

Technical Course for Coaches Level 3 – Start Tactics



The Start is the most important moment of the race

Advantage in Distance

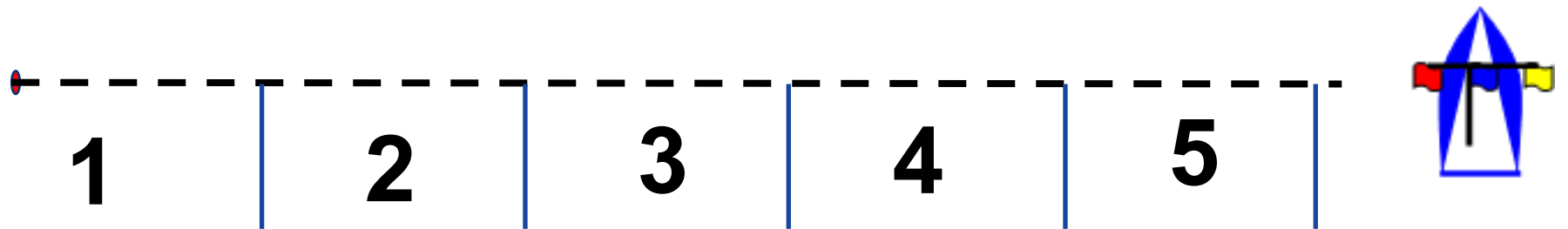


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graph TD; A[Advantage in Distance] --> B[You can follow your strategy]; B --> C[Psychological BOOST]
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You can follow your strategy

Psychological
BOOST

From which position should I start?



From which position should I start?

Things to Consider:

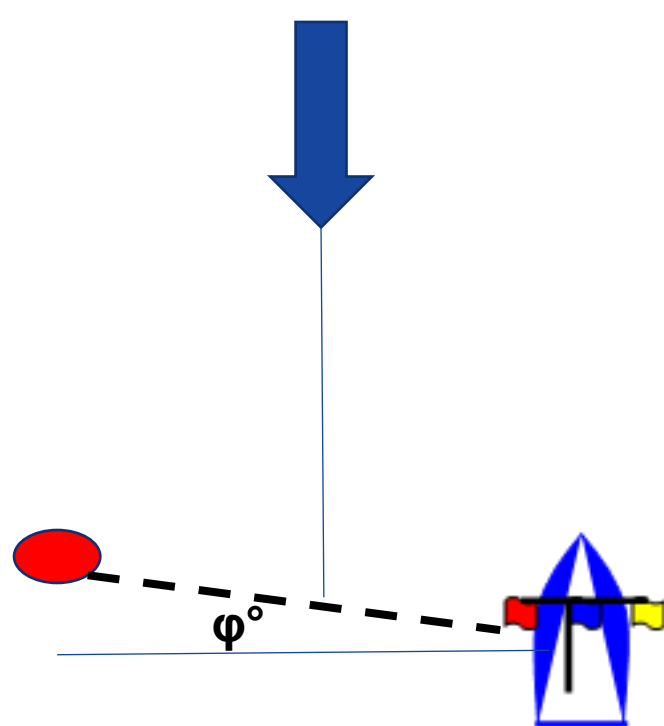
- Which side is favourable?
- Where is the pressure?
- Wind direction changes?
- Where is Mark 1?
- Is there any current?
- Which flag is used?
- Where are my opponents?
- Do I have space from leeward?
- Do I have the correct transits?

Things you need to consider:

