



The Basics of Dingy Racing at the Kanata Sailing Club

During the summer months, the KSC runs races twice weekly. Monday Nights is the “competitive” race series where we keep score, and serious bragging rights are on the line. Wednesday Nights is for “social” racers who just want to get out and have fun sailing. This document is a brief introduction to racing at the KSC for both Monday and Wednesday nighters. It includes some basic explanations of rules and tactics, but is far from exhaustive.

This document was originally written in 1995 by GodKnowsWho and was updated in 2007 by Mike & Colette Thompson.

The Basics

Club races are normally held on a modified Olympic course, shown in Figure 1, which consists of a triangle sailed counter-clockwise (“buoys to port”), followed by a second beat to windward and a final run. These last two legs are often referred to as the “sausage”. The start and finish is an imaginary line between the leeward mark and the Race Committee boat. The ‘race committee’, or RC, is one or two club members who volunteer to be responsible for the night’s racing. They set out the marks, govern the running of the race, and provide the drinks & BBQ afterwards. Every regular racer is strongly encouraged to take a turn on the race committee.

Sailing is different than other kinds of racing – it is difficult to get sail boats to sit at a standstill on the start line and then all start at the same time. Instead, there is a three minute countdown - called out by a set of visual and audible cues – that define the “start sequence”. Your boat must cross the start line after the completion of the start sequence. Ideally you will cross the start line at full speed, a split second after the start. This is easier said than done, especially when you consider that every other boat in the race is trying to do the same thing.

The race ends when you cross the finish line. In the modified course used by the KSC, the start and finish lines are the same. You cross the start line heading to windward and cross the finish in the opposite direction, heading down wind.

In the event that the wind has shifted dramatically since the race committee set the course (but before the start of the race), boats may be instructed to sail “buoys to starboard” – that is, the course will be sailed in a clockwise direction. On other occasions (generally due to too much or too little wind) the course may be shortened by sailing fewer legs than normal.

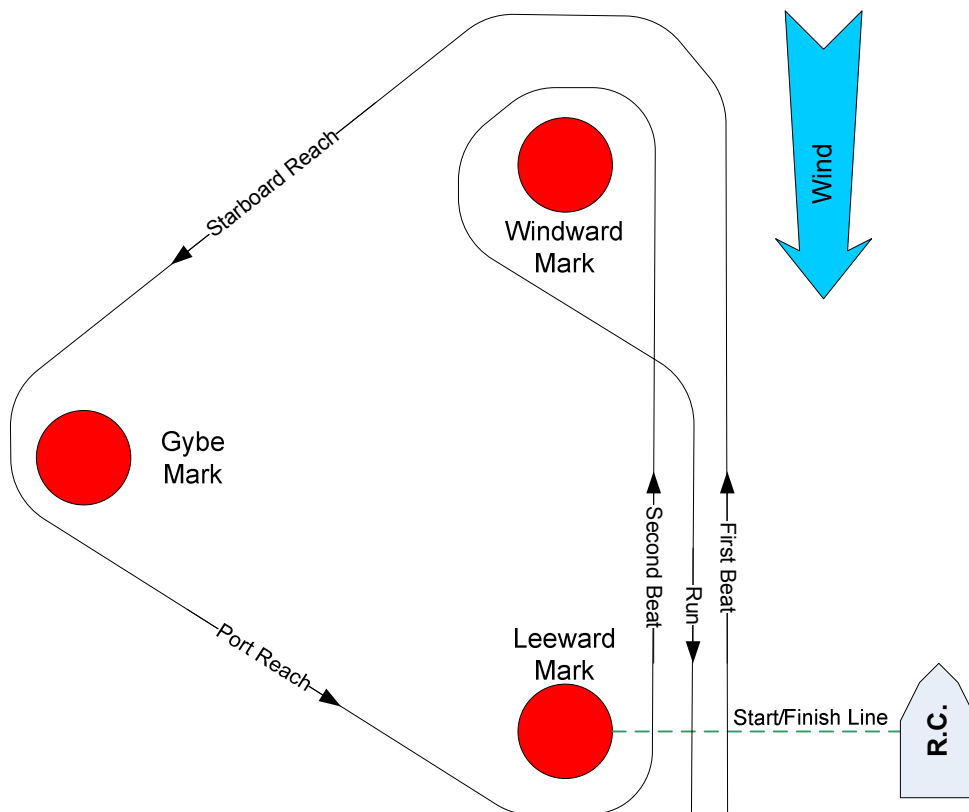


Figure 1: Typical Sailing Course at the KSC

Right-of-Way Rules

Generally speaking, normal right-of-way rules apply when racing. In case you've forgotten them from your white-sail (blue-tag) training, they are (in order):

