

YMCA Camp Fuller Sailing Association

Intermediate Sailing Guide

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The intermediate sailing program at Camp Fuller is designed to bridge the gap between the beginner program, which introduces sailors to basic concepts and methods of sailing, and the advanced program, which prepares sailors for emergency procedures and racing technique. The emphasis in the intermediate program is on the *practice* of sailing. Instructors will keep a close eye on sailors looking to pass into the advanced program, where they will sail without an instructor. The intermediate sailor is expected to have basic mastery of many methods of sailing, including tacking, gybing, and holding a straight course on all points of sail. The intermediate sailor will learn mooring, docking, and man overboard procedures, and are expected to have comfortable knowledge of the function of all functioning parts of a small dinghy.

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PARTS OF THE BOAT

Chock - metal fitting on the bow that leads the painter to a cleat or mooring and prevents damaging the painter from friction

Gooseneck - metal swivel fitting which attaches the boom to the mast

Traveler system - pulley system by which the mainsheet is attached to the boom

Cockpit - seating area in the boat

Bowdeck - part of the boat forward of the cockpit and mast

Fairlead - circular fitting through which the jib sheets are passed, leading them into the cockpit

Camcleat - piece through which the jib and mainsheets are passed which holds them in place after being hauled in

Shackle - horseshoe-shaped metal piece used to attach sails, shrouds, etc

Grommets - metal loops sewn into the corners of the sail

Boltrope – line sewn into the luff of the mainsail which is fed into the groove of the mast when uphauling

Belly – lower, curved area of the sail, fat with air

Mast step – the piece attaching the bottom of the mast to the hull

Mast tang – fitting at the top of the mast to which the shrouds and forestay are attached

Mast track – slot on the aft side of the mast into which the luff of the mainsail slides

Jib hanks – clips that attach the luff of the jib to the forestay

Centerboard trunk – structure that houses the centerboard when it is raised

Batten pockets – sleeves sewn into leech of the mainsail that house battens

Hiking strap – foothold secured to centerboard trunk allowing the crew to lean weight over the windward side to flatten the boat

Trucks – pulley at the top of the mast through which the main halyard passes

Telltails – short strings or ribbons attached to the upper belly of the jib which determine whether the jib is trimmed appropriately to your course

Cunningham – line used to tighten the luff of the main sail

Outhaul – line used to attach and tighten the clew of the mainsail

Tack Pin – pin used to secure the tack of the mainsail to the boom.

Transom – surface that forms the stern of the vessel, on which the rudder is mounted

Gunnel – top edge of the hull that runs all the way around the cockpit and bowdeck

Boom vang – pulley system attached to the boom and the mast, used to keep the boom down when sailing downwind

RIGGING PROCEDURE

Moored Boats:

1. Lower centerboard
2. Attach jib
3. Attach main
4. Raise the jib
5. Raise the main
6. Coil lines
7. Cast off

Beached Boats:

1. Attach and raise jib
2. Attach main, raise to first batten
3. Launch boat return dolly
4. One person holds onto forestay
5. Raise the main
6. Coil lines
7. Cast off
8. Lower centerboard and rudder

TACKING/GYBING

The intermediate sailor is expected to be familiar with the procedure for tacking and gybing. If you are unfamiliar with the basics of tacking and/or gybing, consult the beginner packet for visual aid. While tacking, remember to come about from one tack to another – do not stop in irons and do not head down onto a reach. Similarly, always gybe from one broad reach to another, or while maintaining your course on a run. Be sure not to over-gybe, as this is where many capsizes occur in dinghy sailing. Some pointers for tacking and gybing:

1. The tiller is your life stick. Always keep a firm hold on the tiller, even when changing hands. NEVER let go.
2. When changing sides in the boat, always remain facing forward. Duck down under the boom, in front of the tiller, and switch the tiller into your other hand behind your back.
3. Do not switch sides until the boat has crossed the wind, as doing so could cause your boat to capsize.

DOCKING PROCEDURE

The docking procedure is much the same as the mooring procedure. Rather than aiming for a mooring, however, you are now aiming for a particular point on the dock, preferably a cleat.

Pointers for docking: Here it is essential to be conservative, as docks are far less forgiving than mooring balls. Aim at *least* three boat lengths away to begin with. If, after turning into the wind you find you are moving too fast, again push the tiller to leeward, come about, and try again.

