

Drifting Conditions - 0 to 4.9 Knots True Wind

General: In wind under 5kts, inertia is everything. Keep the boat moving in any direction. Follow the wind to keep boat speed (inertia in motion) up. Upwind sail 46° to 50° TWA. Don't Pinch! Seriously, pinching stops the boat and then it takes forever (inertia at rest) to get moving again.

Upper Shrouds: Loosen 5 turns off base of 40 allowing the forestay to sag at least 4" making the jib fuller.

Lowars: Loosen 3 turns off base of 22. In wind under 5kts the mast will look straight because there is no air.

Main Luff: Hoist Head to band with obvious wrinkles in luff from Head to Tack. If no wrinkles or draft is forward of 45%, ease halyard off ¼" at a time. Tack pin in aft hole.

Cunningham: **Totally off,** see luff wrinkles above.

Outhaul: Set a 4" gap between boom and foot of main. Or, upwind in 3kt or less, try outhaul very tight which flattens the bottom of the main allowing the slow moving air to stay attached as indicated by your lower telltale. Check your boat speed, make the change, check boat speed!

Backstay: Off unless setting backstay with loose shrouds flattens main and sags forestay, both needed to set.

Main Sheet: Trim top batten parallel to boom. Err on the main being loose. Raise aft end of boom with topping lift shaping main so some air is always attached to some part of the sail and you maintain inertia.

Main Traveler: High enough to bring the boom 3" to 5" above centerline while keeping the leech at the top and second battens below the backstay.

Jib Luff (Under 5 Kts True): Draft at 40%, wrinkles will be 11" long with a small amount of sag between hanks.

Jib Battens: It is very important to get the top batten out of the jib to get the fullness you will need for power.

Jib Car: Telltales should break evenly. Try 1" forward in flat and up to 2" forward in chop to make bottom fuller.

Jib Trim: **Yellow tip 1 to 4 kts, Green (1st) Mark under 1 kt.**

Crew Position: Sail boat flat with just enough heel to shape sails, 2° up, 1° down wind. If you can't 'feel' the helm, good, it's fast, because you're not breaking with the rudder. Steer with your weight. Reduce wetted surface up and down wind by moving crew forward to get stern out of the water. You may even need to put someone in front of shrouds. Crew also can go below and sit on the keel.

Down Wind (Under 5 Knots True) #1 Broad Reacher

General: Lower pole and over square. Light spin sheets are important. However, always place every sheet on a winch so what little energy the sail generates is transferred to the hull and not dissipated in arm movement.

Angles: Under 5kts TWS, **sail 140° TWA downwind** as your AWA changes drastically. Watch the spinnaker's clew; it is your biggest telltale. Anticipate when it wants to drop and head up 2° first. Err on getting moving before heading back down. Speed (inertia in motion) is paramount.

Light Air - 5 to 9.9 Knots True Wind

General: In Light Air, pointing is a function of speed. Make sure you are going fast first before you even try to point. As your speed increases, the keel begins to work and the boat lifts to weather. Crew placement and movement are critical. Keep boat heeled 2° to 9°, hike out after boom centered, minimum movement, sail plan fully powered up.

Upper Shrouds: Rig boat for lulls. Loosen 3 turns off base of 40 which sags forestay 3" to 4".

Lowars: Loosen 1 turn off base of 22. In 5kts upwind the mast should sag to leeward in the middle making the main fuller and closing the slot.

Main Luff: Again and always, Head to band, draft at 45%. There should be wrinkles. Put tack pin aft in flat waters. This flattens the lower forward ¼ of the main helping to open the slot between the main and jib.

Cunningham: If needed, tension just enough to allow wrinkles only in the lower half of the main.

Outhaul: Upwind at 5kts start with 4" gap. After boom is centered, tighten ½" for each knot increase in wind speed until there is **a 2" gap at upper wind range.**

Backstay: Should be off.

Main Sheet: Trim top batten parallel to boom. This is always done while sighting up from the center of the boom. Top telltale should fly about 50%+ of the time.

Main Traveler: At 5kt trim traveler high enough to set boom 5" above centerline like in Drifting Conditions. As wind builds, you will sheet in to keep top batten parallel to boom while easing traveler to keep boom 5" above center. When boat heels past 8° and you feel a bit too much helm, drop the traveler to center the boom. **When the boat heels over 5°, hike out.**

Jib Luff (5 to 9.9 Kts True): To point, create a flat entry with the luff as indicated by 11" wrinkles at each hank, a small amount of sag between hanks and draft at 40%. If you need speed, foot off while putting draft at 35%, and trimming the wrinkles out with the jib Cunningham. This rounder entry created by a tighter luff widens the groove. You can't point as high but your optimal steering range is lower and wider.

Jib Battens: Top batten should still be out of the sail.

Jib Car: Telltales should break evenly, top to bottom, usually 14'1" to 14'2". Maybe 1" forward in chop.

Jib Trim: **Trim to Green (1st mark from tip) Mark.**

Down Wind (5 to 9.9 Kts True) #3 Broad Reacher

Angles: **Sail polar gybing angles in this wind but really (6kt TWS - 143° TWA, 8kt - 148° TWA, 9kt - 152°)** work on getting downwind. Aggressively square the pole back. Adjust pole height to keep seam parallel.

Crew Position: Sail boat flat 1° downwind. Move crew forward to reduce wetted surface and stern vortexes.

