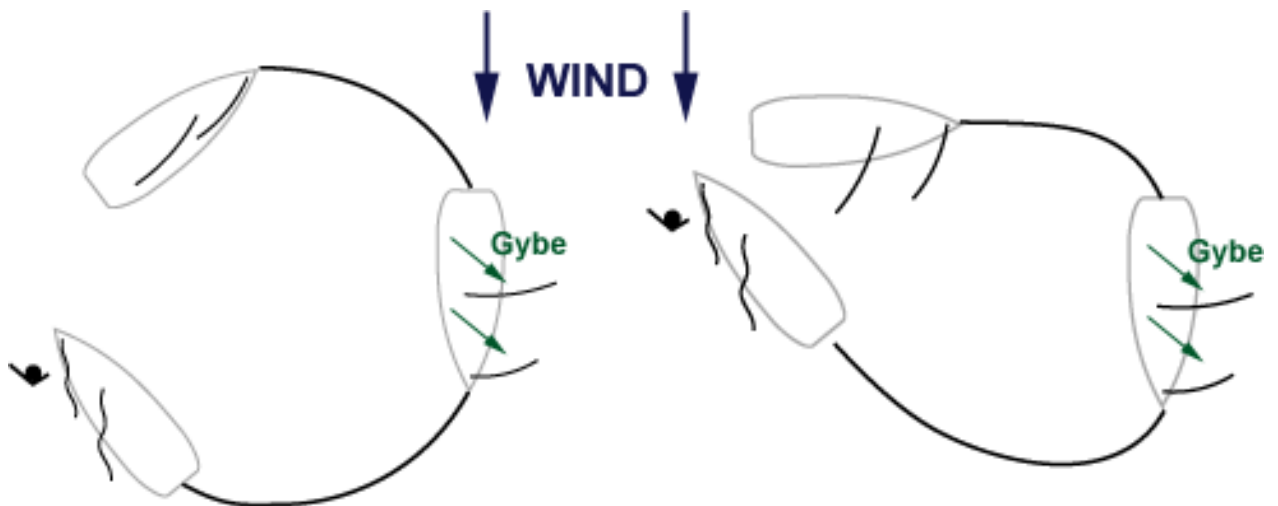
The basic rule to remember is **Red-Right-Returning**. This means that you should keep the **red channel markers** to your starboard side when going upriver (in our case, towards D.C.) Think of the red markers as indicating the right edge of deep water. If you were to draw an imaginary line between two red markers, it would be similar to the right edge of a road in driving a car. In this case, **Green markers indicate the left side** of the channel.

When you are heading down the Potomac toward the bay, you are **Red-Left-Leaving**. This means that boats heading downriver should keep the **green markers channel markers** on their starboard side.

On our local waters map, see if you can draw in the channel that a ship would have to navigate to reach Alexandria from BHM. As you return to the port, the numbers on the markers increase and vice-versa.

Person in Water (PIW) Drill

The Person in Water (PIW) drill is one of the most important procedures you will learn. You will also hear it referred to as Man Overboard (MOB). This exercise should be mastered by all students on the boat. People fall off boats for a variety of reasons including being under the influence of drugs or alcohol, rough seas, accidental jibes, children not secured safely to a boat, or being on a unfamiliar boat.



Illustrated here is the quick stop PIW/MOB drill for keelboats. The drill is not difficult to execute and applies most of the points of sail you have already learned. If you go sailing with friends after the course, explain before you leave the dock what will be done if someone should fall in. Fortunately, it is usually a hat or cup that falls overboard, but the drill is the same.

