

Medal Race Positioning

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B. Introduction

Hello, I am Arnaud MANTE, International Umpire and International Judge.

I had the opportunities to umpire fleet races and medal races in many different places and classes (dinghy, mono-hull, multi-hull, foiling, boards). Some time I have received questions about positioning.

Positioning is the foundation of a good umpiring! If you know perfectly the rules, but you don't know how to position yourself, you will not see and have the facts, so no decision (or at least good decision...).

Positioning is complex, so for each leg, part of the racing area, I will work in this way:

- Micro positioning: you focus "only" in two boats. Many situations can happen: port, luffing, leeward...
- Macro positioning: now you have to work with many sailing boats, not only two. So, you have to manage your positioning to still focus on potential micro positioning, but also with other sailing boats.
- Umpires interaction: at this final step, you will learn how to swap position, to manage the positioning with the other umpires!

In many explanations you have a link. This is a video of this positioning move.

This document is a personal document, it not reflects the World Sailing (or the French Sailing Federation) point of view and this is not an official document!

On this document, sometimes you will have the feeling that the umpire boat is really (too...) close of the sailing boats. You are right!

But, if we want to have realistic proportion, the boats will be too small! And it will be not possible to see all maneuvers. You have to adapt these scenarios to the real life. They are here just to show and give ideas.

Of course, you will never try to apply a complex move from an idea inside this document if sailing boats are only 4 boats lengths on your side! But here, this is to explain to you the process!

C. General principle

In this document, you will see many different positioning situations.

At the end, the most important, it is not to copy exactly the scenario on the water, because it will never match!!! The most important is to understand the arguments and why you need to position yourself in this situation.

After, you will elaborate your own skills and experiences!

In classic medal race, we have 10 sailing boats for 3 umpire boats. It means that each umpire needs to cover between 3 and 4 boats. If at a moment you can see only 2 sailing boats, something is wrong, probably your positioning is not so good!

When I drive, I am always asking myself with these four questions:

- How many boats in my area can I cover?
- How many close situations I manage?
- What, and where will be the next close situation?
- Where are the two other umpire boats?

This is a really simple algorithm, but you will find good questions to ask yourself about your positioning at any time during the race:

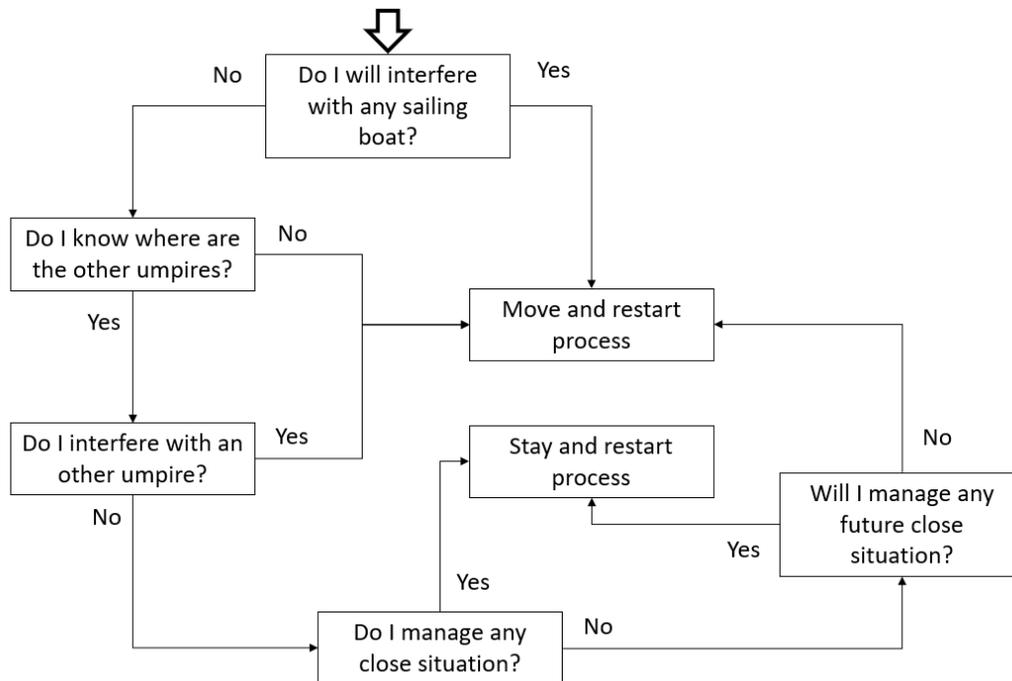


Figure: positioning algorithm

Medal Race positioning

Trick: I always, ALWAYS, count the number of sailing boats!!!

I always want to know where all the boats are!!!

Be sure that if you count and one boat is missing... 99% of the time, she will be just behind you!!!

If you count, you will not be surprised, if not... you will be in trouble.

D. Start

Start is not the most complicated part.

The main point, like in the rules... there is no proper course!!! Which means that sailing boats can have not really predictable courses! But, in other way, there are most of time in standby mode.

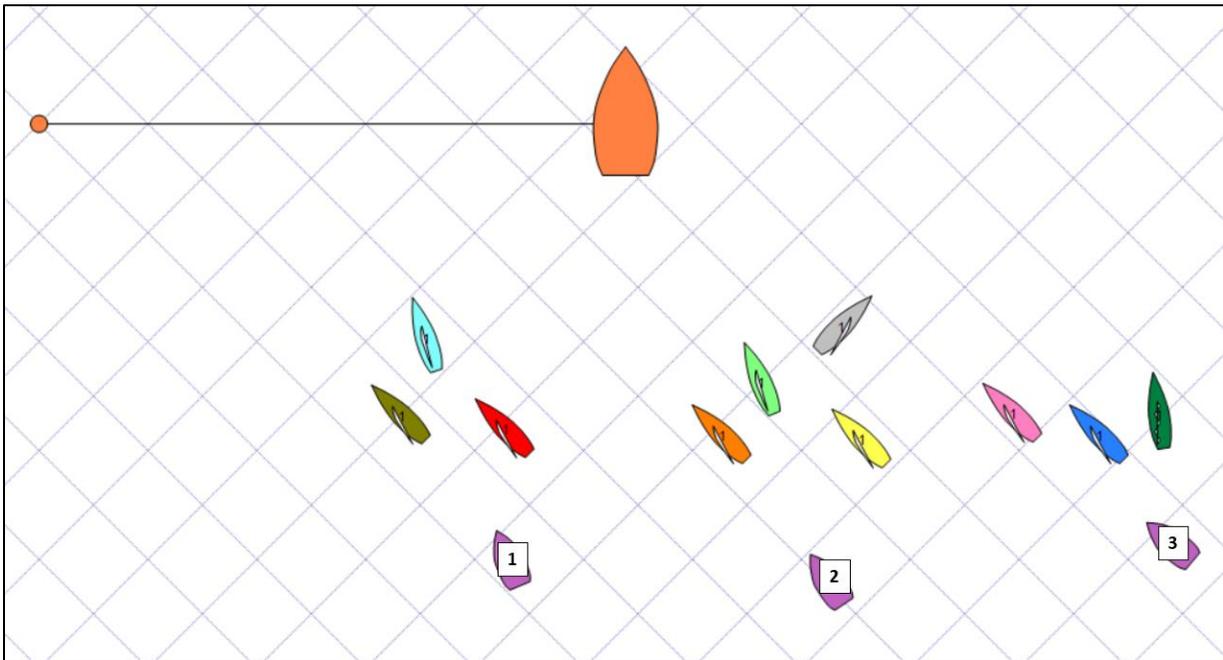
I. Global positioning

1. The procedure

Before the start, the chief umpire will allocate umpire 1, 2 and 3.

Here, 1 will be at the pin, 2 at the middle and 3 at the committee boat.

This is a “short cut”!!!! In fact, 1 at the pin means: umpire 1 will manage the left part of the fleet. It absolutely doesn't mean that 1 will stay at the pin during all the procedure!!

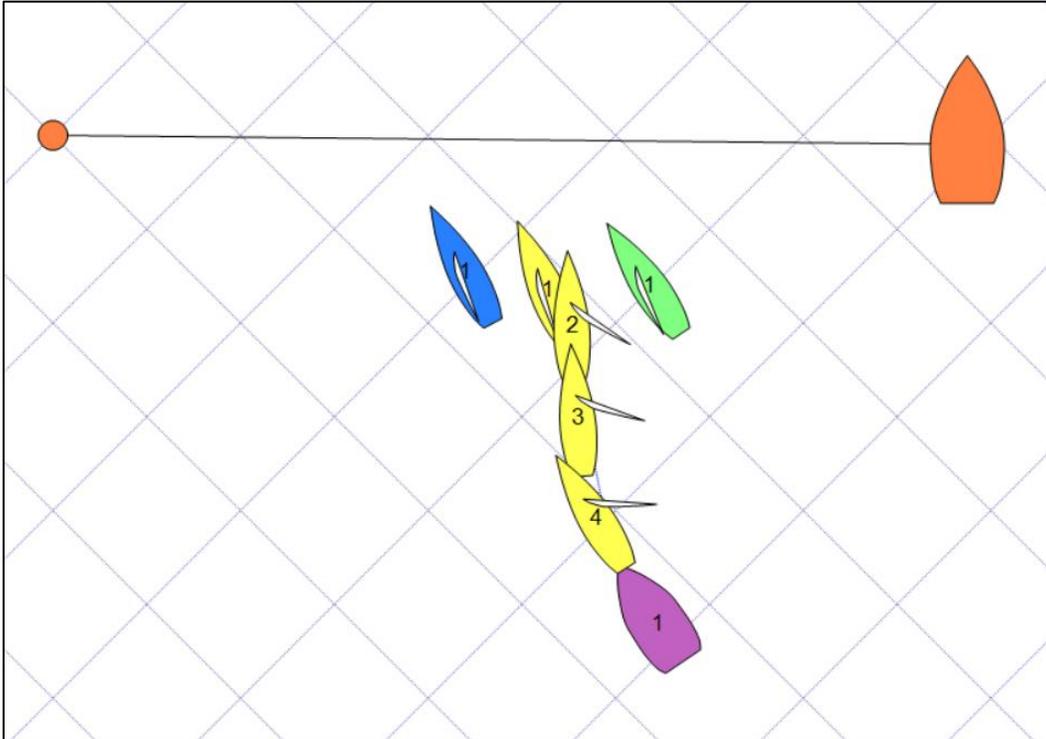


As you can see, umpire 1 is closer of the race committee than the pin! But 1 is managing the left part of the fleet.

Medal Race positioning

Warning:

Don't stay too close to the boat!!! If for tactical reasons a boat is "trapped", she can escape easily by a fast and quick backward!!! If you are too close, you will be in trouble!!



Here the umpire boat was definitely too close OR in the bad axis! It was tactically predictable that yellow was "trapped" and will try something soon!!!

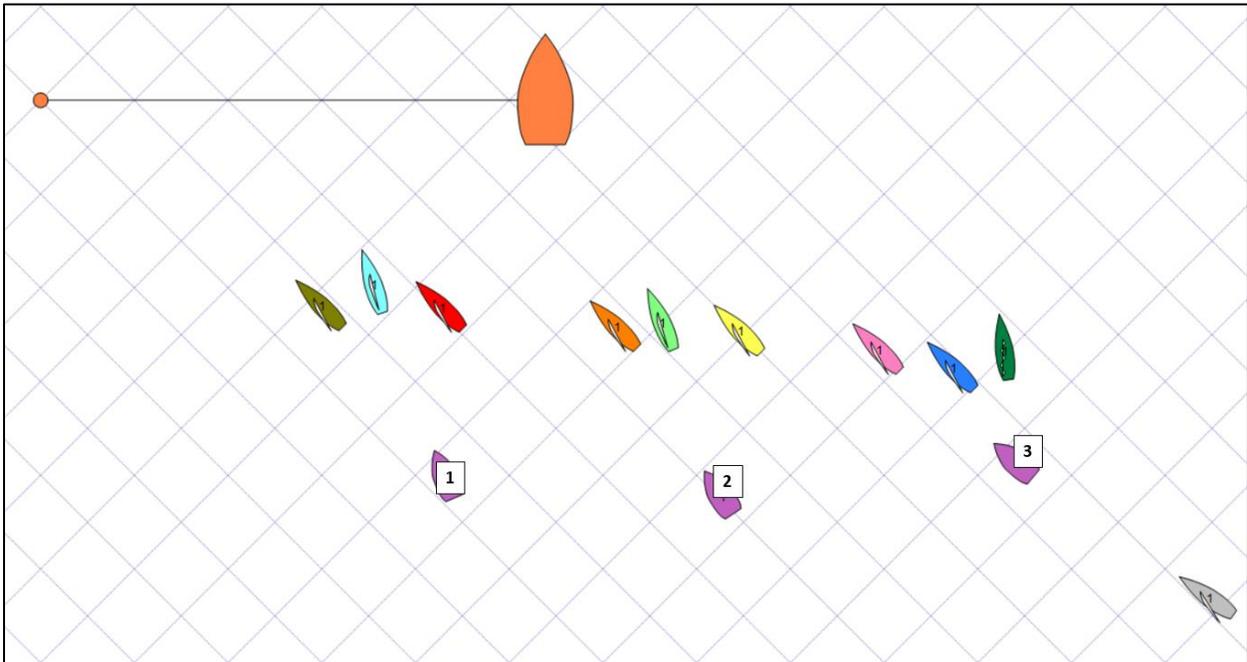
But, if you are not so familiar with predictable tactics (your honor to recognize yourself), don't stay too close.

Warning 2:

Remember, always count the number of sailing boats!!!

Especially at the start, one boat can stay far from behind! You have to anticipate this future move!!

Medal Race positioning



In this situation, grey is late, or waiting behind. Now, she is on her way to the line.

If umpires are not watching behind, they will have a bad surprise.

But, in this situation, the worst is not umpire 3. Of course, even if umpire 3 need to stay focus. Especially if blue boat is sailing suddenly backward, umpire 3 can be in “sandwich” between blue and grey.

The umpire in trouble is more umpire 2.

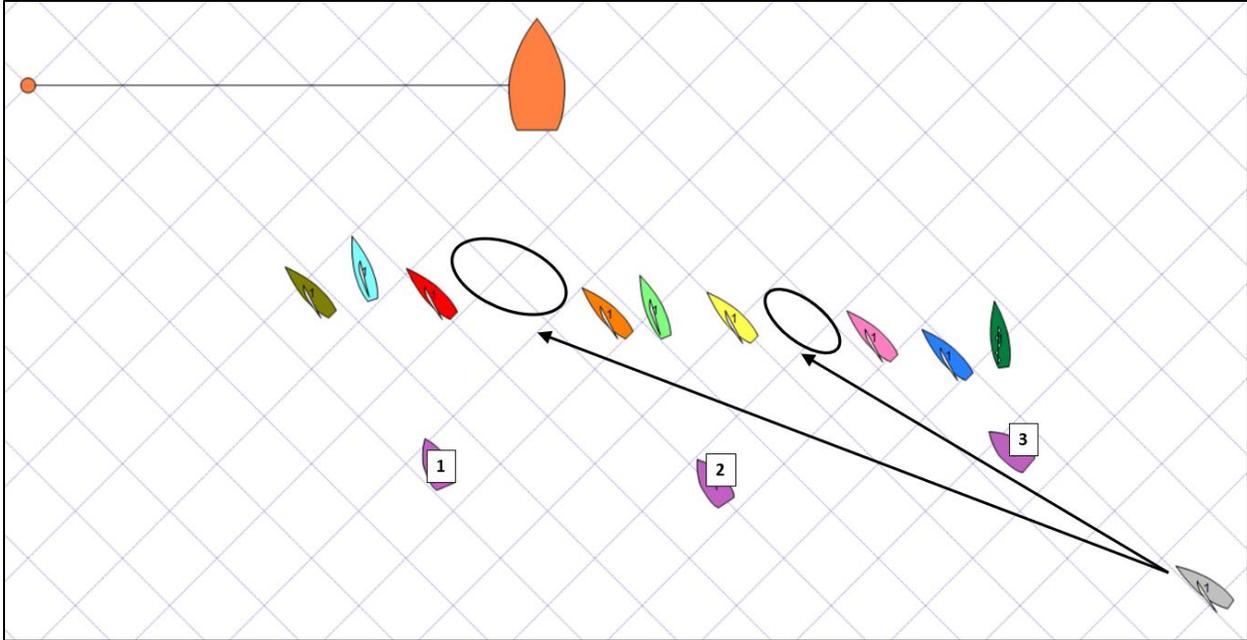
Because, grey will try to find a “hole”. There is absolutely no room between pink and blue, or between orange and light green!

On this line, there are two big holes:

- Between red and orange
- Between yellow and pink

Which means that grey will probably go fast to these spaces, holes. And umpire 2 can be on her way! Umpire 2 really need to watch behind. Even if grey is full on the right side, so in the scope of umpire 3, at the end, it will be a problem for umpire 2!!!

Medal Race positioning

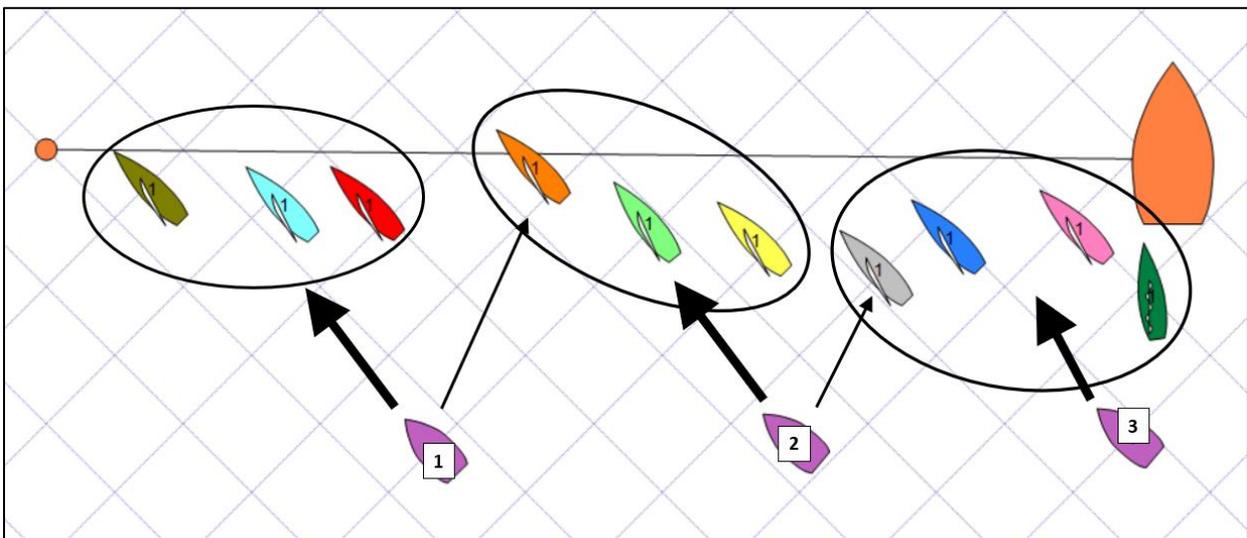


2. The starting signal

Start! of course you will focus on your group of 3, 4 boats.

But there is a risk of potential individual recall!!!

At the start, umpire 1 will stay focus on his group, the big arrow, but also have a look on the group of umpire 2. The same for umpire 2 who will have a look on the group of umpire 3.



Medal Race positioning

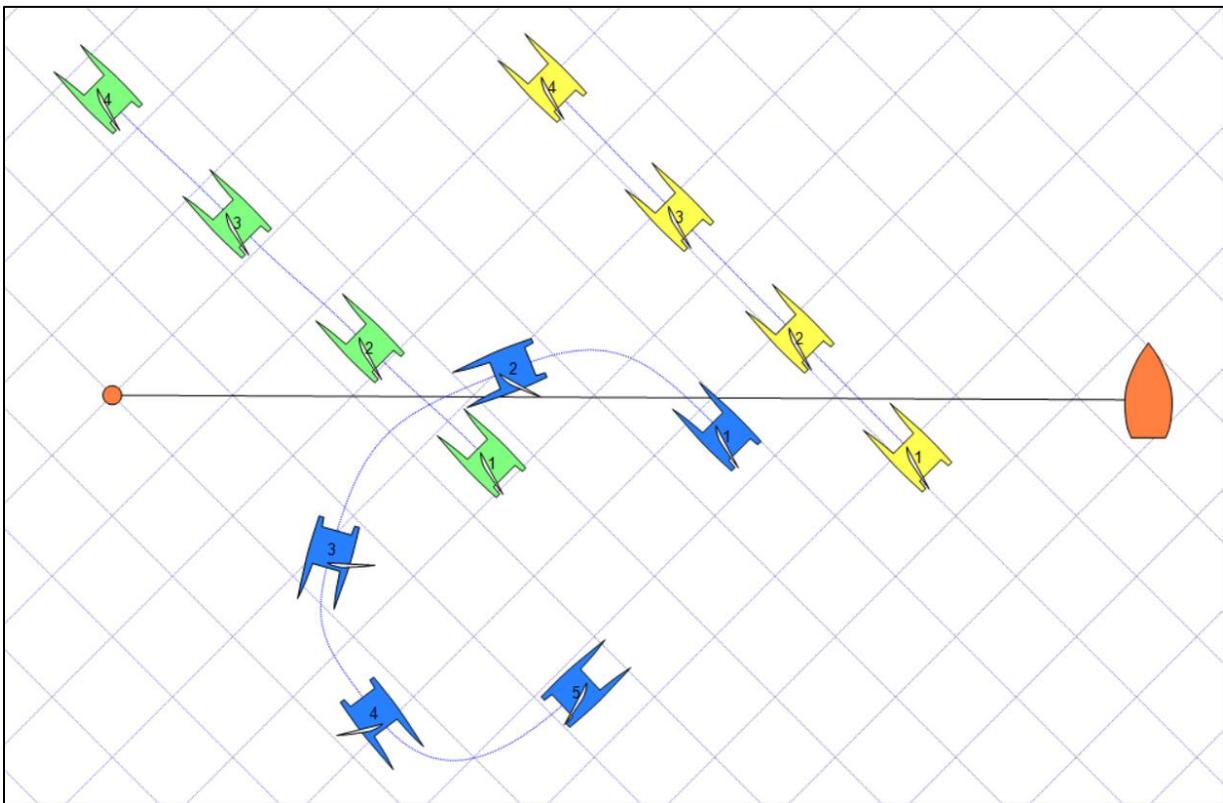
Why? Because of the potential risk of individual recall!!!

II. Individual recall

1. Situation 1

Before to start the explanation, have a look on a group of multihull sailing close hauled in 15 knts, and one of them will quickly gybe.

Especially with foiling and/or fast boats, going down and gybe can take some time. So be careful and not too close!!!



As you can see, blue boat can go very “deeper” below the starting line!! Be careful!

Sometimes, it is just impossible for fast boat to have a “short” radius when they turn!

video 1 OCS multihull

video 1 <https://www.sailcup.com/rules/positioning/doc/video/start-OCS-multihull.mp4>

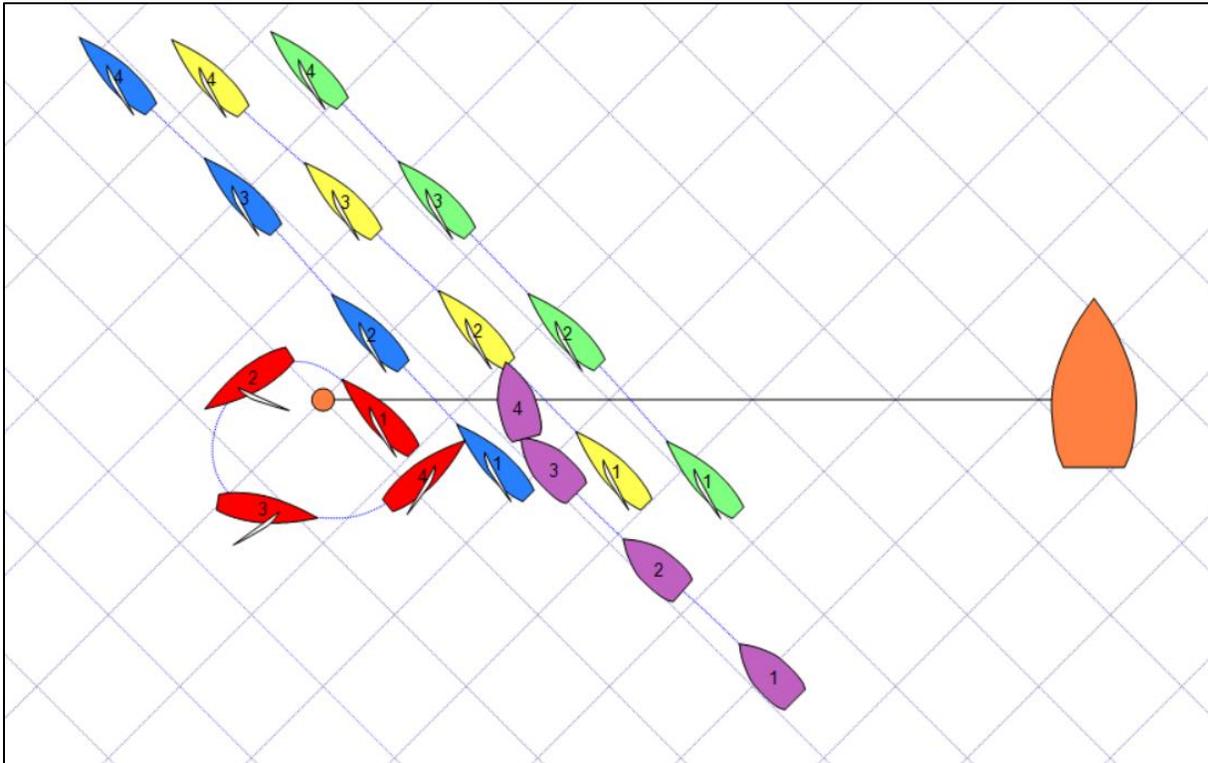
Medal Race positioning

2. Situation 2

Another situation: what happen if this is the left boat who is too early?

