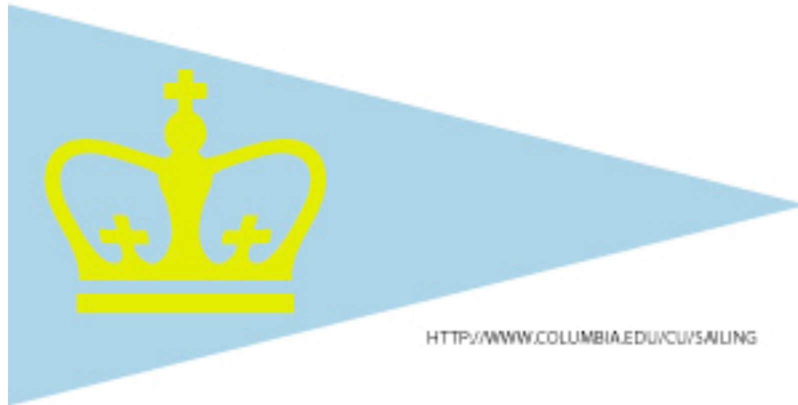


Columbia University Sailing Team

Reader #1
Fall 2004

Contents:

When to Jibe-n-Run — 2
Terry Hutchinson

Right or Left? How to Choose the Faster Side — 3
Gary Jobson

How to Call Puffs, Upwind and Down — 5
Moose McClintock

Ten Moves That Don't Work in a Big Fleet — 9
George Szabo

Think Simple Thoughts — 11
Ed Baird

Get to the Advantaged Side of the Course — 15
Stuart Walker

Win the Pin With Match-Racing Moves — 17
Betsy Allison

Top of the Beat Tactics — 19
Bob Merrick

Tactics: How to Claw Back — 22
Scott Iklé

Sail Like a Veteran Today — 24
Luther Carpenter

When to Jibe-n-Run

By Terry Hutchinson

The first jibe after rounding the top mark is always a tough call. When I look at Real Tick's situation in our photo sequence, here's what comes to mind:

Hopefully, these guys have tuned into the traffic report for the upwind starboard-tack layline. In any large fleet, be it Farr 40s, Melges 24s, or Stars, jibing underneath the starboard-tack layline rarely pays, primarily because of the bad air and disturbed from boats coming upwind. In Real Tick's case, there'd better be more pressure on the other jibe, or at least a line of pressure moving across the course, for its move to pay off. If Real Tick wallows in dirty air for more than four boatlengths, it will negate any gain they make if they're first to the new wind or shift. If Real Tick jibes and sails to a grinding halt, the boats ahead will simply go the extra four or five lengths, jibe, and will likely be lower and faster while getting their breeze from behind Real Tick's windshadow.

The crew on Real Tick should be looking at the downwind traffic as well, and have a good idea of what's going on with any boats behind. In Photo 1, we can see Real Tick's crew setting up for the jibe, which will telegraph to the boats behind that they're jibing. That's real risky for Real Tick. In this situation, they want their jibe to be as much of a surprise as possible. The last thing Real Tick wants is for a competitor behind to match its jibe, forcing Real Tick to sail extra distance to keep its air clear. Coupled with potential bad air from the starboard tack layline, this could be a losing move - big time. Few things are worse than jibing away from a pack only to have the boat behind jibe simultaneously. When this happens, you have to reach up to clear your air, and you give away a ton of distance.

The one thing I do like about Real Tick's position before the jibe is they're positioned well with the pack ahead. If everybody in front jibed simultaneously with Real Tick, Real Tick would come out strong. Considering the relative positions of the boats in Photo 1, Real Tick would roll the boat that's immediately ahead. More importantly, Real Tick would have clean air, assuming no boats behind jibed, and thus be able to sail its desired angle.