Moderate Air - 10 to 14.9 Knots True Wind

General: At this TWS you need to be hiking out. Crew weight makes a big difference especially in waves where you need power. If no limit, have 8. Whether gotten from polar diagrams or experience, in Light and Moderate Air conditions; discuss, know and sail your target speeds upwind and target angles downwind.

Upper Shrouds Tighten 3 turns from base of 40.

Lower: Tighten 2 turns. Don't over tighten lowers which will restrict mast bend low making main too full.

Main Luff: Main halyard to band with only a hint of wrinkles and Draft at 45%. Tack pin forward.

Cunningham: Tension enough to have wrinkles only in the lower quarter of the main, keep draft at 50% max.

Outhaul: Upwind leave a 2" gap from boom to main foot in chop. In flat water start with a 2" gap at 10 kts and tighten ½" for each knot increase in wind speed until no gap. Reaching set a 3" gap. Downwind 4".

Backstay: Use backstay to depower boat.

Main Sheet: Trim until top batten is parallel with boom and top telltale flies about 70% of the time. Don't play the mainsheet to de-power. Easing the main sheet will sag the forestay and make the jib fuller, bad.

Main Traveler: Set traveler so the boat is stable then work the backstay. In very puffy conditions, you may have to also play the traveler to keep the boat stable.

Jib Luff (10 to 14.9 Knots True): Tension the halyard so the wrinkles are only 4" to 6" back from the luff, the draft at 40% and a little sag between the hanks.

Jib Battens: Make sure all battens are in. Be sure to put battens in with very light tension and only slight vertical wrinkles in the pocket. Battens never should be so tight that any batten "pops" from side to side.

Jib Car: Set jib car 1" aft from break even to depower.

Jib Trim: Trim to Blue (2nd) Mark in 10 to 14.9kts. Sail with 2 sheets and 2 barber-hauls. Put barber-haul leads on the rail perpendicular to the jib leads. Tack using the normal lead, and then pull the clew out with barber-haul until the jib leech telltale at middle batten is parallel with centerline of boat. In 10kt true, where white caps begin, pull clew out 1" and at 15kt pull clew out about 3" almost to shrouds with barber-haul.

Down Wind (10 to 14.9 Knots True) #2 Runner

General: In moderate conditions, drive down deeper in puffs while trimmers bring the pole back and up.

Angles: Between 10 and 15 kts true is where your target angles are most important. Use them! Basically at 10kt TWS - 155° TWA, 12kt - 165°, 14kt - 175°. Square the pole way back. Never let the clew of the spinnaker go beyond the forestay.

Crew position: You may heel the boat to weather a bit to help get the spinnaker out from behind the main.

Heavy Air - 15 knots and Up True Wind

General: The flatter you sail, the better your VMG's. Get more crew for weight, fully hike out hard, depower sails, reef when needed. Work hard on pointing, feather up in puffs, without stopping, sailing upwind, not sideways.

Upper Shrd: Tighten 6 turns past base 40, 7 above 22kts. Loosen after race or you can cause dimples in the hull.

Lower: Tighten 4 turns past 22. Just get mast straight up to forestay and let the tip fall off to leeward. Don't over tighten lowers. Check mast upwind with main trimmed hard, backstay on; lee lowers should be loose.

Main Luff: Hoist Head to band. Tack pin forward.

Cunningham: Tension just enough to remove wrinkles, draft at 45%. Above 20kt TWS tighten ½" more.

Outhaul: Max out.

Backstay: Tension 'fully' until subtle over bend wrinkles develop below spreaders and angle toward the clew. If over bend wrinkles appear near the hounds and through T-10 logo, then too much backstay is applied for this shroud tension. Main draft max 50% with backstay on.

Main Sheet: Trim sheet hard then trim fine tune hard, sheet is supporting the forestay. Top batten should be parallel to boom or at most 6° to leeward. Top telltale should fly 90% of the time. When boat feels sluggish, ease fine tune and backstay a little to repower.

Traveler: Drop traveler hard in puffs, up to 20". Then use Vang to depower boat and keep it under control.

BoomVang: In breezy or big puffy conditions work Vang hard to depower. When jib leech is eased out to First mark, start using Vang to bend lower half of mast thus flattening lower half of main. Remember to fully release Vang before windward mark and when ducking!

Reefing: Reef at 20kt, sooner if your crew is light. Use whichever reef puts the main head at the forestay.

Jib Luff (15 Knots and Up True): Just get the wrinkles out, draft at 40%. If there is a question of whether to be tighter or looser on the jib halyard, always err on the loose side; besides, you have a jib cunningham.

Jib Battens: Make sure all jib battens are in. You might want to use stiffer battens if your crew is light.

Jib Car: Set 1" aft of break even or 2" aft if overpowered in flat seas. Sail with and use sheets and barber-hauls.

Jib Trim: Start at Red Mark (3rd in from tip). Ease out to Green (1st) Mark above 18kt in flat or 20kt in chop.

Down Wind (15 Knots and Up True) #4 Runner

Angles: At 14kt TWS and above Sail 175° TWA. Hang on and don't round up! It slows you down. Again, square the pole way back. Never let the spinnaker clew go beyond the forestay. Call out puffs & waves, and pump the main & spin sheet to help induce planing.

Crew: Move crew aft, even behind helm, to get bow up.