In this situation, red is too early! Immediately she realized and gybes. But, if umpire 1 is looking his group (red, blue, yellow and green) and not anticipating the future OCS, the umpire will be in big trouble in situation 3 and 4!!!

In dinghy, as opposite with fast boat or board, the boat can gybe and turn very fast with short radius! Be careful!!!



video 2 start OCS2

video 2 <https://www.sailcup.com/rules/positioning/doc/video/start-OCS-leftline.mp4>

E. Upwind leg

I. General principle

Important: Always be ready that a boat can tack at any moment!!! Especially the worst moment!

This is really, really important! It will manage all your positioning. Always have in mind that any boat can tack at the worst moment for you!!!

II. Micro positioning

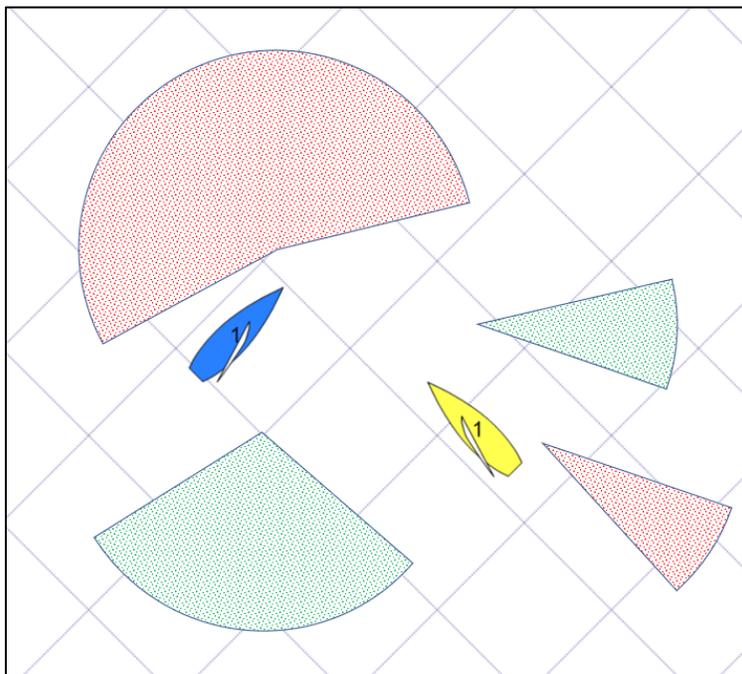
Port / Starboard:

What do you want to see???

For a port starboard, we need two information:

- Distance between the starboard's bow and the port's stern.
- Action of the starboard's helmsman or rudder for any alteration of course.

1. Port crossing ahead



Of course, avoid the big red area! Avoid also the small red area, it will be very difficult to have a precise estimation of the distance between yellow and blue.

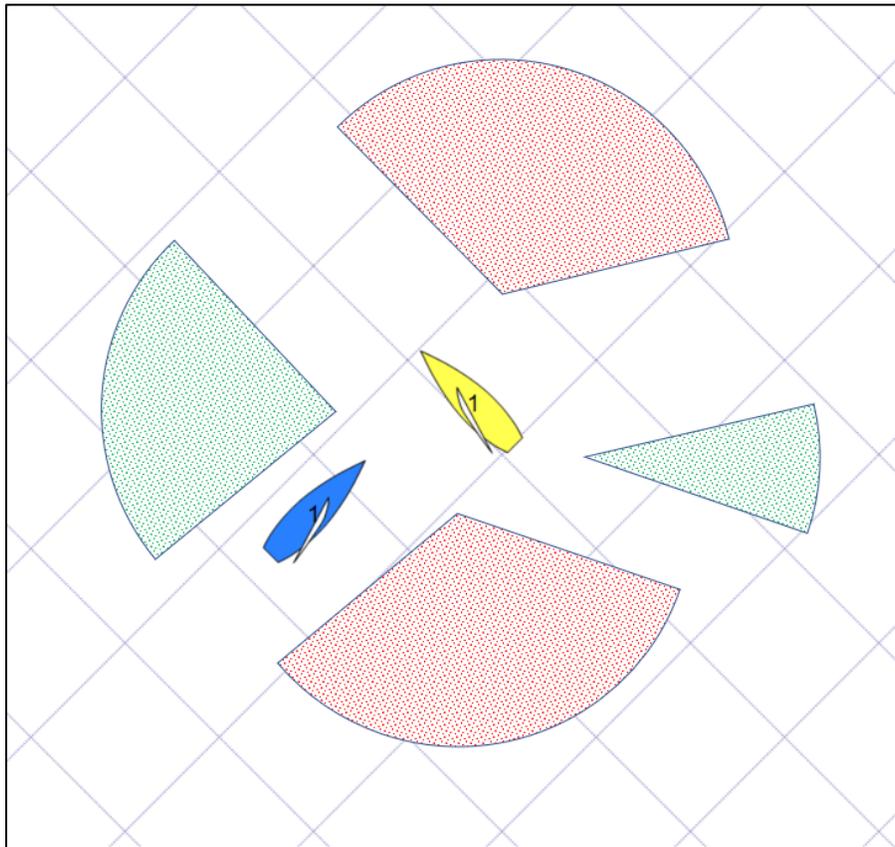
Medal Race positioning

The main green area is the best position. But, you have also another possibility with the small green area. Sometimes it can be helpful!

2. Starboard crossing ahead

When starboard is crossing ahead, you have two points to check:

- Sometime, port wants to pass so close astern... and a small contact occurs!!
- For tactical reason, starboard can tack: this is the slam dunk



About the positioning, avoid the red area on the top! The red area on the bottom is also totally forbidden because if something happens when blue is going down to pass astern yellow, you will not be able to see any contact!!

The main green part on the left is the best situation, especially if yellow tacks, you will have a good point of view for the next windward / leeward situation.

The small green part can be also an acceptable point of view, but in case of slam dunk, it will be complicated to see the distance between the leeward and windward boats.

III. Macro positioning

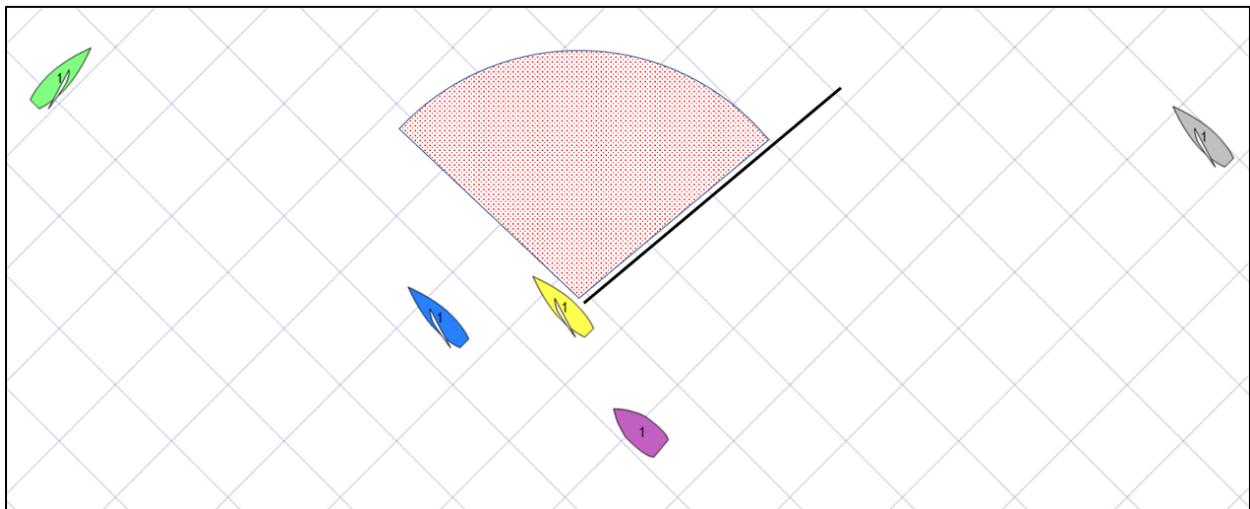
1. Moving upwind between boats

Sometime, single boat is going on the left, and no need to cover her. Another one does the same on the right. But you know that when they will tack both, they will meet with a potential close situation, so you have to anticipate and go windward.

But you are in the middle of the fleet, and it is impossible to cross full speed in front of boats.

Again, a key point is the anticipation!

I use this technic if I need to go windward:

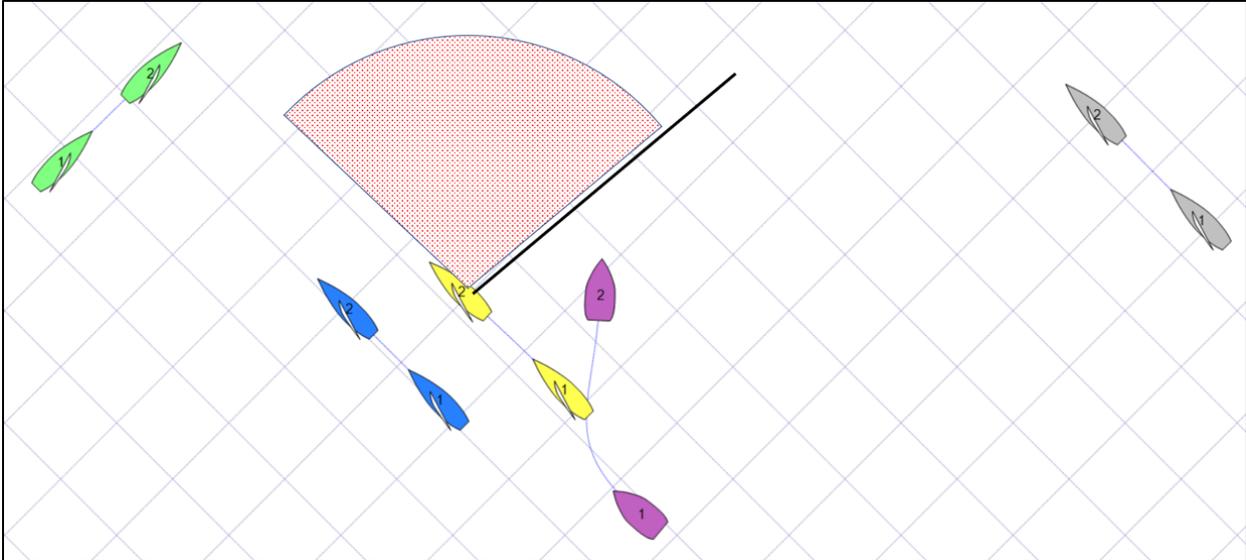


In this sample, I follow yellow and blue, but I have anticipated that green and grey will have a close situation in few lengths. I need to be there!

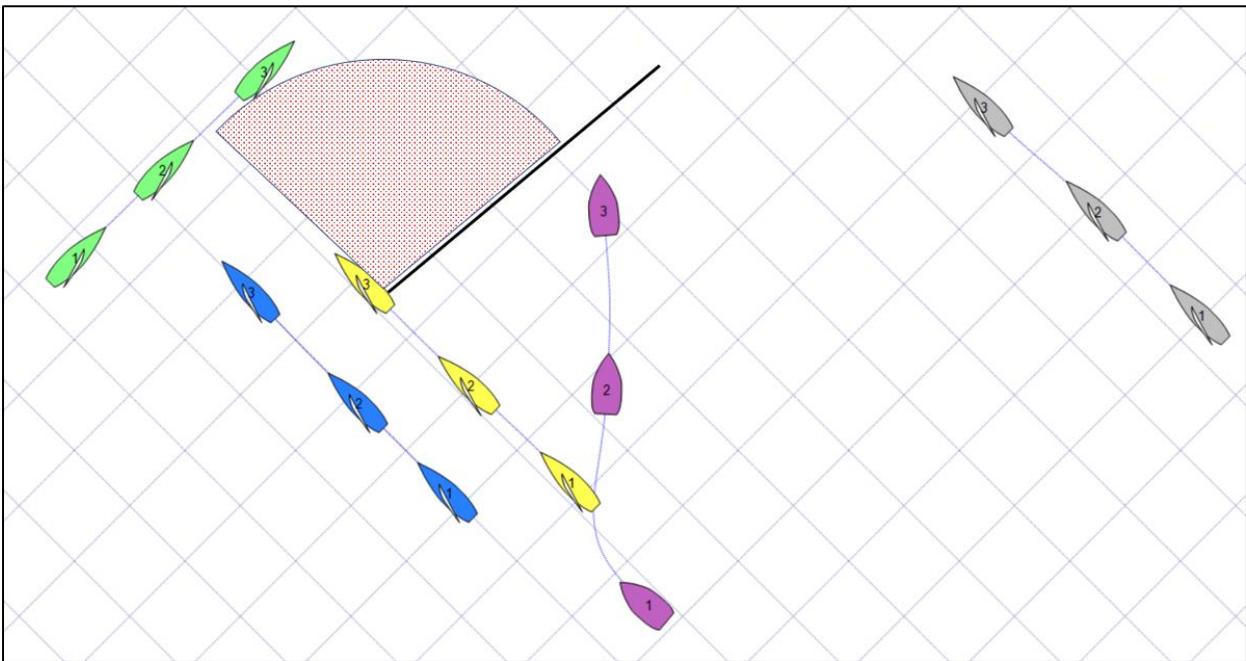
The red area is totally prohibited!!!! My intention is to not cross the black line (before the red area) until I am **100% sure** that if yellow tacks, I will not disturb her!!

Here is my move:

Medal Race positioning



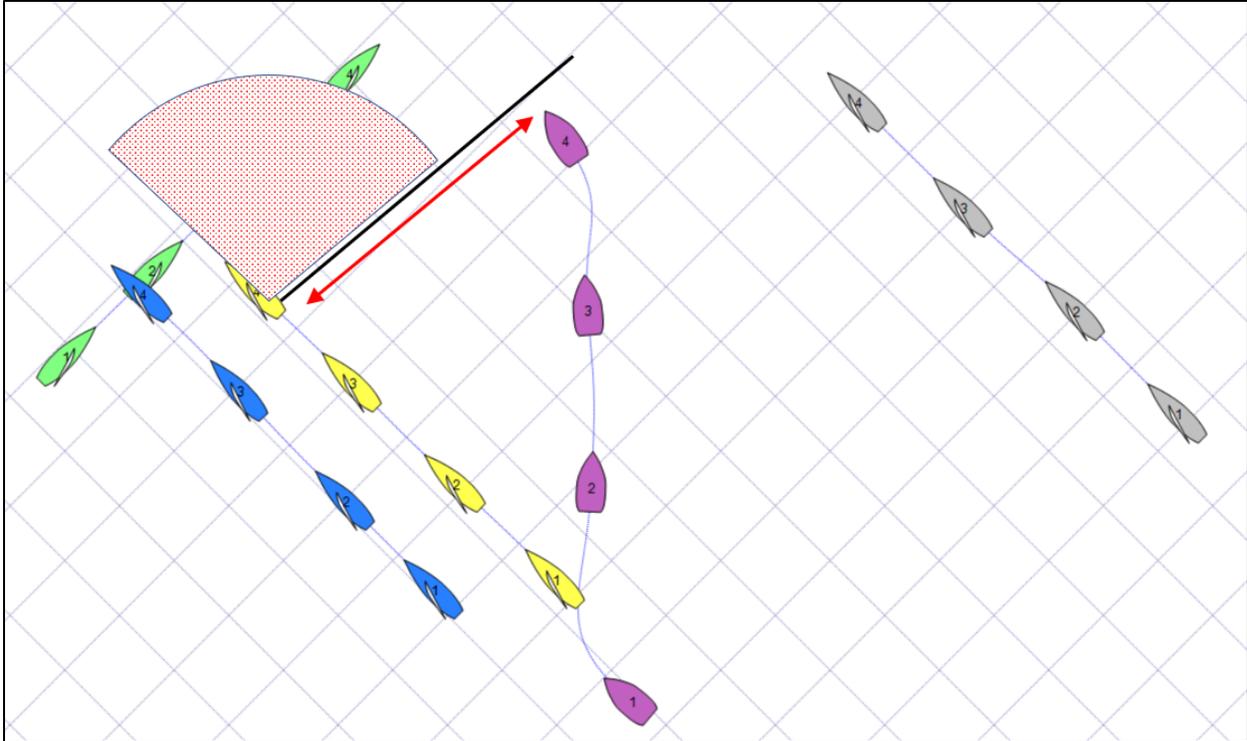
At situation 2, if yellow tacks, I will not disturb her!!



At situation 3, you can notice:

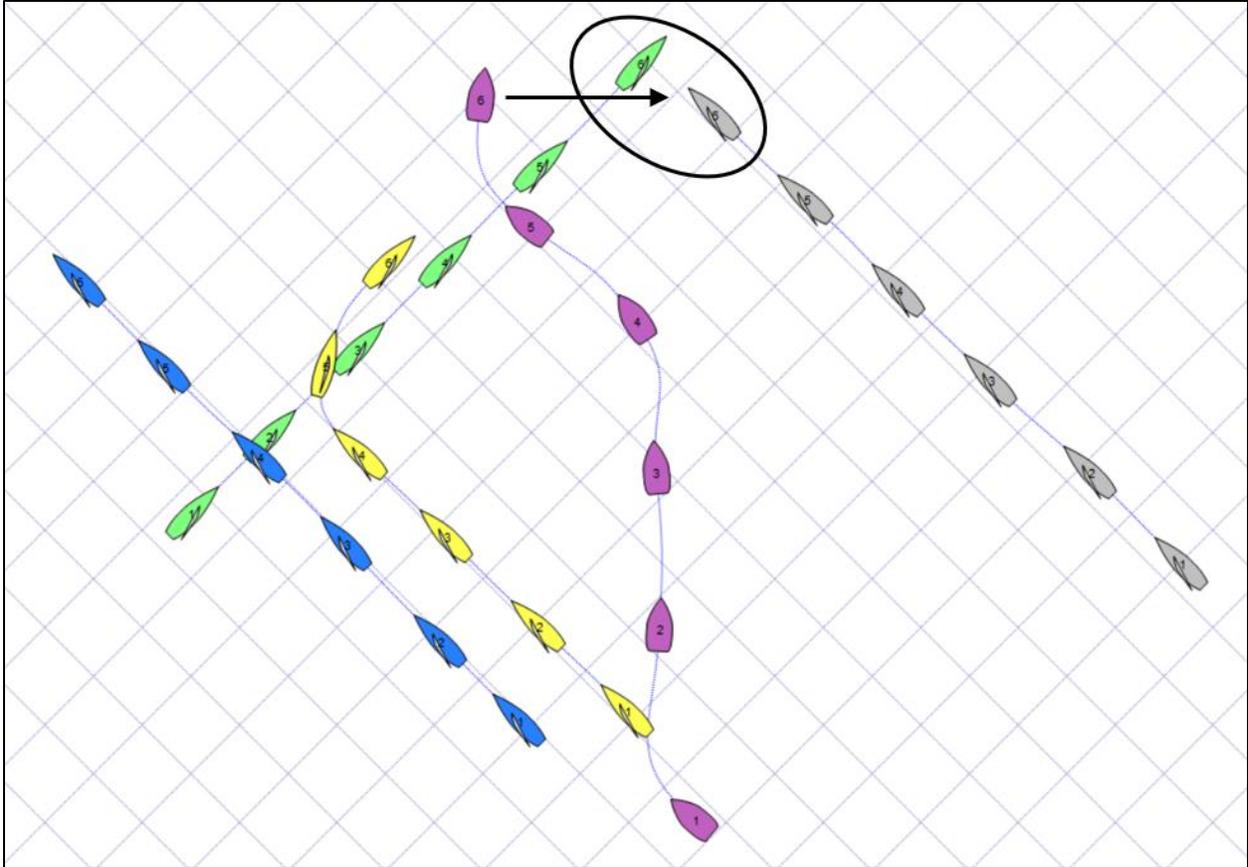
- If yellow tacks, I will still not disturb her
- The distance between yellow and the umpire boat is increasing
- I never cross the "black line"

Medal Race positioning



In situation 4, the most important is the distance indicated by the red arrow! If I judge that if yellow tacks, I can cross in front of her without any disturbance, so I take the decision to go on the left, to be well positioned for the future green / grey port/starboard call.

Medal Race positioning



This is the final view; the umpire boat is upwind without disturbing any boat.

The two main things of this move are:

- Anticipate the future potential close situation port/starboard. If you are late, you will have no time to make this move
- Always be sure to not cross the yellow opposite course if she tacks!! Until you are 100% sure to cross it without any disturbance!!

video 3 upwind macro 1

video 3 <https://www.sailcup.com/rules/positioning/doc/video/upwind-macro1.mp4>

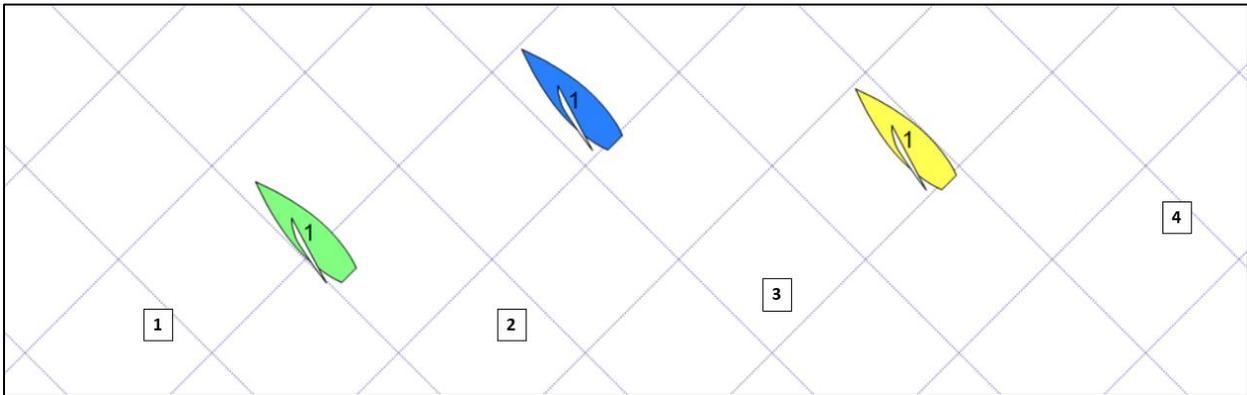
2. Standby "mode"

Some time, nothing happens!

For example, we have this situation on an upwind leg.

Medal Race positioning

Where do you position yourself as an umpire boat: 1, 2, 3 or 4??



Of course, the answer is: it depends!

First question: are you in the left part or right part of the racing area? This is a question that I ask myself very often: do we need to have more starboard course or more port course to reach the next mark?

If we are on the right part of the racing area, there is a very low probability that green or blue will tack and go to the extreme right side. Which means that position 4 is probably not a good choice.

But, if we are in the left side of the racing area, position 4 can be a good choice, because if blue try to tack, we will have a good point of view about the situation.

Have a look on green. We are agreed that if green tacks, she will cross behind blue and yellow. There is no way for green to cross ahead. Of course, we still need to have a look on it during the cross. Which means that we have to mainly focus on blue and yellow. This kind of thinking is very important, if there is no way for a future port boat (after tacking) to cross ahead of starboard, it means that for this next potential close situation, you will have to manage only a potential slam dunk (and no contact!)

Of course, all these explanations don't take in consideration potential match racing situation according to actual final ranking!

IV. Umpires interaction

1. Introduction

First, we have to make a difference between the first and the second leg!

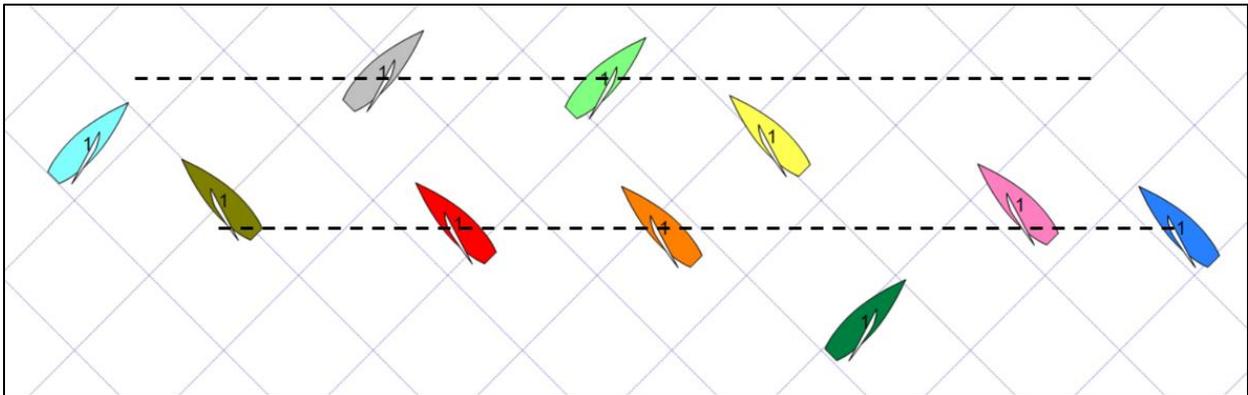
First leg: boats are more or less in the same "layer", or two layers with not a big separation. Which means that it is easy to move from a group on the left, to a group on the right. Because even if we are "block", impossible to go close to the boat, we will not be so far.

