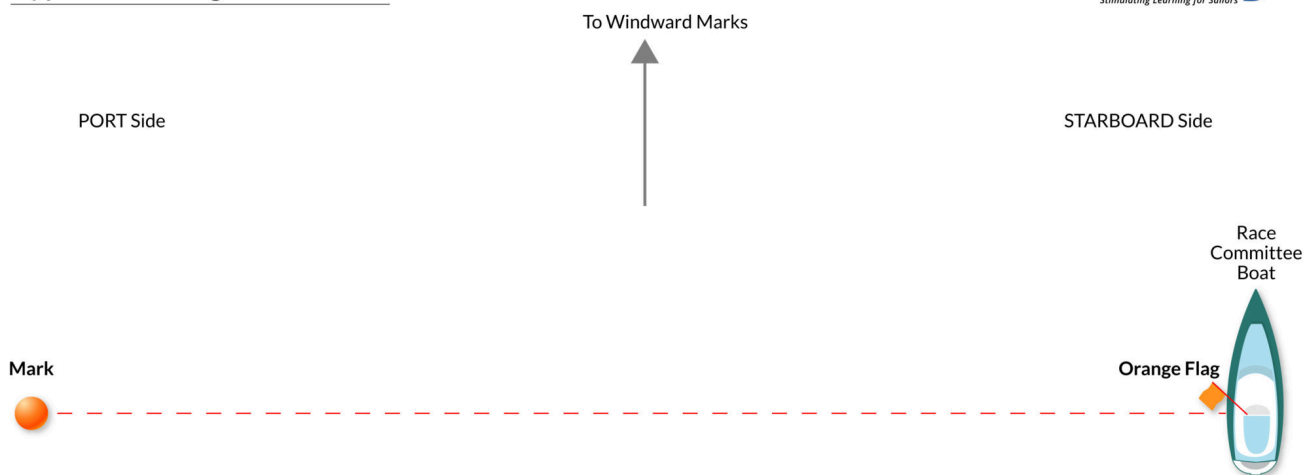


02 Starting line

The starting line of a regatta is a line that boats are not supposed to cross until the gun. As anticipated in the introduction, it is marked by the committee boat (starboard) and a mark (pin). Usually, there is also a counter started boat on the pin, which helps the committee boat check whether the start is clear (all boats crossed in good time). The starting line is always perpendicular to the wind direction and its lengths will depend on the number and dimensions of boats racing.

The area in which boats are allowed to be before the gun is delimited by the line and the close haul course from both the pin and the committee boat, which is around 45° from the two points (see figure below). The line can be crossed before the gun, during the starting procedure, but all boats must remain behind it one minute before the start. A specific flag that is hoisted during the starting procedure specifies the way one can go back behind the line, the way one can repair a false start etc, but flags and starting procedure will be covered in the following lesson: understanding first how to start with a countdown is more important than memorizing all the flags.

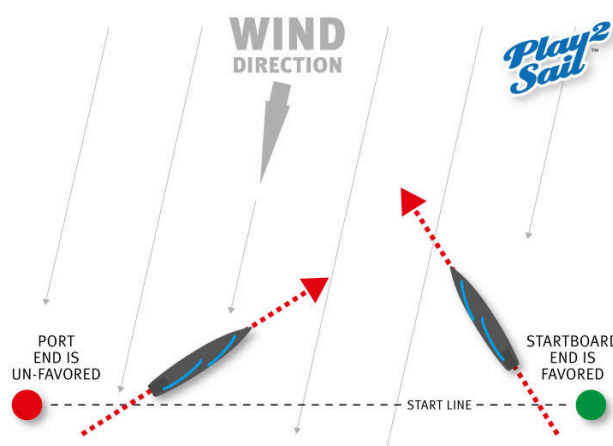
Typical Starting Line



The important thing about the line is that there will almost always be a favourable side, for two reasons:

- The wind shifts and can vary between the first upwind mark and the line, therefore the line might be perpendicular to wind on the starting area but one side of the course might be more favourable to get a lift to the mark.
- The wind shifts at the starting area and/or mistakes are human and can be made in placing the line, so that it does not sit perpendicularly to wind.

This means that one side will be more upwind than the other and will give an advantage because it allows to start from a more advanced position compared to other boats.