- (1) a boat on port tack must give way to a boat on starboard tack,
- (2) a windward boat must give way to a leeward boat, and
- (3) an overtaking boat must give way to the boat being overtaken.

Other right-of-way rules specific to racing will be explained as they arise below. At all times, however, there are two fundamental obligations that carry more weight than other right-of-way rules. These are:

- (1) You must give another boat room to avoid an obstruction (overturned dinghies are common obstructions on our course), and
- (2) If you can avoid a collision that would damage the boats, you must do so.

In the event that you violate someone's right-of-way and cause a collision with another boat, don't panic. You can clear yourself of the violation by performing a '720' (ie: turn

the boat around twice in quick succession). The 720 must be performed before finishing the race, and in such a way that it does not obstruct other competitors.

The course marks (buoys) are a special obstruction on the course – you must not strike a mark with *any* part of the boat. The penalty for striking a mark is to perform a ‘360’ (ie: a single circle), and you must do it as soon as you get clear. Just to confuse things, if you hit a mark *and* hit another boat at the same time, the penalty is a ‘720’ (you don’t have to do the additional 360 for hitting the mark).

Beware of boats calling for right-of-way. They may be bluffing (or may be wrong even if they think they’re right). Acknowledge the hail, but hold your course if you think that you have the right to do so. Good knowledge of the rules is a tactical weapon! If there is a disagreement between two boats regarding a rules infraction, the skippers have two options: they can ignore the infraction, or (discouraged) they can raise a protest to the race committee after the race.

Now to the course in detail . . .

The Start

At the KSC we use a 3-minute starting sequence. This is as follows:

- Before the start, the committee boat (containing the members of race committee) will be positioned at one end of the starting line, and will be flying the R.C. flag.
- At 3 minutes to go, the white warning flag will be raised and there will be a short blast of the horn (the flag signal takes precedence over the sound signal).
- At 2 minutes to go the blue prep flag will be raised and there will be a short blast of the horn.
- At 1 minute to go the blue prep flag will be lowered and there will be a short blast of the horn.
- At the start, the white warning flag will be lowered and there will be a single long blast of the horn.

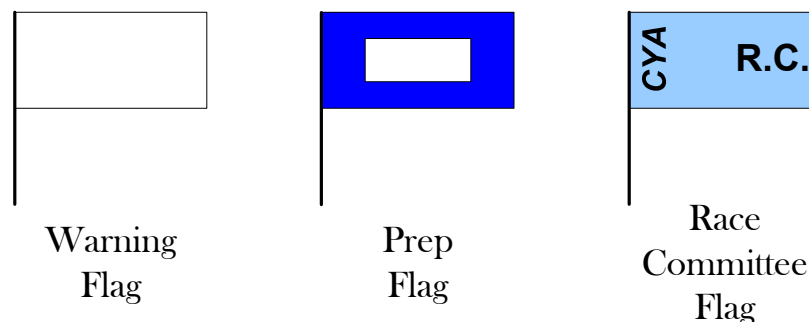


Figure 2: Flags used in the Start Sequence

If a competitor crosses the start line early, they will be called back (the race committee will call out the sail number) and the boat must recross the start line. It must not interfere with other boats while doing so. If several boats cross the line early, there will be a general recall and the start sequence will begin again.

The start can be a very chaotic period, as boats are sailing around seemingly at random. Right-of-way rules do apply during this period, however, so be careful of collision.

