



World Sailing

Emerging Nations Youth Worlds Team

Starting and Fitness



Today's Session



Starting - Starting priorities, boat handling and line awareness

Fitness - Where can you find resource? What should you be doing?

Starting Strategy and Positioning



Starting... what are we trying to achieve?



2 simple questions

What type of day is it?

What are my priorities?

How many times have you seen boats fight for something on the start line, making their life hard when it wasn't even a priority?

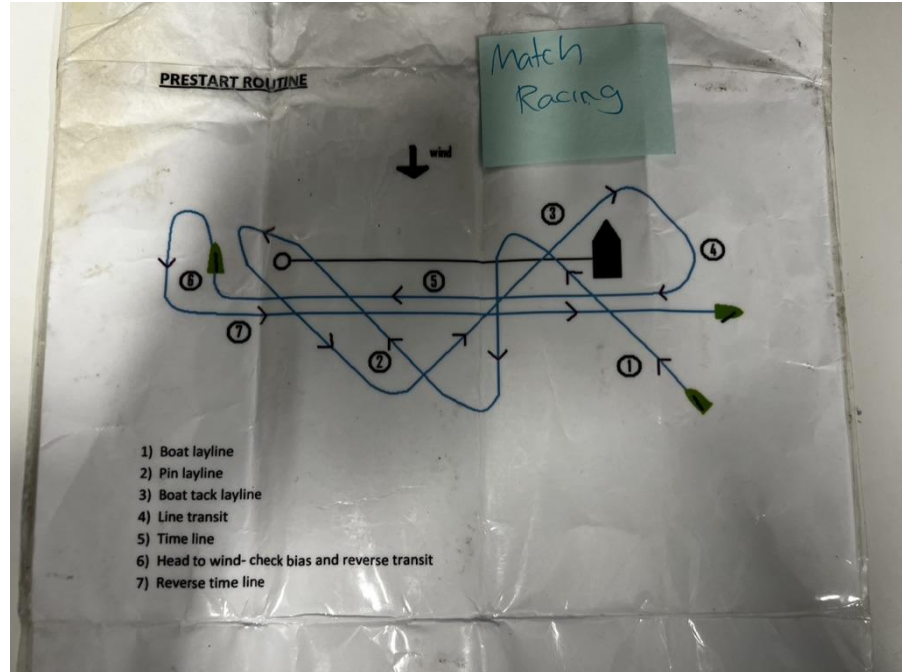
Practise making these decision! Race or training!

Have a playbook



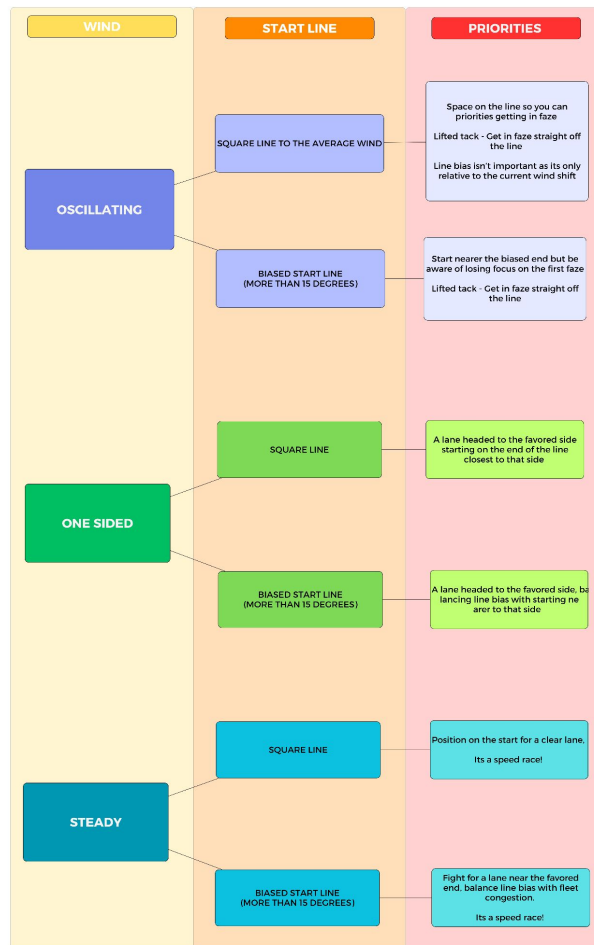
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- 1) Pre-start routine
- 2) Types of day and priorities