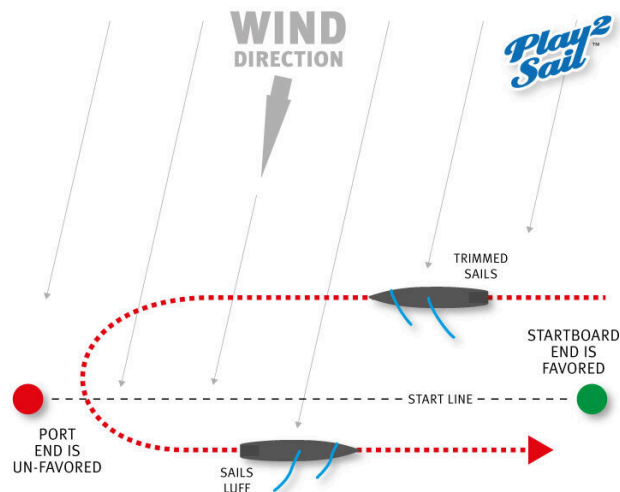
Important questions to ask yourself at the line:

- What's the favoured tack on the first leg?
- Where is the upwind end of the starting line?
 - Is it useful to start there to reach the favoured tack?
- What's the plan to be into the preferred position on the line at the start?

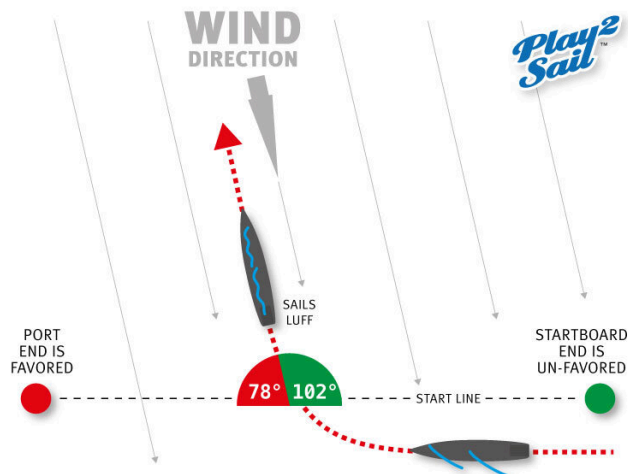
How to check the alignment

There are various ways of checking whether the line is straight or not.

1. We can check which side is the windward which one is leeward by sailing along the line. You'll be on a beam reach, so easy enough to adjust the sails. If you notice that going from A to B you can let the main out, while you have to pull it in going from B to A, it means that A is windward compared to B. The adjustment will likely be of only a few inches of main sheet, so you need to really look at the luff on the mast and keep it on the edge to notice the difference.



2. Compass and a bit of maths: go into wind to get wind direction. Then get on the line and sail along it, measuring the angle from pin to RC (Race Committee) and vice versa. If one of the angles has a difference of more than 90° from the wind direction, you're pointing at the non favourable side; if it's less than 90° , you're pointing at the favourable side. Eg: wind direction 230° . From RC to pin the compass reads 145° , from pin to RC it reads 325° . $230^\circ - 90^\circ = 140^\circ$ -> pin is upwind and the line has a 5° misalignment (extreme situation but good exercise)



3. You can do a few short close hauled legs towards the upwind mark, to see whether one side is going at it more "directly". This might be related to the wind shifting slightly over the course, but it can be a factor in choosing which side we want to start on.
4. You may see gusts coming from upwind with an angle, these indicate wind shifts on the course and again, can be used to choose a side.

5. Another way of checking the alignment, but this might also depend on tide and current, is to look at the committee boat angle its flags and its anchoring line. Sometimes it is possible to appreciate that the anchoring line, or the flags, are not perpendicular to the start line and this angle difference will indicate a more windward side.

An important component of your relationship with the starting line has to be the timing. You want to be at the right place at the right moment, with enough speed to control the boat, but not too fast to risk an anticipated start, and you don't want to be covered by others' sails, otherwise you'll never get the necessary acceleration to cross the line with good momentum.

Evidently, since priority rules apply, we want to cross the line on a starboard tack, unless we are absolutely certain that on portside we will be in such a great position and have such great speed that we can cross the whole fleet in front. It does happen, but it requires proper conditions and perfect skills, otherwise, we're ending up behind everyone since we need to give room.

Exercise 02.1

Setting up a short line on a beam reach, slightly misaligned (safety boat or other reference points). Sailing up and down to test.

Exercise 02.2

Staying stationary and getting the boat going on a starboard tack. Get close to a mark and stop the boat along it, close enough to see whether you're still moving or not. Try to keep the boat stable, in the same position, for around 30 seconds, then start on a close haul. Tack around after 2ish minutes, go back and repeat.

Exercise 02.3

Set a 3 minutes timer and sail around a mark or between two marks, try to time your approach to the mark/line and start on zero, either with speed or from a stationary state (see exercise 2). On zero, you must be on a close haul, within a boat length from the mark, on a starboard tack.