

Start Racing

These are some introductory notes covering the content of the course taken from the start racing syllabus. All you need to know to pass the course will be talked about or demonstrated on the course, this sheet gives some extra detail and links for further learning. You don't have to have read the sheet, or have followed any of the links before the course but it may help bring out some questions during the course.

Course Plan

The course will be a mixture of shore based briefings and on the water exercises. There will be a mix of exercises to practise some aspects of racing. This could be boat handling, boat speed, starting etc. I will try to tailor it to the group's experience and make it as fun as possible. On Sunday the plan would be for more exercises in the morning and then for you to join the club race in the afternoon with a debrief after the racing. I will be on the water during the race doing some on the water coaching.

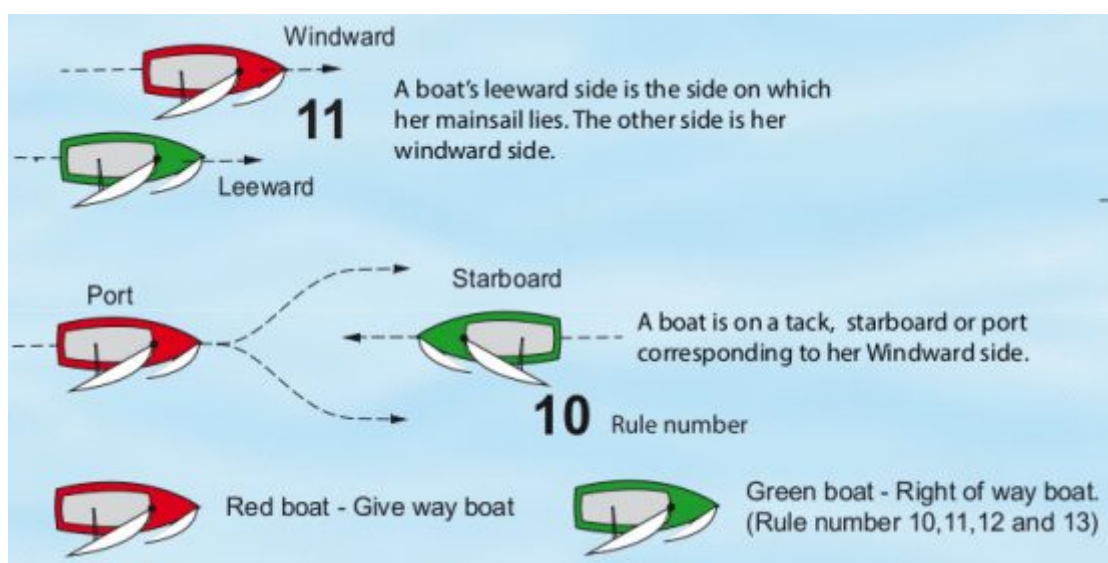
Racing Rules

When sailing we have rules about how to avoid collisions between boats. The basic idea is that when boats meet one will keep going in the same direction, and the other will alter course to keep clear. When we are racing this happens more often, as boats will often be close together.

The Racing Rules of Sailing are published by World Sailing and updated every four years. The rule book is 158 pages long, what happens on the water is covered in pages 7 to 17 and page 14 will cover 80% of interactions.

A key concept is that one boat will have the *right of way* over another boat when the other boat is required to *keep clear* of her.

You will already know three of those basic rules from page 14.



How You Know It	Racing Rule
Port/Starboard - If the wind is on the right, you are in the right	Rule 10 On Opposite Tacks When boats are on opposite <i>tacks</i> , a <i>port-tack</i> boat shall <i>keep clear</i> of a <i>starboard tack</i> boat.
Windward boat keeps clear	Rule 11 On the same tack, overlapped When boats are on the same <i>tack</i> and <i>overlapped</i> , a <i>windward</i> boat shall <i>keep clear</i> of a <i>leeward</i> boat
Overtaking boat keeps clear	Rule 12 On the same tack, not overlapped When boats are on the same <i>tack</i> and not <i>overlapped</i> , a boat <i>clear astern</i> shall <i>keep clear</i> of a boat <i>clear ahead</i> .
Don't Tack Into other boats	Rule 13 While Tacking After a boat passes head to wind, she shall <i>keep clear</i> of other boats until she is on a close-hauled course. During that time rules 10, 11 and 12 do not apply. If two boats are subject to this rule at the same time, the one on the other's port side or the one astern shall <i>keep clear</i> .