Figure 8 Rescue Method

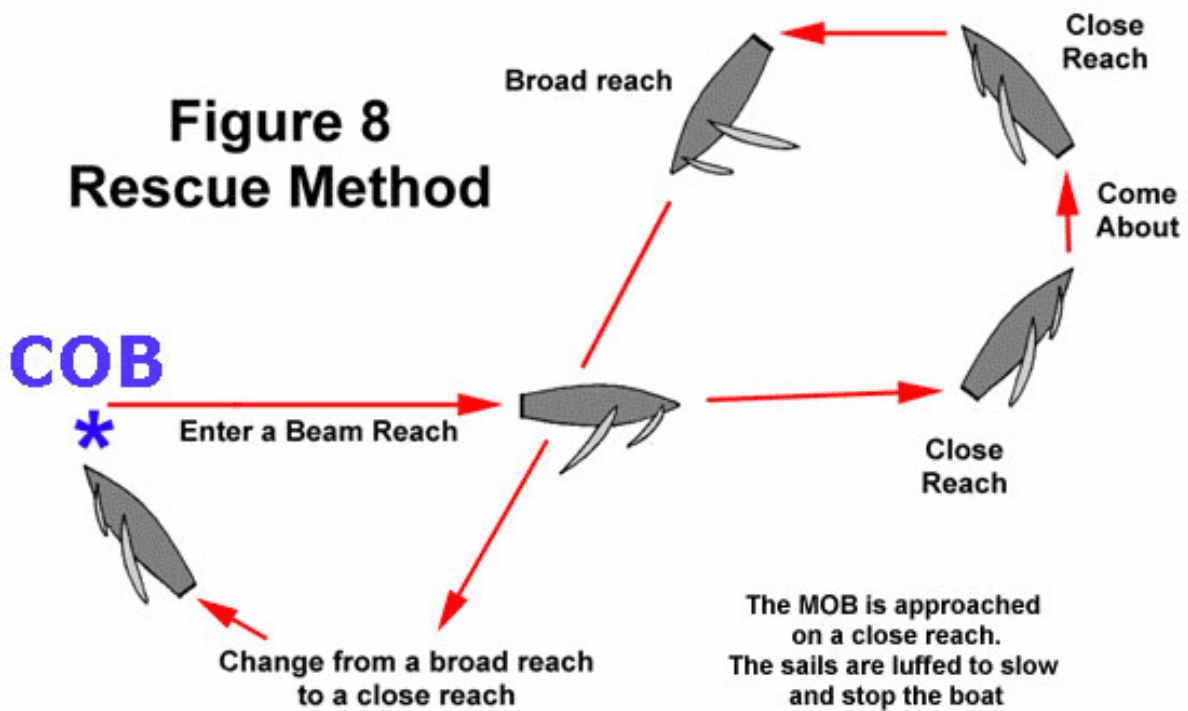


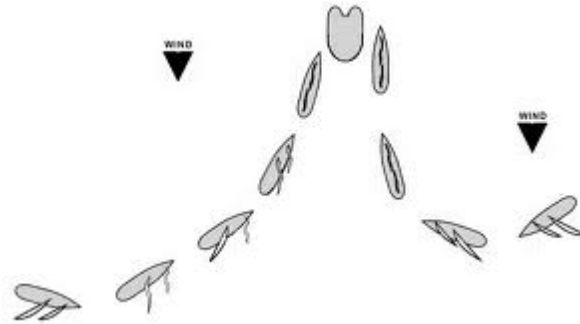
Illustration courtesy www.cal-sailing.org

If someone falls into the water, here is what to do:

- 1.) **Remain calm.** You and your crew will be better able to safely return to pick the person up if no one panics.
- 2.) **Throw** the person a cushion or a life ring.
- 3.) **Assign** a crew member to continually watch the person and keep track of their whereabouts.
- 4.) Sail on a **beam reach** course 2-3 boat-lengths away from the person.
- 5.) **Jibe** the boat and return **downwind** of the person while on a beam reach.
- 6.) **Release the jib sheet** and use the sail as a wind indicator. When the luffing jib point toward the person, **make a sharp turn directly into the wind** and come to a stop **alongside** the person. Help them back into the boat.

Session 4: Docking and Mooring Practice and General Review

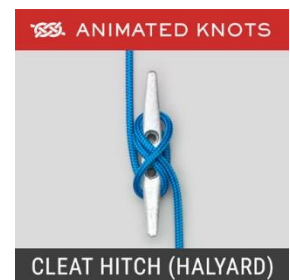
We approach a mooring or dock from a downwind position, similar to what we practiced with the Person In Water drills. You will probably spend more time approaching moorings at BHM since our dock is often crowded. The key to successfully docking and mooring is to **always have a backup plan** if things aren't happening as you had hoped. **There is never an excuse for crashing into the dock.**



There are two ways to dock your boat, on the windward side and the leeward side. The most common is the leeward side approach. You must know the momentum your boat will carry so you can judge how far to be downwind before you turn into the wind and approach the dock. Ideally the boat comes to a stop one foot from the dock or mooring ball. If you need to dock on the windward side of a dock, you can only do this with your sail down. Sail to a point directly upwind of your dock and turn into irons. Drop your mainsail completely and backwind your jib to turn the bow towards the dock. Finally drop your jib and allow the wind to push the boat gently to the dock.

Knot Tying for Sailors

[This website \(https://www.animatedknots.com/boating-knots\)](https://www.animatedknots.com/boating-knots) demonstrates the most commonly used knots in sailing. You won't use everyone each day, however they all serve a purpose and each one will prove invaluable at some point in a weeklong voyage. The knots are listed in their approximate order of usefulness.



Bowline: The bowline almost defines sailing because of its versatility, usefulness, and strength. Since it's a popular knot there are many ways to tie it but you only need to know one.

Figure 8: This is the knot to tie in the end of a sheet or other line as a stopper. This prevents the line from running out through a block or line locker and escaping from you.

Cleat Hitch: This knot has one and only purpose but that is a mighty one: securing a line to a cleat. Usually best to wrap at further end of cleat first then finish knot with bitter end on your side of the cleat.

Next Steps

Becoming a proficient sailor takes time. With enough patience and practice, sailing can become a lifelong sport. If you don't have someone to sail with, check with the marina manager to see if he/she can help pair you with other beginner sailors.