Medal Race positioning

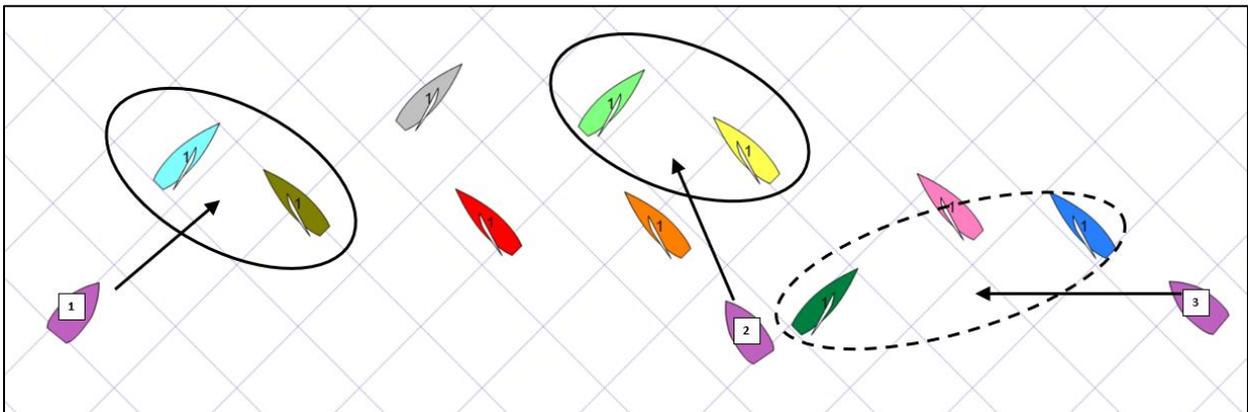
Second leg: now, boats are more in “group”. It can be complicated to move from a group in the middle of the fleet to a group of the top of the fleet. But, because there is more separation between the leader and the last boat, it means that each “group” are small, not so width, and the umpire can stay on the left or right of the top group (even higher) without disturbing the fleet.

Few examples will follow.

a) First leg



You can see that we have two “lines”, “layers”. It will be very difficult, impossible, to position an umpire boat between these lines. Which means that all umpire boats will stay behind the fleet.



In this solution, the “hardest” job will be umpire 2, because this is not the best point of view, but with many boats, especially after start, umpires need to manage with it.

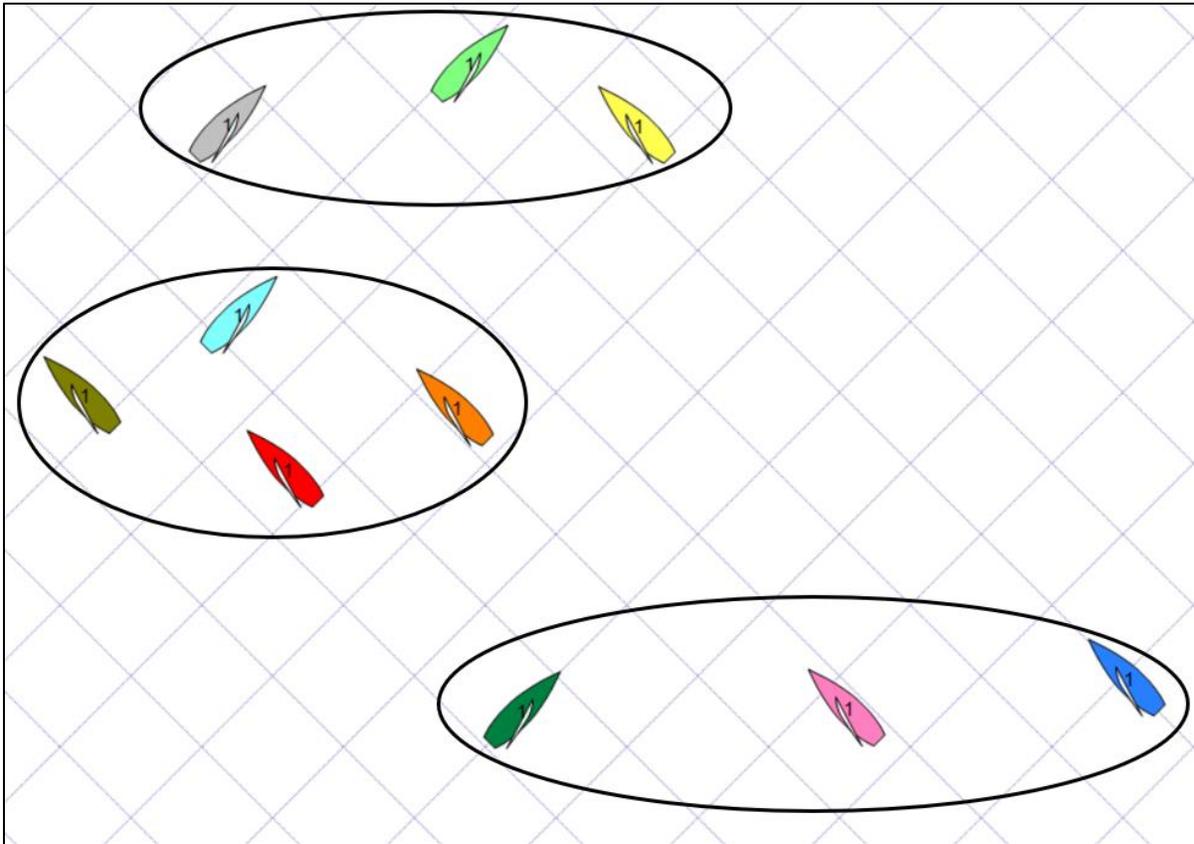
Umpire 3 is not in a common position. To be an umpire so “outside” the racing area is not common. But, in this situation, the complicated task is for umpire 2, so, umpire 3 needs to adapt his positioning according to umpire 2. To anticipate the next cross between dark blue and dark green, it can be a solution to stay there.

Medal Race positioning

b) Second leg

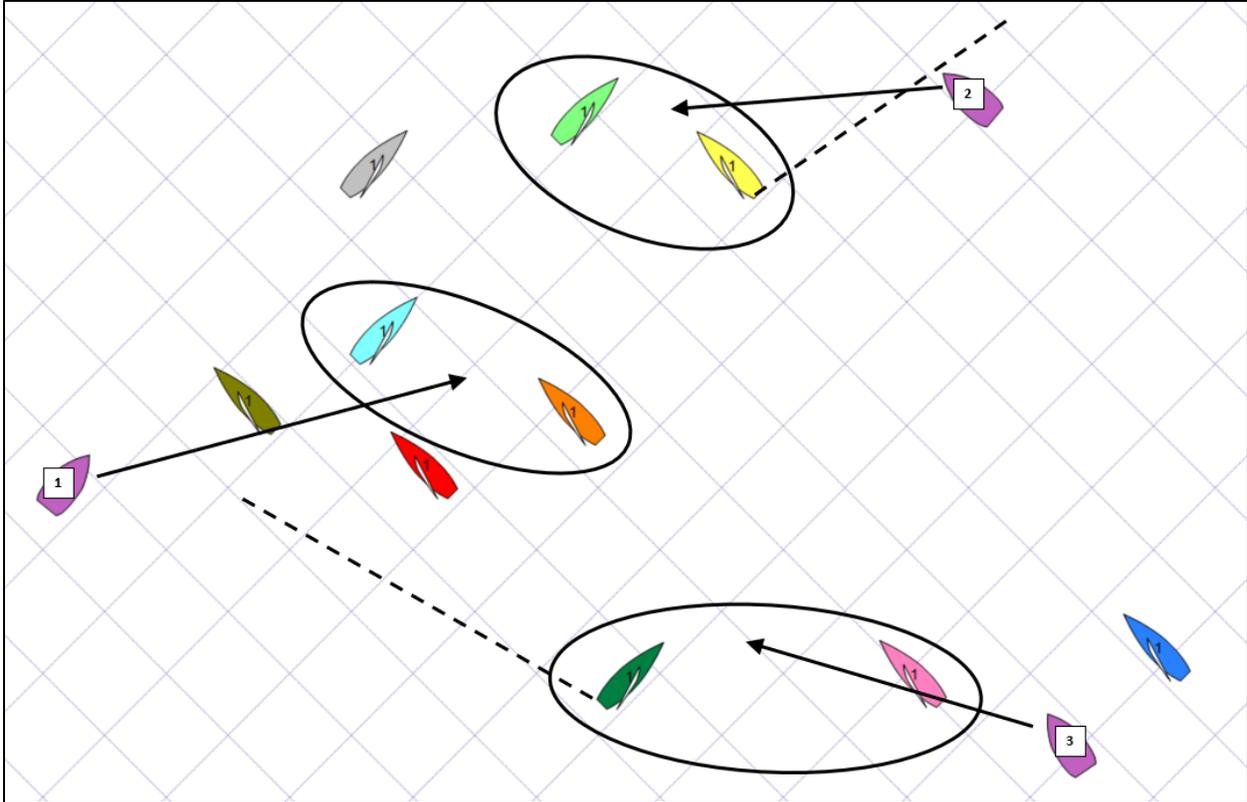
For the second leg, we will have something like that.

We have switch from the “line” mode to the “group” mode.



For this kind of situation, we can use this solution:

Medal Race positioning



Umpire 2:

Manage the cross between green and yellow, and the next one between grey and yellow, or green and grey if green tacks.

Umpires need to focus on yellow potential tack. This is the reason that umpire 1 is behind the dash line, which represents the port close-hauled course of yellow if she tacks.

Also, umpire 2 has a look on light blue because she is the closest boat behind him, and he needs to take care about potential disturbance.

If you remember, umpire 2 has chosen the “small green angle area” to check a port/starboard situation. If you are in the big green angle area, it means that you are leeward and closer to light blue boat! If you are on the right, you are windward, and so more distance and less disturbance!

Umpire 1:

He will manage the cross between orange and light blue. He needs to anticipate the red course, to not be blind when the cross will happen! Also, umpire 1 needs to take care about the dark green (last boat). If she tacks, umpire 1 needs to stay below her starboard close-hauled course!

Umpire 3:

This is the “easiest” driving, just to follow the close situation from behind.

F. Windward mark

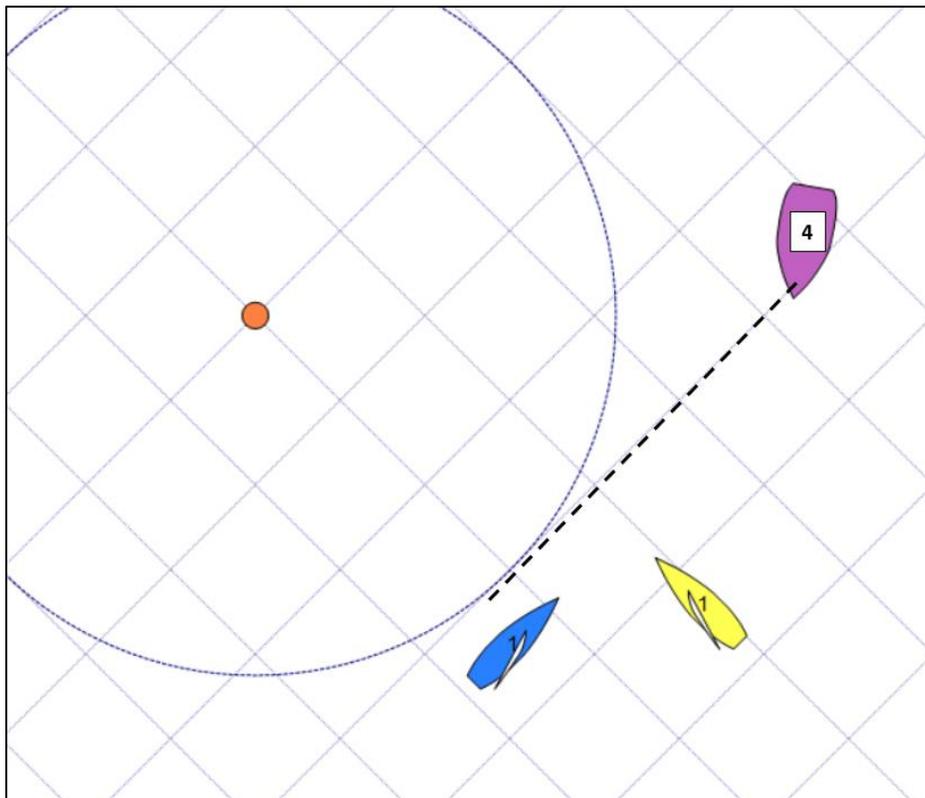
Take care about the other boat when they are rounding and going to downwind!!! Sailing boat and umpire can cross!!!!

Important: The rounding of the first windward mark is really important! Not only because the fleet is compact, but also it will determine the major part of the positioning for the next leg, the downwind leg. Especially with fast boat, if “you miss the train”, it will be impossible to catch the top part of the fleet without rushing too fast with a huge probability to disturb the other boats!!!

I. Umpiring with 4 boats

1. Position of umpire 4

In some race, you can have 4 umpire boats and not 3. In this situation, boat 4 will stay at the windward mark until the last downwind leg. At this time, umpire 4 will follow the last group of the fleet.



In this situation, umpire is positioning to see the entry at the zone.

Medal Race positioning

Why?

- If you want to overlap or clear, this is at the entry at the zone, not full windward of the mark.
- If a boat complete or not the take before entering the zone, you need to be very precise!

It is better to position the boat like this and managing the position with (slowly) reverse speed.

Inconvenient: if there is big wave... maybe your boat will be full of water!

2. Position of the other umpires

Umpire 4 is managing the rounding, so there is no need to rush full speed the rounding. It is time to anticipate.

There is one major question:

For the beginning of the downwind leg, do you want to be windward, or leeward of the group of sailing boat that you manage?

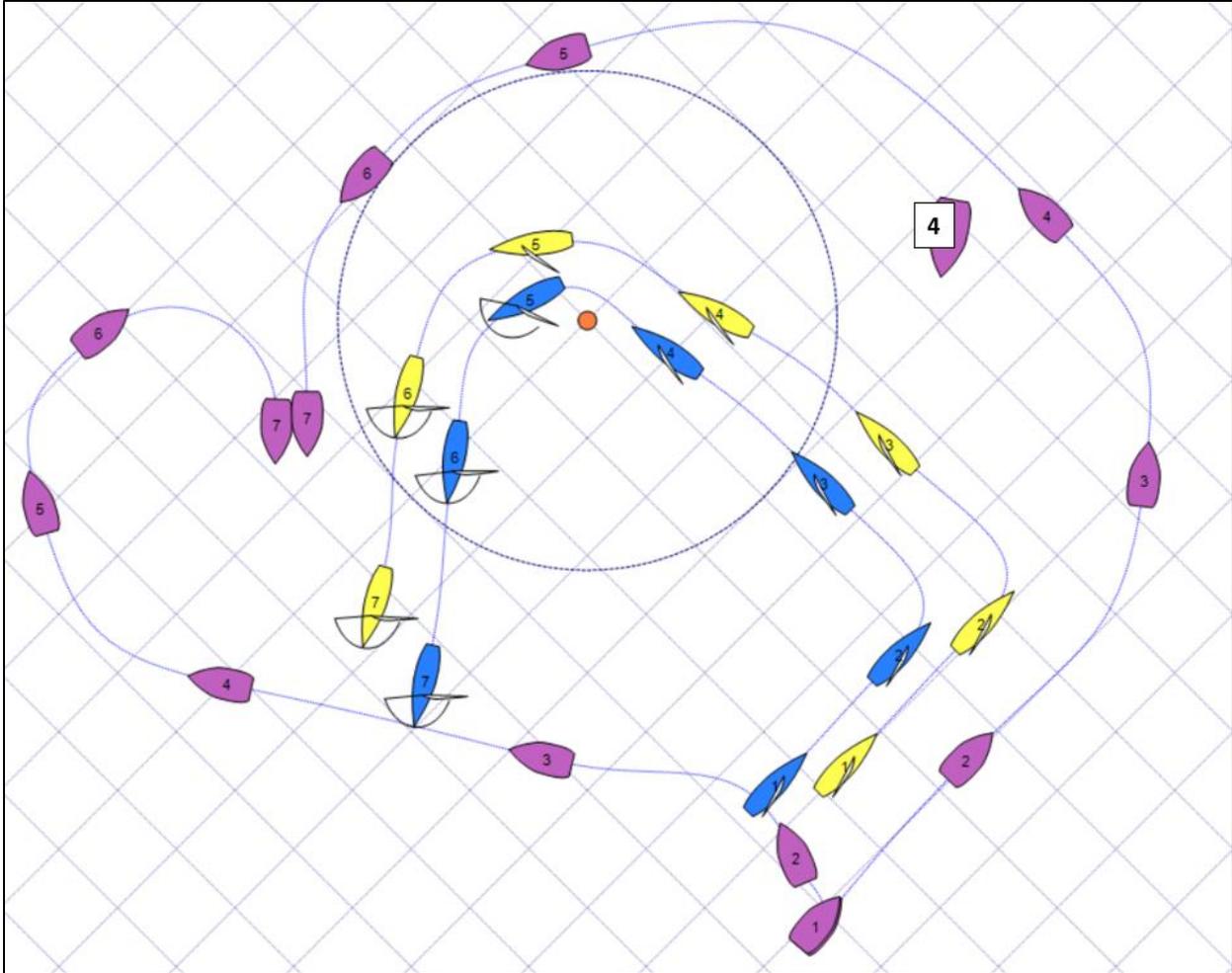
If you want to be windward, "round" the mark with them, or anticipate and be in standby on windward. Of course, pass windward of umpire 4 to not disturb them. Risk: if you are wrong on your "lay-line", you will be exactly on the axis of the boats! If you are too late, your washes will disturb the foiling boats!

If you want to be leeward: do not round the mark, stay on leeward. Risk: what happen if the boats gybe? Will you be on the future axis?

a) Windward positioning for the next downwind leg

In this situation, we have the two possibilities for a windward positioning for the next downwind leg:

Medal Race positioning



Position 1: at this time, you need to choose! Do you have enough time to go on the left before they round the mark? If yes, do it, if no, follow them by the right!

Remember: don't disturb umpire 4!!!

video 4 windward mark: rounding with sailing boats

video 4 <https://www.sailcup.com/rules/positioning/doc/video/windward-mark-left.mp4>

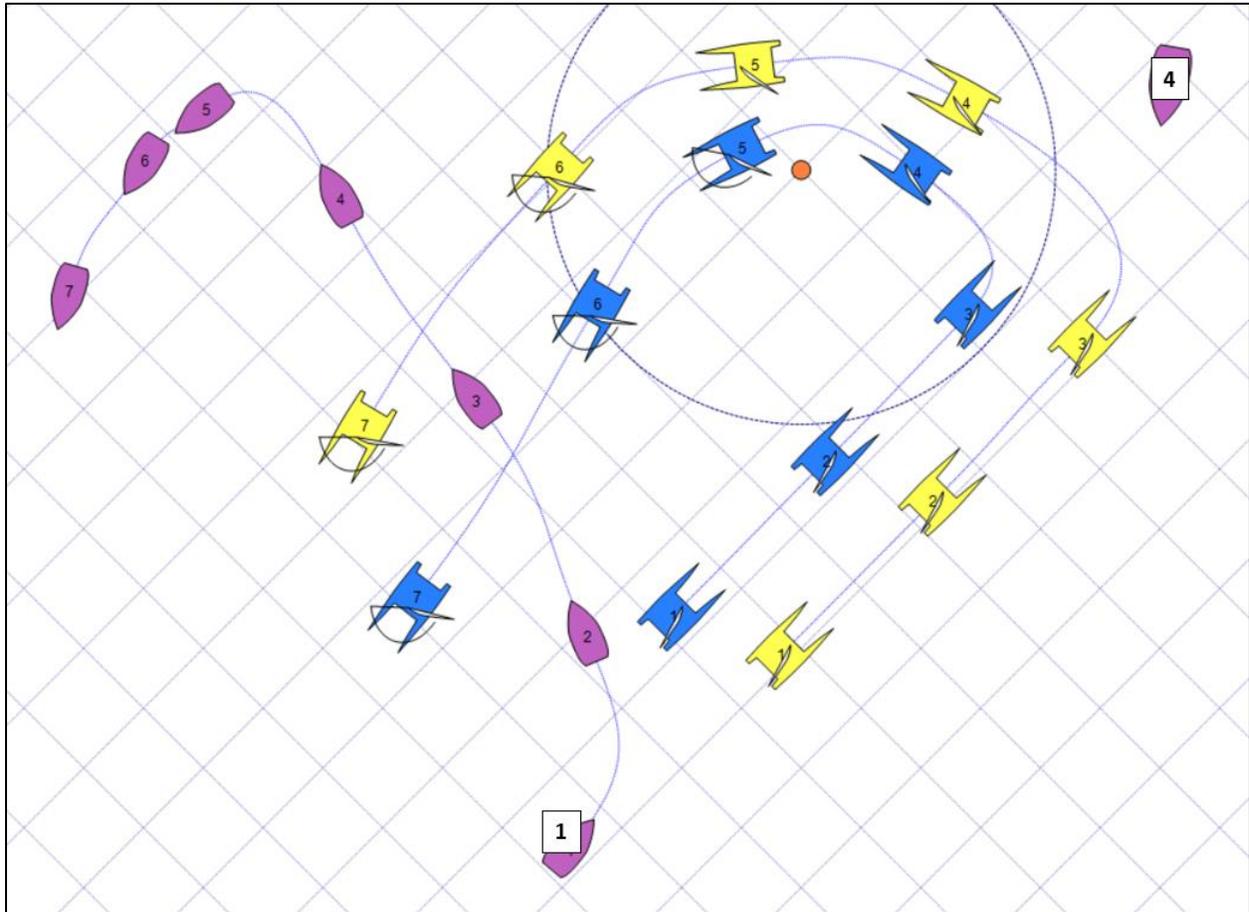
video 5 windward mark: waiting on the future position

video 5 <https://www.sailcup.com/rules/positioning/doc/video/windward-mark-right.mp4>

Medal Race positioning

b) Windward positioning for the next downwind leg with fast boats

Here an example with fast boat (multihull):



First thing: as umpire 1, 2 or 3, be sure that the next situation will be managed by umpire 4!

You can leave the situation and prepare yourself for the next one (for you): the downwind. In position 1, umpires realize that there is no risk and start to maneuver to the left part of the area. But, if any problem, they can back in the game quickly.

In position 2-3, they cross the next course of the sailing boats. At this moment, they need to know if they are enough early. If yes, they can continue, if not, STOP immediately and follow the boats and round the mark with them.

In position 4, 5, 6, umpires are waiting the sailing boats. In position 7, back in the game to follow yellow and blue.

Critical point: as you understood, in position 1-2, umpire driver needs to be absolutely sure that the move in position 3-4 will not disturb the sailing boat for future position 6 - 7!!

Medal Race positioning

video 6 windward mark with fast boats

video 6 <https://www.sailcup.com/rules/positioning/doc/video/windward-mark-multihull-standby.mp4>

Fast boat:

Because we are not in an ideal world, it can happen that the first and/or the second umpire are late, the last hope is the third umpire who can catch the leading boats!

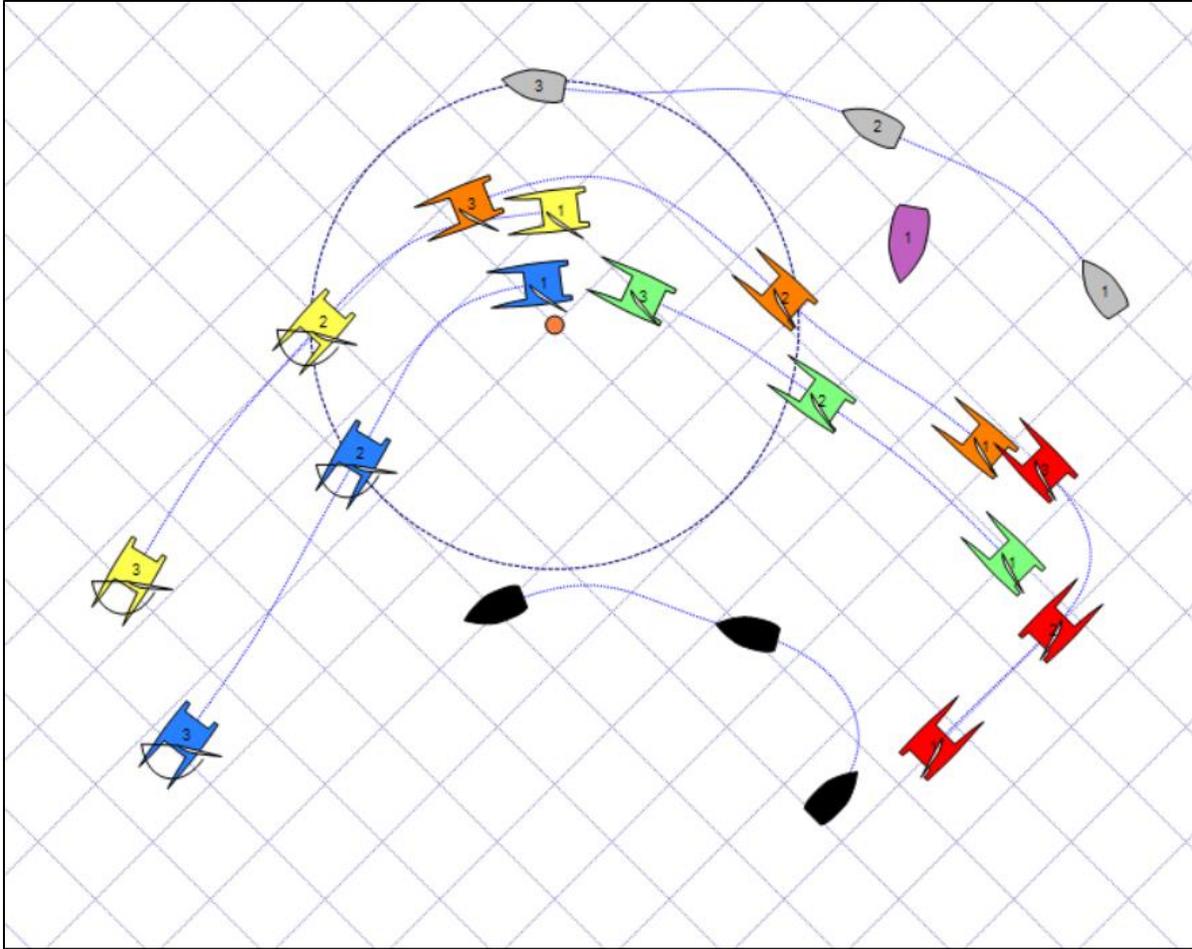
Here a sample:

In this situation, grey umpire is late! So black umpire will “jump” to cover the top part of fleet! This is interesting to notice that even umpire 4 needs to be ready to cover all fleet, and to know where the other umpires are! To maybe, not to focus only on the zone, but a little bit more.