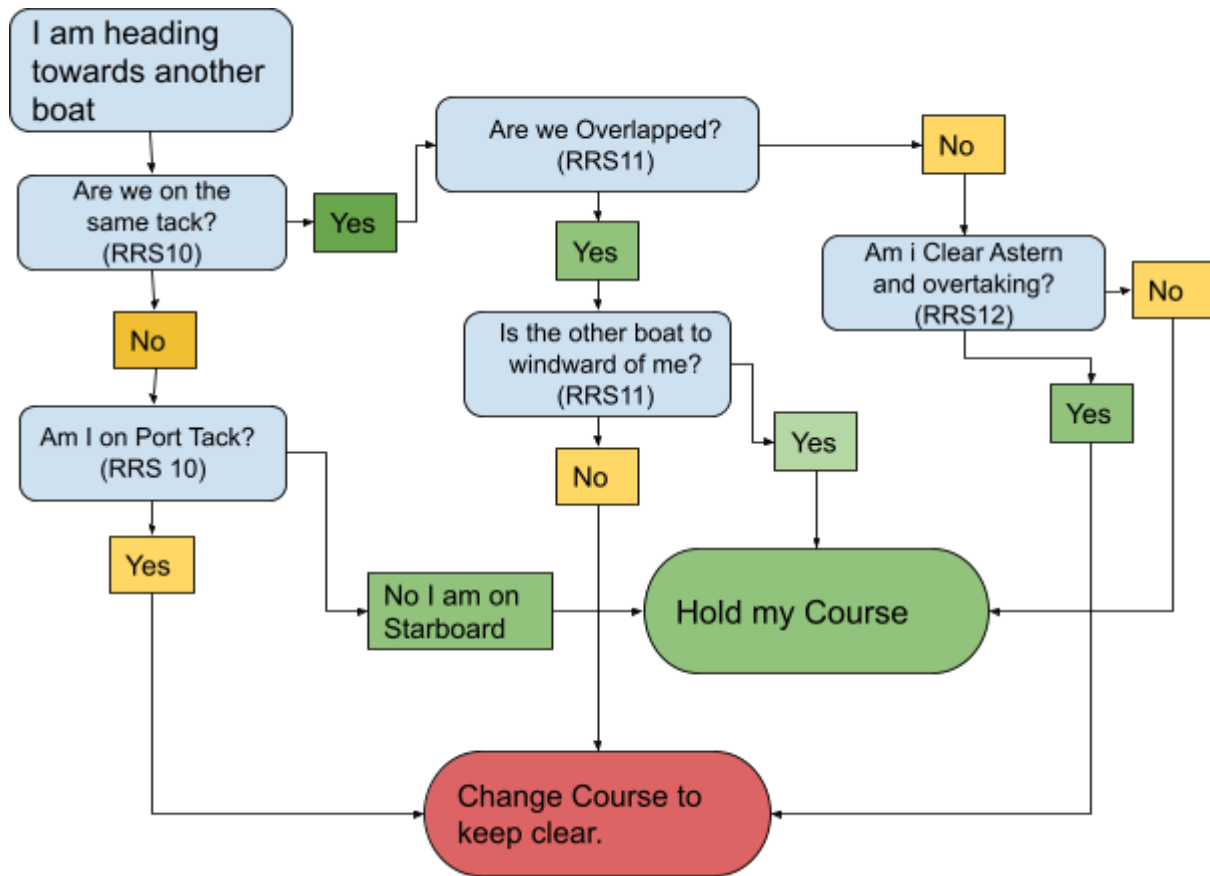
For the start racing syllabus the only rules we need to cover are 10 to 13 which cover when boats meet. Any other rules mentioned are for reference and are beyond the scope of this course.

