Perfect Sail Trim

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Two Boat Test: Leeward boat won

- Won every drill
- In this boat & Condition, putting bow down gave fast forward =speed with no loss of height
- Point is: Technique is more important than tune
 - Not that tune is not important, it has to be right too
- Focus of this is trim

Trim =

- Sail trim
 - Main
 - Jib
- Steering
 - Angle to wind
 - Technique
- Balance
 - Heel
 - For aft

Body First:

Then Sheets, Then Angle

- Underpowered
 - Body move laterally to keep boat constant heel
 - NOT necessarily Flat (but could be)
 - Pre-emptive, anticipate
 - "Puff in 3, 2, 1 puff on" -start pressing body out on "2" or "1"
 - "Lull in 3, 2, 1 lull" –move in before lull, so no windward heel
- Overpowered
 - Body Full hike always
 - Same in 10kts as in 35kts

Body First: *Then Sheets*, Then Angle

- Underpowered Puffs
 - Trim in for puffs
 - As puff hits NOT before
- Overpowered Puffs
 - Body Full hike all the time
 - Play sails incessantly to keep constant heel
 - Ease pre-emptively, "Puff in 3, 2, 1 Puff on", ease around "2" or "1"
 - Then re-trim (front edge of puff has most impact)

Body First: *Then Sheets*, Then Angle

- Underpowered and Overpowered Sheets are opposite:
 - Underpowered: Trim in for a puff/ Ease for a lull
 - Overpowered: Ease for a puff/ Trim for a lull
 - Surprising how many people I coach struggle with this
- In either case, don't want to be over trimmed
 - Underpowered:
 - Puff: Trim in just as or after puff hits
 - Lull: Ease just before lull
 - Overpowered
 - Puff: Ease just before puff hits
 - Lull: Trim in just after lull

Body First: Then Sheets, <u>Then Angle</u>

- Underpowered
 - Body move laterally to keep boat constant heel
 - Trim in for puffs, ease for lulls
 - Then re-define angle
 - Slightly higher in puff, lower in lulls
- Overpowered
 - Body Full hike all the time
 - Play sails to keep constant heel
 - Then re-define angle
 - Slightly higher in puff, lower in lulls

Body First

- Observation is king
 - Need to see and pre-empt puffs and lulls so can start body moving just before
 - Someone assigned to "Puff (lull) in 3, 2, 1, Puff (lull)"
- Body movement roles well rehearsed
 - Who moves first? 2nd?...
 - Who does fine tune, who course?
- Communication when nearing transition
 - Underpowered: Helm says "balance mode"
 - Or "Full hike"
 - Overpowered: Helm says "Full hike"
 - Or "I'm fully trimmed)
 - Team needs to know when nearing transition so they can lock into hiking full, or be ready to move

Sheets: Underpowered

- Main top leach tale % flowing
 - Good default is 50% flow, but each boat different
 - 80% in chop
 - 30% in flat ideal conditions
- Range between 90% flow and 10% flow
 - Is maybe 10 clicks of ratchet (varies greatly by boat)
 - Point is, it is very little, this is super subtle, but super important
- Leach will blow open in a puff and close off in a lull
 - So need to trim and ease respectively to get back to % flow

Sheets: Underpowered

- Jib leach tale
 - Trim in to jib tale stall, then ease just to flowing
 - In short, as tight in as can without it stalling
 - Digital –Either flowing or not (unlike main which has a range)
- Leach will blow open in puff and close off in lull
 - So need to adjust for each wind change
 - To keep tight so tale just barely flowing

Sheets: Overpowered

- Main Not looking at leach tale (flowing 100%)
 - Constantly trimming to constant heel
 - Vang to control twist
 - Look at horizon reference to mast, deck or whatever
 - Often able to bring back in after puff hits
 - Since front edge of puff most abrupt

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Steer

- Steer up in sustained puffs
- Down in sustained lulls
- In both underpowered and overpowered
- Following apparent wind, in a puff it goes aft, in a lulls it goes forward
 - Can pinch through a lull (let apparent wind settle)

Body First -In a Puff, Ease Hike Trim: Does not quite work

- Underpowered mode
 - Hike Trim Steer-Fine tine all 3
 - Easing first is giving something away!
- Overpowered mode
 - Ease-Steer-Trim
 - Should already be hiking full!
- Transition between underpowered and overpowered
 - Hike/ Ease simultaneous, then steer
- So, in neither of the 3 cases does Ease-Hike-Trim work
- Mythbuster!

Body First -In a Puff, Ease Hike Trim: Does not quite work

- Is there ever a case where Ease-Hike-Trim works?
- Maybe when caught off guard and don't see a puff
 - Can react quicker with eased sheet than with body
 - I would argue that should work to avoid this –giving something up!

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