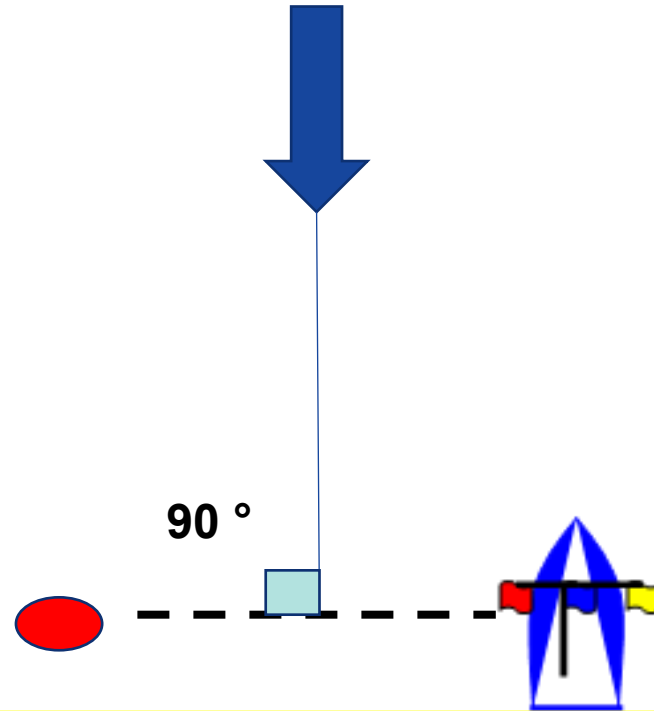
The first upwind strategy



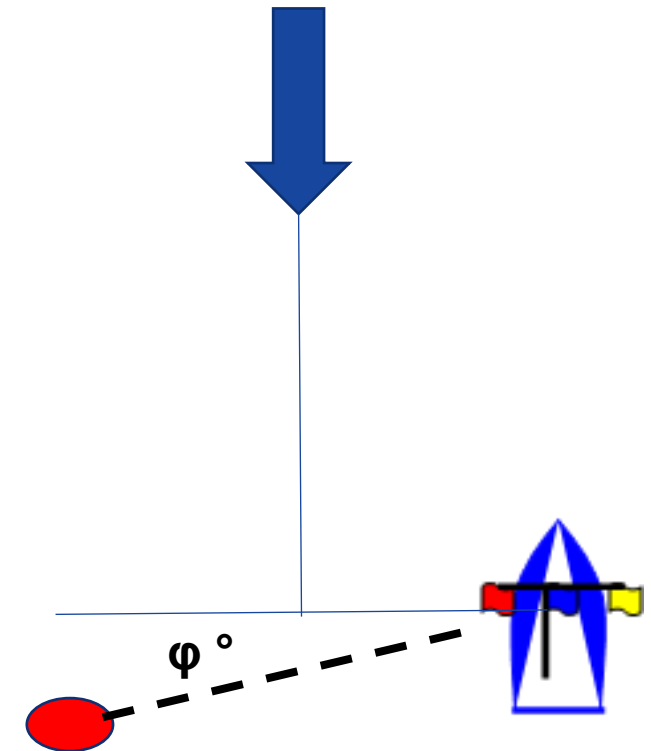
Things to consider – Is the Starting Line Biased?