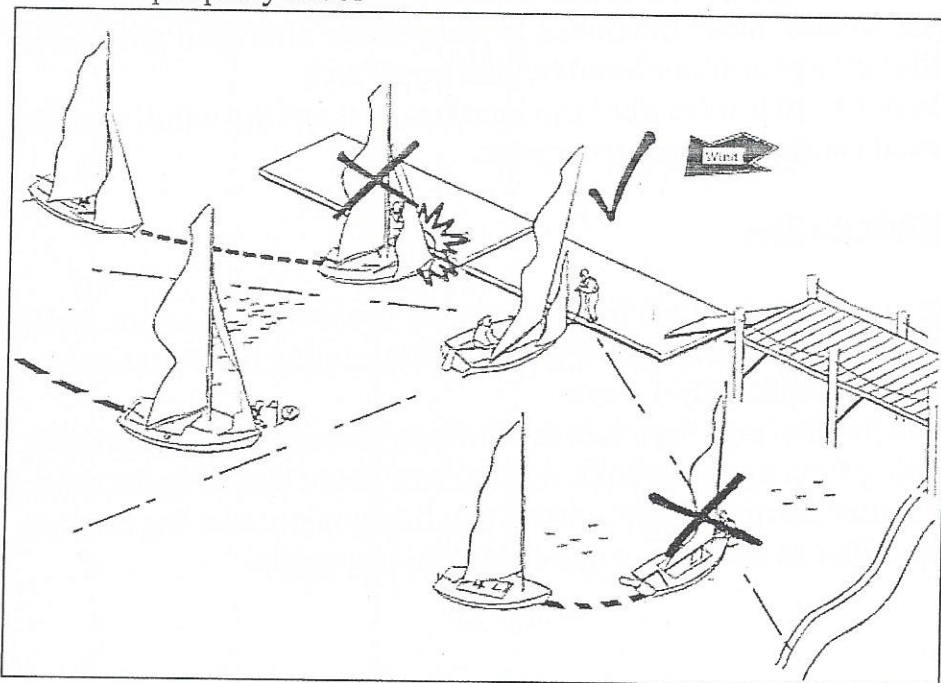
MOORING PROCEDURE

The ability to successfully moor a boat is essential for proper and safe sailing. The end-goal of a mooring procedure is a boat slowly approaching the mooring ball in irons. The momentum of the boat from your previous course will carry it to the mooring as the wind simultaneously pushes the boat back down to slow it down, hopefully coming to a perfect stop at the mooring. The following steps offer a guide to completing a mooring, though the practical ability to moor a boat will also aid in understanding. The steps:

1. Head into the mooring area on a reach
2. Aim the boat two to three boat lengths downwind of the mooring (the heavier the wind, the closer you want to be to the mooring).
3. As you approach the mooring, luff the jib to reduce some of the momentum of the boat.
4. When your boat is directly downwind of the mooring ball (an arm extended straight upwind points directly to the mooring ball), push hard to leeward and pivot the boat 90 degrees, directly into the wind. Be sure to recover the tiller to the center of the boat to remain in irons. Aim toward the mooring as your boat drifts forward, as a crewmember catches the mooring and ties a bowline with the painter.

Pointers for mooring:

1. It is always better to be conservative. Miss the mooring and try again, rather than run it over.
2. You must always be moving directly into the wind to properly moor