Start-line Tactics

Ideally, you want to be crossing the start line at top speed at the moment the start is signalled. It doesn't always work out that way, however. Some of the more popular methods of starting that you might see are:

- (1) A very popular technique is to sail on a reach, back-and-forth, parallel to the start line, then go to close-hauled and cross the line just as the start is signalled. **Warning** – be careful of another boat luffing up and forcing you over the line early (luffing rights are explained below).
- (2) Sail on a close-hauled course at top speed, timed so that you'll cross the line just as the start is signalled. Use the pre-start period to time where you should be starting this manoeuvre. Be careful that you don't cross the line early (or very late).
- (3) Sit in irons just below the start line, and then get moving just prior to the start signal. This isn't a bad tactic in a fast-accelerating boat like a laser, since even if you don't reach top speed, you'll at least be quite close to the line at the start.

Other points to consider are:

- Starting on the starboard tack gives you right-of-way over everyone on port tack.
- If the windward leg isn't dead upwind, or if the starting line isn't quite perpendicular to the wind direction, then one side of the start line may be favoured over the other. Use the time before the start to determine this (or just watch what everybody else is doing, but don't get caught in the bad air behind them).

OK, so now the race has started and you, and everyone else, are heading upwind (beating)...

The Beat

Much of your time spent racing will be on the two beating legs. Maintain a close-hauled course, tacking as necessary, until you can round the windward mark. In a steady wind it may be advantageous to complete the beating leg by going far out on each tack (fewer tacks = less time lost while tacking). But if the wind is shifty, a safer strategy is to tack more often, staying near the centre of the course; if the wind 'heads' on you (shifts away from the direction you want to be going) when you're far off the course, you can end up sailing much further than necessary! Watch for wind shifts you can take advantage of, and try to evaluate which tack may be favourable. In light wind conditions you may also wish to consider the effect of the river current in your strategy.

These are some of the reasons you may use for deciding when to tack while on the beat to the windward mark:

- (1) If the wind 'heads' on you.
- (2) If you're on port tack and in danger of colliding with a boat on starboard tack (alternatively, you can steer a course that ducks you below them).
- (3) If it will take you into clear air (away from a crowd of boats in front of you).
- (4) If you've reach the 'lay line' (the imaginary line a close hauled boat would sail on to just hit the windward mark).
- (5) If everyone else is tacking, it's probably a good idea (then again, maybe they're all wrong).

Luffing Rights

Generally speaking, a leeward boat has right-of-way over a windward boat. This means that a leeward boat can make itself very annoying to you if you're trying to pass it, by 'luffing up' into the wind (on the beat this would mean sailing higher than close-hauled). This puts it into a position where you would collide with it if you continued your present course (especially if you are slightly overlapped). Thus, you too are forced to luff up as well. The leeward boat is hoping this will slow you down so that you cannot overtake it. However, if you reach a position known as 'mast abeam' you may hail "mast abeam" to the other skipper and at that point the leeward boat loses its luffing rights. To determine if 'mast abeam' exists, imagine a line running through the mast of the leeward boat perpendicular to its centreline. If the windward boat's helmsman is forward of this line, then the windward boat has 'mast abeam'. This is illustrated in Figure 3.