The line is port end biased



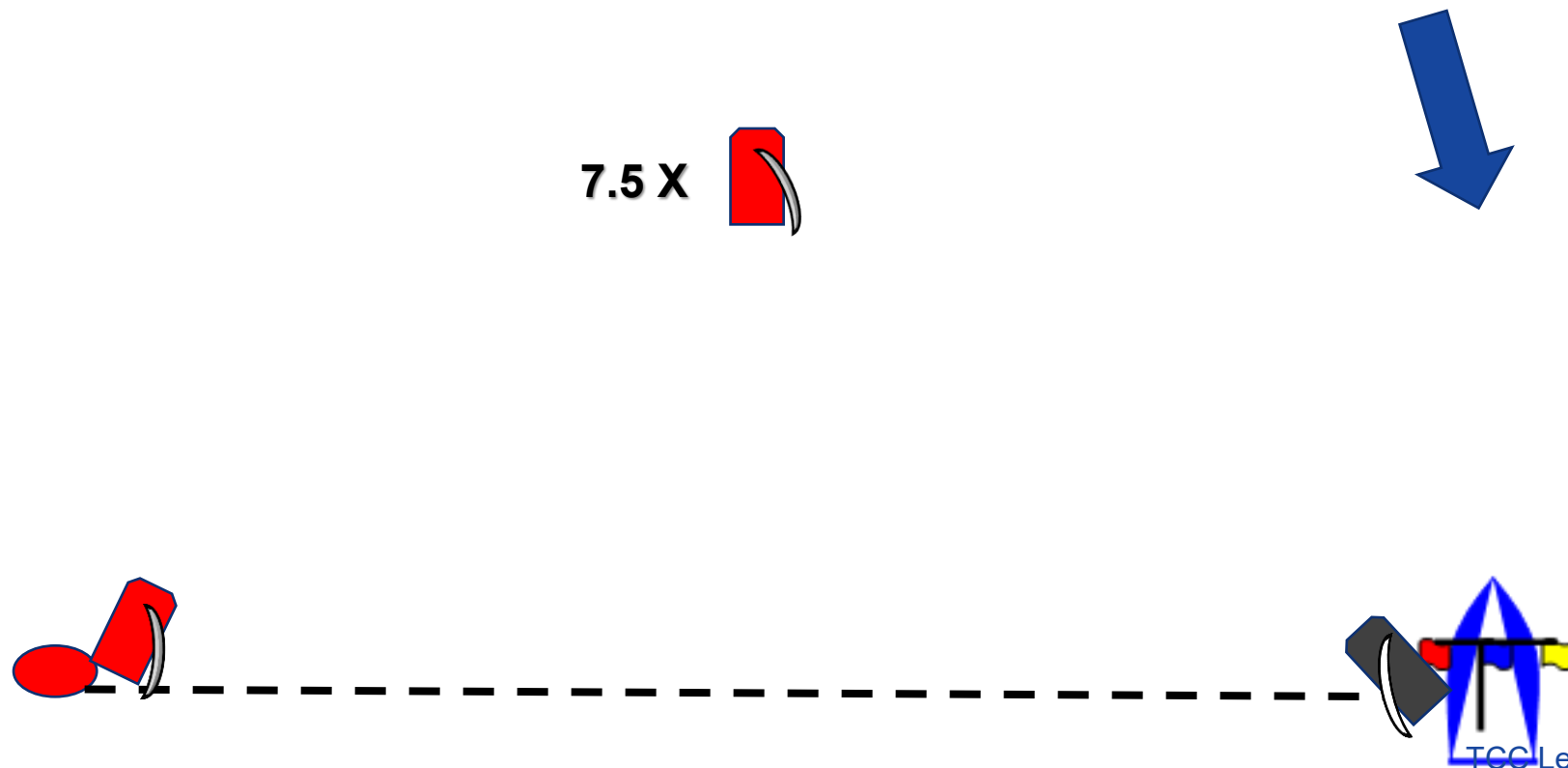
The line is square - Unbiased



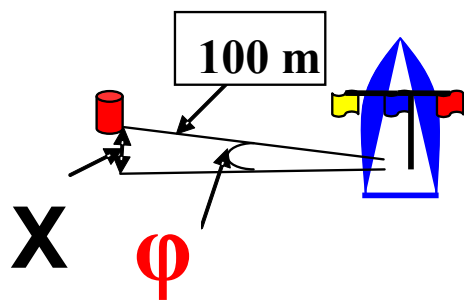
The line is starboard end biased

Did you know ...

A starting line with length 100 m and biased 10 degrees



Did you know... Starting Line Bias



The angle ϕ in degrees and distance x in metres

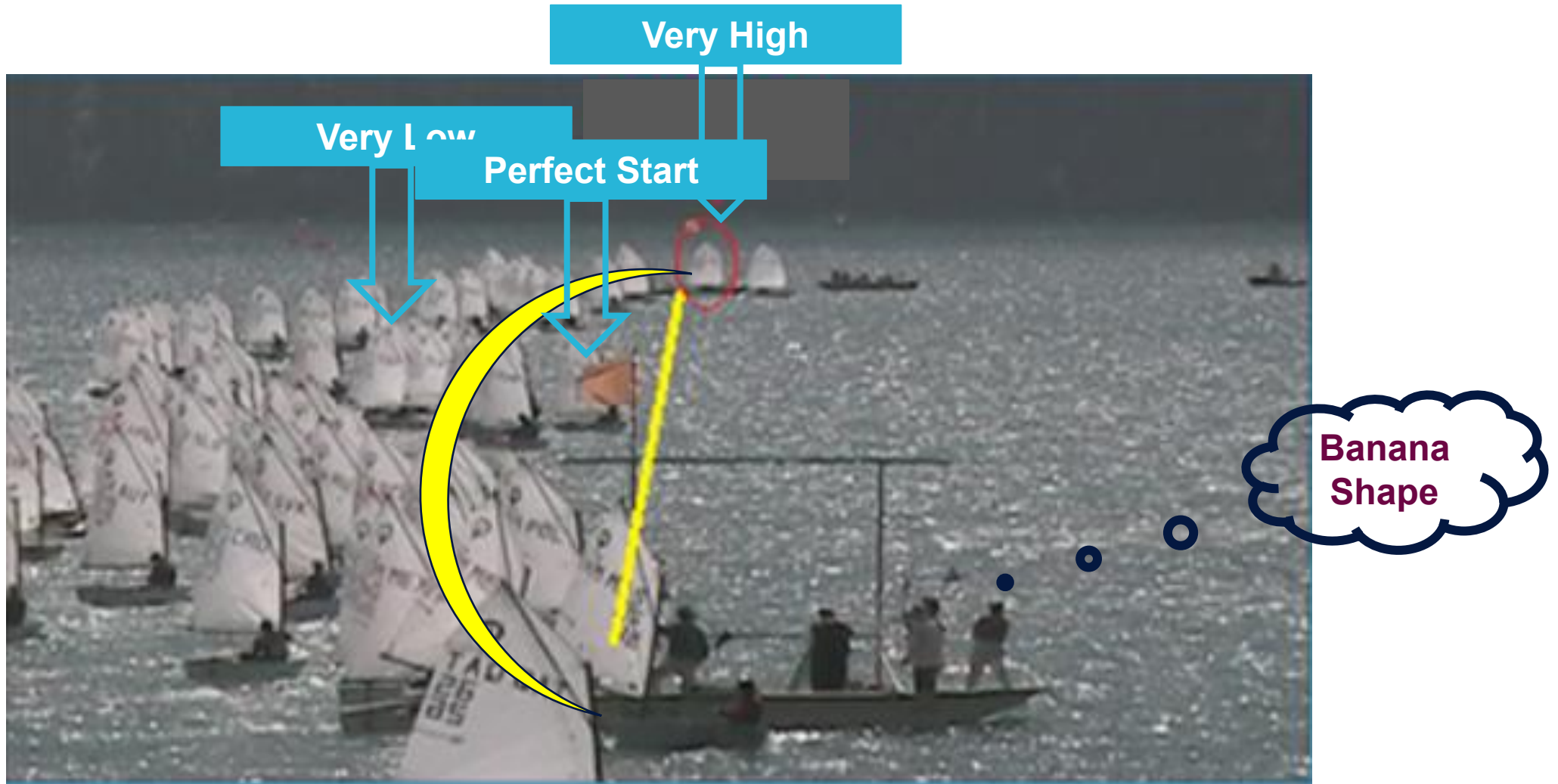
ϕ	x
0	0
5	8.7
10	17.4
15	25.9
20	34.2
25	42.2
30	50.0