Initially, black umpire wanted to follow orange and green, but because grey umpire is late, it will more logical that black and grey umpires swap together. Especially with fast boats, really complicated to follow if you are late at the beginning!

Notice that black umpire, in position 2 do not turn fully on the left, just in case that yellow or blue gybe!!! To avoid being “bow to bow” with a sailing boat!

Medal Race positioning



Back to the initial diagram: always, always knows where the other umpires are!!!!

video 7 windward mark multihull

video 7 <https://www.sailcup.com/rules/positioning/doc/video/windward-mark-multihull-last-hope.mp4>

II. Umpiring with 3 boats

When, for any reason, you have only 3 umpire boats and not 4 boats, the process is different.

Each umpire will follow his group of boat!

Most of the time, umpire will “round” the mark with his group and immediately follow them in the downwind leg.

III. Conclusion

We have seen previously some situations. On the water, you will have to adapt with other sailing boats!!!

On these situations, we had only the boats involved on this call. But some positioning will be just impossible, because other sailing boats will prevent you to be in the “ideal” position.

Again, you need to always know where ALL the boats are (and all umpire boats)

G. Downwind leg

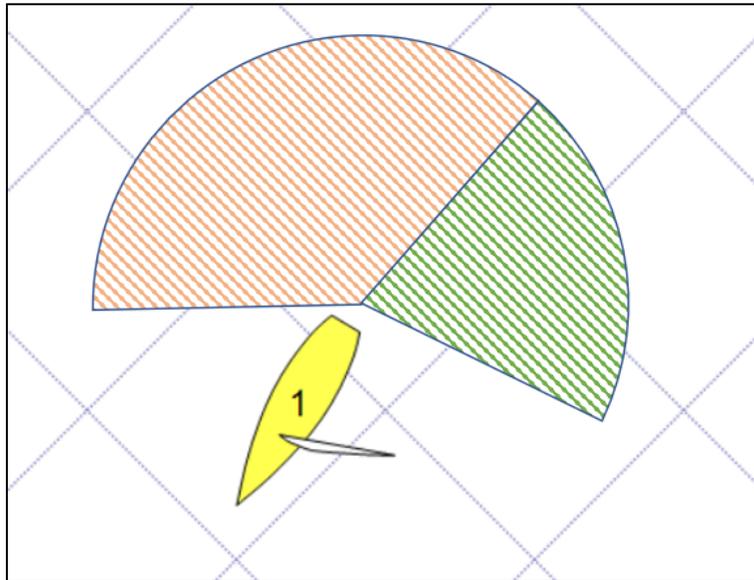
I. Micro positioning

1. General positioning

Important: Like in the upwind leg, always, always, take in consideration that any boat can gybe at any moment!!!

Here, if you stay in orange position, you will not disturb the boat with potential waves, but you can disturb the crew with noise, motor smelling or you can also be just between the next gust and the boat. Which is not really fair for this crew to anticipate or build their downwind tactic.

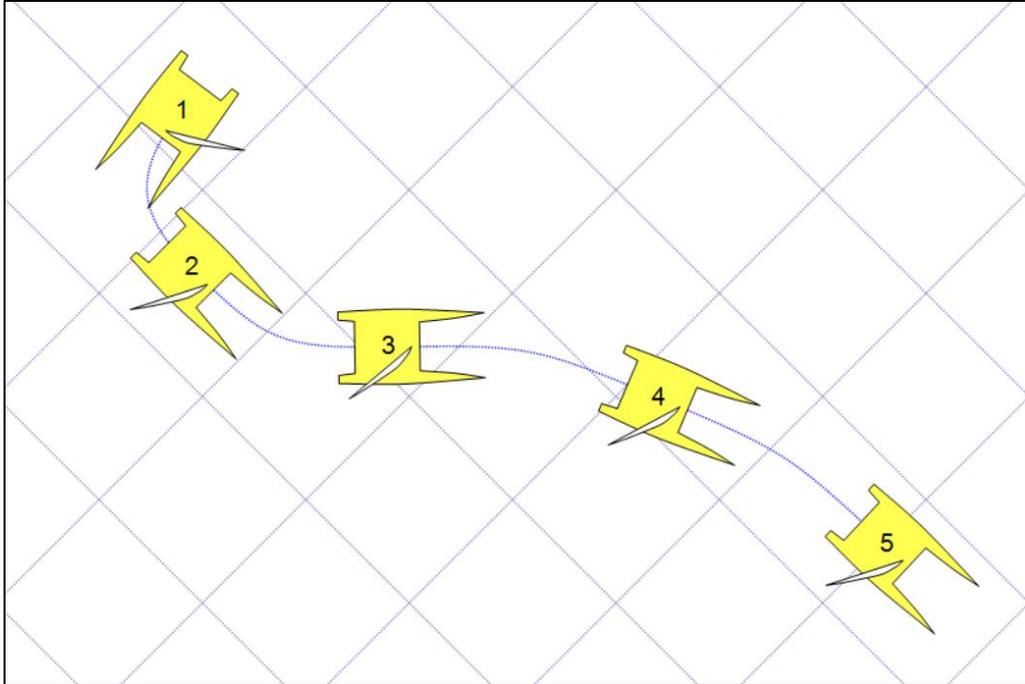
The green area is the best. You can check the boat and you will not disturb her if she gybes.



Fast boat:

Fast boats are trickier. In this category, I consider boats like: board, multi-hull or 49er.

Medal Race positioning



As you can see, after the gybe in position 2, boat can luff quite high to take more speed and after going down. Position 2 and 5 are parallel, but 5 is more windward!!!

With fast boats, as umpire, don't go too further in the leeward side, you can be surprised in case of gybe!

2. Luffing situation

When two boats are on the same tack, one can be faster (clear wind, good surf or pumping) and the situation will go from a clear astern to an overlap situation.

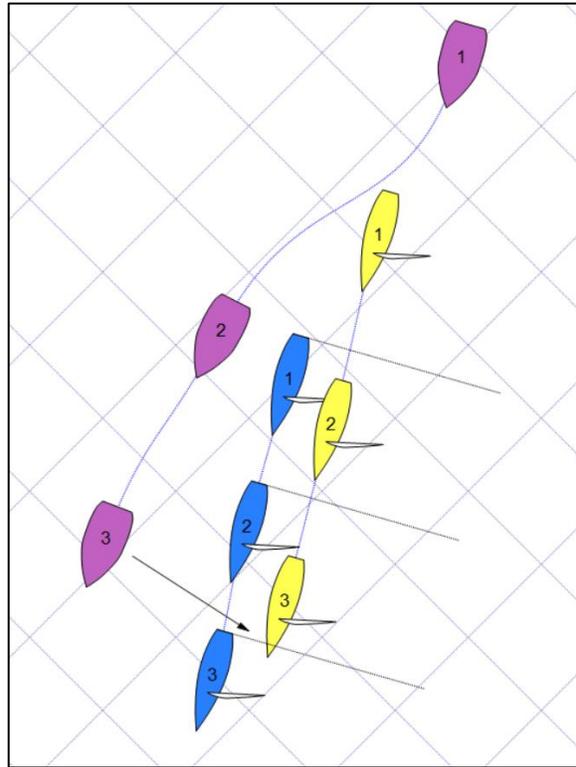
We have two mainly situation, depending if the overlap is created leeward or windward.

a) Create overlap on leeward

Yellow faster will be overlap to leeward of Blue. Two points are important here:

Medal Race positioning

- Creation of the overlap: at this moment RRS 15 apply, so two modifications:
 - o Blue's obligation as windward boat to keep clear as required by RRS 11.
 - o Yellow's obligation as new right of way boat, acquiring right, to give room to Blue to keep clear as required by RRS 15. If you miss this moment, you will have a false delay for the previous estimation
 - o Yellow has potential RRS 17 restriction!
- The distance between the Yellow's bow and Blue's stern: if the distance is too small, probably Yellow will infringe RRS 15. At the opposite, if distance is big and we have later a contact, maybe Blue was not keeping clear. Of course, if the distance is more than 2 lengths, there is no more RRS 17 for Yellow!!!



The crucial point, time, is to be in position when the overlap will be created. You have to anticipate, by looking the speed of the boats, if yellow is faster. If yes, go directly in the future position when the overlap will be created. If you wait, you will be late, and need to go fast and to make big disturbances.

Scenario:

- Position 1: umpire is waiting in good position to not disturb Yellow, but at same time, they realize that yellow is faster. So, they start to anticipate and accelerate by moving windward of Yellow.
- Position 2: Overlap will be created soon, and the umpires have already a good point of view if it is clear or overlap and both distances.
- Position 3: overlap just created, umpires know the distance between the boats, and they can decide if any problem with RRS 11 and/or RRS 15. The arrow indicates the point to check!

video 8 downwind overlap leeward

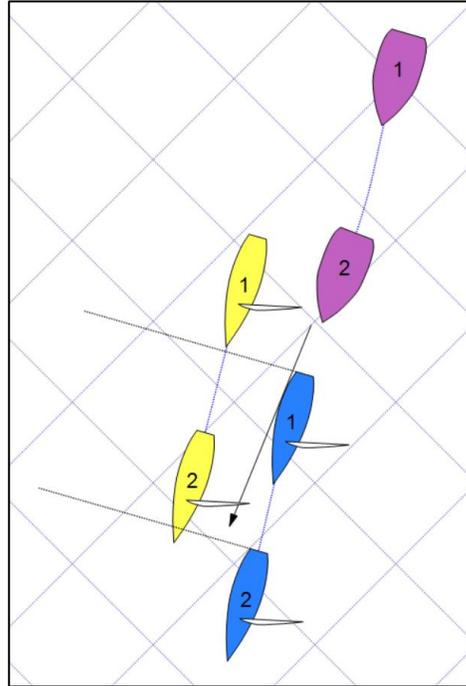
video 8 <https://www.sailcup.com/rules/positioning/doc/video/downwind-overlap-leeward.mp4>

b) Create overlap on windward

In this situation, the astern boat is still faster, but she will choose to overlap to windward. For the rule, Blue will be still right of way, so the moment when the overlap will be created is not very important.

The crucial point here is to now the distance between the boat (the arrow in position 2). The jury will know if Yellow creates the overlap to close of the leeward Blue, and thus, put herself in trouble with RRS 11.

Of course, at the opposite if the distance is quite enough and we have later a contact, maybe Blue was luffing too fast and a potential breach of RRS 16.

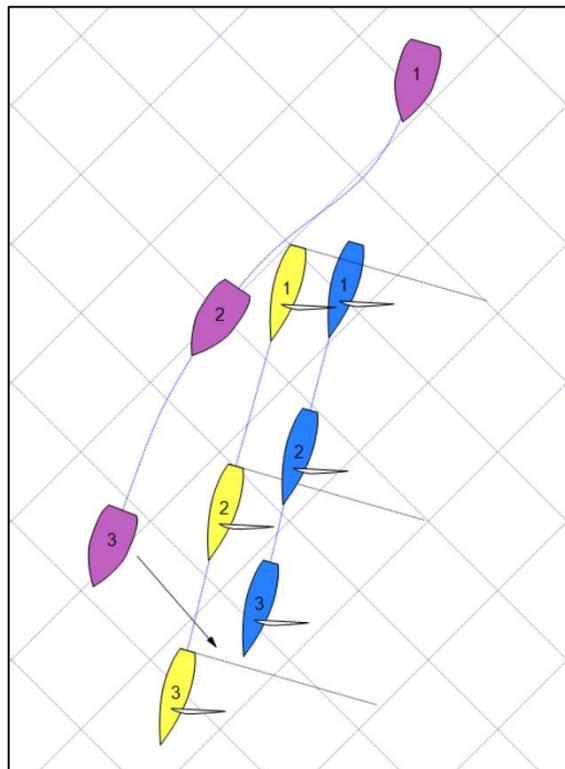


c) Breaking an overlap on windward

Breaking this overlap in this situation is very important! When Yellow will break the overlap and become clear ahead, it is very important to be absolutely sure that the overlap is broken! Thus, we need to have a good vision angle for the overlap! Of course, to avoid a fast and brutal acceleration of driving, we need to anticipate this movement before.

Remember, when it will happen, Yellow will be now clear ahead, but the most important point is that if Blue overlaps again, she will have RRS 17 and potentially the obligation to sail, or below, her proper course, which can be to gybe!!

It can be a very tactical move, thus, important to be well positioned!



Medal Race positioning

Same principles occur:

- Position 1: waiting astern, little bit on leeward to not disturb boat and to check RRS 11, potentially RRS 16 and RRS 42. You detect that Yellow is faster, start to move in position 2
- Position 2: Yellow faster will break soon the overlap, you need to be sure. Because you have accelerated before, now, you are faster and can start to decelerate, you will be in good position for the next step.
- Position 3: overlap broken, you are in good position and can be sure that RRS 12 apply!

video 9 downwind overlap windward broken

video 9 <https://www.sailcup.com/rules/positioning/doc/video/downwind-overlap-windward-broken.mp4>

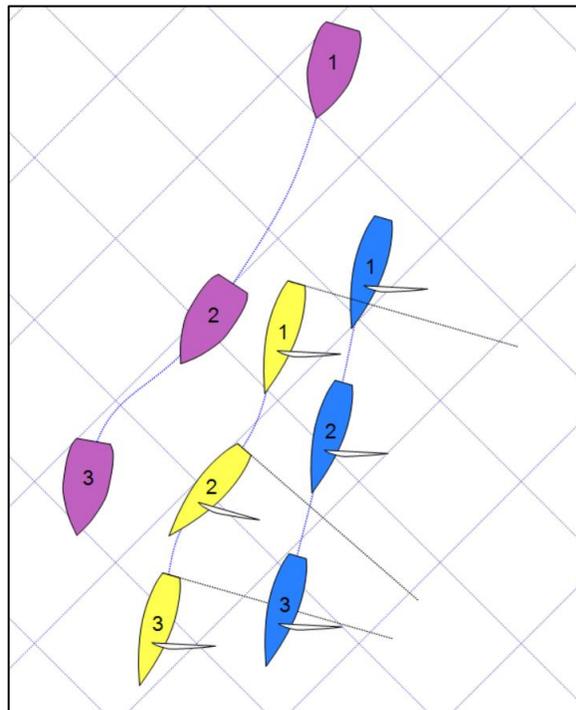
Tactical move for RRS 17:

In this situation, Yellow and Blue are approaching the lay line. RRS 17 doesn't apply and Blue can "push" Yellow during a long time.

Yellow tactic is to luff in position 2, break the overlap, and to bear away to create an overlap from astern. At this point, RRS 17 is ON for blue and she must gybe to sail a proper course at the lay line.

The crucial point for this Yellow's tactic is to be sure that the overlap is broken.

Position 2 of the jury's boat is critical! We need to anticipate! When we see Yellow starting to luff, we can turn to windward and accelerate a little bit (not too much to avoid waves) and when Yellow goes down, to immediately but the throttle in neutral position and turning to leeward to be well positioned and not too much forward!



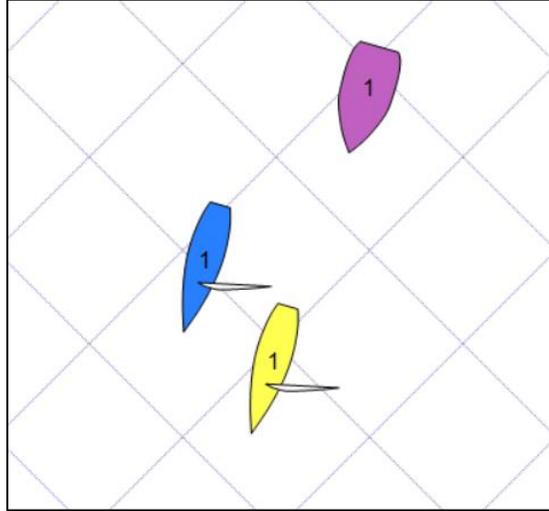
video 10 downwind overlap windward broken RRS 17

video 10 <https://www.sailcup.com/rules/positioning/doc/video/downwind-overlap-windward-broken-17.mp4>

Medal Race positioning

d) Breaking an overlap on leeward

We start with this position:

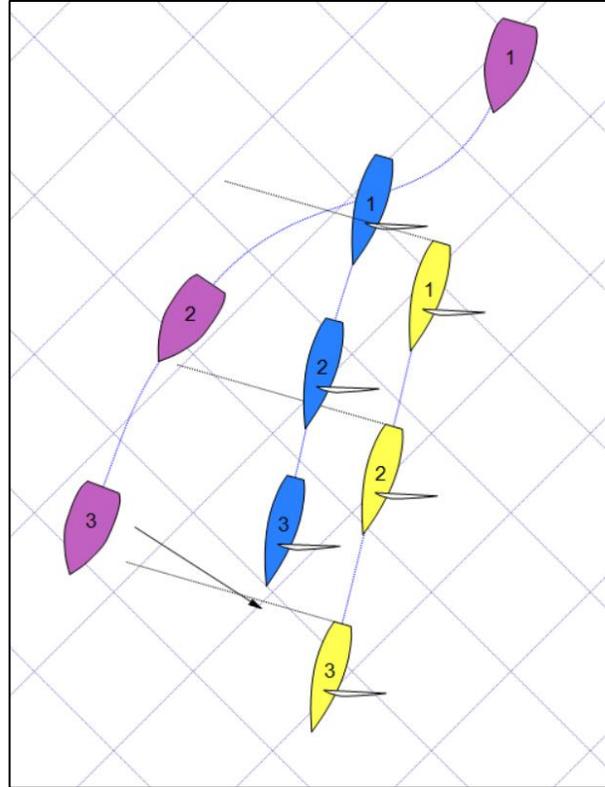


At this point, if RRS 17 doesn't apply, you have nothing special to check if the overlap will be broken or not.

But, if RRS 17 apply, this is a totally different move that we describe here:

Medal Race positioning

You must be sure if overlap is broken or not. Of course, Yellow will be still right of way (leeward right or ahead right). But, if Yellow can break the overlap, RRS 17 will not apply anymore, even if immediately after, Blue create again an overlap.



Scenario:

- Position 1: you feel that yellow is faster, so you start to accelerate to windward to be well positioned for future position 3
- Position 2: yellow still faster.
- Position 3: when overlap is broken, you are in good position.

video 11 downwind overlap leeward broken

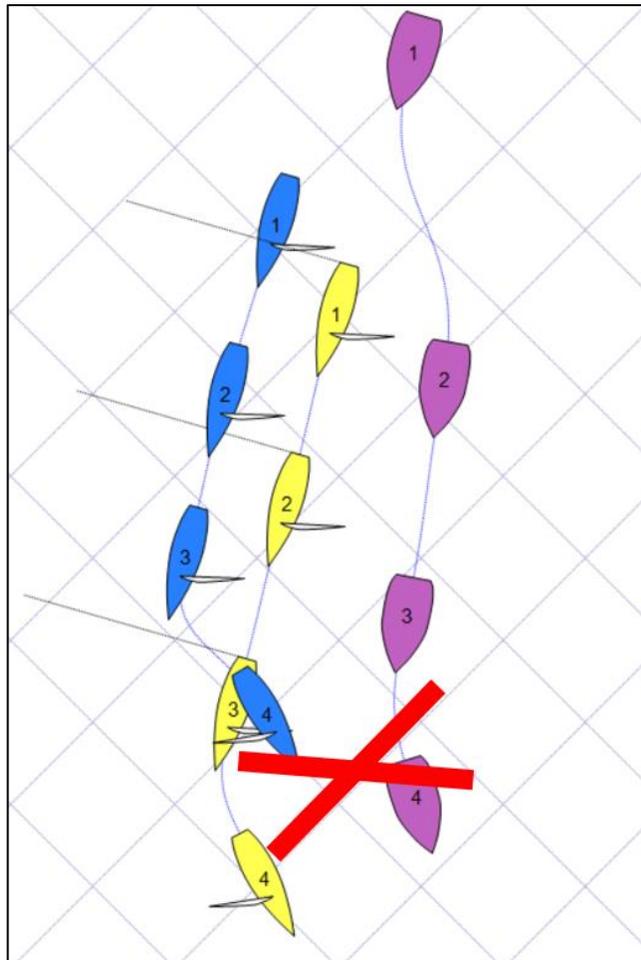
video 11 <https://www.sailcup.com/rules/positioning/doc/video/downwind-overlap-leeward-broken.mp4>

Warning:

You are positioned in a “standby position” in position 1, leeward of the boat. If you go just forward, you can also check the overlap broken from leeward.

But, if at this moment Blue gybes, you will be exactly in front of the blue boat!!!

The ONLY moment when you can check the overlap broken from leeward is when both boats are on the layline and there is absolutely no double or possibility for one of the boats to gybe!!



3. Port – Starboard crossing

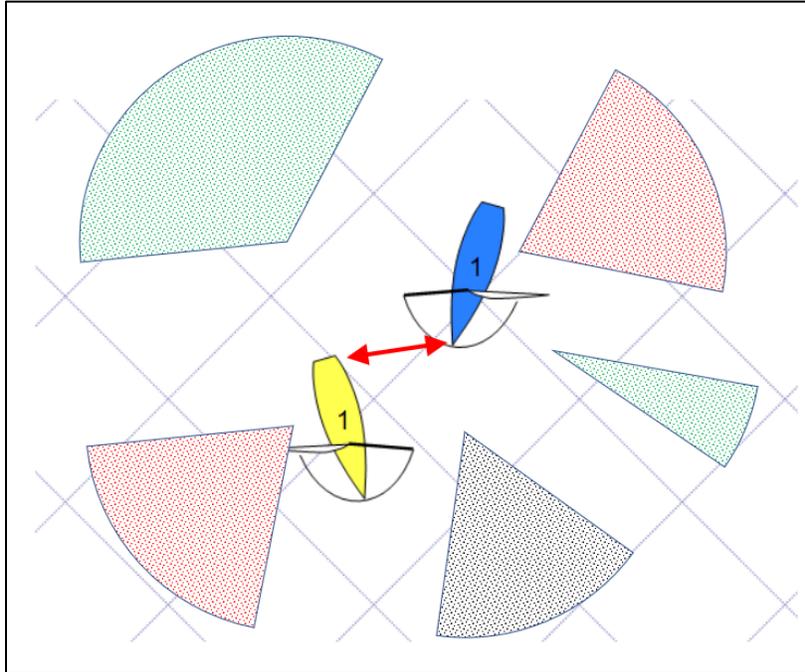
a) Introduction

Of course, if starboard is crossing ahead of port, there is nothing special to check! We will focus on the situation where port can, maybe, cross in front of starboard.

Medal Race positioning

There are two important things to check for a port starboard cross in downwind:

- The distance between boats: here, this is the red arrow!
- The, possible, alteration of course from the right way boat, here blue.



So, you need to be positioned to see both things:

- Red parts are bad! It will be impossible to see both things: distance between boats and potential alteration of right of way boat.
- Black part is forbidden! This part is excellent to see the distance and also the alteration from the right of boat, but, one second later, it will be a total disaster to be in front of both boats!
- Green part:
 - o The big green part, on the left, is the best choice, you can check everything.
 - o The small part of the right can be also a solution, but a big risk if blue gybes! **Be careful:** this area is very small especially with fast boat (Nacra, 49er, board), avoid as much as possible. You need to know it because some time you don't have other option but take care!

b) Right of way gybe

Here, the starboard right of way will gybe, and complain that he made it on purpose to avoid collision.

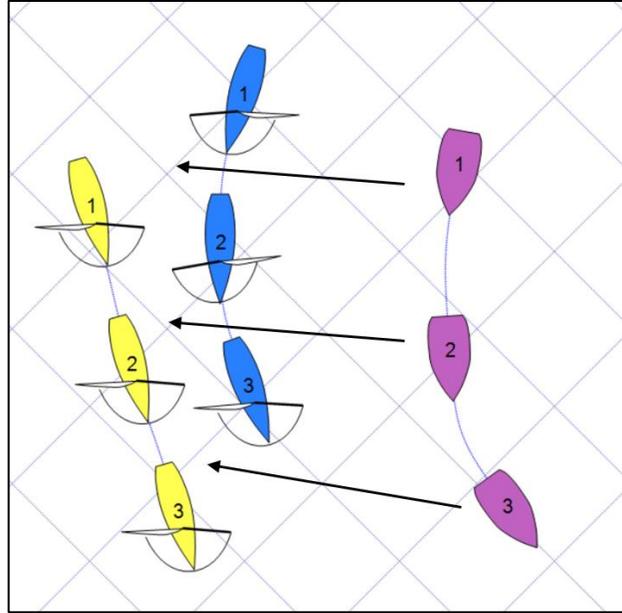
In this situation, we have a collision course when the right of way boat starts to gybe. But you must determine if the contact occurs without the alteration of blue and RRS 10 (really need to go down to avoid) or if the contact occurs because the right of way was altering her course and now, at this moment we can have a contact and RRS 16 apply.