Dave Ullman Chart - reminder

	Situation	Reason	Characteristics	Sailing Style	Priorities
Open race course	Stable wind & slow oscillations	no mixing or big changes	stable & steady in velocity	clear air, minimize tacks, patience	boat speed, compass numbers, stay with fleet numbers, start & go straight; big lanes to rip, use line bias for advantage
	Unstable puffy & shifty	wind mixing	Fanning puffs & fast changing	Decisive & short term memory	Start in phase or on outside of shift; get into max pressure & once there sail the lifted tack; lead out to edge; never in middle
					every meter you sail in a header with pressure is a meter you lose in the next wind shift; Are we in max pressure? Are we lifted or headed?
Somewhere to race to	More wind on one side	Geography	stationary	Race to it; be patient	Go to the wind (even if bad air); Fastest lane back with clear air
	Geographic shift	Geographic	Stationary	Race to it & decisive once there	Get to the bend even if bad air; decide whether to lead back or take edge
	Current advantage	Water depth near tide change	Stationary	Race to it; be patient	Overplay the current; clear wind once you're in it
	Persistent Shift	Coreolis; change in gradient	slow change	patient	dig deeper (don't be afraid to take transoms)





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1. Extreme Light

Boat length gain: 9/10

Mentality:

Priorities:

1. Pressure-look for new opportunities and features. Choose the correct gate
2. Start- take line bias, push rule 42, hard to get to end
3. Keep flow- stay clear DW
4. Know your numbers/tide info
5. Be patient and reference heading of other boats and numbers

3. Steady

Boat length gain: 2/10

Priorities:

1. punched start on boats around

- Push bias when boat speed is similar
- Conservative mid end, clean lane key when significant boat speed difference

2. Boat Speed day

3. positioning

- Play the game
- DW get clear-bouy room
- Don't take sterns
- Know your numbers
- Take your gains "re-center"
- Avoid port top mark approach

4. Sail in clear and in phase- compass numbers

5. G.E.M- gain every meter- physicality(pumping), Rolling DW

2. Extreme windy

Boat length gain: 5/10

Mentality: measured aggression

Priorities:

1. Clean sailing
 - Find marks
 - Straight set
 - Early drop
 - Don't overstand
2. Boat speed: physicality through the roof
3. Start: clear start up the line/clean exit
4. Racing: not too many tacks-look for features- know your numbers- get into the pressure and shift

4. Oscillating Shifts

Boat length gain: 9/10

Priorities:

Pre-start- how fast are the puffs moving relative to the wind speed? Tack early or late on shifts? How long are the shifts lasting?

Start must allow you to get in phase, set up for 1st pressure and phase off line.

Options:

Fast moving frequent shifts

- Lifted tack- reference on the top mark
- Start must allow you to get in phase, set up for 1st pressure and phase off line
- Joining dots- big modes to stay in pressure DW
- Take average number to Capitalise and Centralise

Moderate shifts: 3 shifts a beat

- As above: start and boat speed becomes priority
- Compass becomes more helpful
- Positioning important
- Exit gate

Slow Oscillations: 1.5 shifts a beat

- Eyes out for pressure feature and positioning
- Dig into shift
- Each leg can be different

5. Feature (favoured side)

Boat length gain: 8/10

Mentality: aggressive

Priorities:

- Identify feature correctly (geography, current, clouds, shifts)
- Start and Speed is king
- Positioning to achieve strategy
- Thinking ahead at gates
- Moving to close gauge or capitalise

Right side

- Boat end?
- 1st tack critical
- Right gate looking up= earlier gybe

Left Side

- Pin end?
- Getting lane off line critical
- Left gate looking up= straight set

6. Random

Boat length gain: 10/10

Mindset measured yet dynamic

Priorities:

1. Head out of the boat
2. Find features e.g dark clouds bringing breeze or geographical influence
3. Proactive decision making
 - Constantly re-assessing the situation
 - Play boats if unsure
 - Take opportunities
 - Happy to take sterns
4. Forget compass



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Varying or repetitive venues

You could have a venue where its almost always the same priority. Like Garda when your near the mountains or a light airspeed venue.