How do I know if I am on a collision course?

You will be on a collision course if the other boat is getting closer, and in a fixed direction from you.

How do I know if I should keep going, or change course?

Going through the checklist of questions below will cover the most common situations.



What if I am in the right but they don't avoid me?

This is covered by Rule 14 which says;

14 AVOIDING CONTACT

A boat shall avoid contact with another boat if reasonably possible. However, a right-of-way boat, or one sailing within the room or mark-room to which she is entitled, need not act to avoid contact until it is clear that the other boat is not keeping clear or giving room or mark-room.

Basically you need to avoid a collision, but if you are on the right of way boat you don't need to do anything till it is obvious the other boat is not keeping clear.

A rule is broken, Now what?

If you break a rule you can take a penalty and continue racing. The penalty is to do turns (Rule 44). A single turn would be to turn the boat in one direction and do one tack and one gybe, two turns would require two tacks and two gybes. Hitting a mark is a one turn penalty and infringing a boat is normally a two turn penalty, but at Largs this is changed to a one turn penalty in the Sailing Instructions.

While sailing at Largs If you think you have broken a rule then turn the boat to do one tack, and one gybe.

What about another boat?

If you think someone else has broken a rule then you should immediately shout "Protest" in a dinghy. That is all you need to do till the end of the race.

If the other boat does its turns then forget about it and continue the race. If they don't do their turns and you want to pursue it then there is a procedure where you and they tell your stories about what happened to an arbitrator who will then decide if a rule was broken and what penalties may be imposed. This doesn't happen often in club racing. I can only think of two protests in the last ten years. The details of protests are beyond the scope of this course.

If you want to know more about the rules You can buy a rule book or just download a pdf from:

[https://www.sailing.org/tools/documents/WSRRS20212024FinalwithChgsandCorrecns201113-\[27417\].pdf](https://www.sailing.org/tools/documents/WSRRS20212024FinalwithChgsandCorrecns201113-[27417].pdf)

There are also loads of online videos and books available that will teach you all of the rules and tactics where you can use the rules to benefit your race position. This can get complex and may seem intimidating but for club racing you rarely get into the complex bits of the rules.

One thing to watch is that you use reasonably new resources. The rules change slightly every four years and some tactics and calls will go out of date. Also bear in mind that some sailors learned the rules years ago and may still think in the old version.

Boat Setup

Basic on the water tuning

The mainsail is controlled with the sheet but the shape is also controlled with three others;

- Kicker or Vang
 - Controls the twist in the sail and will flatten and depower the sail
- Cunningham/Downhaul
 - Flattens the sail and opens the leach
- Outhaul
 - Controls the depth of the lower part of the sail.

Boat Speed

By the end of the course you should understand how to alter sail controls both around the course and for differing conditions

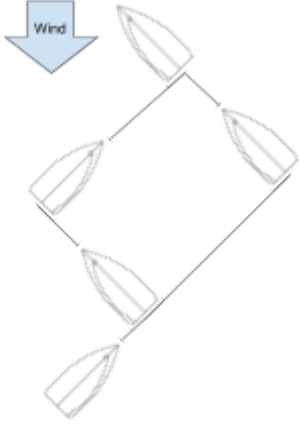


I am not going to go into detail here but the following videos are quite useful.

▶ BASIC MAINSAIL CONTROLS - How To Sail - Find out what the controls on a sailing ...

▶ UPWIND LIGHT WIND SAIL CONTROLS - Dinghy Sailing Techniques - Tips for sailing...