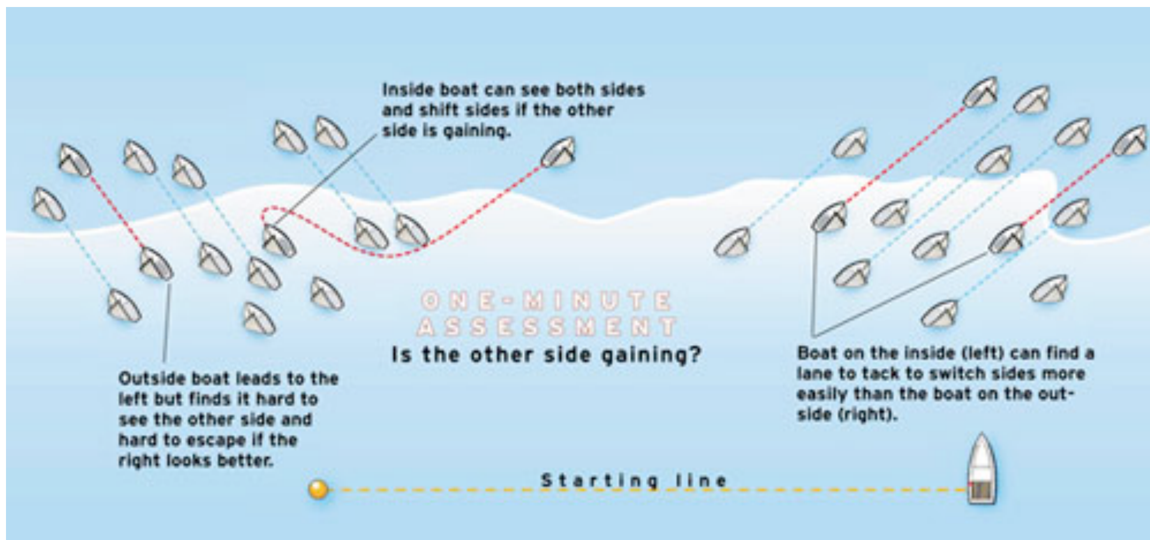
What happens to Real Tick later on in the leg? Luckily, I witnessed this scenario and my recollection of Real Tick's move was that it played out well. The boat I was on was just ahead of the pack, sailing into the right-hand corner [looking downwind]. Real Tick made it across on port jibe without a competitor jibing on its breeze, gained in the increased pressure and shift, and passed the entire group they rounded with; excellent move.

The risk/reward is high in this situation, but tactically, the keys to pulling it off will be to keep the crew from announcing their intentions and getting a jump on the competition behind. As I learned later in the leg, getting out on your own and being able to sail the best VMG without traffic is always a winning move.

====================================

Right or Left? How to Choose the Faster Side

By Gary Jobson

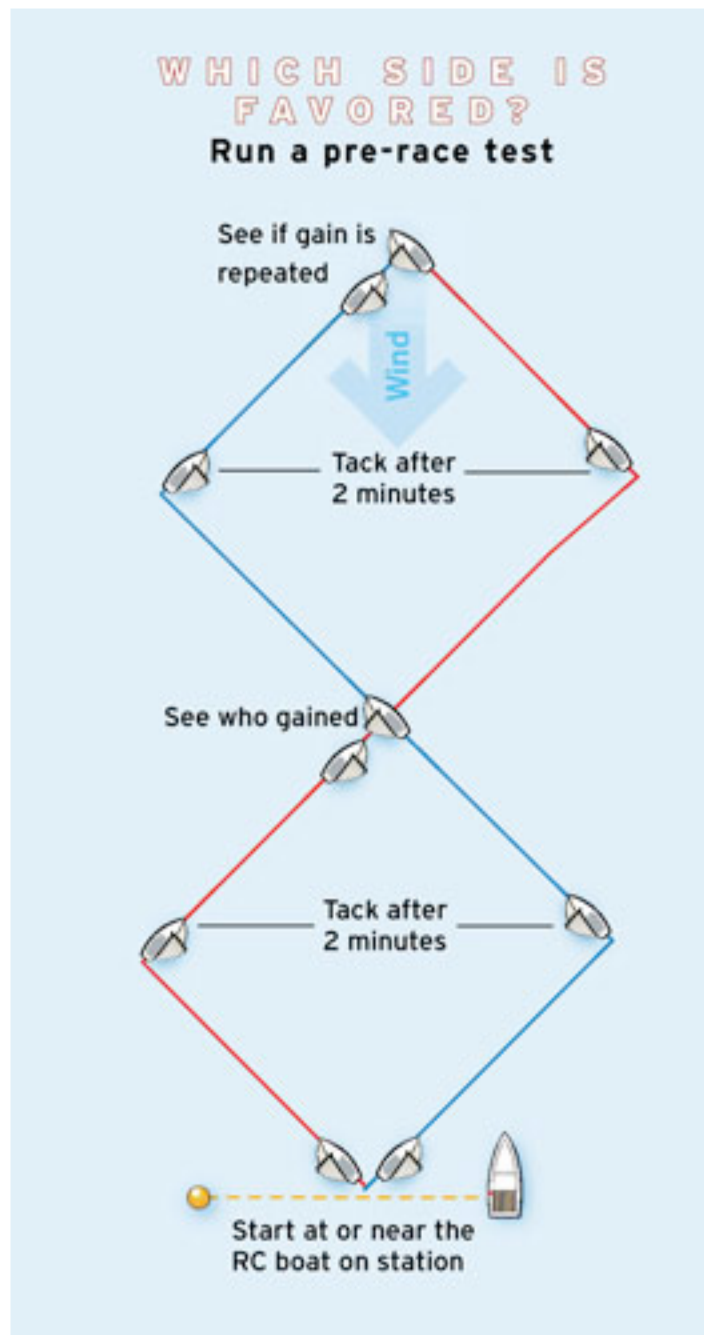


Choosing the faster side of the first leg of a race is critical to getting an early jump on the bulk of the fleet, and it's something you can usually predict. Careful study, a disciplined approach, and simply summoning up the courage to make the call are essential ingredients. Few sailors have the resources America's Cup sailors enjoy, but both ashore, and on the water before the start, you can do quite a bit of homework to help you make the right call.