Ways to check the line.....

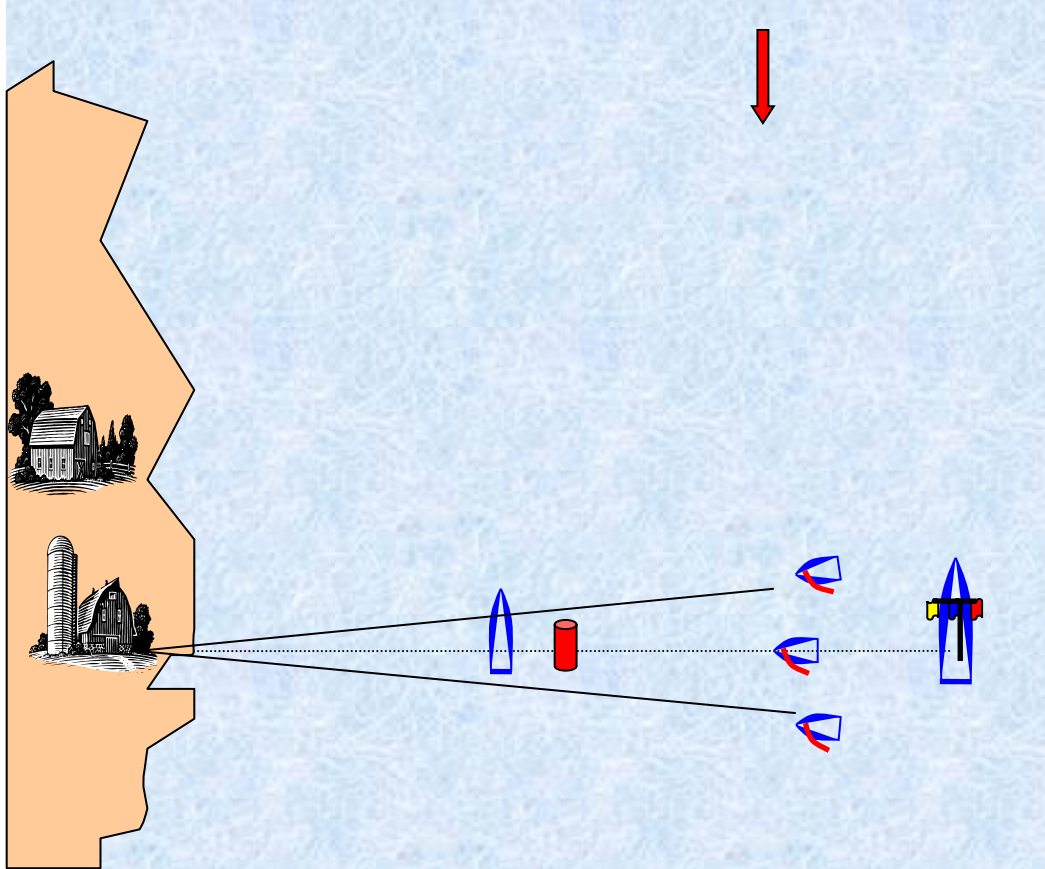


- Using a compass
- By the position of the sail
- With assistance of a co-sailor
- Just sitting on the line, head to wind