Five Essentials

Making best use of Five Essentials as helm & crew, Ask yourself **Can This Boat Sail Better**

<p>Course</p>	<p>Are you going in the right direction? What could affect this Tide, Leeway</p> <p>What is your route to where you are going?</p>	
<p>Trim</p>	<p>How does your body weight affect the boat front to back. What happens if you are too far back, or too far forward. Position front to back,</p>	
<p>Balance</p>	<p>What affects the boat balance side to side. How should the boat be sailing?</p>	
<p>Sail set</p>	<p>Are the sails filling properly? How do you tell if they are too far out, or too far in? If the sail isn't right how can you fix it?</p>	<p>Use of telltales</p> <ul style="list-style-type: none"> ● Sail to tight - Outboard one fluttering ● Just Right - Both flying level ● Sail too loose - Inboard one fluttering
<p>Board</p>	<p>Position of the Centerboard/ Daggerboard.</p>	<p>The centerboard stops the boat slipping sideways, do you need it more when going upwind, across the wind or downwind?</p>

Hiking

The balance of the boat can be adjusted by moving your weight in and out or by easing the sails to spill the wind. When you are overpowered the further out you can get your weight the more you can bring the sails in and the more of the wind you can use to drive the boat forward, and the faster the boat will go.

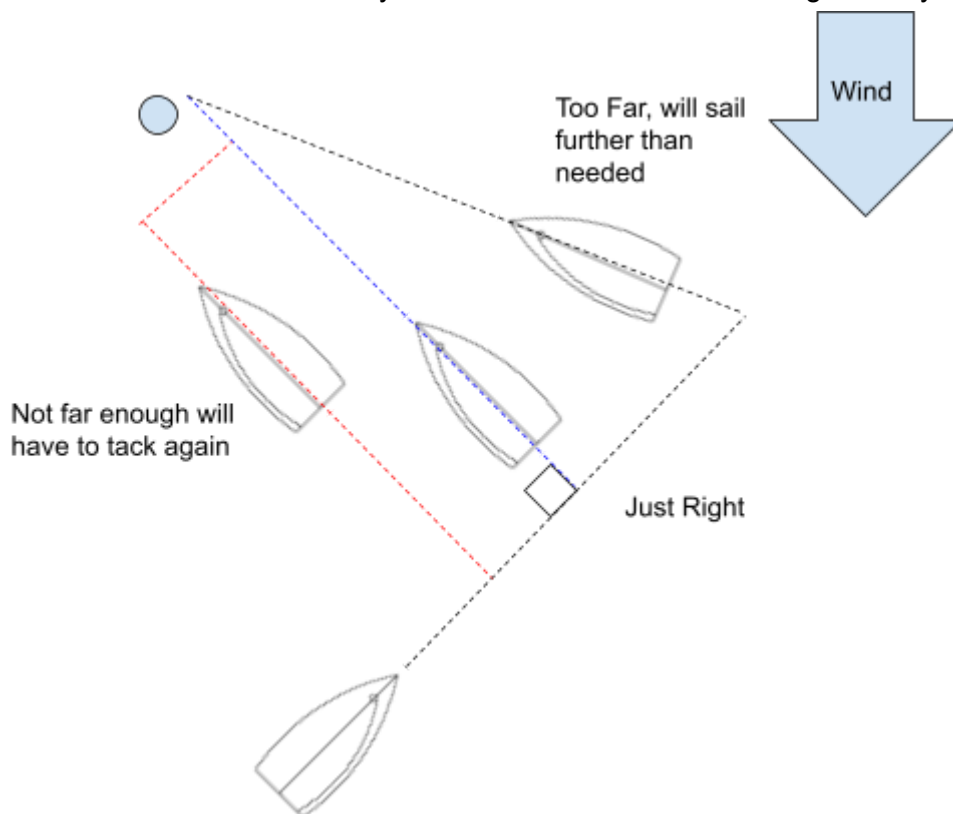


We get our weight out by hiking, getting into a bad hiking position can risk injury and will often hurt more than a good position. A good hiking position is best demonstrated on a boat, but the video below has some good tips.