Or a more dynamic venue. Then the ability to assess your day and the priorities will be what keeps your scores low.





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What starting skills are needed?

Once you are good at identifying the priority then you need the skills to execute the required start.

Some starts are easier than others.

What skills are needed if the priority is to be near a favoured end and there is a lot of congestion, plus the fleet is near the line?



Downspeed Boat Handling

Without proficiency in these maneuvers, you cannot expect yourself to have consistent starts - These are a MUST.

Three basic moves:

1. Active Sit (or shoot ups)
2. Back Ups
3. Double Tacks
4. Acceleration



Get very good at these in every wind and wave condition.

Active Sit



In big fleets and tight starting, you should be able to spend 70 - 90% of your time in the last minute on starboard without needing to do a back up.

Goals of Active Sit:

Manage the space to leeward (and defend hole if needed)

Create traffic to windward

Manage and control flow on foils and sail

Control and assess Distance to the Line

See both ends of the line (and/or transits), fleet dynamics, wind shifts and pressure

Be careful not to infringe Rule 42 with tiller crossing centerline repeatedly

Active Sit

Keys to a good Active Sit

- Body position close to centreline
- Flat boat most of the time (no windward heel)
- Sheet out when sculling down to limit sideslip
- Head up as soon as you have flow once you've sheeted in
- Get to the centre of the boat when in irons (line and wind assessment)
- Spend more time with bow up than the boats around you (create traffic)



Active Sit



Practice every day in every wave and wind condition:

- Find a mooring ball and control speed and approach from below to sit close to the ball.
- Use Shoot Ups to limit drifting from the ball
- Use the stationary ball to assess how good your shoot ups are and manage your flow and line awareness
- Ensure you are focusing on using active sit even in practice starts with very little traffic

Back Ups

Great move to create space to leeward, escape from a bad situation or create flow when you have none.

Risks:

- Starting the maneuver too late in the start sequence and not getting bow even in time for acceleration
- Lose line and time and distance awareness by being farther away from line and not seeing line ends and/or transits.
- Loss of rights while reversing



Back Ups

Keys to a good Back-Up

- Getting bow close to irons before pushing out the sail
- No snags in the mainsheet and getting the sail out far enough to go straight back - tiller straight and body to leeward
- Tiller to leeward at the end of reversing
- Keep tiller to leeward and start sheeting as soon as boat is where you want it to be (to windward of where you were before backing up)
- Sheet in quickly with the tiller to leeward and the reverse flow will quickly switch to positive flow and the boat will spin up into the wind
- End with body close to centerline and boat in or close to irons



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Back Ups

Practice every day in every wave and wind condition:

- Find a mooring ball and do circles around the ball all on starboard
- Sit next to the ball with it just to windward of your bow, then do a Back Up so you end up with the ball sitting just to leeward of your bow
- Use Back Ups in starting practice with other boats (especially when you need to bail out of a bad situation)



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Double Tacks

Move the boat directly to windward along the startline while controlling forward flow.

Risks:

- Takes time to complete maneuver
- Loss of rights when on Port until bow has hit close hauled on Starboard again
- Time spent not taking in line awareness and big picture information



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Double Tacks

Keys to a good double tack:

- Limit flow needed to get the boat to tack onto port
- Limit the time spent on port
- Kill the flow quickly on starboard to maximize distance to windward gained
- Use sculling and body movements to get boat back to starboard
- Let main out quickly as soon as boat crosses head-to-wind after second tack



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Double Tacks

Practice every day in every wave and wind condition:

- Do ten tacks for time - not distance
- Can do this drill on your own or as a race with others
- Can do this drill in any wind condition and is very good to do when there is no wind (learn to tack the boat with zero flow)
- Use Double Tacks when you recognize there is space to windward and there is time to complete the maneuver

Acceleration



Get the boat to 110% speed and VMG angle just before the gun - use less time and less space to get up to speed than the boats around you