The Importance of a Good Transit



Position on the line – Transit



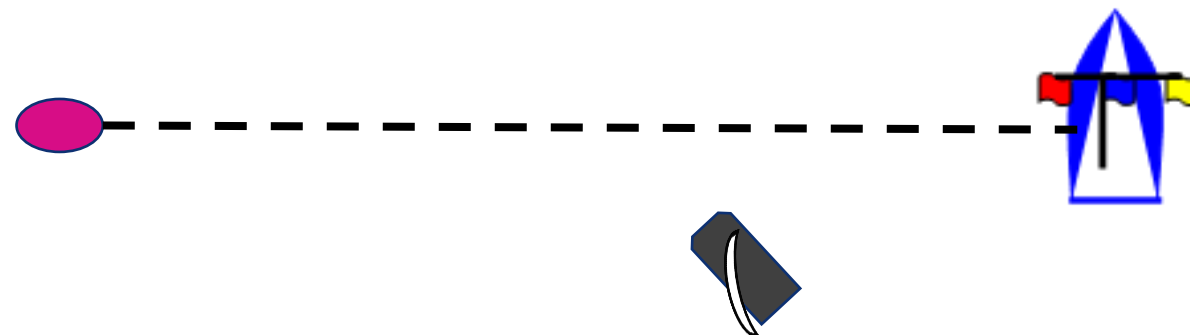
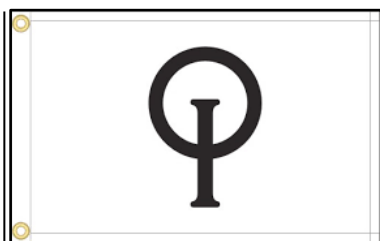
- Using a steady mark
- Using the pin end boat

When you are in front of the line, you see the sign in front of the Starting boat

We find a steady sign in Line with the bow of the starting boat

When you are behind the Line you see the sign behind The bow of the starting boat