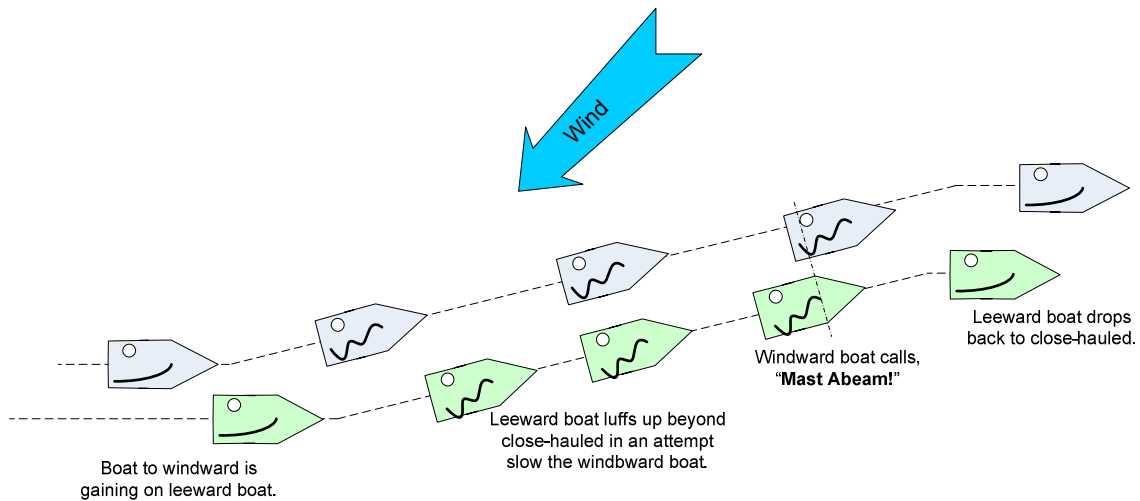


Figure 3: Luffing Rights and Mast Abeam

Rounding the Windward Mark

On most occasions, rounding the windward mark is uneventful. You simply fall off onto a reach, being careful not to hit the mark with the boat while rounding. If coming up to the mark while on a port tack, you must keep an eye out for any boat coming in on starboard.

Whether you are on a port or starboard tack, there are times when a boat can ask ‘for room’ or ‘for water’ when rounding the mark beside you. This is when the other boat is asking for you to give it enough room to round between your boat and the mark. You only have to give this room if the other boat has established an inside overlap at two boat lengths from the mark. This is shown in Figure 4.

Recall that a typical course is sailed counter-clockwise or buoys to port. If for some reason you pass by on the wrong side of the mark (typically the wrong side is buoy to starboard), you must ‘unwind’ and then round the mark correctly. This is illustrated in Figure 5.