Medal Race positioning

In this scenario, you are positioned at the “small green” part. You need to be very proactive and to turn left immediately. By doing this, during all process, you can check the distance between boats.

This is not an easy way because the driver needs to drive by looking behind, which not so common!!

And, if Yellow starts to luff immediately after the blue’s gybe, you will be not so very well positioned!



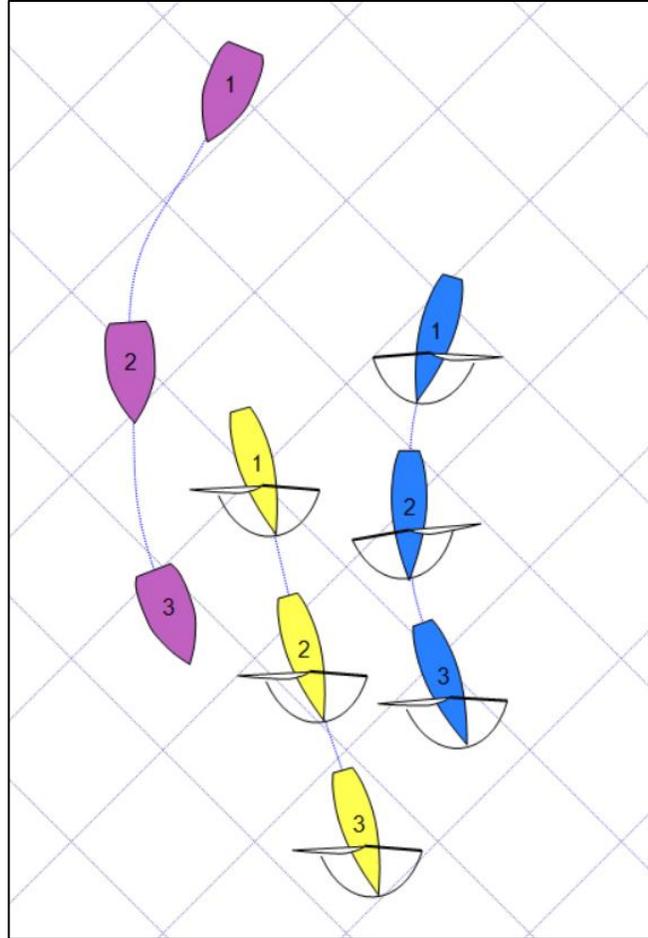
video 12 downwind cross gybe umpire outside

video 12 <https://www.sailcup.com/rules/positioning/doc/video/downwind-cross-gybe-outside.mp4>

Medal Race positioning

For the same situation, the umpire boat is windward of the boats.

In this position, you can see the distance without problem, and you are also very well positioned if yellow starts to luff immediately after the gybe.



video 13 downwind cross gybe umpire inside

video 13 <https://www.sailcup.com/rules/positioning/doc/video/downwind-cross-gybe-ump-inside.mp4>

c) Right of way luff

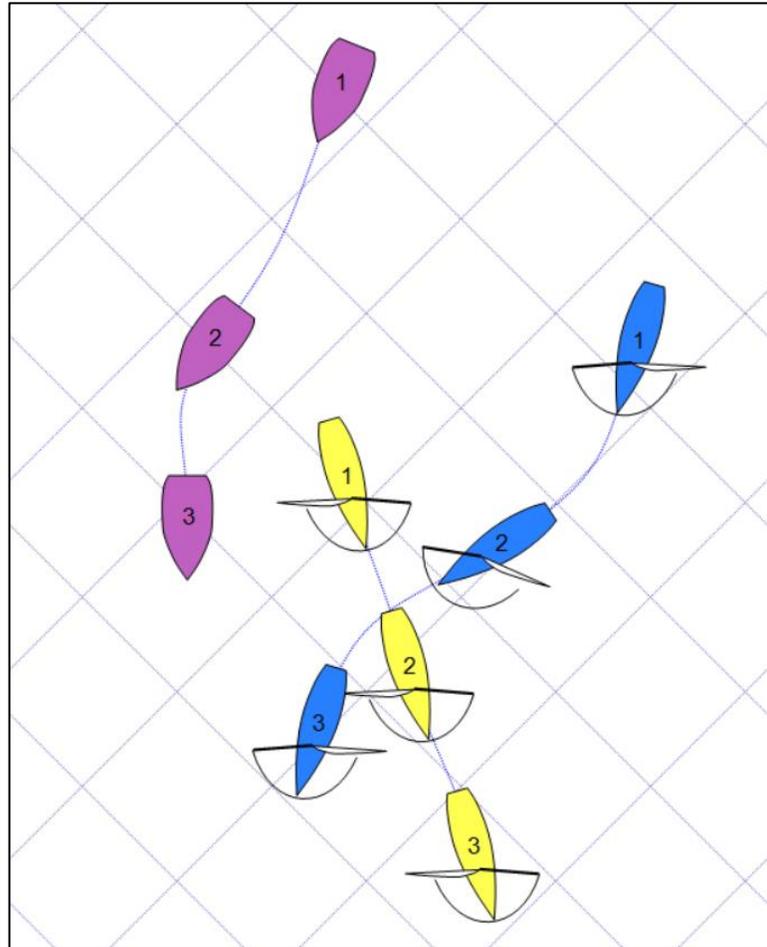
Here, the starboard right of way will luff, and complain that he made it on purpose to avoid collision.

The problem, especially with fast boat, if the right of way luffs, the speed will increase so fast that, as umpire, we will have the feeling that the right of way really needs to luff. Because when the boat will be close, the right of way already luffed, and she has a higher speed.

The critical point is again the distance between the boats.

You need to always have a look on the distance between boat but ALSO on the rudder of the right of way!! If you miss the rudder, you will not be able to judge when the right of way made the alteration.

In this position, good point of view of the distance between boats, but the alteration of the right of way boat can be a little bit harder to check.



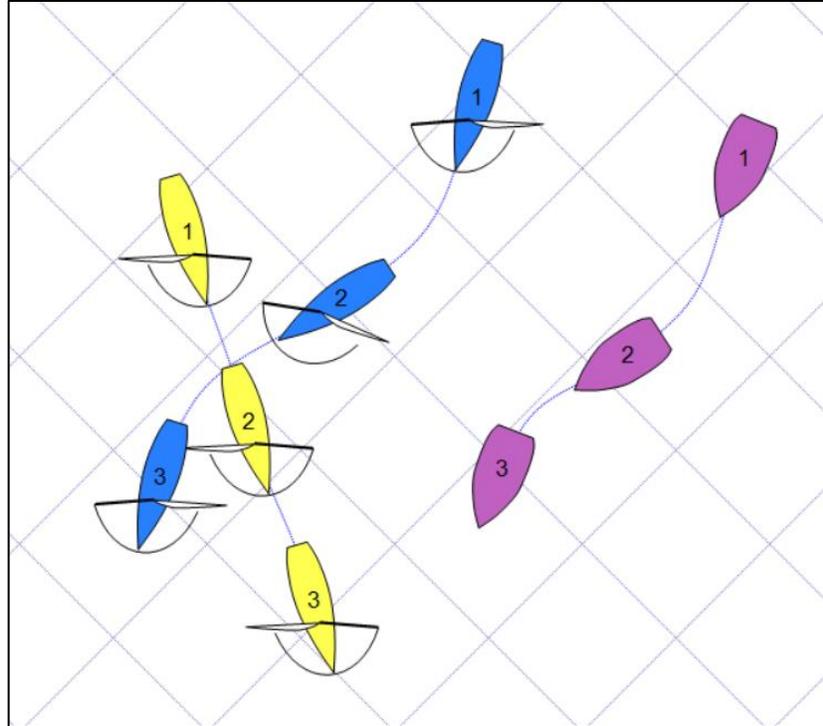
video 14 downwind cross luff umpire inside

video 14 <https://www.sailcup.com/rules/positioning/doc/video/downwind-cross-luff-ump-inside.mp4>

Medal Race positioning

If you are initially positioned “outside”,
You have to take care to always see the distance between the boat.

The good point of this position, you have a really good point of view of the right of way alteration, but, take care about the distance between boats.



d) Conclusion

When port and starboard cross, depending if right of way luff or gybe, positioning is different, and, if you are “outside” or “inside”, the point of view is completely different. How to choose?

Experience will help you to choose!

For example, always know where the next mark is. Even if a right of way boat needs to avoid a boat, he will try to do it without losing too much distance.

II. Macro positioning

Now, you know how to position yourself to manage two boats, we will introduce more boats!

1. A pair matching crossing with a third boat

In this situation, you follow two boats, and a third is coming.

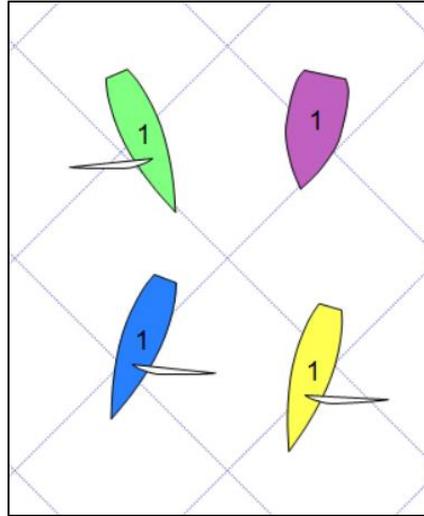
Medal Race positioning

The key point, as always, is anticipation!!

In this situation, you follow blue and yellow, and green is coming.

Obviously, this is too late!!!!

To avoid this situation, we will examine few different samples.



Medal Race positioning

a) Sample 1

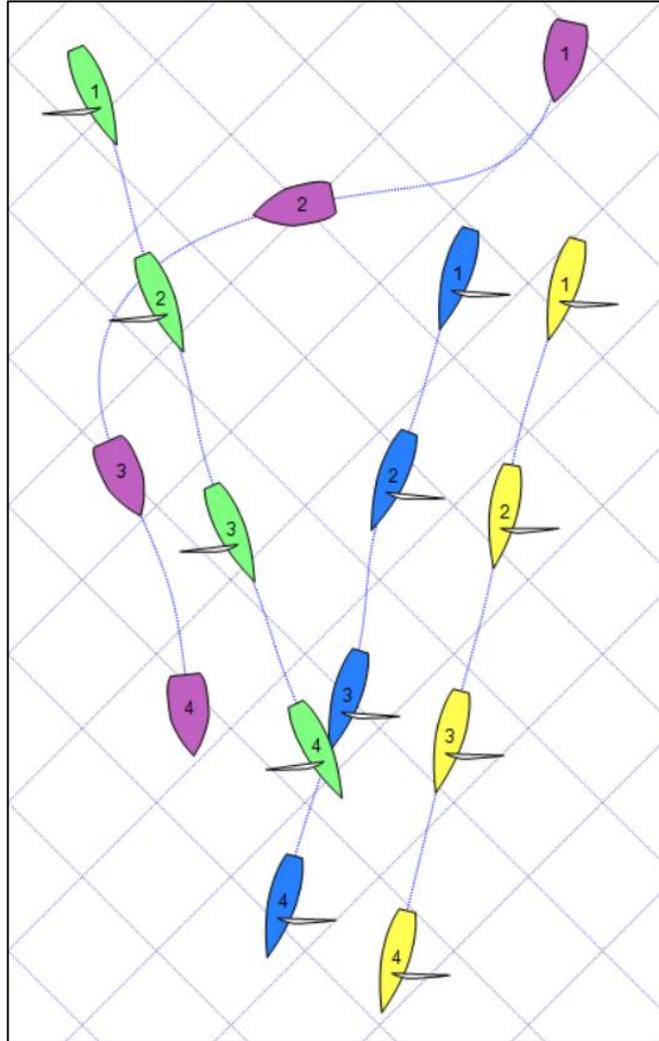
Position 1: at this moment, you already need to know if blue and yellow can both cross in front of green. If you are absolutely sure, then you need to anticipate now, and to move in direction to pass astern green. Of course, during this move, still have an eye on yellow and blue. If there is any doubt about crossing in front of green, stay in this position and now use the “micro positioning” between green and blue.

Position 2: continue your move to pass behind green

Position 3: you have passed green, you can focus to your initial pair. Warning: according to “murphy’s law”, green can gybe at this exact moment!!!

Position 4: you catch again your pair and be careful that green can gybe at any moment.

This move and positioning is to use when you think that situation 4 can be potentially close and you don’t want to wait green to cross in front of you.



With this positioning, you choose when you want to be blind and you don’t let the competitor to choose for you!

Always use this positioning with fast boat (Nacra, 49 and boards). Never cross in front of them!!

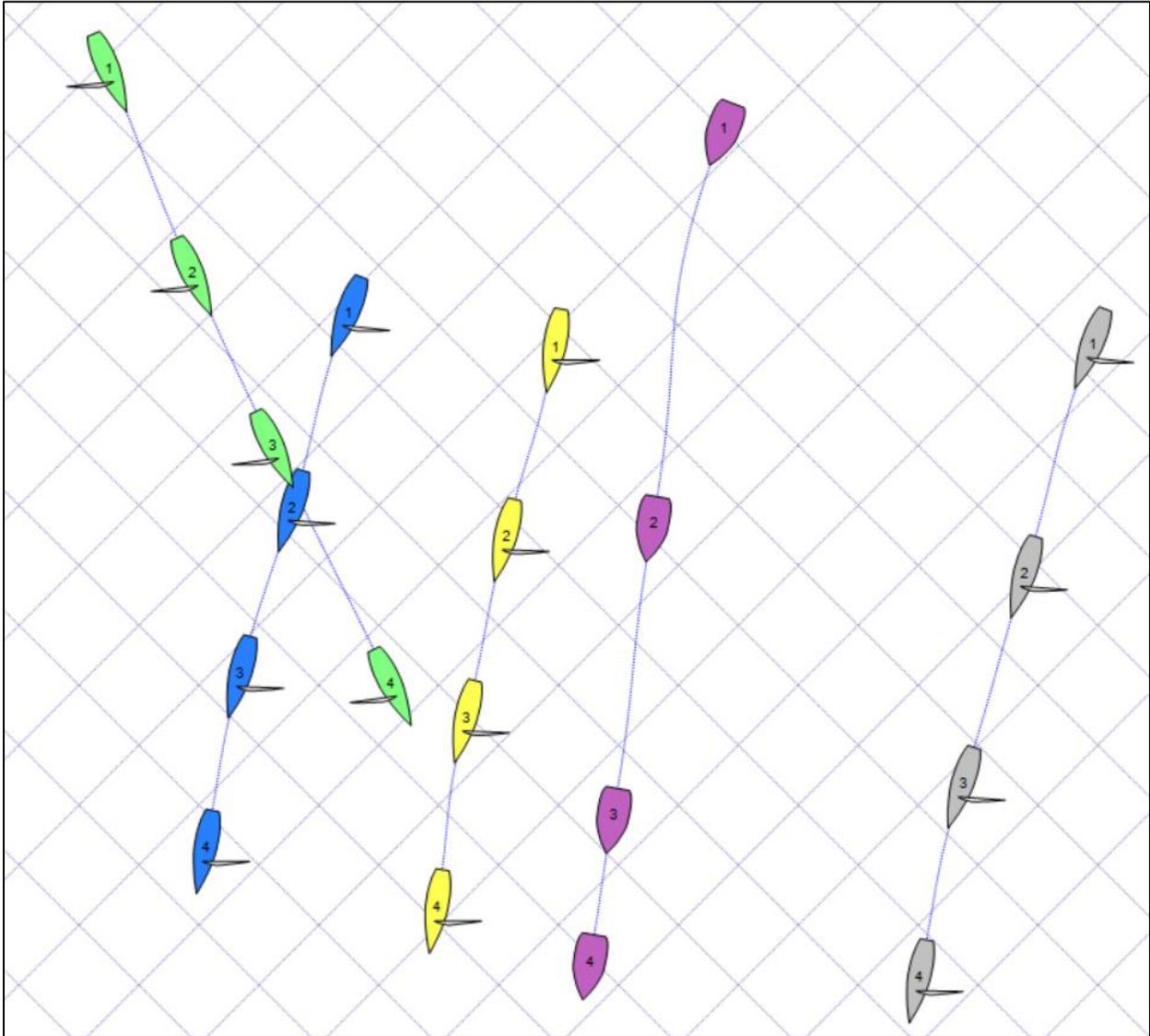
video 15 downwind cross macro 1

video 15 <https://www.sailcup.com/rules/positioning/doc/video/downwind-cross-macro-1.mp4>

Medal Race positioning

b) Sample 2

In this sample, there is no doubt that green will cross behind the three boats that you are managing: blue, yellow and grey. But green is on a collision course with you. You don't want to pass astern of green because green is too far from the other boats, and you don't want to lost contact.



In position 1, you know that all your boats will cross in front of green, but you, as umpire boat, you are too close. It is better to move forward faster to position 2 and 3, and after, to really decrease your speed.

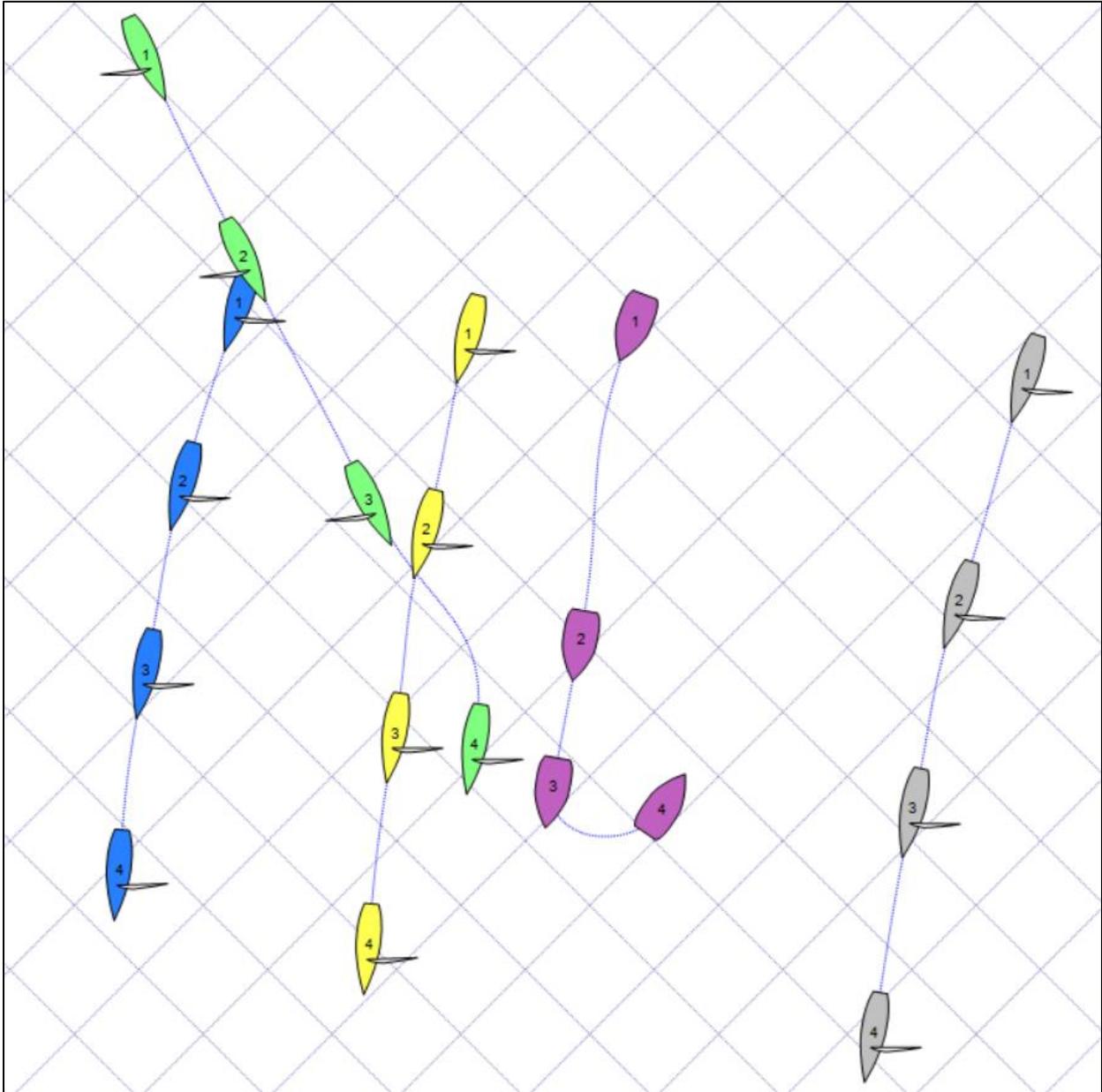
In position 4, when green will pass behind you, your turbulence will be very low, and you can still manage your boat. At this moment, don't go too further! Never cross the future course of Yellow if she gybes!!

Medal Race positioning

video 16 *downwind cross macro 2*

video 16 <https://www.sailcup.com/rules/positioning/doc/video/downwind-cross-macro-2.mp4>

The big risk is if green gybes! You will be in front of her. Immediately turn back by the left!



video 17 *downwind cross macro 2b*

video 17 <https://www.sailcup.com/rules/positioning/doc/video/downwind-cross-macro-2b.mp4>

Warning: again, never do this move with foiling boat or fast boat!!!

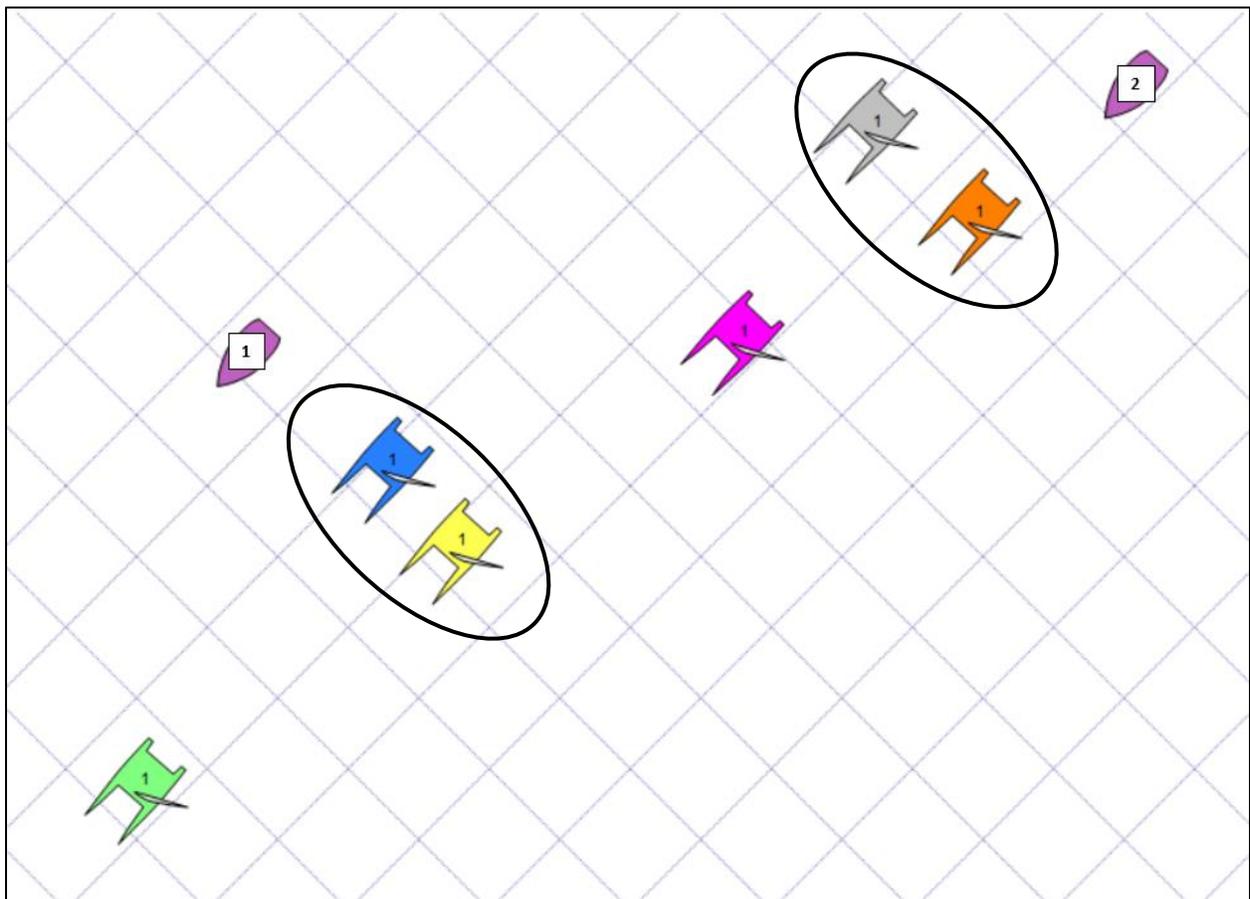
III. Umpires interaction

There is no standard plan!!

In this part, I will show you some “classic” situation and how to solve it. After, you have to remember and to adapt each situation to your particular one!

1. Sample 1

In this situation, umpire 1 follows 3 boats (1 ahead and 2 close). Umpire 2 follows also 3 boats (1 ahead and 2 close). Group 2 is behind group 1.



First, group 1 (yellow, blue and green) are more “windward” than the second group (pink, orange and grey).

It means:

Medal Race positioning

- Umpire 1, staying windward of his group will not disturb the second group (but still take care of the wave from the umpire boat, especially maybe for grey).
- If Yellow and Blue gybe, it will be difficult for umpire 1 to follow these boats!! Yellow and blue are too close from pink, and umpire 1 will create too much disturbance!