Acceleration

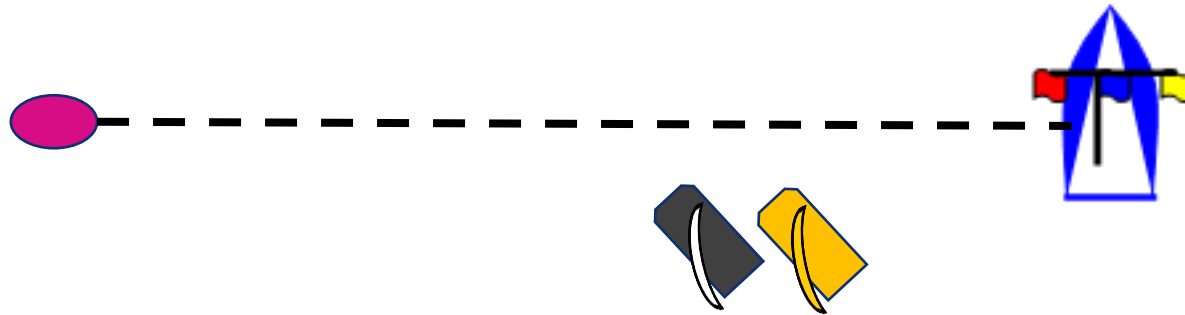


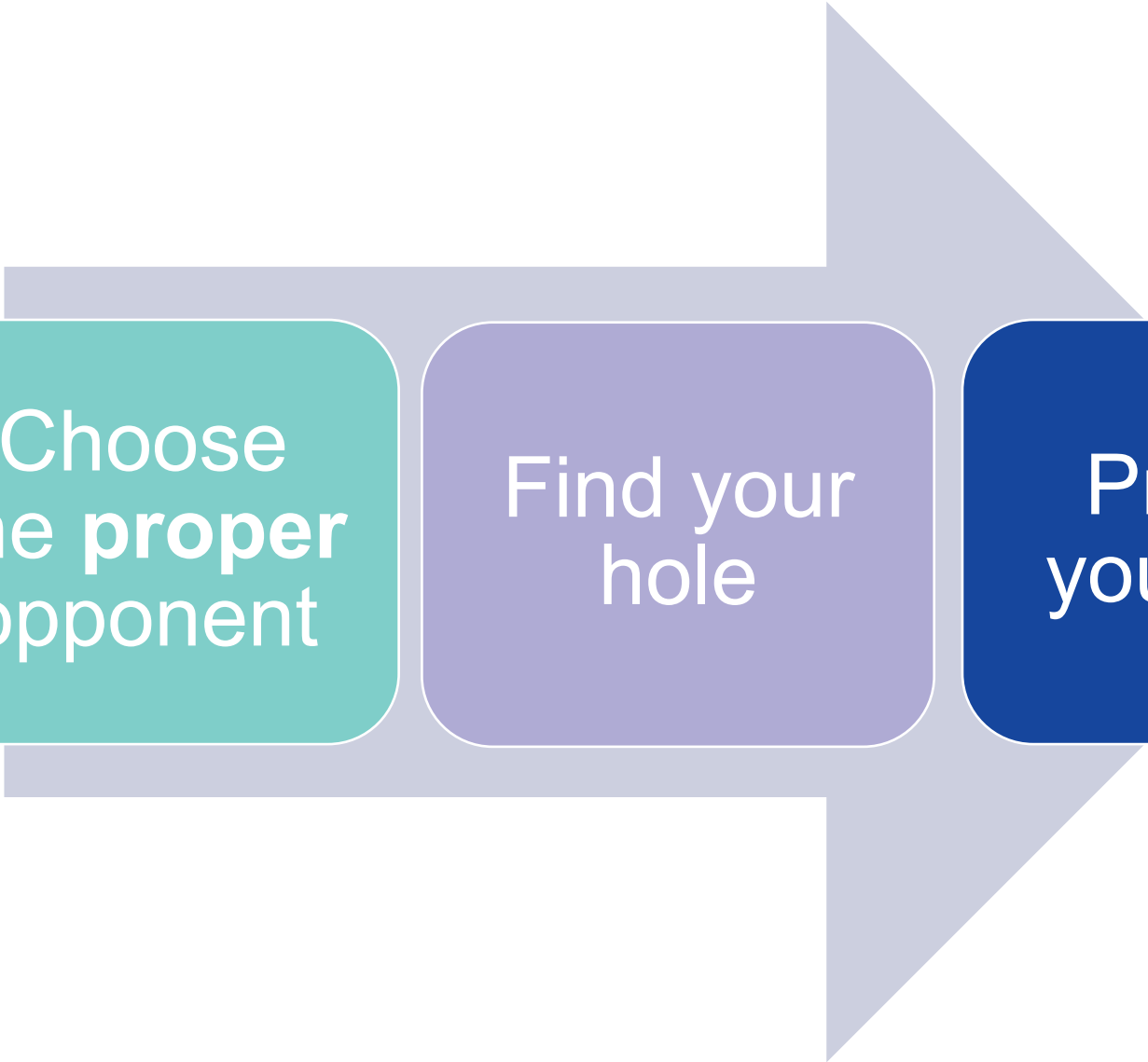
When the flag goes down for the start you need to be crossing the line having maximum speed

To accelerate you need space from your leeward side

The green boat has
Space from the
Leeward side to
bear away and
accelerate

The yellow boat cannot
bear away and accelerate
And soon drops into the backwind
zone of the green boat





Choose
the **proper**
opponent

Find your
hole

Protect
your hole

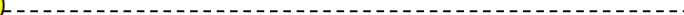


Papa vs Black

- Start with papa



- Start with Black



Minimum Risk

Maximum Risk

Upwind Strategy and Tactics

Now, watch this video from SailZing on Sailing in Clear Air.

<https://sailzing.com/clear-air-upwind/>

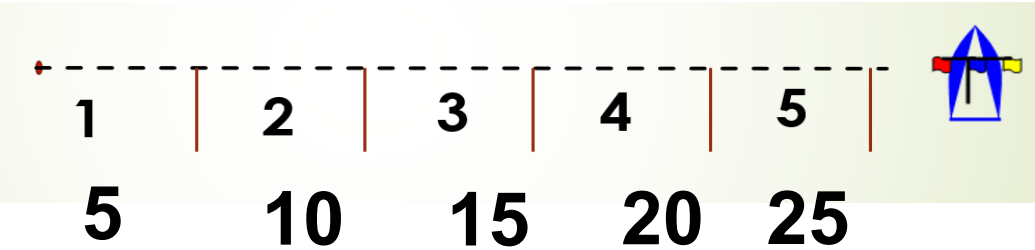
Position of mark 1

- The red mark is in the middle no advantage from any side of the line
- Orange mark is more on the left, advantage from the pin end
- Yellow mark is more on the right, advantage from the RC boat



Teach the sailors to create routines

- I consider five factors and give points from 1 to 5 according to the preferable position on the line.