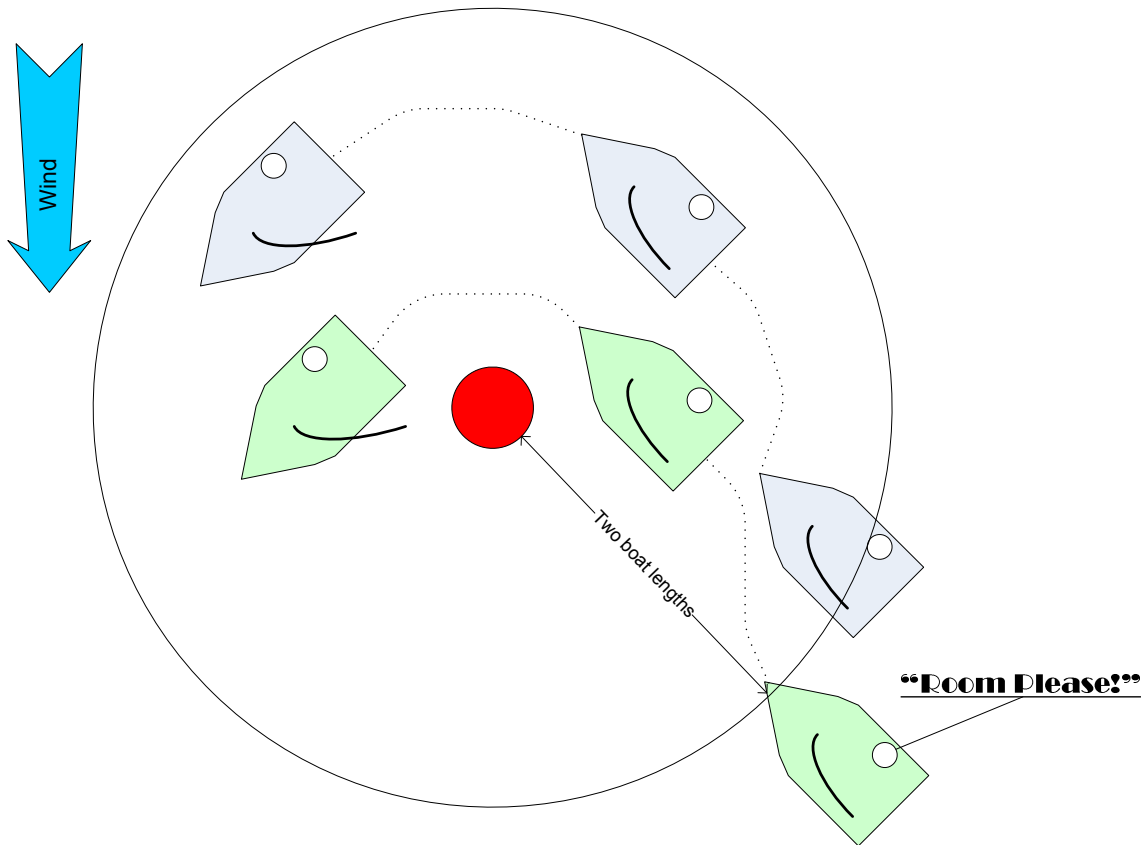


Figure 4: Hailing for 'Room' or 'Water' at the Windward Mark

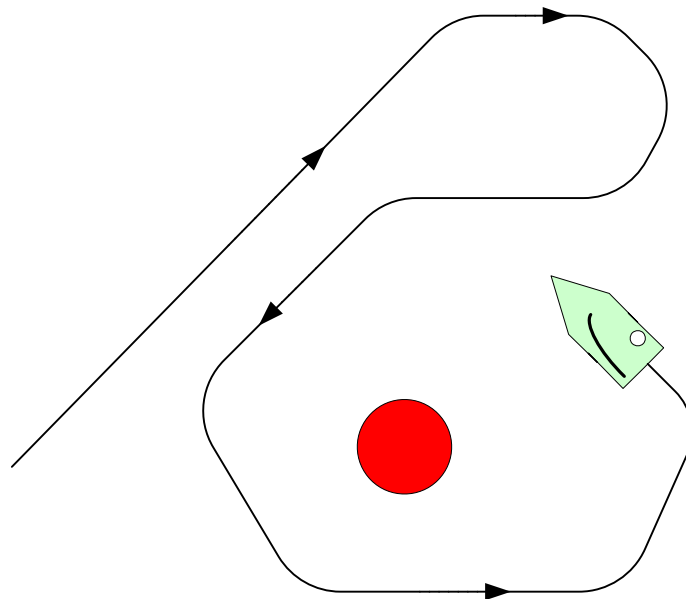


Figure 5: Unwinding after Rounding on the Wrong Side

The Reaches

The two reaching legs of the course are where you'll be attaining your highest speeds. They are less tricky to sail than the beating legs, but you do have one or two things to watch out for. When on the reach a boat can come up behind you, blanketing you with its 'wind shadow' (ie: it gets clean wind from behind it, but you get the mess that swirls around its sails). Thus the reach is often where passing takes place.

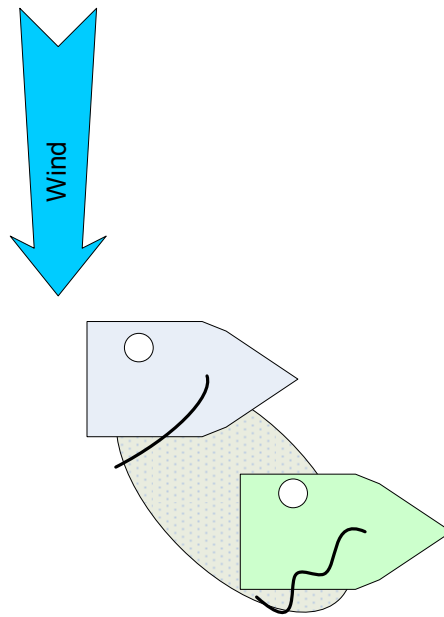


Figure 6: The effect of Wind Shadow

Bear in mind, however, that the same right-of-way rules apply here as do on the beat. Therefore, if a boat is attempting to pass to your outside, you can make yourself annoying to it by 'luffing up', at least until the other boat attains the mast abeam position. Luffing can be quite an effective tactic on the reach.

The Gybe Mark

The gybe mark can be tricky. In high winds, capsizes or broaches are not uncommon. If fearful of gybing in strong conditions, you can always sail clear and then tack the boat around.

On the other hand, rounding the gybe mark presents another passing opportunity. As shown in Figure 7, if you can attain a slight inside overlap with the boat ahead (at two boat lengths from the mark), you can hail for room and then scoot around the mark inside of your competitor.