In the beginning it is suggested that new sailors practice when the wind is less than 12 mph. We caution that you might shake up your confidence by going out on a gusty day too soon. **When in doubt, don't go out.**

We also caution you from rushing out and buying a sailboat before you are knowledgeable about different boats on the market. By renting different boats, you can find out what you like or dislike about each. Boat shows are a great resource to see the amenities that each type of boat offers. We would be happy to give you our thoughts on which boats are sound investments.

As your abilities and confidence improve, you might want to transfer your skills to larger cruising boats. The larger the boat, the easier they are to sail! You may also want to try smaller, faster, racing-type boats. Check with the marina manager for more information on advanced sailing lessons. These course build on your sailing skills and concentrates on navigation, docking skills, and anchoring techniques.

Congratulations on completing your course!



Photo by Anne Charboneau

Glossary

Accidental Jibe: an accidental jibe happens when the boat is steered or the wind shifts such that the stern of the boat accidentally passes through the eye of the wind. This causes that main boom to swing violently to the other side of the boat

Battens: flexible strips of wood or plastic, most commonly used in the mainsail to support the aft portion, or roach, so that it will not curl

Bitter End: the last part or loose end of a rope or cable

Blocks: pulleys

Boom: the spar to which the foot of the mainsail is attached

Bow: the front end of the boat

Cast Off: to unfasten or untie a boat or a line

Centerboard Boat/Centerboarder: a boat with a retractable fin that protrudes from the bottom of the hull. The centerboard keeps the boat stable and on course

Cleated off: to secure a rope to a cleat

Clew: bottom back corner of sail

Controlled Jibe: slow downwind turn

Daysailor: a small sailboat without sleeping accommodations

Downwind Turns: turning the boat away from the direction of the wind until the sail changes sides

Ease/Easing: to let out, as in ease a sheet

Fairleads: eyes or blocks that guide lines in a desired direction. Usually they are used for mainsheets and jibsheet on R/C sailboats

Fall off the Wind: to change the direction of sail so as to point in a direction that is more downwind

Flying Jibe: when the main sail and the jibe are on opposite sides; the boat is turned so that the main sail comes across and is on the same side as the jibe

Foot: bottom edge of sail

Forestay: the wire (cable) that supports the mast from the bow or tip of jib club and prevents the top of the mast from moving aft

Halyards: lines or wire rope used to hoist (or tie) the sails (to the top) of the mast

Heeled/Heeled Over: the lean caused by the wind's force on the sails of a sailing vessel

Jib Halyard: lines or wire rope used to hoist or tie the triangular staysail at the front of the ship (jib) to the mast

Jib Sail/Sheet: a triangular staysail at the front of a ship

Jibing/Gybing: to change from one tack to the other away from the wind, with the stern of the vessel turning through the wind

Leeward: the side of the boat the wind is going towards; the side away from the wind

Luff: forward edge of sail

Luffing: the fluttering of a sail when a boat is pointed too close to the wind or the sail is eased out too far

Main Sail: the principal sail on a boat

Mast: the large vertical spar that supports the sail and boom

Moor/Mooring:

1. to attach a boat to a mooring buoy or post
2. to dock a ship
3. to secure a vessel with a cable or anchor

Outhaul: a line used to control the shape of a sail

Port: left side of the boat when facing the bow

Port Tack: when the wind is blowing from the Port side of the boat (Port is the windward side)

Reach: a point of sail from about 60° to about 160° off the wind. Reaching consists of "close reaching" (about 60° to 80°), "beam reaching" (about 90°) and "broad reaching" (about 120° to 160°)

Rig a Boat/Rigging: system of masts and lines on ships and other sailing vessels

Run: traveling straight downwind

Shoaling: the act of an area of the waterway filling in and becoming shallower over time

Shrouds: standing rigging running from a mast to the sides of a ships

Skipper: the captain of a ship

Slues: a mast rotating at its base

Starboard: right side of the boat when facing the bow

Stern: the back end of the boat

Starboard Tack: when the wind is blowing from the Starboard side of the boat (Starboard is the windward side)

Tack Pin: *also known as belaying pin*; a pin around which ropes are secured to make them fast

Tacking/Coming About:

1. Zig-zagging so as to sail directly towards the wind (and for some rigs also away from it)
2. Another name for going about.

Turn up: maneuvering the boat toward the wind

Trimmed: pulling the sail in

Windward: the side of the boat the wind is coming from

Port or Starboard, Windward or Leeward?

The following are terms you will use when sailing:

Windward: The side of the boat that the wind is coming from.

Leeward: The side of the boat away from the wind.

Starboard tack: When the wind comes from the right side of the boat, it blows over the starboard side of the boat

Port tack: When the wind comes from the left side, you are on a port tack.

The reason you need to know the tack you are sailing on is because **starboard tack boats** have right of way over **port tack boats**.