What are the next potential conflict situations? This is the most important question all time!!! Always anticipate next potential crossing, luffing situation.

Here the list of the potential problem:

- Yellow and blue together for RRS 11 and RRS 17
- Grey and orange together for RRS 11 and RRS 17
- Blue and pink for RRS 10 if pink gybes

With this analyze, it appears some good consequences:

- If green gybes, no need to follow this boat, she can gybe and cross port in front of the all fleet.
- If orange gybes alone, no need to follow this boat.
- If yellow gybes alone, she can cross port in front of the second group, no need to follow this boat.
- If grey gybes alone, no need to follow this boat.

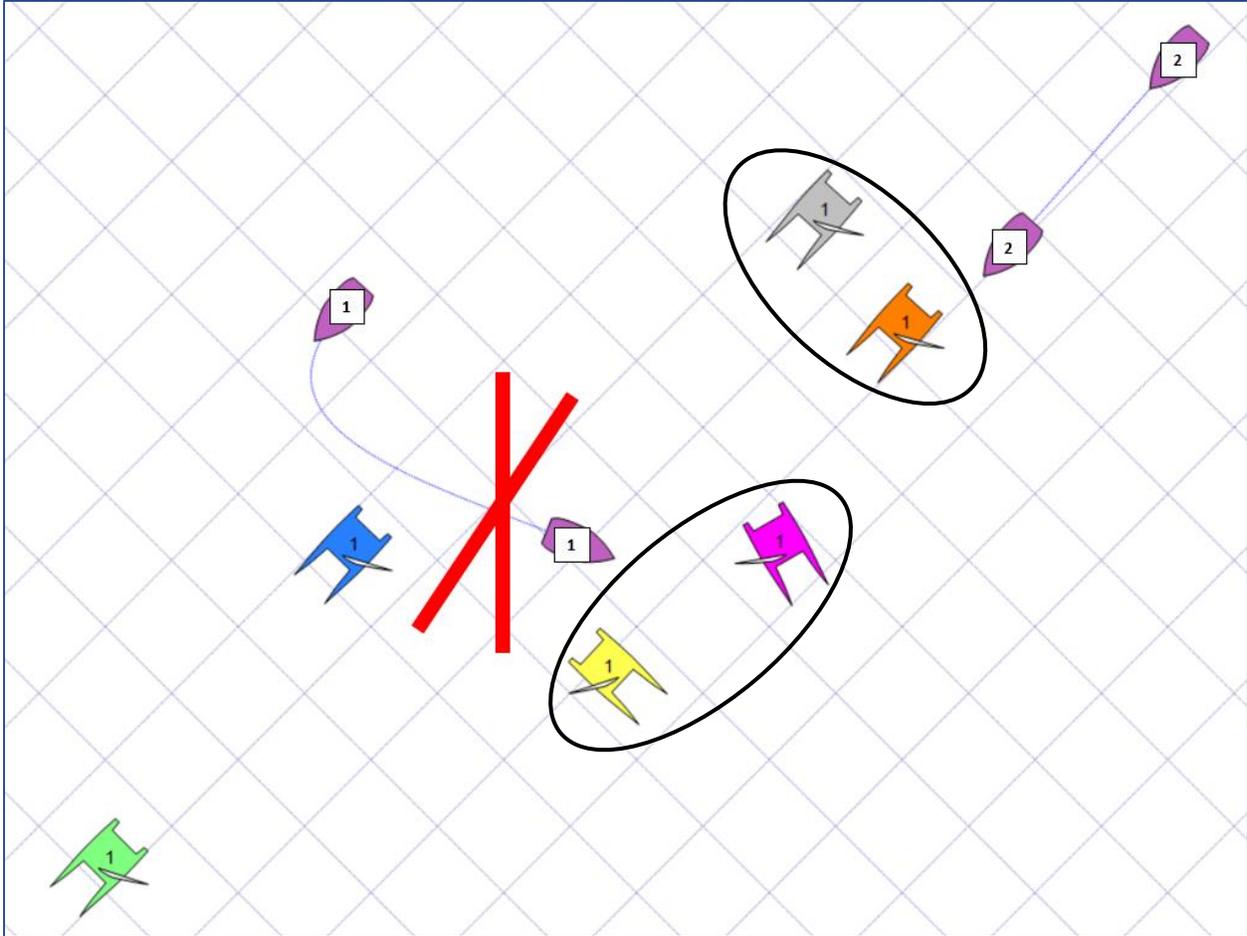
To have this kind of process, you can focus on the main important boats and release your brain and memory from other non-possible situations.

On the next move, Yellow and Pink will gybe together. This gybe has some consequences:

- No need for umpire 1 to follow blue and green. They are alone, especially green is sailing leeward of blue, so no possibility for blue as starboard to catch green as port.
- Umpire 1 is now "unemployed"
- Grey and orange still need an umpire to manage this close situation
- We have a new potential close situation with yellow and pink.
- Impossible for umpire 1 to follow the new close situation: grey and orange: too much wave for grey and orange.

Of course, as umpire 1, you need to adapt this situation to different classes. With 470, maybe you can cross, but with foiling or fast boats, NEVER do it!!!

Medal Race positioning

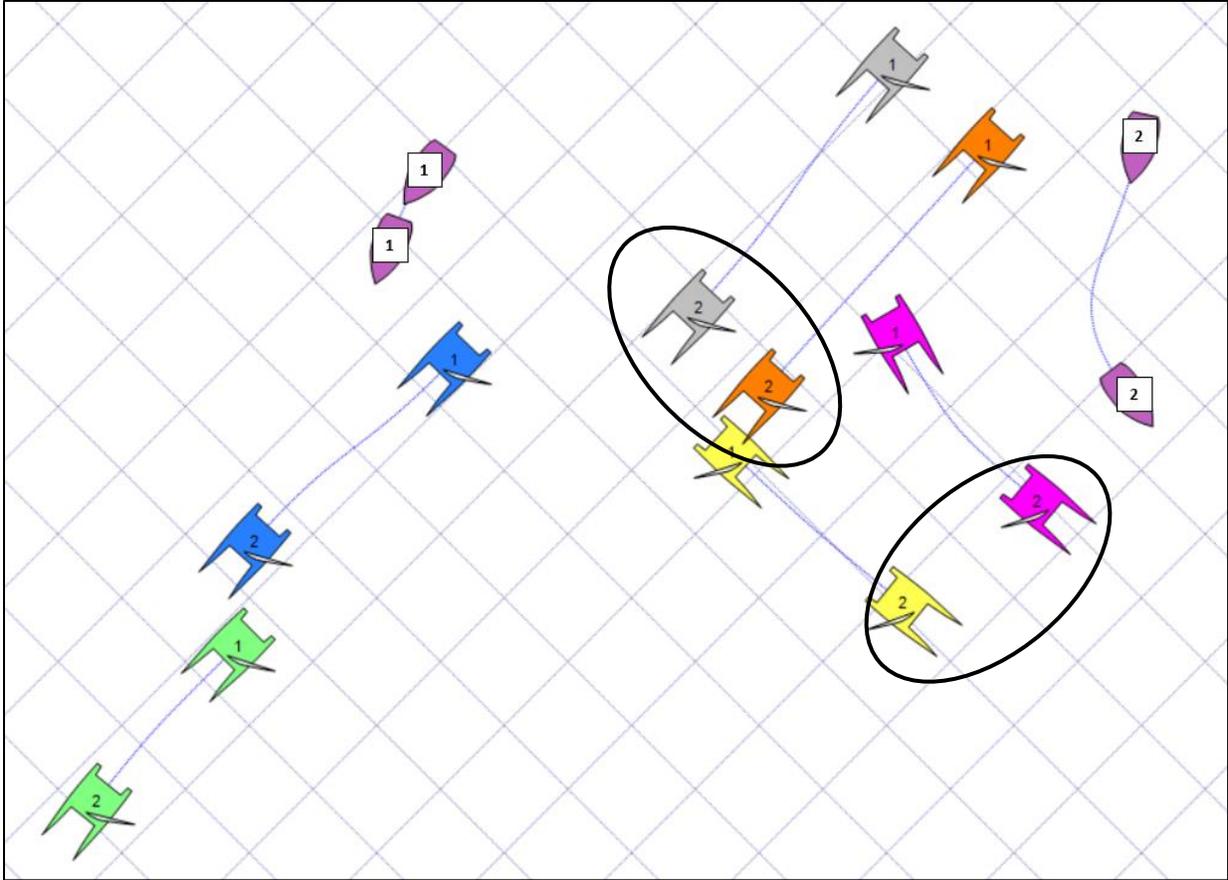


On step 2, it is impossible for umpire 1 to follow the new close situation yellow and pink!! To close in front of grey and orange.

Again, umpires positioning is like a dance! You need to know where the sailing boats are, but you need to know also where the other umpires are!!

For this scenario, umpire 2 will just accelerate a little bit to catch yellow and pink. Umpire 1 will just slow down to catch grey and orange.

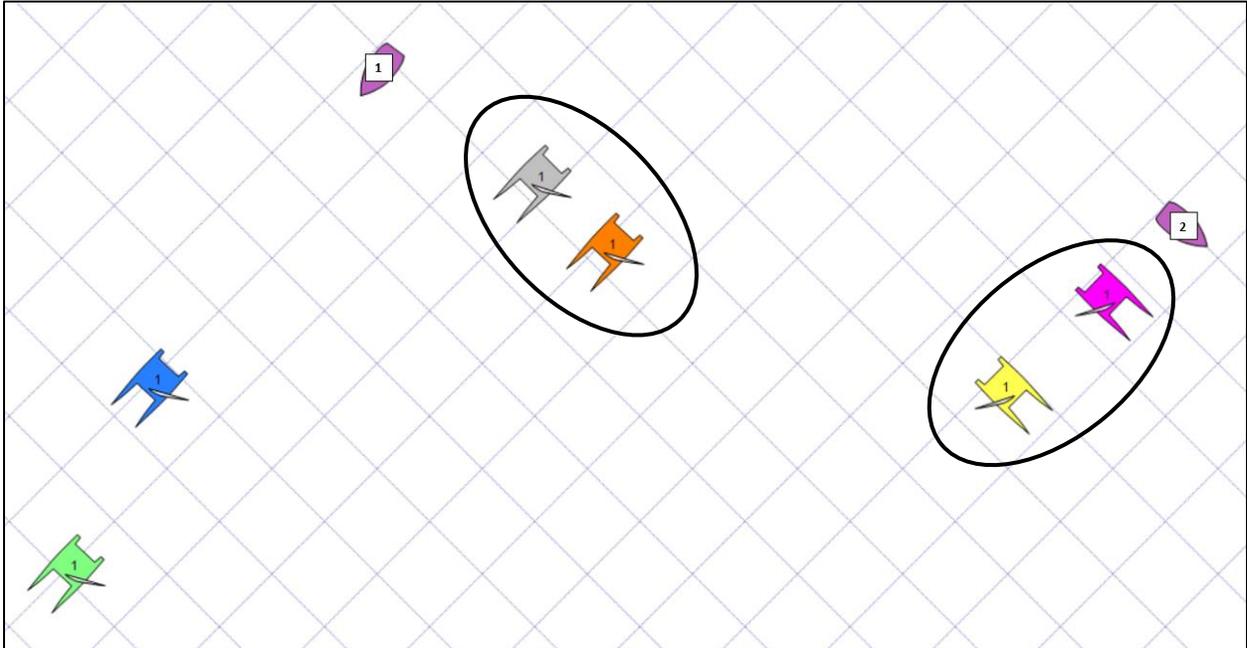
Medal Race positioning



Umpire 1 is waiting for grey and orange, and umpire 2 is now following pink and yellow.

Medal Race positioning

You will finish like this:



Umpire 1 is now managing grey and orange, umpire 2 is managing pink and yellow.

video 18 downwind group 1

video 18 <https://www.sailcup.com/rules/positioning/doc/video/downwind-group-1.mp4>

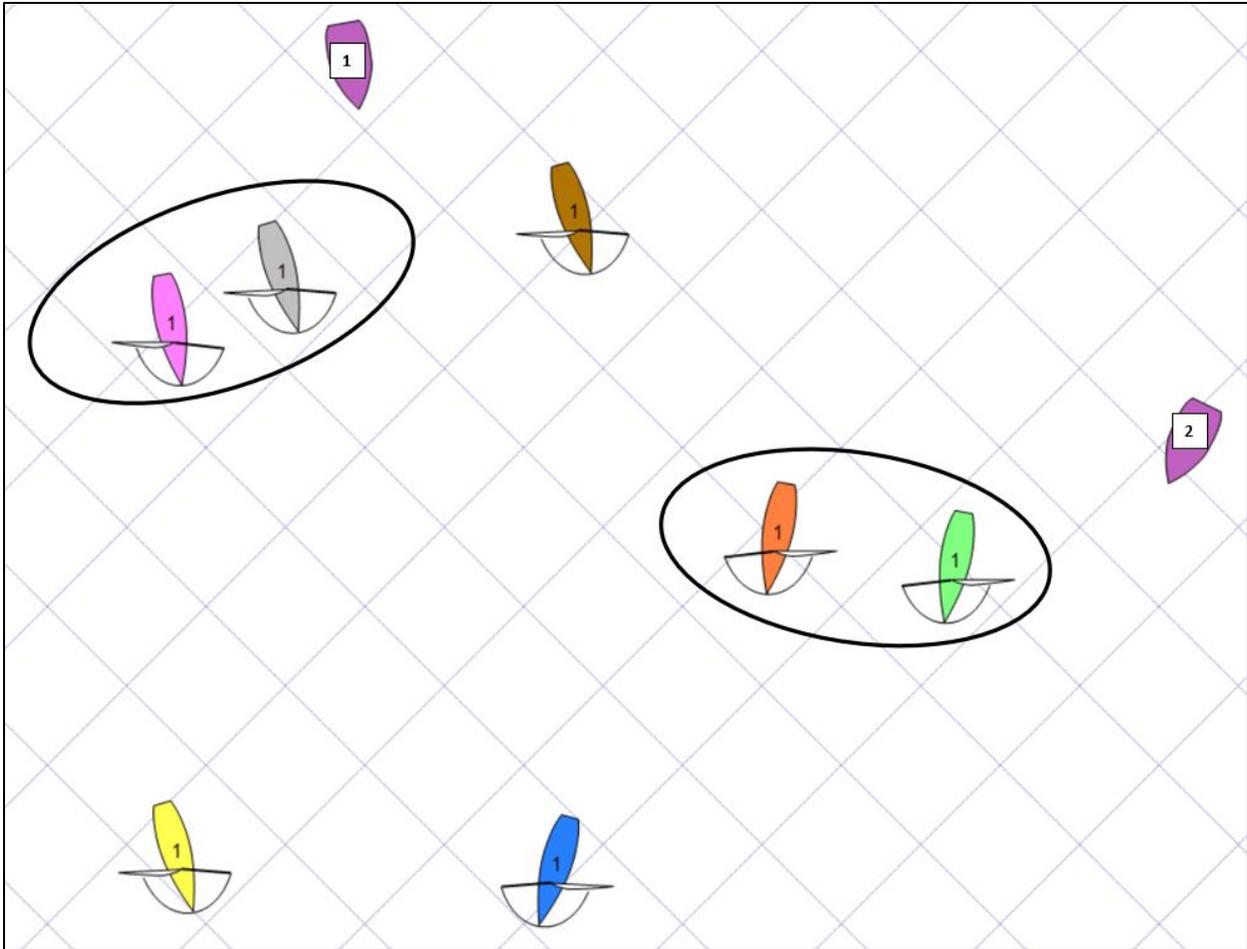
2. Sample 2

In this example, you are umpiring a 470 medal race.

Umpire 1 manages pink, brown, grey and yellow. But for close situation, only manages pink and grey. Of course, always check all boats for potential breach of RRS 42!

Umpire 2 manages orange, green and blue. But for close situation, only manages orange and green.

Medal Race positioning



For this situation, a part was sailing on the left side, the other on the right, and everybody is converging to the center.

Same than before, we analyze the potential and actual close situations:

- Pink and grey for RRS 11 and RRS 17
- Orange and green for RRS 11 and RRS 17
- Soon yellow and blue for RRS 10
- Maybe pink and orange for RRS 10

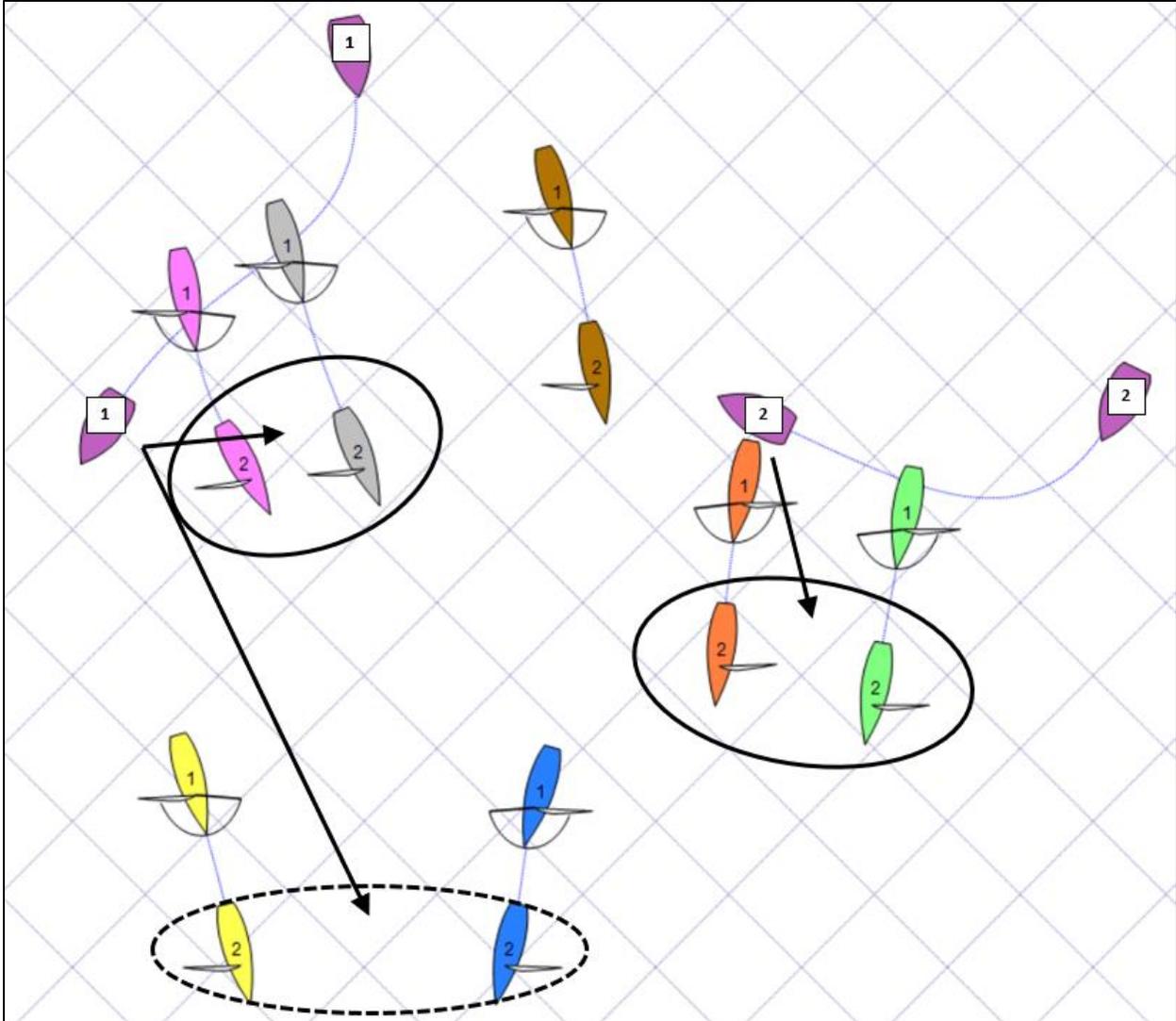
Yellow and blue were sailing alone, so no need to cover them, but they are leading the fleet, and nothing worse than a protest from the leaders...without umpire close to this situation!

On this situation, umpire 1 is the closest umpire, and it will be easy for him to go leeward of his group (take care of a potential gybe) and check the leader yellow and blue.

Important: umpire 1 can reach the collision point between blue and yellow without going in front of any boats (except if someone gybes...)

Umpire 2 will also have to anticipate managing the potential close situation between four boats: pink, grey, orange and green.

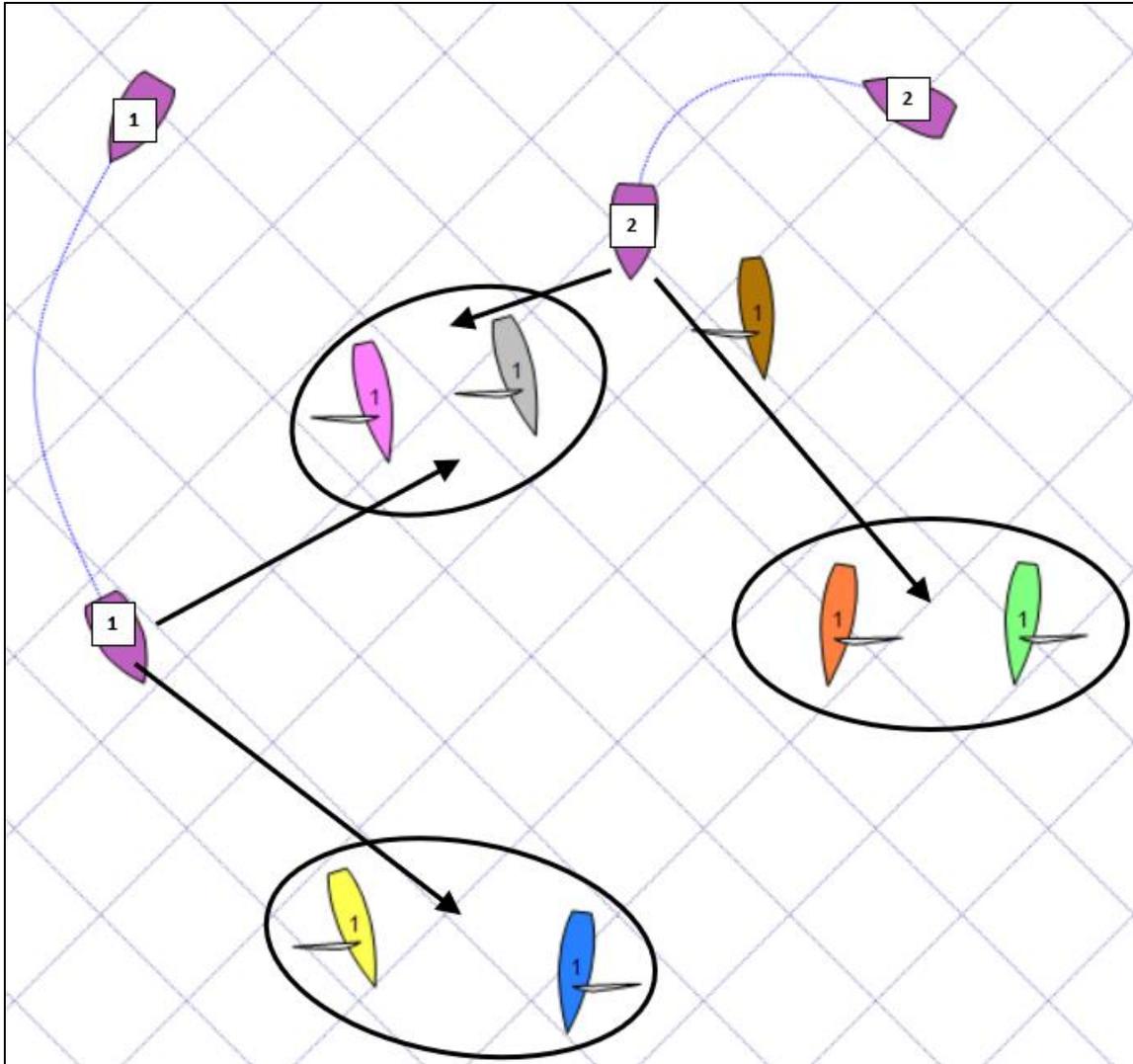
Medal Race positioning



At situation 2, umpire 1 can still have a look for the close situation pink and grey and start to watch yellow and blue.