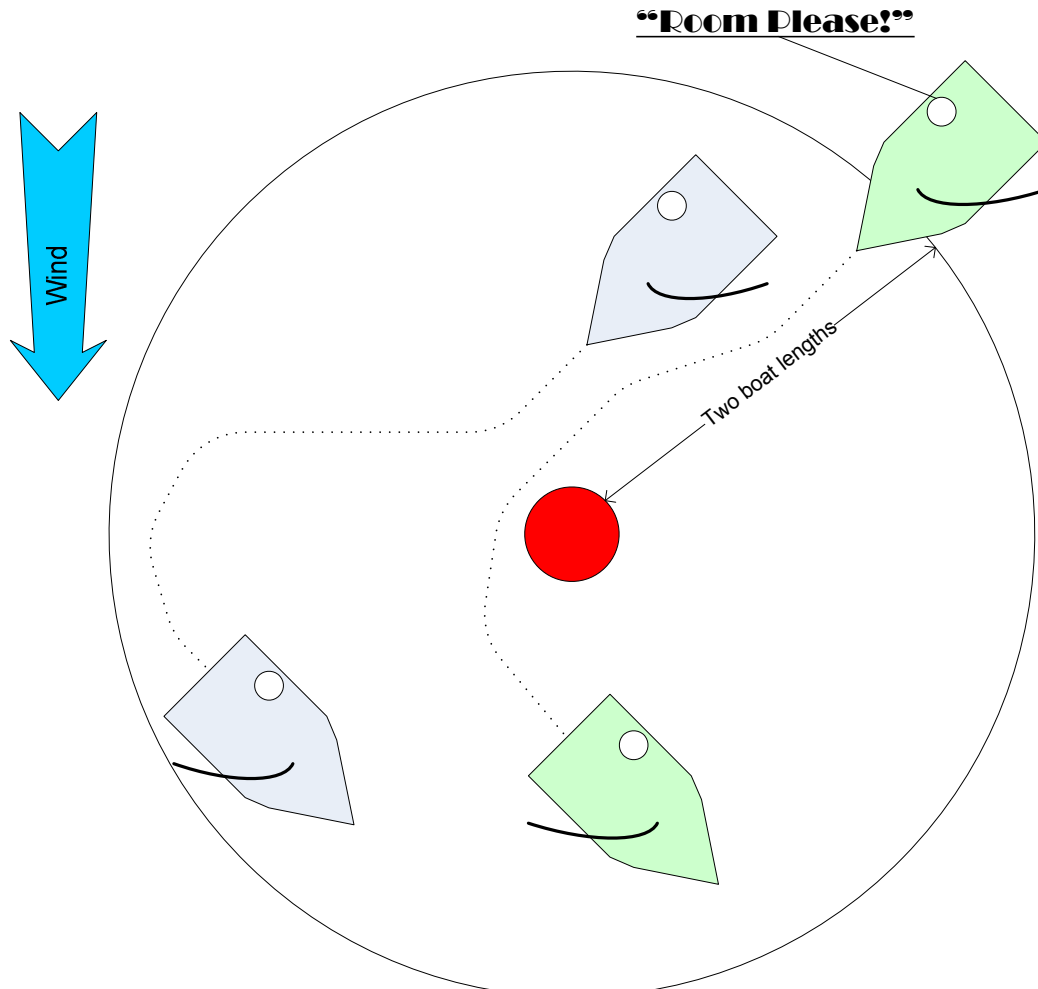


Figure 7: Passing at the Gybe Mark by calling for 'Room'

The Run

The running leg is much like the reaching legs, with boats from the rear able to blanket the wind of those ahead of them. One point to remember on this leg is that, on a dead run, a boat may choose to have its boom swung out on either side of the boat. So bear in mind that port tack / starboard tack right-of-way rules may come into play on this leg, even if all boats are heading in the same direction.

The Finish

The moment part of your boat (normally the bow) crosses between the leeward mark and the committee boat, your finishing position will be noted. You have not finished racing, however, until your boat is completely across the line. So normal racing rules continue to apply. If you have the misfortune to hit the mark when crossing, you just 'unfinished' yourself, and must do a '360' and recross the line.

Scoring

The first boat to finish is granted 1 point, the second boat 2 points, the third boat 3 points, and so on. Boats that did not finish (DNF) or did not start (DNS – they were in the vicinity of the start but did not cross the line) are given points equal to the number of competitors plus 1. During a race series, you are often able to ‘throw out’ one or more of your worst finishes; the number of throw outs varies according to the race series.

If a race is abandoned (normally only because of severe weather), no points will be awarded and all competitors should sail straight back to the club.

The winner of a race series is the boat with the lowest total score for the event.