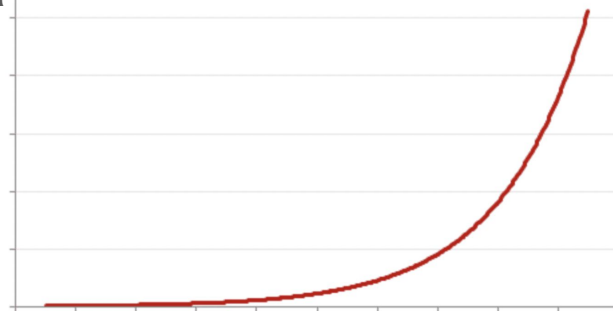
Risks:

- Use too much of your space to leeward to accelerate (end up close to boat to leeward)
- Use too much time accelerating and end up bow back
- Don't end acceleration at VMG angle and either sail into the boat to leeward or sail high and slow and lose front row positioning.

Acceleration

Keys to a good Acceleration:

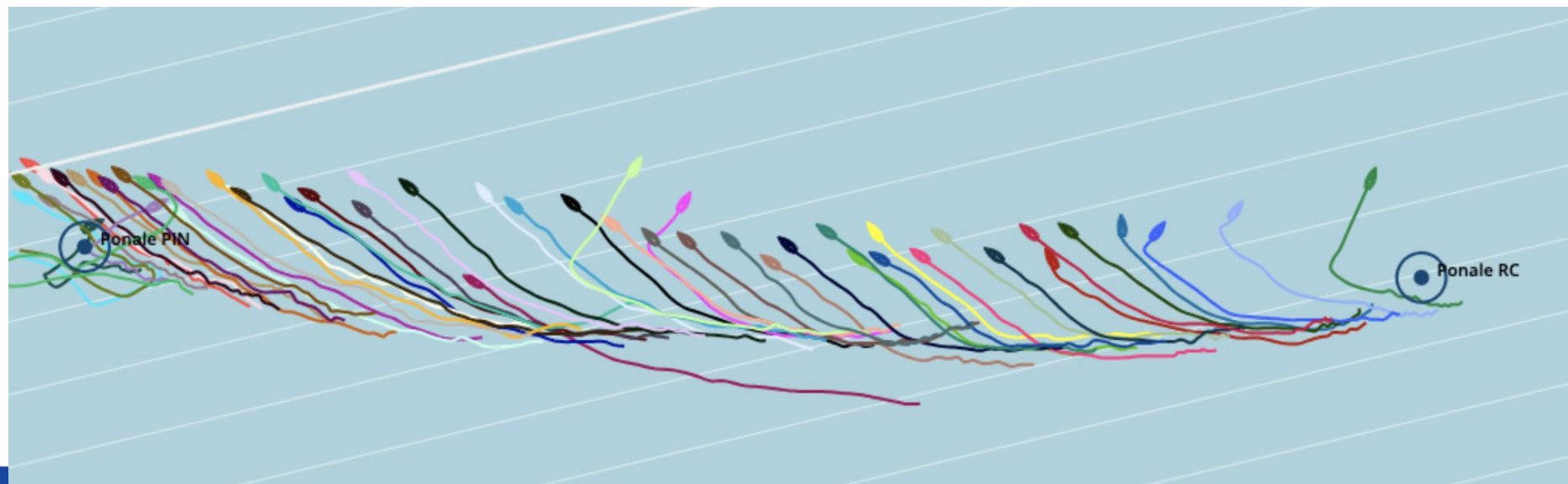
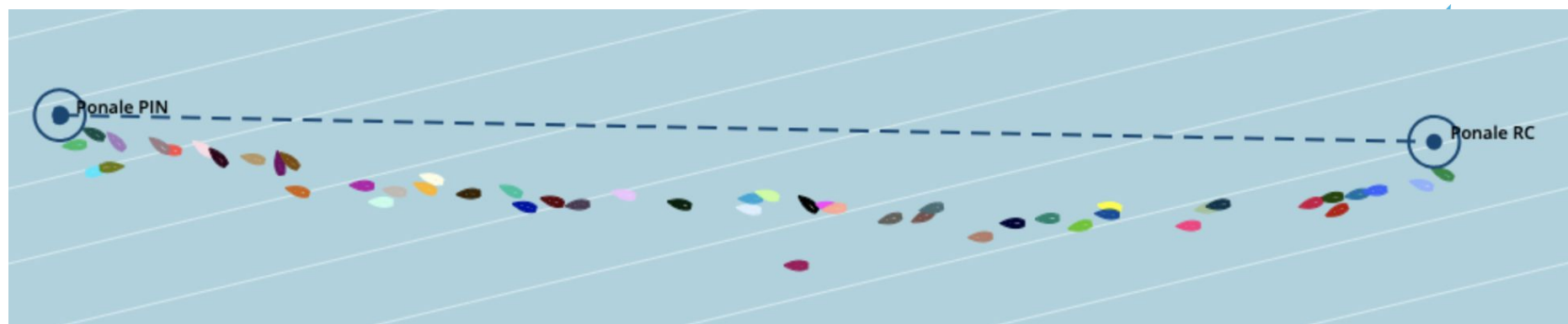
- Start acceleration with a bit of flow, the more the better
- Vang setting is key for good accelerations
- Have mainsheet out to where it needs to be for optimal acceleration in that condition (not too far or not too close)
- Skull down into the mainsheet to fill the sail
- Heel (if needed)
- Head up to VMG and flatten or hike
- Sheet in