[Top Hiking Tips with Steve Cockerill - Rooster Sailing - RYA Suzuki Dinghy Show 2017...](#)

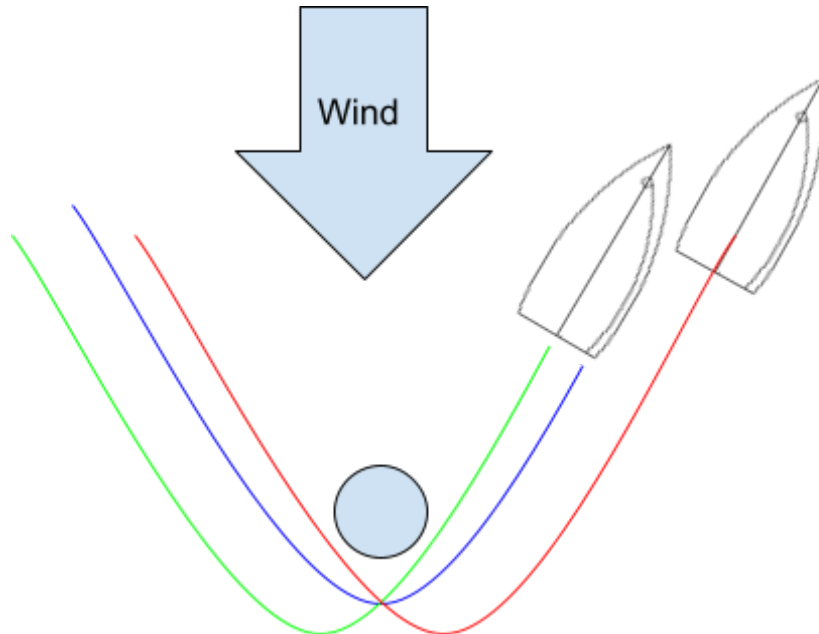
Laylines

When sailing upwind you want to take the shortest course to get to the top mark, so it is important to know when to tack to make the final approach. When as close to the wind as possible the boat will turn about 90 degrees from one tack to the other. So to sail the shortest distance to the mark you need to tack when it is 90 degrees to your current course.



Mark Rounding

A race has a start, we go around buoys or marks and end at the finish. Learning to go around the mark efficiently can help you gain places. The basics for this is keeping the turn smooth if you try to turn too quickly the boat will lose speed. Moving on from the basics, how do you make the turn for best advantage? What we normally say is *Wide in Narrow out*



All of the boats in the drawing turned at the same rate, but the green path is half a boat length to windward of the red path, it may not seem much but they are in clean air and can control the red path boat.

- ▶ [PRACTICING MARK ROUNDINGS - DINGHY SAILING TOP TIPS for Winter Boating](#)
- ▶ [Laser Sailing Top Tips - Windward Mark Rounding - with Olympic Double Medallist Shi...](#)
- ▶ [Laser Sailing Top Tips - Leeward mark rounding - Double Olympic Gold Medallist Shir...](#)

Off the Water Preparation

Boat Preparation

To win your boat needs to be reliable and fast. Getting it reliable means checking things over regularly to pick up on things that are sticky or damaged and replacing them before they break. To be fast all the systems should work well and all the lines run freely and give a full range of motion.. There are also adjustments you can make to the boat faster or work better. The basic sail controls kicker, cunningham, outhaul can be adjusted on the water. However some boats have additional adjustment that should be set to a baseline on the shore. These might include rig tension, rake, spreader deflection and length. We don't need to go into detail on these at this stage but you need to know that. There is an incredible amount of information available online published by class associations, Sailmakers, Coaches, the RYA. Giving hints and tips on how to get the best out of your boat. Some Examples


ICLA (Laser)

- General Info <https://www.laserinternational.org/blog/category/how-to/>
- [Sail Setup](#)
- [Race Rigging Video](#)



GP14 Guides

- www.gp14.org
- [Speed Sails](#)
- [Goacher Sails](#)
- [Pinel and Bax Sails](#)