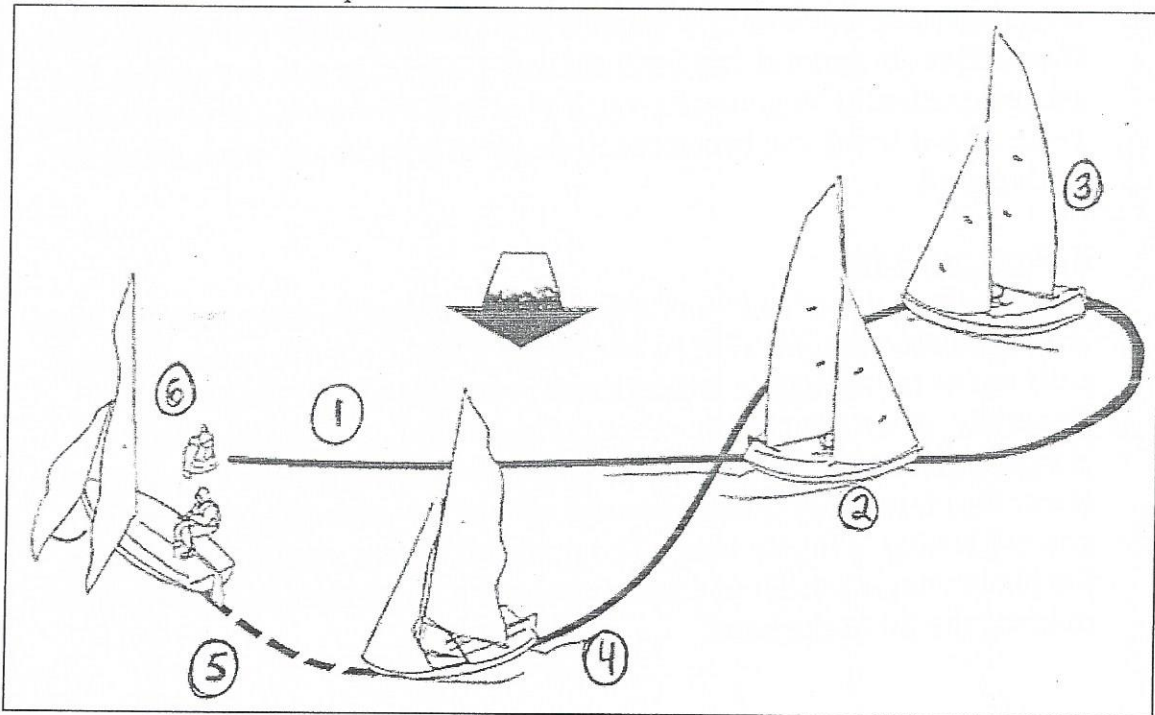


Docking (pictured above) and mooring, though different, utilize the same technique of approaching on a reach and pivoting into the wind to approach the target (dock/mooring ball) slowly in irons.

MAN-OVERBOARD PROCEDURE

The object of a man-overboard procedure is to safely rescue someone who has fallen overboard. While a person could fall overboard on any point of sail, we will assume in these steps the incident occurred while on a reach, where man-overboards frequently occur. The steps:

1. Yell "man-overboard" to alert other crew-members
2. Continue sailing four to six boatlengths
3. Head upwind and tack
4. Head down to cross over your wake
5. Head up onto a tack to return to the man overboard, luffing your sails in **safety position***
6. Stop your boat leeward of the man overboard, and pull him or her into the cockpit over the stern of the boat



*Safety position (#6): a way to take a break from active sailing, with the boat in a close reach direction and the sails let out all the way to spill the wind

CAPSIZING PROCEDURE (SCOOP METHOD)

1. Count heads
2. Uncleat all sheets
3. Scooper moves around the boat to the centerboard
4. Send crew member to top of mast to prevent "turtleing"
5. Pivot boat into irons, crew returns to cockpit for scooping
6. Scooper puts weight on centerboard as scoopees grab hiking straps
7. Right boat, pulling scoopee(s) and scooper into the cockpit

POINTS OF SAIL AND SAIL TRIM

Sailing on a tack

When sailing on a tack (aka 'close hauled') you are sailing as close to the wind as possible without heading into irons or pinching (heading too close to the wind). On any of our boats, you will be sailing about 40° to 50° from irons. While sailing on a tack, generally pull the jib sheet in as tight as possible. Then, head up until the jib begins to luff just a bit (pinching). Ideally, when sailing on a tack, your telltales are flying parallel to one another and your boat is flat (the groove).

Sailing on a Reach

If you are sailing on a reach, your boat is sailing across the wind at an angle between 50° and 170° from irons. The reach is farther off the wind than a tack (in general, the farther away from irons you are sailing, the more you should let your sails out). Your sail trim will vary from a close reach (most trim) to a broad reach (least trim), a beam reach being 90° to the wind.

Sailing on a Run

A run is the point of sail where the boat is moving directly with the wind. Here, you are heading 170° to 180° from irons. On a run you want your sails out as far as it goes, letting them grow fat with air (big belly). Generally, when your boom reaches the shroud, your mainsail is properly trimmed. Sailing 180° from the wind puts you on a 'dead run'. Here, the jib may fall to the opposite side of the mainsail, in which case you are sailing 'wing on wing'. The mainsail here is stealing wind from the jib, leaving a pocket of dead air behind it. Trim the opposite jib sheet to bring the jib to the wind.