

RS 300

Training





Short-term speed/bear in mind

- Upwind
 - Shifts
 - Kicker
 - Trim
- Downwind
 - Gusts
 - Trim
- Mark roundings
 - Trim





Short-term speed/bear in mind

Upwind

- Shifts
 - Shorten distance sailed
 - How to spot?
 - Compass is most efficient method – check average headings on each tack before start of race
 - Can also look at relative heading of boats on the same tack and look for transits on shore
- Kicker
 - THE key control, because
 - The rig is large – 10m²
 - Cannot isolate mast bend, sail fullness & leech tension as you can in a boat with a stayed rig – this makes it sensitive to kicker tension
 - All about power management
 - The idea is to match power available in rig to what you can sustain by sitting out (hard).
 - If you have too much power, pull on more kicker (see below). If not sitting out hard then ease kicker a couple of inches.
 - Play kicker upwind as each gust comes and goes.
 - Block to block F4+ [Slide 8](#)
- Trim
 - Windward heel a must [Slide 9](#) [Slide 10](#)



Short-term speed/bear in mind

Downwind

- Gusts
 - Use mainsail not rudder
 - Ease the sail as the gust strikes instead of using rudder to bear away. Boat will automatically bear away without need for rudder.
 - Be proactive
 - Windy (Head up to get gusts early and then bear away as gust hits so stay in it longer. Head up when gust eases to keep planing).
 - Light (In marginal conditions it may pay to head up in the gusts to get boat planing and bear off in lulls – but use with caution).
- Trim
 - Upright / windward heel [Slide 11](#)
 - (Kicker) [Slide 12](#)



Short-term speed/bear in mind

Mark roundings

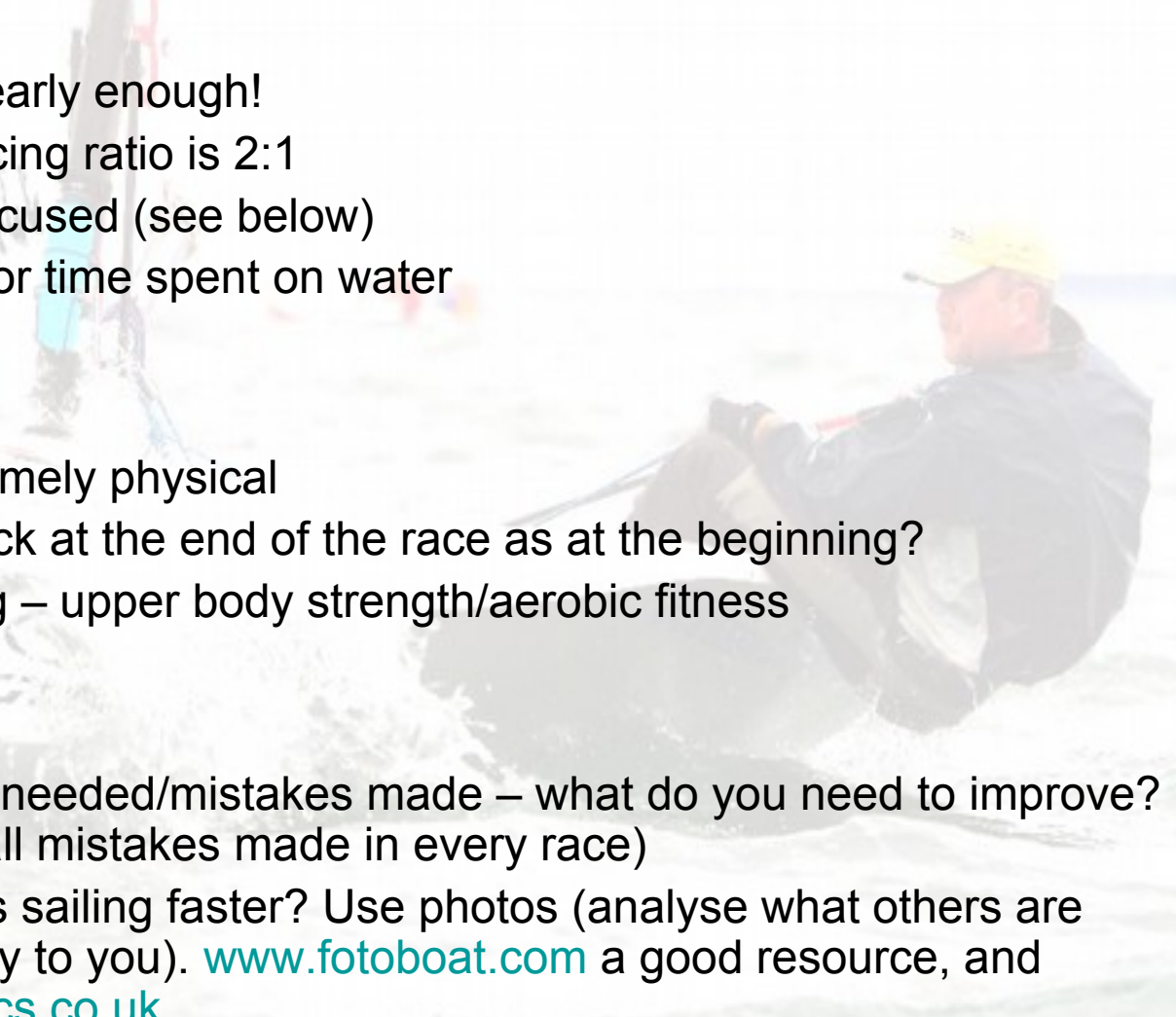
- Windward mark
 - Trim (windward heel)
 - use mainsheet (i.e. ease it to promote windward heel)
 - use weight (keep sitting out hard until boat has borne away)
 - Don't use rudder
- Leeward mark
 - In wide, out narrow
 - Rig settings on before heading up (outhaul, cunningham, kicker)
 - Use heel to head up (no need to use rudder to luff up)