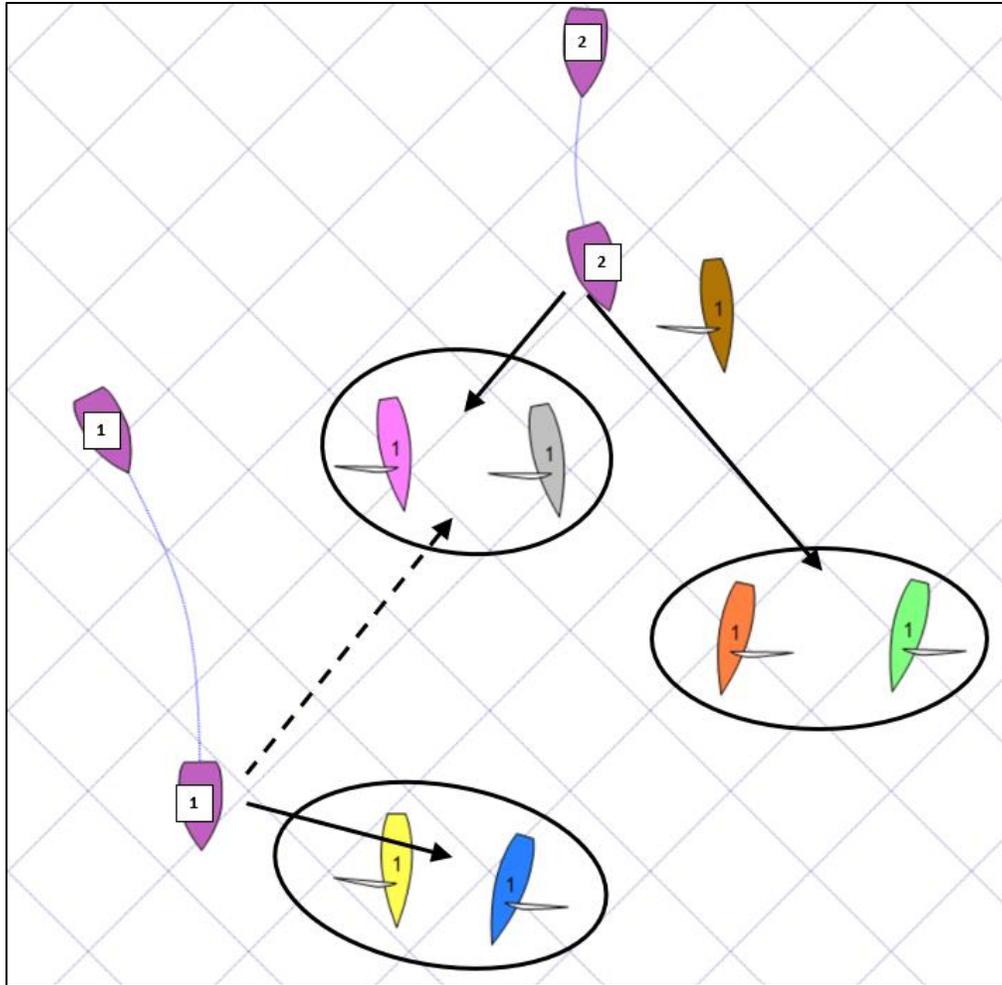
Umpire 2 is still looking at orange and green and will “catch” later pink and grey.

Medal Race positioning



At situation 3, umpire 2 can check two close situations and umpire 1 is focus on the leader. But, interesting, umpire 1 can also manage pink and grey. Be careful: this position can be dangerous if pink gybes!

Medal Race positioning



Situation 4:

Umpire 2 can still manage 2 close situations.

Umpire 1 manages the leader yellow and blue, and if needed (dash arrow), can also manage pink and grey if umpire 2 will be busy with orange and green.

You can notice that umpire 1 is not in the “perfect” angle, zone area that we have seen at the beginning. Micro positioning needs to be adapted with the other boats (sailors or umpires). By positioning umpire 1 like this, they maximize the distance between umpire 1’s boat and pink and grey. These two boats will not be disturbed if they gybe now!

In summary, the video:

video 19 downwind group 2d

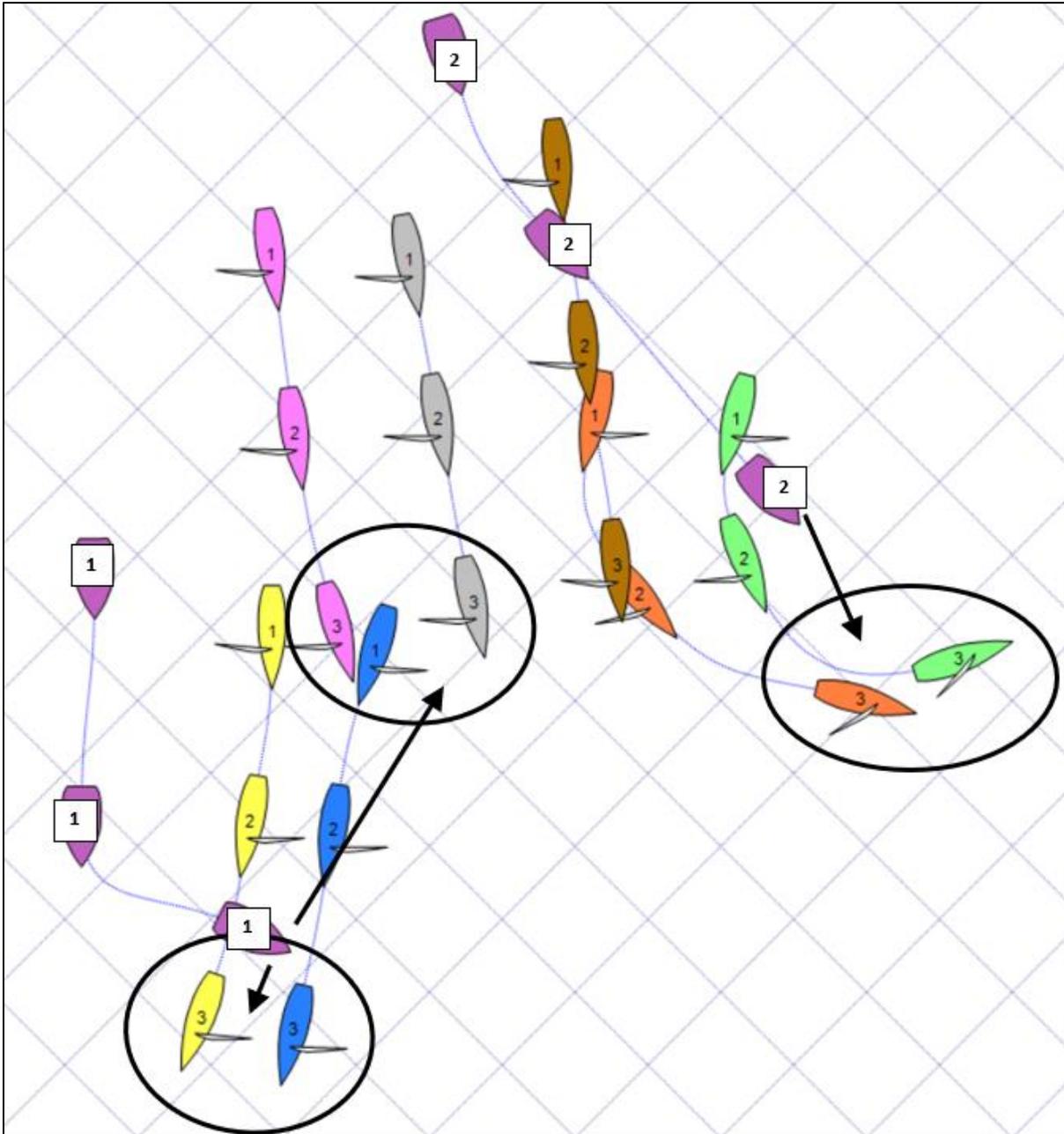
video 19 <https://www.sailcup.com/rules/positioning/doc/video/downwind-group-2d.mp4>

Now, we can have many possibilities... 😊 We will study few cases in the next steps

What happen if orange and green gybe and start to luff!

In this situation, orange and green gybe and start to luff!

Umpire 2 will cover it, and umpire 1 stay with yellow / blue and grey pink.



The important moves:

- Umpire 2 accelerates to follow orange and green

Medal Race positioning

- Umpire 1 immediately position himself more in the axis of pink and grey. Again, this is not ideal to umpire boat from behind, but, if needed, it will work to cover 7 sailing boats with two umpire boats!

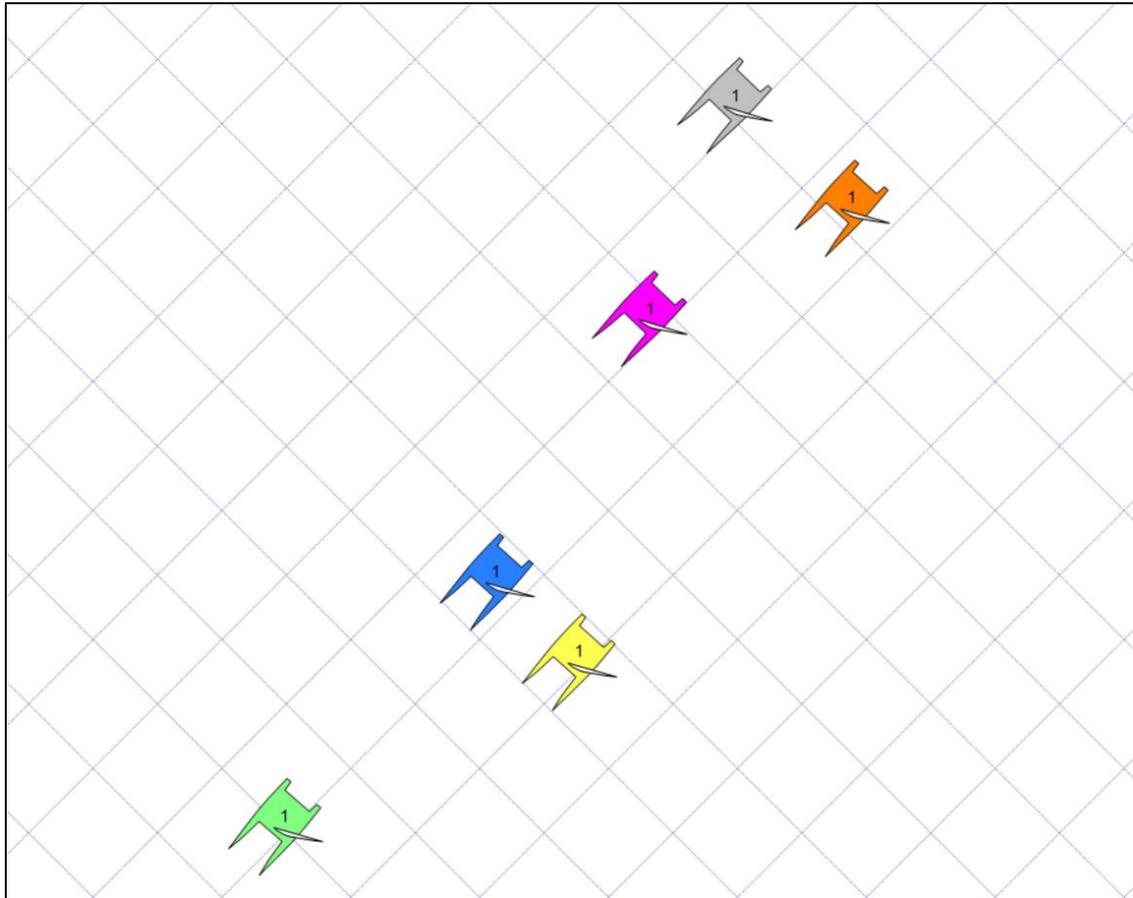
video 20 downwind group 2d1

video 20 <https://www.sailcup.com/rules/positioning/doc/video/downwind-group-2d1.mp4>

3. Sample 3

In sample 1, we have seen how to manage with two groups of fast boat. Now, a more complicated situation.

We still have two groups of boat, but with this initial situation:



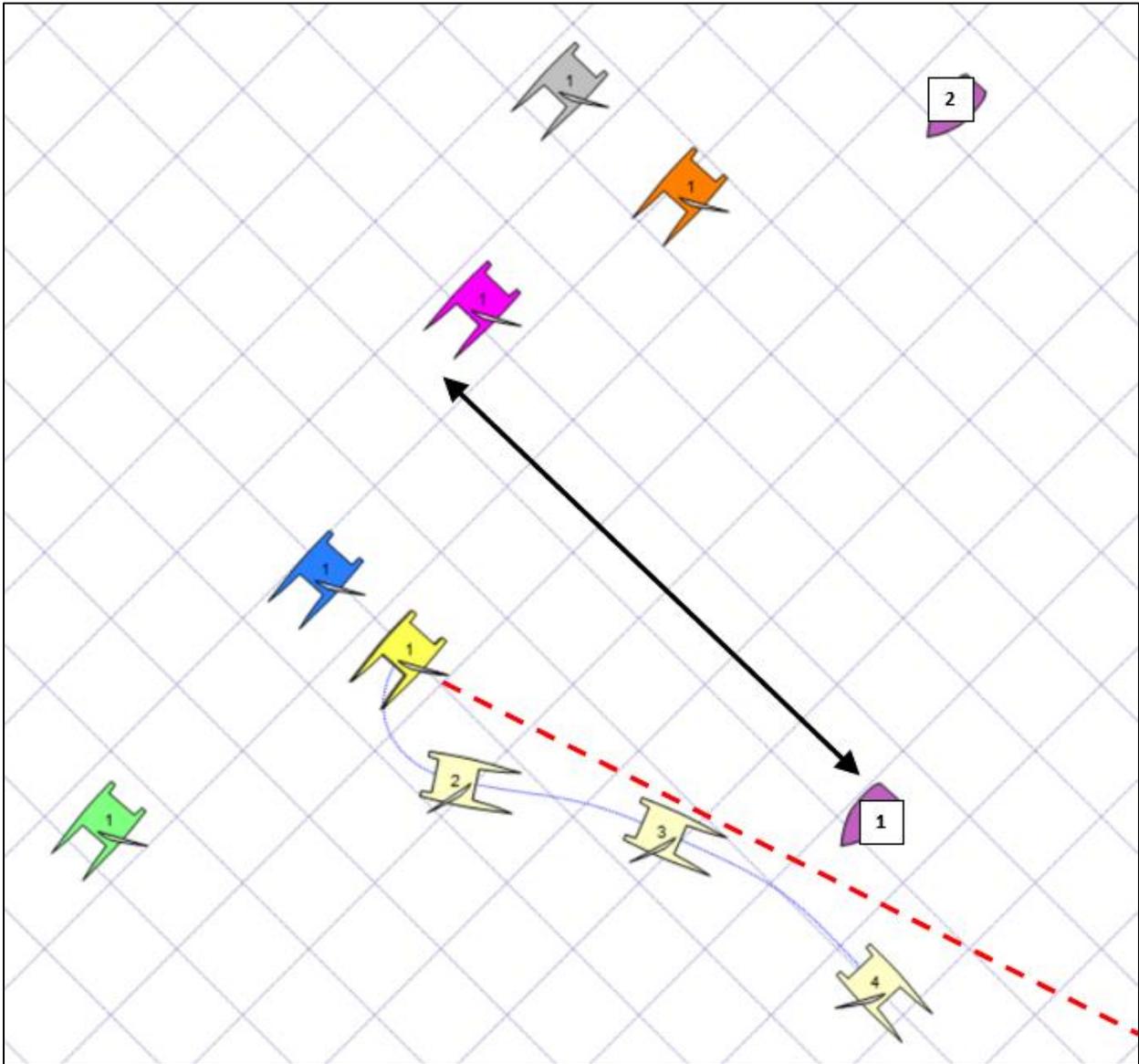
Here, the main problem is position of umpire 1, to manage the yellow and blue close situation.

If umpire 1 stay on windward, like in sample 1, the umpire will be directly in front of the second group (especially pink), which is absolutely prohibited!

Medal Race positioning

If umpire 2 stay on leeward, if pink or orange gybe, they will cross the path of umpire 1 after the gybe, which is not good at all!

The position of umpire 1 can be the following one, but with many precautions!!!



In this situation, umpire 1 need to have enough distance with pink. But he needs also to not be too close of the potential course after a gybe from yellow!!! (the red dash line).

This kind of position needs to have a GREAT experience of the class umpired, to be very precise of the angle. Don't trust too much yourself, be humble before using this position!

Now, we will study two scenarios:

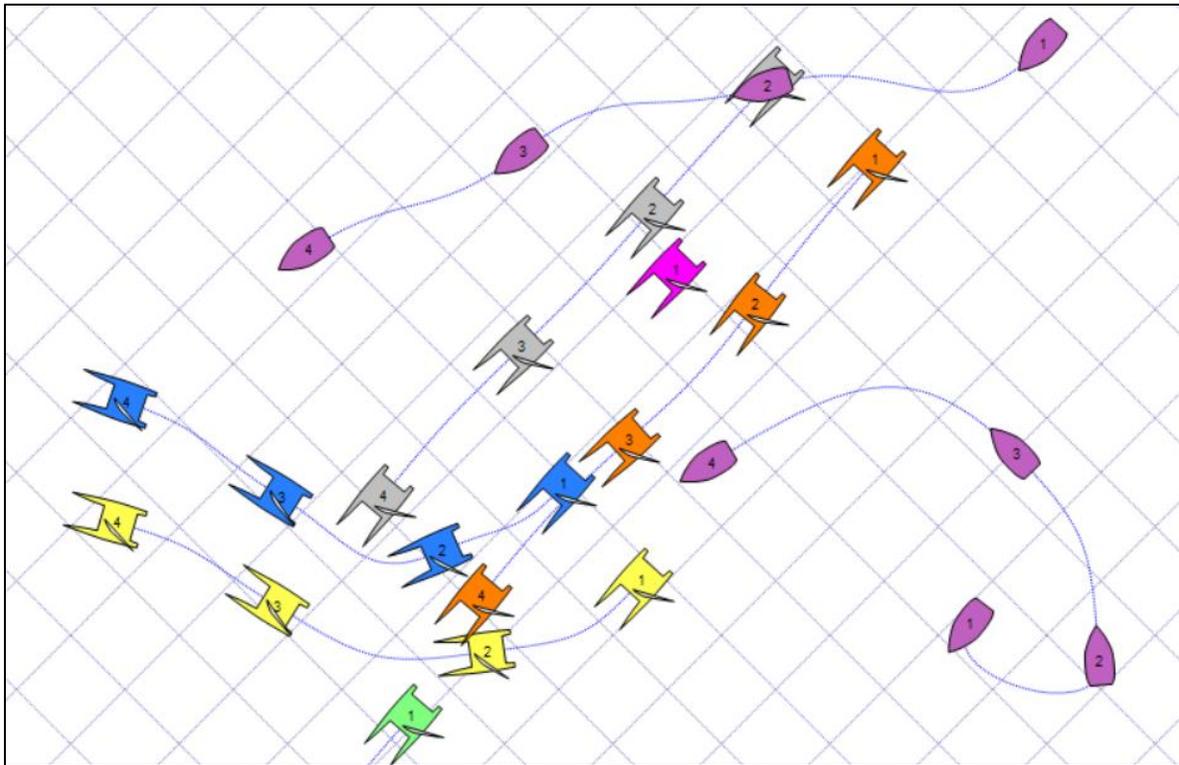
Medal Race positioning

a) Yellow and blue luff

Here, Yellow will start to luff blue quite hard to play with the final ranking of the championship. As umpire 1, it can be really too risky to cross in front of pink.

This is why medal race umpiring is so challenging and so interesting. In this situation, it will be umpire 2 to go and catch the situation!!! At the same time, umpire 1 will manage orange and grey.

The main point here is for umpire 2 to always stay focus on his close situation...but also to check what happen close to him!



Here, pink and green are only displayed at initial position, to not be too much confused.

When umpire 1 (managing yellow and blue) realizes that it will be impossible to catch the boats during the luff, she immediately escapes (always in the way to create distance with boat, escaping on her left) and goes to manage orange and grey.

Umpire 2 will immediately “jump” to follow blue and yellow.

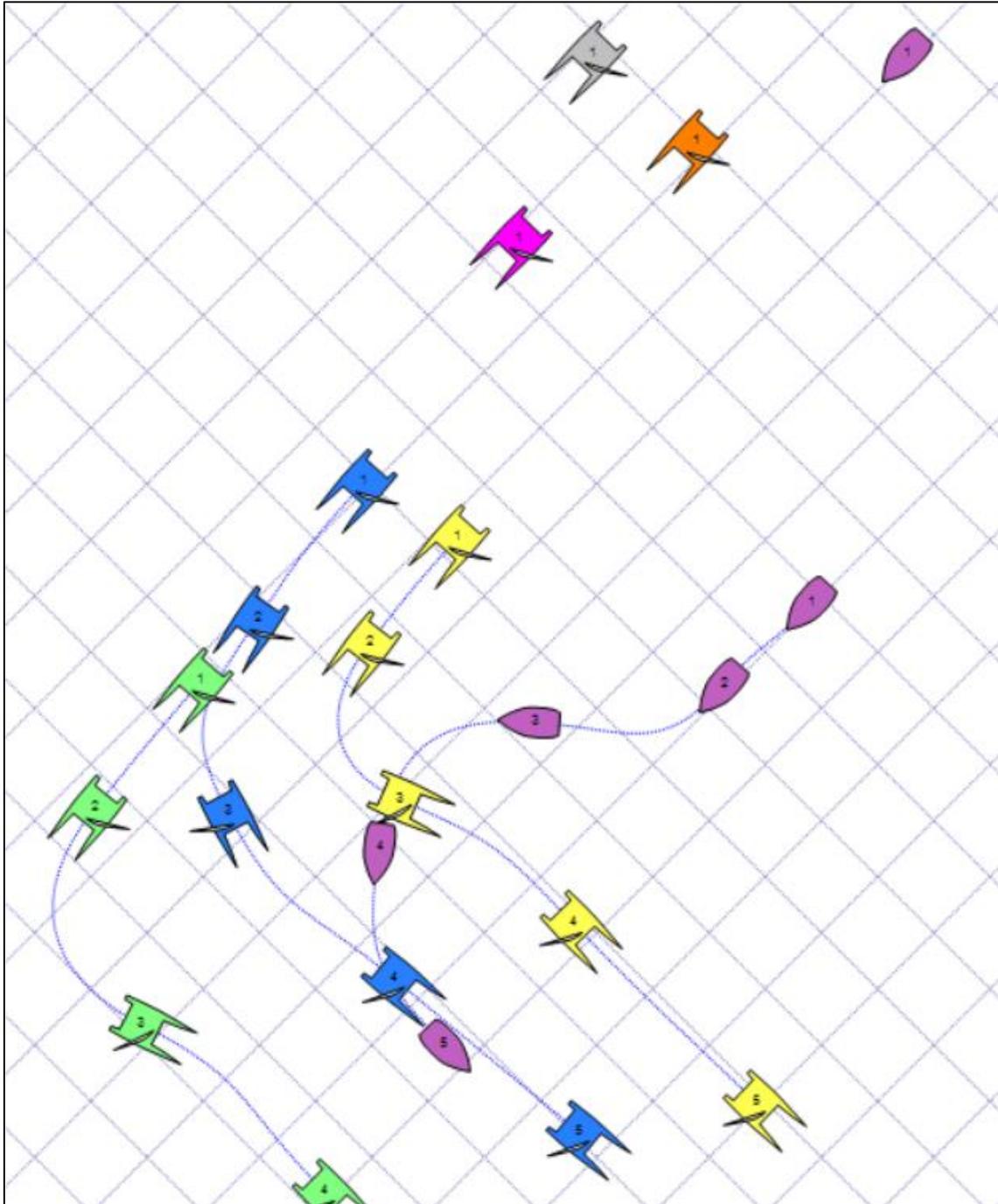
During the “escape” of umpire 1, umpires on board will still continue to look the boats, just in case if something happens!

video 21 downwind group 3a1

video 21 <https://www.sailcup.com/rules/positionning/doc/video/downwind-group-3a1.mp4>

b) Yellow and blue gybe

If yellow and blue gybe, it will be better to slow down, crossing behind, and be ready to be in a waiting position on leeward. There is a huge probability that they will gybe on the lay line. Which means that the next close situation will be at the leeward mark/gate. And, especially with the leader, it can be good to follow them on the leeward, “outside” of the racing area. But we will see this later.



Medal Race positioning

Warning: the big risk here, again, is to be just front of yellow when she will complete the gybe!!! Don't go too much further when you are in position 1 and 2!!!

video 22 downwind group 3a2

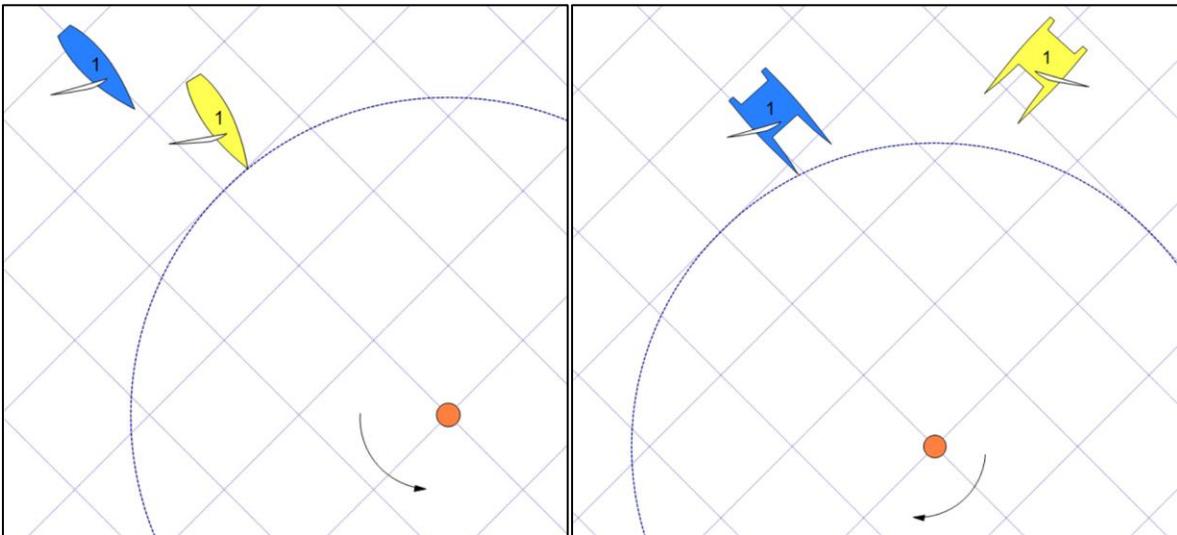
video 22 <https://www.sailcup.com/rules/positioning/doc/video/downwind-group-3a2.mp4>

H. Downwind mark/gate

I. Introduction

At a downwind mark, or gate, many situations can occur! To facilitate your positioning, you need to eliminate some options to focus only on the important thing!!