Make a habit of reviewing your tide tables (if you're on the coast) and forecasts in the newspaper or internet, before leaving the dock. In addition, take the time to ask local sailors what to expect; beyond the normal wind and current info, you may learn some surprising things. On one Midwestern lake, the cows near the shoreline face downwind, and the stronger the wind, the more neatly they line up. In Newport, R.I., dense dew on the grass early in the morning indicates a strong southwester will fill. Some of what you hear may not help you choose the faster side, but the process always helps orient you to the race area.

Once you leave the dock, the same applies to watching the wind. Track changes in the wind by recording compass readings, including the time. Then, well before the start, study the water carefully. Look for dark patches of water indicating more wind or a significant current effect. Study one section of the horizon at a time, standing up so you have a greater height of eye. Use polarized sunglasses because they help contrast the color of the water, and let your eyes blink naturally. There are many sources to use when reading the wind: flags, smoke stacks on shore, cruising

sailboats, birds taking off, ripples on the water, the direction of anchored boats, as well as your competitors. Look to see if the boats on one side are heeling in more wind.



When you look upwind, split the leg into three sections: left, middle, and right. After a couple of minutes of study, make a guess as to which side seems better. Select a section to head for, and state your findings aloud—this is part of giving yourself the courage to make a choice. Your first instinct will usually be correct.

Now run a test; the best way is to arrange a tune-up with a competitor. While you sail upwind on one side of the course, your partner sails up the other. After 2 minutes, tack toward each other. Note which boat gains, and after crossing, head toward the opposite side for another 2 minutes. Tack back together and note the difference. Usually the boat on the same side will have gained.

Return to the starting area and make a second visual observation. Ask yourself, is the wind any different now? The key at this point is to make a definite decision to favor one section of the course. Sometimes you may think you'll get a shift going one way but stronger wind, the other. If that's the choice, I like to head for stronger wind because it gives me more speed and often more options.

Set up your starting strategy so you're heading toward the side you favor. If your plan is to sail to the right side, start on the right end of the line. The less sure you are of your choice, the closer to the middle of the line you should start (see diagram).

Once the race starts, head for your side at top speed. Right or wrong, speed always counts. Strategically, your biggest decision now is to monitor the rest of the fleet and consider whether to carry on or switch sides. My first instinct is always to stick with my original call. But conditions change, so one crewmember should continually

analyze whether you're gaining or losing; if you decide your side is losing within a minute or two, that's the time to tack and stay in contact with the leaders.

Key indications may be that a new wind is blowing in from the opposite side, or maybe a few boats are making huge gains. But before taking action, ask yourself, "Will the new wind still be there when I arrive?" If you have any doubt, avoid chasing the new wind. If you decide to go for it, pick a spot just after a boat has crossed ahead of you or close behind. This boat will become a blocker as you cross the course. It's OK to dip behind several boats if you see better wind; an early loss may translate into a big gain later.

What's the biggest mistake sailors make when they've decided to switch sides? It's second guessing themselves and tacking back again. The extra tacks cause you to fall farther behind, and your indecisiveness will make it even harder to catch up.

Later in the race watch for major windshifts or current shears (abrupt shifts in the direction the water is moving), and, when planning to go downwind, consider what you learned upwind. When you cross a current shear marked by surface debris or irregular, choppy water, analyze your performance. If you're suddenly sailing slower than boats on the other side of the shear, consider tacking back across it.

Some years ago in a Finn Olympic Trials race, I learned the value of getting on the course early and having the courage to believe in what I discovered. I found a current shear halfway up the beat during my pre-race tune-up. To the windward side of the shear, the water was flowing toward the windward mark. All week long at this regatta, the right side had been favored thanks to a predictable starboard windshift. But in this race, after the start, I headed left and crossed the shear while the fleet headed right as usual. I rounded the first mark with a comfortable lead.

Don't forget which part of the course was most beneficial when you consider your strategy for the downwind leg. Well before rounding the windward mark, announce where you plan to sail on the run and if you should do a bear-away spinnaker set or jibe set. My rule of thumb is that if the other jibe is favored by 15 degrees or more, a jibe set is a better option. However, with many boats, and in many fleets, it can be more efficient to set, accelerate to full speed, and then jibe, being careful to keep your wind clear.