Other Classes

- [RS200 Tuning](#)
- [Topper Rigging](#)
-  [Rigging an RS Feva](#)

General Hints and tips

- Rooster Sailing <https://www.roostersailing.com/blogs/welcome>
-  [Increasing Upwind Speed - Self Coaching Tips with Penny Clark - Single & Do...](#)
-  [Downwind Speed - Self Coaching Tips with Penny Clark - Single & Double Han...](#)

Physical and Mental Preparation

Club races are often 40 minutes to an hour long, on Sundays LSC runs two races so you are likely to be on the water for over two hours. At regattas like Cumraes with more races you could be on the water for four or five hours. I have in the past due to wind delays been on the water for over 7 hours. Depending on the wind, sailing can also be pretty active, so you need to ensure that you have sufficient food and water on board to keep fueled and hydrated. A lack of food and water can harm your focus and make it difficult to perform, and make it less enjoyable.

We are also sailing in an often cold environment and doing a sport that involves some heavy lifting, holding your body in odd positions and sometimes working hard. One thing we should be doing that many sailors are bad at is warming up before sailing.

Teamwork

Sailing a two person or multi crew boat properly requires teamwork. A good team will have good communication, and a good split of the workload.

A split of responsibilities might look like;

Helm	Crew
Steering and sheeting mainsheet for speed Secondary weight shift for balance Close boat on boat tactics Sail controls Calling the tacks/gybes	Primary weight shift for balance keeps the helm in good position in the boat. Sheeting of jib Long distance strategy, spotting windshifts, marks and Initial layline calls. Calling gusts

The split will depend on the boat, and your strengths but it is useful to talk through what you are doing and communicate well with your crew.

Strategy and Meteorology

Sailing is very weather dependent so it is important to know how to obtain a weather forecast. There are loads of weather forecasts available, some are more useful than others.

What do I want from a weather forecast?

Key bits of information to get from a forecast would be;

- Strength of wind, will it get stronger or lighter? (Should I reef?)
- Direction of wind, will it make launching difficult (Lee Shore)?
- What temperature can I expect (Sun hat or Woolly hat)?
- Will it be raining? (Extra Layers, waterproofs)
- Will it be foggy? (Can I see where to go?)

Where can I get my forecast?

You can get forecasts regularly after the news on the TV and Radio, however they are often quite general, cover large areas and don't always mention wind strength. The Met Office (<https://www.metoffice.gov.uk/>) does a range of forecasts for large areas of the UK and you can also get one for a specific location. A very useful map that they do is the [rainfall radar](#), this can show where around the UK it is currently raining and what direction the rain is going in.

There are also loads of sites on the internet that give forecasts for specific locations and will often include wind strength and direction.

- Windguru - <https://www.windguru.cz/328>
- Windfinder - https://www.windfinder.com/forecast/largs_ayrshire
- MetCheck - www.metcheck.com
- Windy - <https://www.windy.com/>

The current conditions at the club can be checked at <https://www.largssc.co.uk/weather/live>

Things to watch out for.

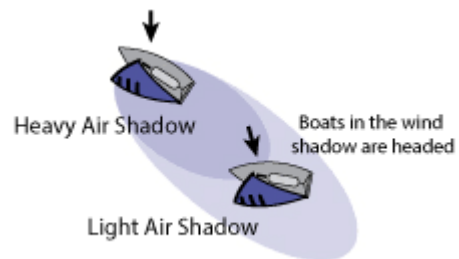
Most of the forecasts come from computer models of the atmosphere. A lot of the sites will use the same model but present the data in different ways. Some like the Met Office have their own models and do additional checks before publishing. The different models can give different forecasts, this is often because they cover different sized blocks some are 5km on side and some are 1km. If all the models you check say much the same then you can have good confidence in the forecast.

Check the units that the wind forecast is for. Wind is often measured in miles per hour, metres per second and knots. In sailing we often use knots, pick a preferred unit and try and stick with it.