	PIN	Middle to PIN	Middle	Middle to S. Vessel	Starting Vessel
Points	1	2	3	4	5
Line Bias					
Wind Changes					
Pressure					
Course Geometry					
Total					

How to complete – Line bias

Check the line

Write 1 – Pin End bias

Write 5 – Starboard end bias

How to complete - Wind changes

Evaluate the situation regarding the wind changes

Write 1 if the left side is favorable

Write 5 if the right side is favorable

How to complete – Pressure

Evaluate the course area regarding the pressure

Write 1 if the pressure is coming from the left

Write 5 if the pressure is coming from the right

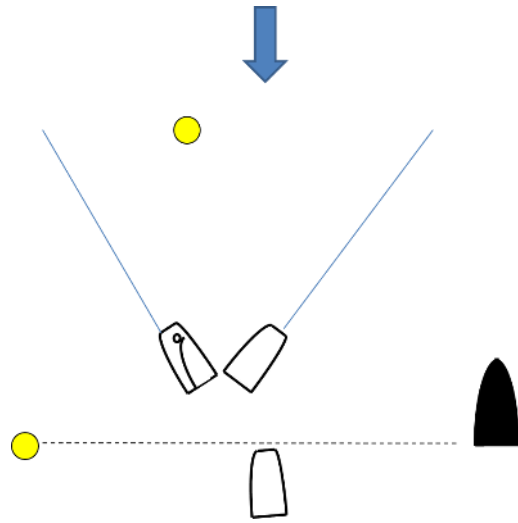
How to complete - Current

Evaluate the effect of the current on my boat.

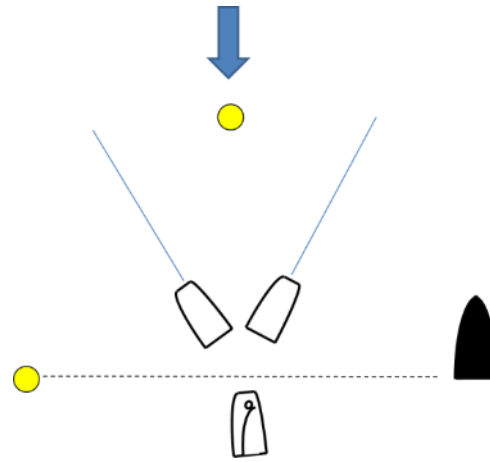
Write 1 if the left side is favorable

Write 5 if the right side is favorable

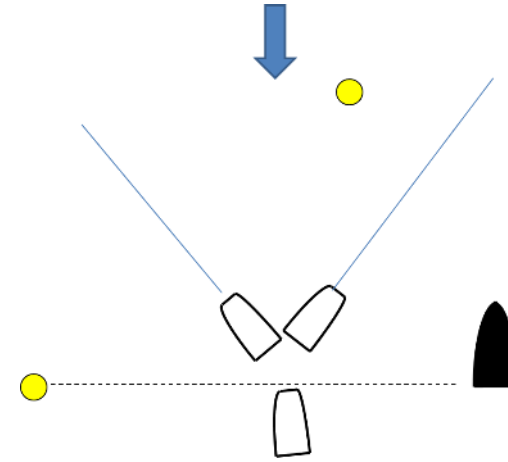
How to complete –Where is Mark 1?