Après Sail

After a great evening of racing, all the sailors gather on the Clubhouse deck, where we each regale one another with tales of our sailing prowess – or lack therefore. Traditionally, the Race Committee for the evening will be tasked with serving up a few beverages and food from the BBQ. Please remember to chip-in a couple of dollars for each burger/sausage/etc and each drink you enjoy. It is considered very poor form to stiff the R.C. – remember, you’ll be expected to be R.C. one evening!

Finishing Thoughts

Now that you’ve read about the basics, its time to get out there. The best way to really learn to race is to get out on the water and participate. Even if you aren’t the competitive type, “getting into racing” is a great way to get the most from your KSC membership. Participation in racing has many benefits, including:

- It’s a regularly scheduled event. You can negotiate with your spouse/kids/boss to ensure you’ll have the free time each week. Since you know people will be at the Club, you’ll always get in a sail.
- It’s a great way to get to know other sailors at the Club.
- It’s the best way to improve your sailing skills.
- *It’s fun!*

THE RACE COMMITTEE

General Duties

The race committee is responsible for running a race or set of races. This may include:

- setting out the marks
- administering the start and finish of the race, and recording the results
- supplying post-race food and beverages (very important!)

Although this sounds like a lot of work, it's really not that bad. This is a cooperative club, so if everyone takes their turn once during the season the work will be shared fairly. If it weren't for race committee volunteers, there would be no club racing.

Before Leaving the Beach

Prepare the patrol boat with gas, the safety box, race flags, etc. Gas, the safety box, and the patrol boat anchor are generally found in the lock box on the beach. Race flags, the marks (and anchors) are stored in the workshop. The air horn should be found in the safety box. Don't forget to take something to write down the race results with.

For Monday Night Racing, the "skipper's meeting" should be held at 6PM sharp. Hold the boat draw, and ensure that everyone present at the time of the draw gets out on the water (even if it requires putting 3 people in an Albacore).

For Wednesday Night Racing, there typically is no boat draw, so boats are first come first serve. On Wednesday's there may be a number of people who arrive with no skipper or crew. Please do what you can to ensure that *everyone* gets out on the water.

Setting the Course

The important thing to keep in mind when setting the race course is don't worry! Some race committees spend a great deal of time getting the course set 'just right' with the net result that there is less time left for actually racing. One method of setting up an Olympic course is as follows: Set the windward mark first. Set it far enough out into the river to ensure that the race course will get the best of whatever wind is available. Next drive the patrol boat dead downwind to set the leeward mark. When you think you're approximately downwind from the windward mark, stop the patrol boat and use the race committee flag as a guide to the wind direction. When you can sight along the flag and see the windward mark, then you're in about the right location. The distance between the windward and leeward marks should be set according to how strong the wind is – have this distance greater in a strong wind and shorter in a light wind. You are attempting to set a course that will take about 25 minutes to complete. The gybe mark should be set next – drive out from the leeward mark at a 45 degree angle to the wind. When you are an equal distance from both the leeward and windward marks, you're in the right position to set the gybe mark. Now go back to the leeward mark and anchor the patrol boat to

create the starting line. The starting line should be at 90 degrees to the wind, with the distance between the mark and the patrol boat equal to 150% of the length of all of the boats that will be racing. In other words, set a short starting line if only a few boats are racing, and set it longer if there's a large turnout. The leeward mark should be set to port of the patrol boat.

The Start Sequence

The start sequence is outline earlier in this document. It is usually a good idea to review the sequence at the skipper's meeting, particularly early in the season. While waiting for the boats to get into the general area of the starting line, fly the Race Committee flag.

The Race

After the start, there really isn't too much to do. Enjoy the show! You'll probably pick up a few tips just by watching the race.

A boat is 'finished' when its bow crosses your line of sight to the leeward mark. Give a blast on the horn as each boat crosses the line, and record the sail number and finishing position. Stay at the finish line until all boats have completed the race.

Last Race & Clean Up

Try to end the last race about 30 minutes before the sun goes down. You want to ensure that the sail boats can get back to shore and put to bed before it gets too dark. While the boats are heading in, you can take the marks out of the water, head for shore and put everything away (be sure to lock it up). While the sail boats are taking the sails down you'll have lots of time to get the BBQ running.