Long-term speed

- There is no 'black art' in making a boat go fast
- No substitute for hard work
 - Practice
 - Fitness
 - Focused thought
- How fast do you want to go?

Long-term speed

- Practice
 - We don't do nearly enough!
 - My practice/racing ratio is 2:1
 - Needs to be focused (see below)
 - No substitute for time spent on water
 - Fitness
 - RS300 is extremely physical
 - Are you as quick at the end of the race as at the beginning?
 - Fitness training – upper body strength/aerobic fitness
 - Focused thought
 - Improvements needed/mistakes made – what do you need to improve? (keep note of all mistakes made in every race)
 - Why are others sailing faster? Use photos (analyse what others are doing differently to you). www.fotoboat.com a good resource, and www.chunkypics.co.uk
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- A person wearing a yellow cap and a dark jacket is rowing a boat on the water. The person is seen from the side, leaning forward as they row. The background is a bright, slightly hazy sky and water surface.



Pictures taken in force 5+

- Top half of sail dead flat
- Unless conditions extreme, keep some fullness in bottom third by not having outhaul dead tight



- Top batten flat or inverted
- Diagonal creases across lower third of sail are quick – not enough kicker on unless you have these
- Look at angle of kicker bar – it's impossible to get any more kicker on here



Good windward heel in both pics on left (bottom pic – Steve Bolland 2006)



Oh dear – far too much heel upwind (Steve Bolland 2002)



This pic. Ouch – look at angle of knee – likely to cause injury + cannot sail boat with windward heel as bum will drag in water



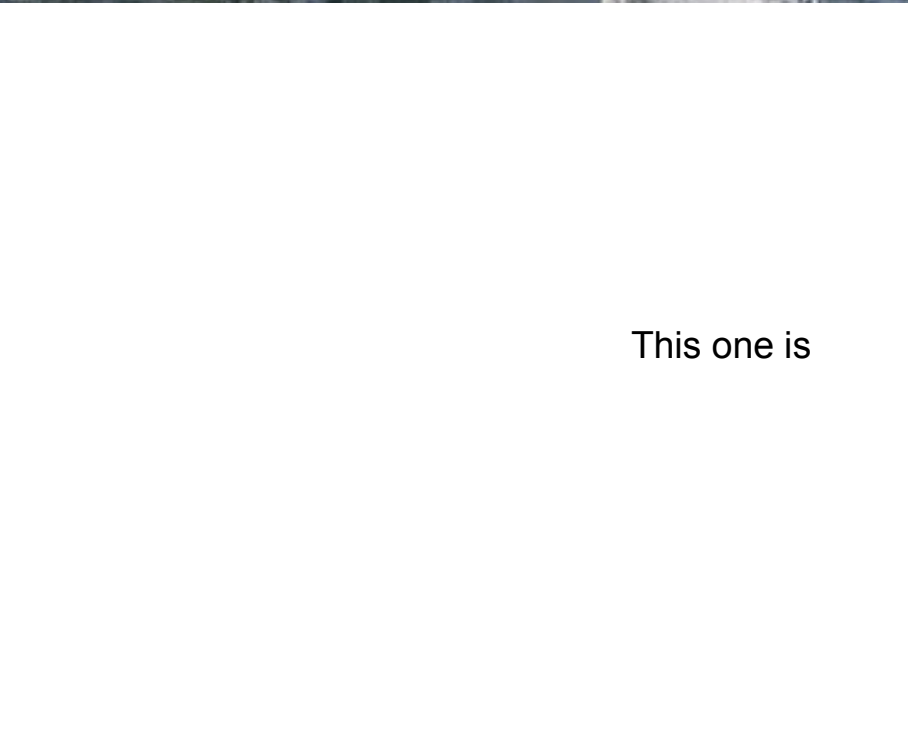
Pic top left – angle of knee much better – shorten toestraps to get this