Mark is left



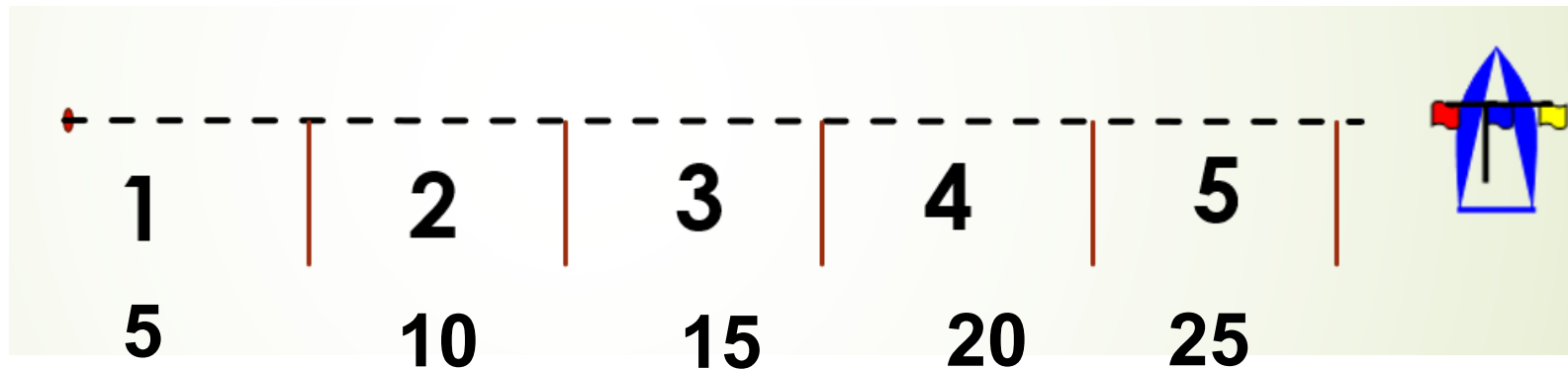
Exactly on
the wind



Mark is right

How to complete

- Add the numbers



Example

Line biased to the left
Write 1

	Definitely Left	Left	Middle	Right	Definitely Right	TOTAL
	1	2	3	4	5	
Line bias	1					
Wind changes						
Pressure						
Current						
Mark 1						
						1

Example

Most of the wind changes come from the right

Write 4

	Definitely Left	Left	Middle	Right	Definitely Right	TOTAL
	1	2	3	4	5	
Line bias	1					
Wind changes				4		
Pressure						
Current						
Mark 1						
						5

Example

All pressure comes from the right
Write 5

	Definitely Left	Left	Middle	Right	Definitely Right	TOTAL
	1	2	3	4	5	
Line bias	1					
Wind changes				4		
Pressure					5	
Current						
Mark 1						
						10

Example

No Current
Write 3

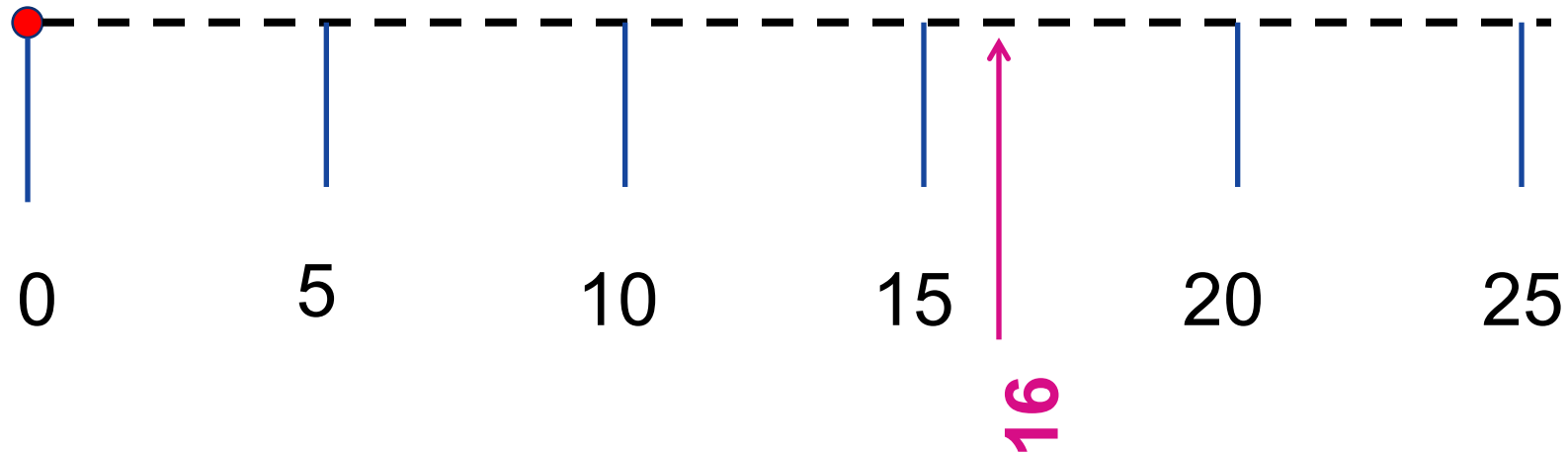
	Definitely Left	Left	Middle	Right	Definitely Right	TOTAL
	1	2	3	4	5	
Line bias	1					
Wind changes				4		
Pressure					5	
Current			3			
Mark 1						
						13

Example

Mark 1 exactly in the middle
Write 3

	Definitely Left	Left	Middle	Right	Definitely Right	TOTAL
	1	2	3	4	5	
Line bias	1					
Wind changes				4		
Pressure					5	
Current			3			
Mark 1			3			
						16

Example



Although the line is Pin biased the other factors suggest to start middle right

Conclusion

Creating routines like the starting table will help the sailor to organise their thoughts. It will teach the sailor how to develop a strategic plan or a tactical move. At the beginning it's not easy but gradually the whole process gets automated.