Line Awareness

How do you know
where the line is?
Why is it so
important?





The theory behind the line say

LINE SAG



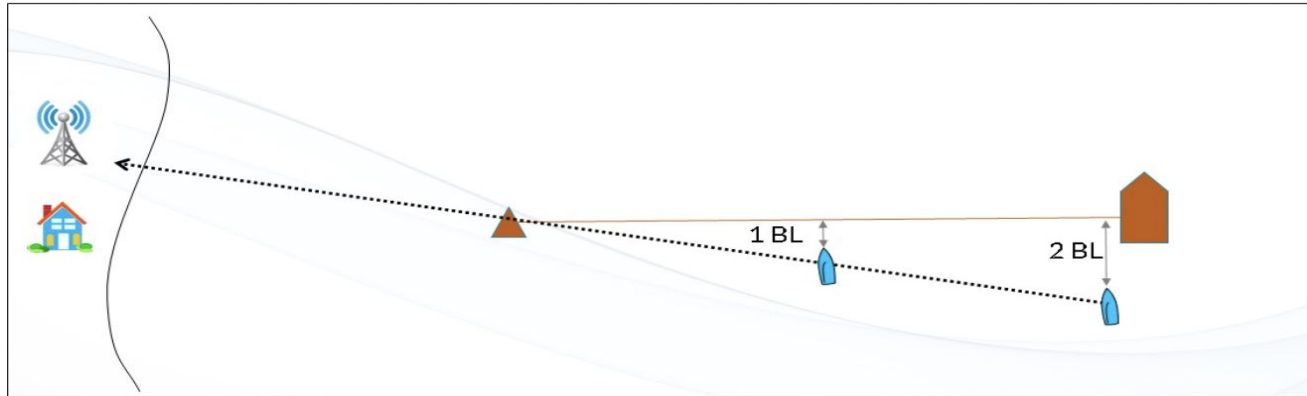


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Line Awareness

How do you know where the line is?

- Take a transit through one end of the line



Line Awareness



Practice many different ways to train line awareness:

- Practice sailing on starboard up to a long line which your coach is sighting and raise your hand when you think your bow is on the line.
- Do long-line starts, where everyone has to start in the middle. Have the coach whistle when boats cross the line.
- Practice long-line starts in current.
- Practice starts using transits and reverse transits.
- Practice end starts using the line spotter as your line awareness.

Review



Starting

- Know your priorities so you can fight for the correct start
- Line awareness is a key skill!
- Down Speed boat handling is the foundation of a good starter

Fitness

Resource:

[World Sailing Academy](#)

What should you be doing on top of your sailing?

- 3 cardio sessions a week (30-60 min)
- 2 strength sessions (gym or bodyweight)
- Core in every session

MORE TO COME NEXT SESSION