Pic bottom left – too much heel and insufficient kicker – sail is too full. Compare to boats in pic above





Boat not upright on reach



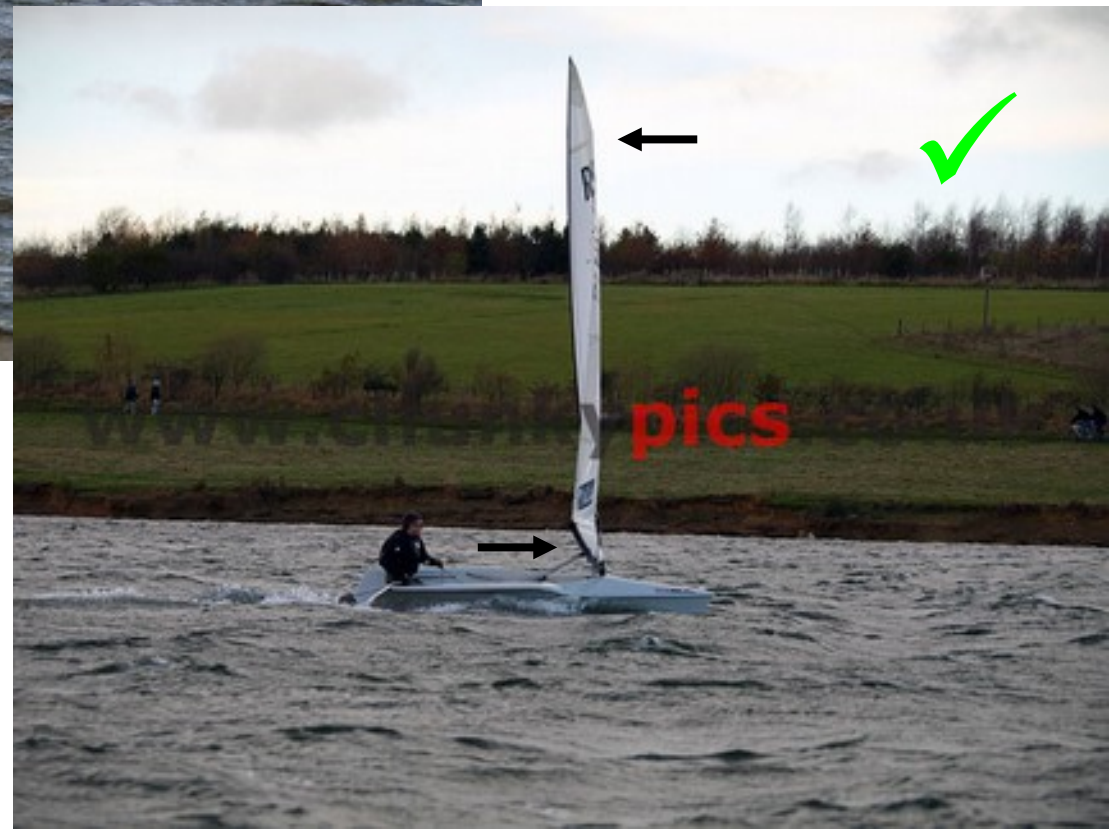
This one is





506 – kicker on too hard on run – sail too flat, powers up leech too much inducing rolls to leeward

Boat in foreground – less kicker so much fuller sail. Tendency to roll to windward counteracted by having boom further in



On a run it's not the angle of the boom that's relevant but the angle of the top batten. Kicker eased here to get nice leech shape and fuller sail – boom is in a bit and top batten perpendicular to mast. Boat will only roll to windward if top batten angle is in front of mast.

RS
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Additional material

Note the shape of the leech of the two boats. On the closest boat the leech is too open (not enough kicker) and the sail is too full for the conditions, making it a struggle to keep upright and moving fast.



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Additional material

I love this photo! Notice how all the leading boats (on the left) are upright while all the ones behind (on the right) are not. Not a coincidence.



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Additional material

The latest thinking is to play the main from the boom upwind as well as down – it is much more responsive to gusts and the sheet loads are substantially less due to the sheeting angle (arm and sheet in alignment).



RS
300

Additional material - kicker

Pic on left – how the gnav bar looks with no kicker. On the right – how much the mast should bend with no kicker (i.e. with the gnav bar as it is on the left).



RS
300

Additional material - kicker

With the kicker full on the gnav bar should look like this (pic on left). If it's really honking, pull on a bit more upwind. With this much kicker this is the clearance between the cockpit floor and the boom (pic on right).