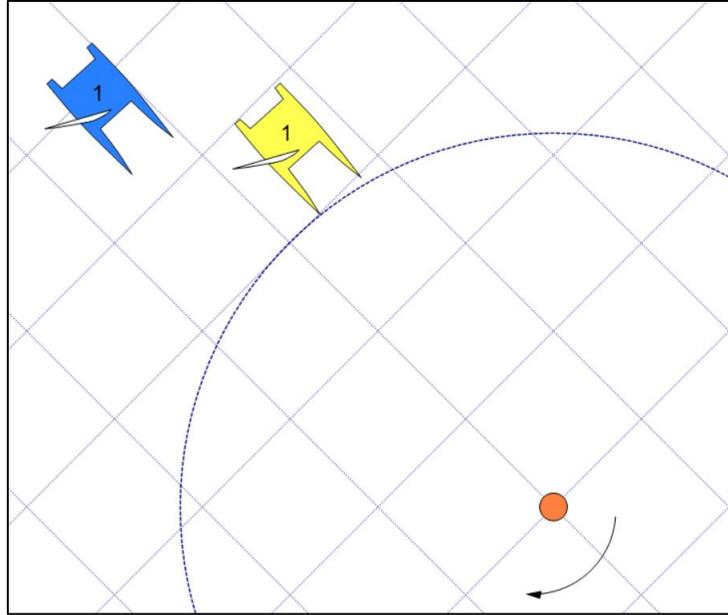
In these positions, we don't need to be positioned if there is an overlap or not, because it will not change anything to determine if a boat is entitled to mark room or not! But it will be always important to know when they reach the zone!!!



In these two examples, the important point is to know when they are in the zone, not if it is overlap or not. It will not change the boat entitled to mark room.

Here, it will be very important to know if boats are overlapped or not!!

Medal Race positioning



II. Micro and macro positioning

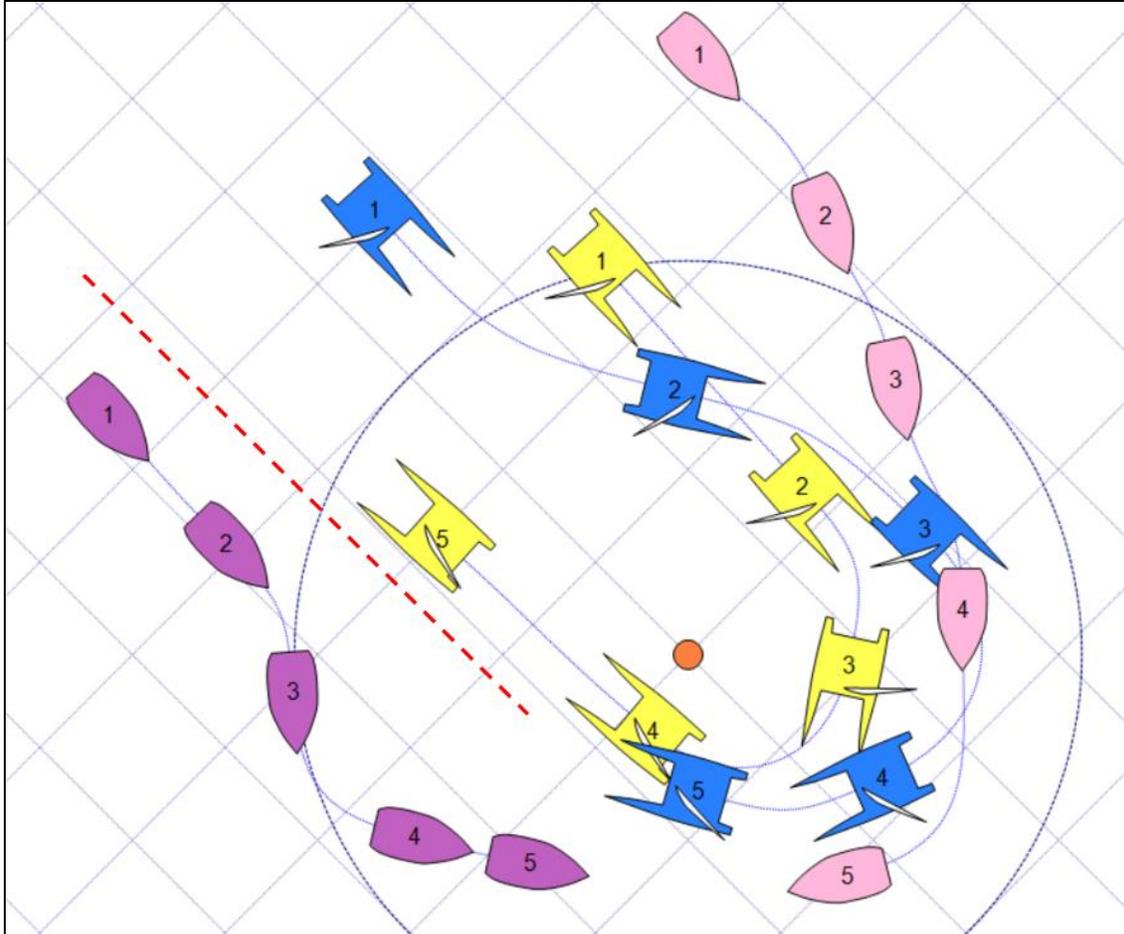
In this section, micro and macro positioning will be managed on only one part.

When you follow boats rounding the leeward mark, you have two options:

- Inside positioning: most of the time, you have to “round the mark” or “pass the gate” to follow your boats.
- Outside positioning: most of the time, you stay in stationary position during the last part of the rounding.

Few examples:

Medal Race positioning



Pink umpire has an “inside” positioning, he is moving inside the racing area.

Purple has an “outside” positioning, he is moving outside the racing area.

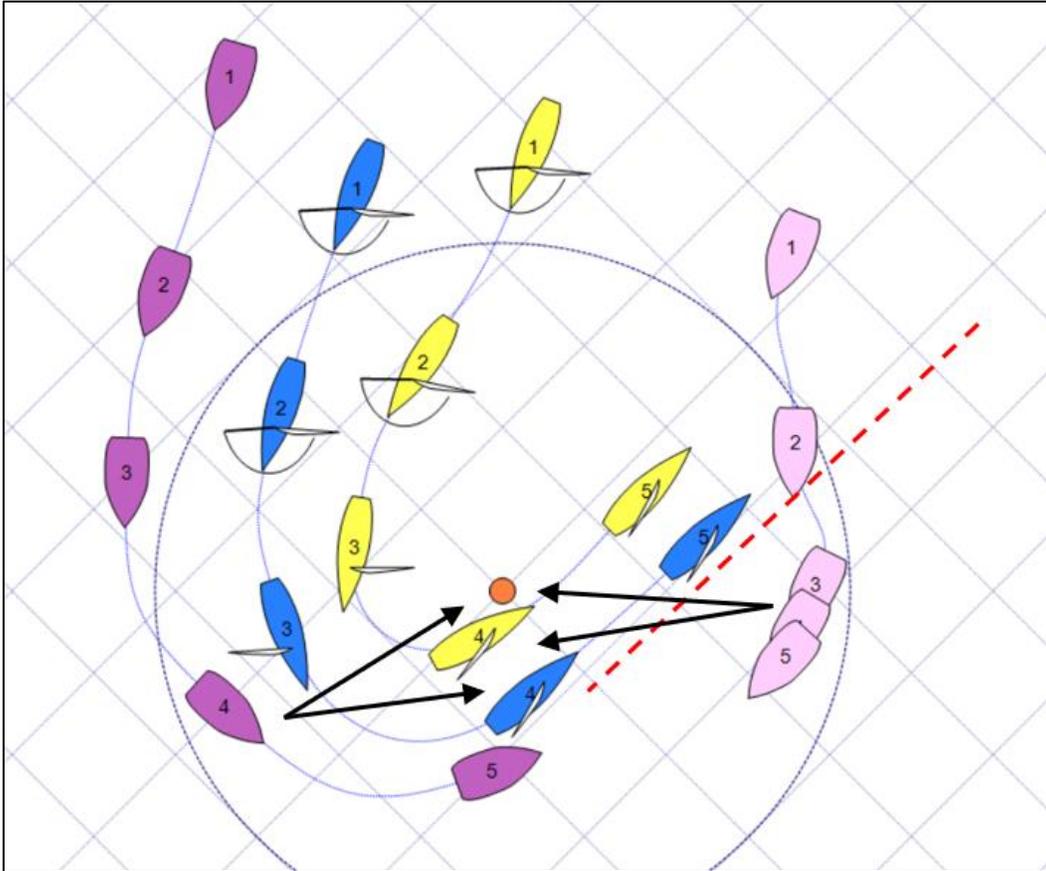
Be careful: if you choose an outside positioning, always take care to stay leeward of the red dash line which represents the close-hauled course after rounding the mark. By doing this, you will minimize the wave because no need to move fast. And you can see that purple umpire doesn't move a lot.

video 23 downwind mark micro 1

video 23 <https://www.sailcup.com/rules/positioning/doc/video/Dmark-micro-1.mp4>

Medal Race positioning

Another situation:



Purple is here the inside umpire.

Pink is the outside umpire. Between position 3, 4 and 5, pink doesn't move, because he will be in correct position to see the rounding, and, he has anticipated to stop leeward of the port close-hauled course of the boats after rounding the mark (the red dash line).

In position 4, both umpire's positions can check the two important things:

- Distance between the inside sailing boat and the mark.
- Distance between the inside and outside sailing boats.

video 24 downwind mark micro 2

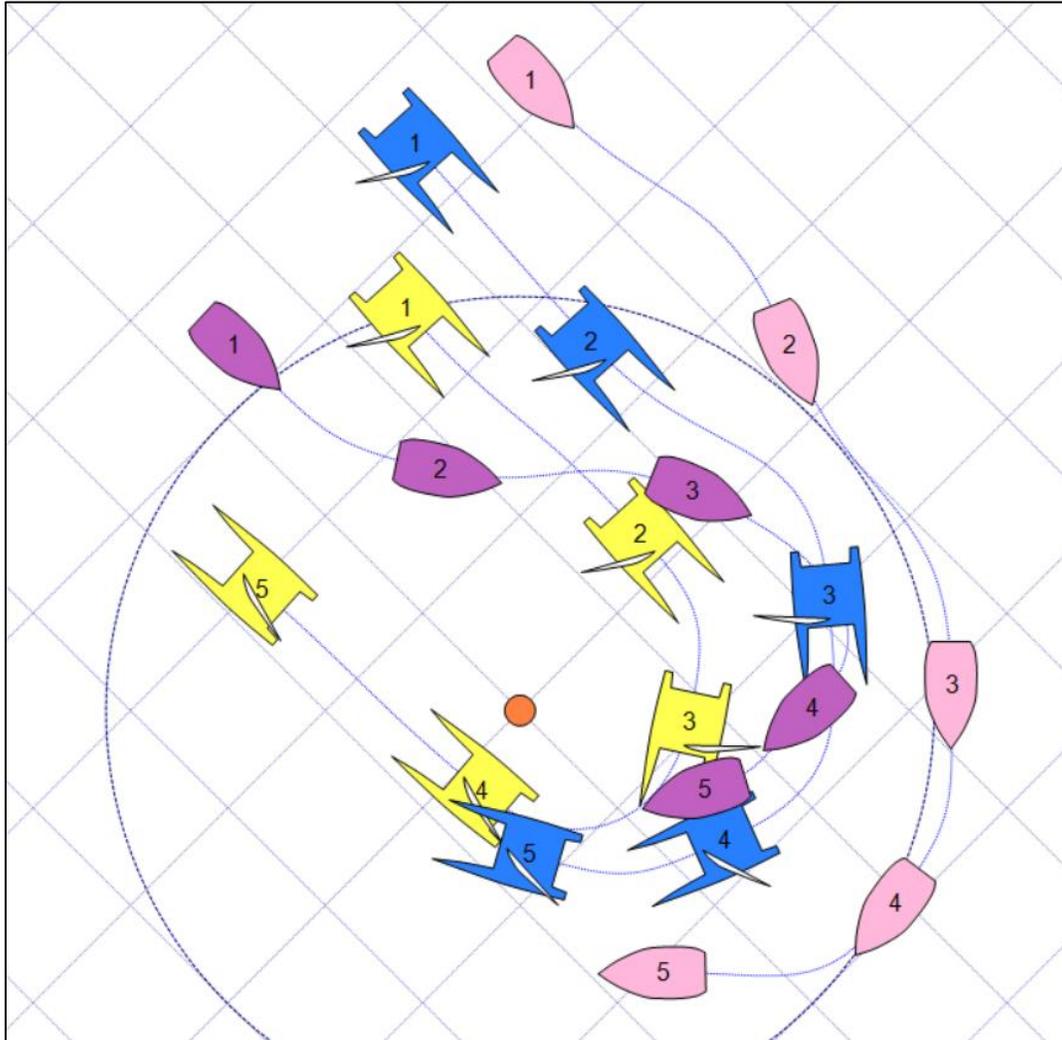
video 24 <https://www.sailcup.com/rules/positioning/doc/video/Dmark-micro-2.mp4>

Medal Race positioning

“Inside” position:

If you choose the inside position, you have still two possibilities: one you will be totally blind, the other, will be ok.

In this example:



Here, pink umpire, is partially blind between position 3 and 4, which can be a potential problem.

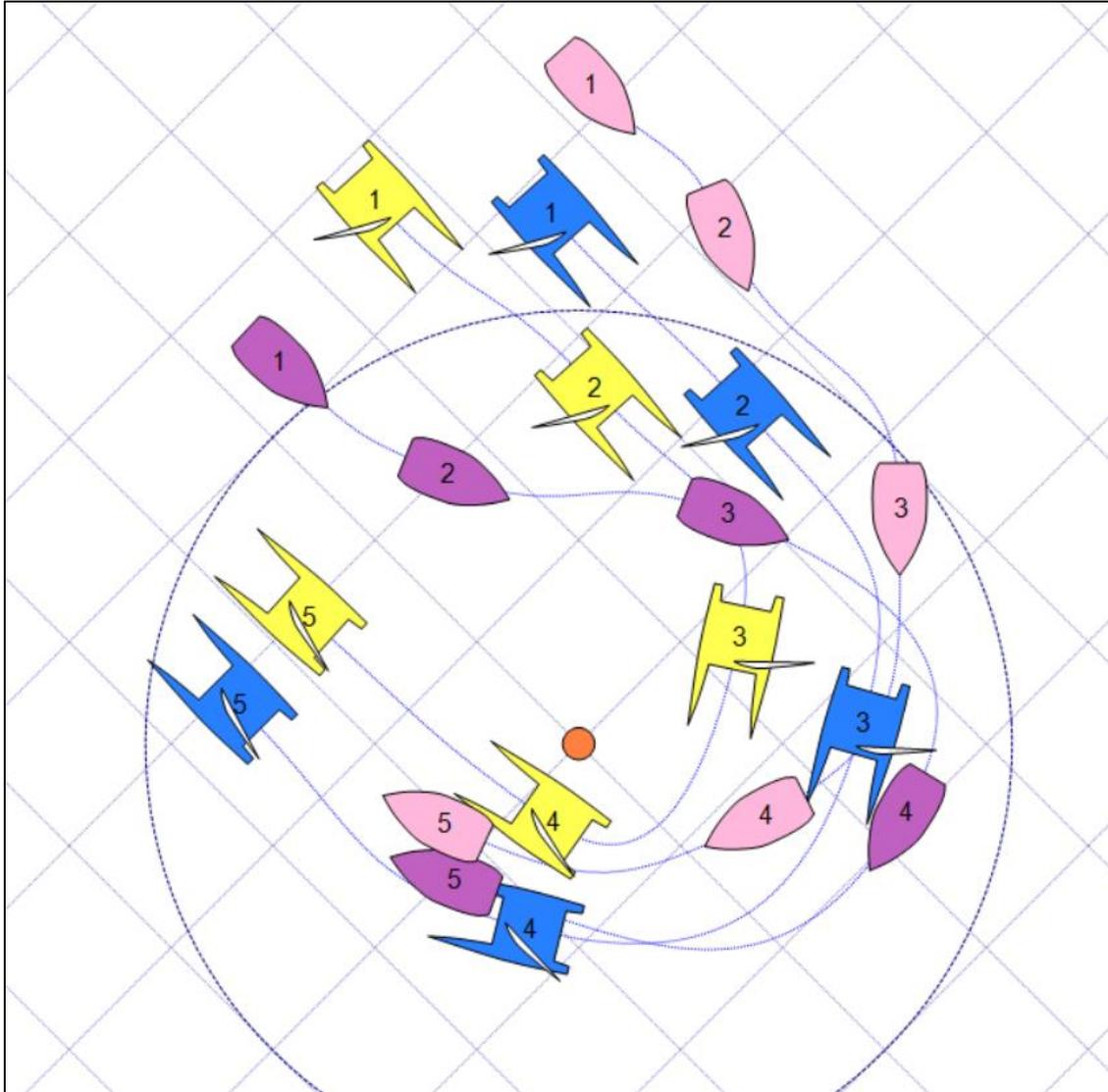
At the opposite, purple umpire is fine during all the maneuvers.

video 25 downwind mark micro 4a

video 25 <https://www.sailcup.com/rules/positioning/doc/video/Dmark-micro-4a.mp4>

Medal Race positioning

In this example:



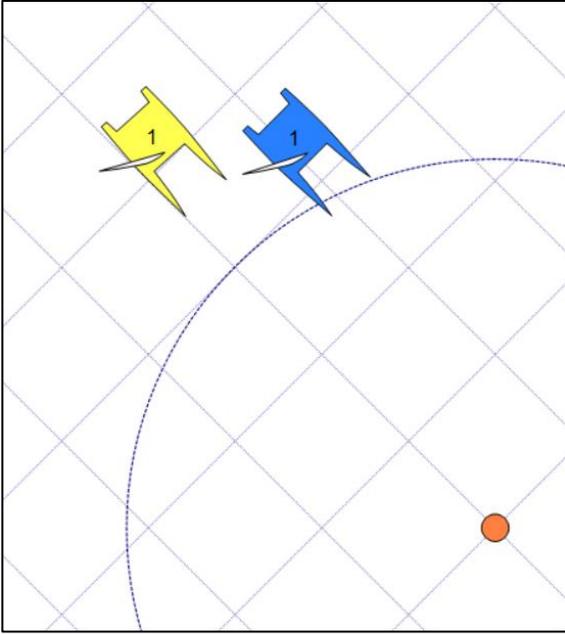
Here, pink umpire has an excellent point of view during all the rounding. Purple umpire is more in trouble, especially between position 2 and 4!!

video 26 downwind mark micro 4b

video 26 <https://www.sailcup.com/rules/positioning/doc/video/Dmark-micro-4b.mp4>

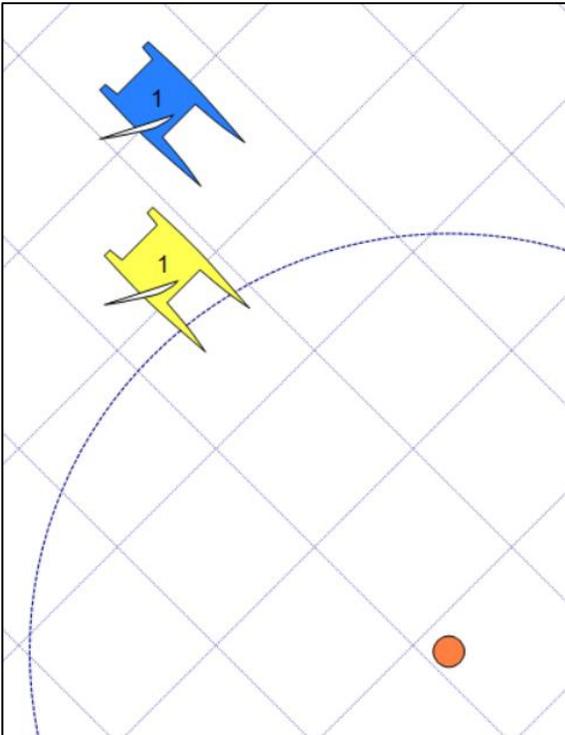
The two situations are really close and similar, but... the only difference is the position when yellow and blue reach the zone:

Medal Race positioning



If you choose inside, it will be better to stay on windward (pink umpire on both previous samples) of boats.

During all the rounding, you will have a good point of view on the distance between the boats.

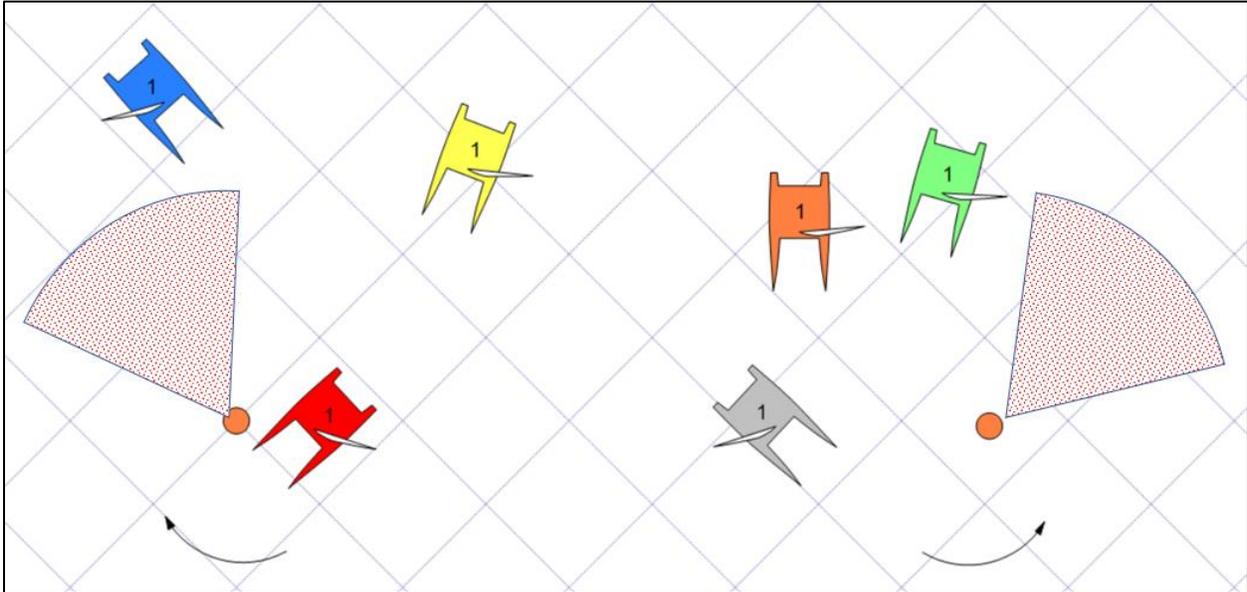


If you choose inside, it will be better to stay on leeward (purple umpire on both previous samples) of boats.

During all the rounding, you will have a good point of view on the distance between the boats.

Positioning with two boats is not the most complicated. It will be funny when we introduce more boats, group of boats.

Remember:



Do not stay in the red part!!!!!! Too dangerous (and the view angle is not so good!)

III. Umpires interaction

1. introduction

There are some principles:

- If you see at least one umpire standing at the mark/gate, there is absolutely no need to rush and go fast to the mark! It will be better to think if you need to stay with your group or to catch the group who has already rounded the mark!
- If a group, with one umpire is quite far ahead, the umpire will stay with this group after rounding. If the fleet is really compact, one or two umpire boats will stay at the mark during all the rounding, and the other(s) will follow the fleet on the new upwind leg.

Of course, like the upwind mark, always have a look on the sailing boats who had already rounded the mark and are sailing close-hauled!! They can tack at any moment and complicate a lot the positioning.

2. General concepts

a) Outside / Inside

For the mark / gate positioning, I work more like an algorithm:

Medal Race positioning

Situation	Position	Arguments
Fast boats with angle	Outside	Can be dangerous to stay in the “middle” when boats are arriving port and starboard at the zone!
Slow boats light wind	Outside	Some time they are going directly downwind... or more. It means that sailing boats will be very close, no space for umpire to maneuver. Especially with light winds, avoid waves!
Big distance with your group of sailing boats and the next group	Inside / Outside	No problem to follow boats inside
Small distance between your group and the next one	Outside Inside	<u>Advantage:</u> Don't disturb boats! Especially at the leeward mark/gate. They can lose so many places! <u>Advantage:</u> you will not cross the close-hauled course of the previous boats. To choose, you need to anticipate!!
You are with last group of boats	Inside	It means that all other sailing boats are ahead, no one behind you. It means also that they are sailing close hauled, and if you want to go outside, you will cross many other boats!

b) Stay at mark / follow groups

When you are following the leading group... how to know if you have to stay to the mark/gate or to follow you group?

Before answering this question, understand that if you are the umpire who follows the second and third group, always checks what is doing the first umpire!! Because all your positioning can depend on him!!!

If you see an umpire staying at the mark/gate, there is probably no need to rush fast and furious to the mark! Stay with your group!!!!

Situation	Position	Arguments
First group with distance with second group	Follow your group	If you wait the next group, your actual group will have no umpire!
First group with no distance with second group	Stay at mark/gate	If situation is close, it will be better to stay at the mark and check all rounding! And because we have two groups, it means that the other umpire can stay with you if it is a nightmare or leave the area and follow potential close situation
2 nd or 3 rd group with no distance with group ahead	Stay at mark/gate	If your group and the group ahead is close, it means at least 6-7 boats. Two umpires may be necessary.

Medal Race positioning

Any group alone and far from the other	Follow your group	Too long to wait and help the other group, and nobody can take care of your group if you leave it.
3 rd group	Follow your group	Nobody behind you!

I. Conclusion

I hope this document was helpful.

Remember, the most important is not to apply this to all situation. This is to understand and to give you some help and answer when you ask yourself: how to see everything? What is the next move? Where I need to be?

Have great fun!