Tactics

When a boat is sailing along the rig disturbs the wind it has taken energy from the wind to propel the boat. So down wind, and behind the boat is an area of turbulent disturbed wind called a *wind shadow* or *dirty air*. If you are sailing in this area your boat will be slower because there is less energy in the wind to drive you.

As a tactic it is often good to avoid sailing in the dirty air, this may mean that if you are in the position of the behind boat in the picture above your best option is to tack off to get *clean air*.



Tactical Considerations

Boat on boat tactics are about how you position your boat next to others to gain an advantage. Some things to consider;

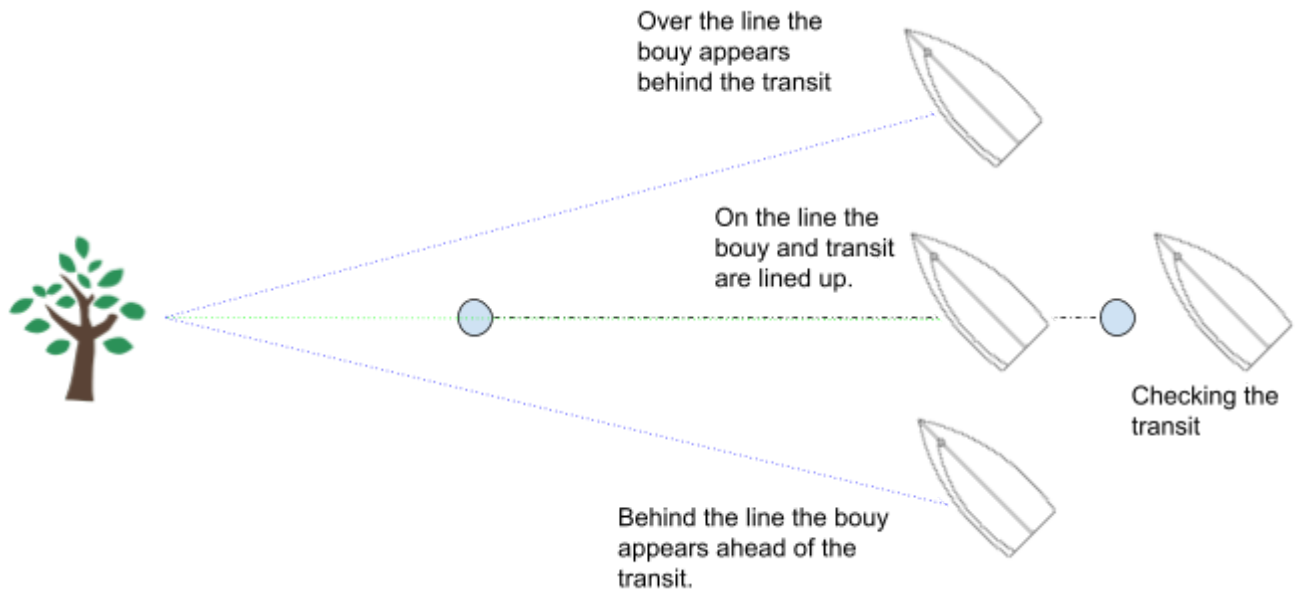
- Will the other boat be taking my wind?
- Next time we meet will I be on Port or Starboard?
- Can I position myself so I will be windward boat?
- Can I make sure that I am on Starboard coming into the next mark?

There is quite a good series of short videos from Jon Emmet they cover some tactics and techniques for single handed sailing.

[Tactics Made Simple - YouTube](#)

Starts

A good start is where you cross the line at full speed, in the right position, going in the right direction as the start gun goes. There are a range of methods of getting to that position but one key part is knowing where the start line is. There are no lines painted on the water so you need to judge your position between each end of the line. We do this by using a transit.



Before the start sail past the end of the line where you can see both buoys, when the buoys line up you know you are on the line and you can look to spot something in the background that you can use as a transit. This could be a tree or building, or other feature. At the start the landmark will align with the start mark when you are between the two buoys so on the start line.