Wind patterns caused by the surrounding land repeat themselves on the water. When you learn what works, put this knowledge into your game plan. Keep notes for future regattas. Recently I sailed in a college alumni regatta in Chicago. I reviewed my notebooks from racing four times in the Timme Angsten college regatta between 1969 and 1972. Once I started sailing I was pleasantly surprised to find that my old observations still held true and, in fact, they helped me win the regatta. Afterwards, I added a few new passages to my youthful thoughts in case I ever have to pick a side in Chicago again.

====================================

How to Call Puffs, Upwind and Down

By Moose McClintock

On a windy day, especially as you fight your way off the starting line in close quarters, you can hear the calls from the talking heads of your nearest competitors: "Puff in 3 . . . 2 . . . 1 . . . followed by a lull and two steep waves." Getting this kind of input back to the helmsman is critical, not just at the start, but all around the racecourse, because as you know, huge gains can be made by taking advantage of puffs and lulls, both large and small.

It's important as a crew to communicate what's happening with the wind, and do so with confidence. To call a puff effectively, you need to recognize one, determine its size, estimate how strong it is, and figure out what direction it's moving. But before I go any further, let me stress that it's just as important to call the lulls preceding or following a puff.

Remember, a puff is simply an increase in breeze—big or small. When I'm calling puffs to the helmsman, I refer to them as fan puffs or directional puffs. A fan puff is the leading edge of a gust, a mass of air dropping from aloft and fanning out from its center of impact as more air piles on top of it. A directional puff is essentially the remnants of the fan puff, overcoming the initial surface contact and moving in the direction of the upper air mass from which it came.

The initial puff is always a fan puff. Its appearance is generally darker and more solid than a directional puff, and it will appear on the water as an expanding oval. After a short period, the puff stops spreading as the air overcomes the initial surface resistance and moves in the same general direction—now it's a directional puff. Puffs will come from the prevailing wind direction, so figuring out where they're coming from is a matter of scanning the area to weather to see where they originate. Watch to see if a puff is expanding to the sides: if it's still expanding, it's still fanning. If it's just moving straight, it's a directional.

You'll commonly hear people refer to "lifting puffs" and "heading puffs," which is simply a matter of which side of the puff you're engaging. You can determine this by the direction from which the puff approaches. If it's coming from aft of about 60 degrees to your course it's a lift, forward of that to 45 degrees it's the median, and forward of 45 degrees it's a header.

Determining how soon it will hit, and thus the countdown, is a matter of figuring out how fast it's moving over the water. You can count down aloud by how fast you see it coming. If you start counting faster, the helmsman knows it's coming faster with more pressure; if you slow your count it's coming slower with less pressure.

What about the lulls? The lulls will appear ahead of and behind the puffs, and it's important to let the driver know whether a lull is less or more than the pre-puff velocity. Their shapes and lengths are difficult to determine, so I don't really try. I look for the next change on the water and try to guess how long it will take to get to it. Simply calling out the lull gives the helm and trimmers the opportunity to change gears. The lulls are going to last until the next puff hits, so the best thing to do is start looking for the next puff.

Upwind, keep calling 'em.

With this background, it's time to learn how to relay the information to the helmsman. Picture the following situation, sailing upwind: What I might see and tell myself is, "A large area of breeze is coming from directly abeam, but not very

quickly." What I should tell the helm is, "Small lifting puff, lasting 20 seconds, hitting in 3 . . . 2 . . . 1, breeze on." Note that even though the puff is big, its slow movement indicates there isn't necessarily a lot of breeze in it. Armed with this information, the helm can make changes in sheet tension and adjust the backstay for what he knows will be a long period. Knowing that it's a lifting puff allows him to ease as the puff hits in order to let the boat accelerate. He then turns up as he re-trims the sheet.

I occasionally give the helmsman extra information if I think he can deal with it and break it down fast enough. For example, what I might see and say to myself is, "Lots of breeze (really dark water), in a very small patch, same direction as current breeze, coming fast." What I tell the helmsman is, "5 knots more breeze, this direction, lasting 7 to 10 seconds, followed by a lull, and then the same breeze we've had, in 3 . . . 2 . . . 1." This allows the helmsman to make a drastic adjustment for the puff, knowing how long he has to stay depowered, when he can start to power up again, and to what degree.

The other important ingredient in the above example is information about the lull. Doing this allows the boat to be properly powered up when it needs to be. As the wind fills after the lull, the call will be much the same as calling a puff. What I say to myself is, "Flat water, no ripples for a while, darker line about 200 yards away, coming slowly, with about the same pressure we had before, same direction as before." What I tell the helm is, "Lull for 15, slowly building breeze for 20, back to what we had, initial velocity lift, steadying out to the median. Small increase in 5 . . . 4 . . . 3 . . . 2 . . . 1."

The helm knows he has to live with this breeze for a short time and trim for it. He knows how he was set up before the lull and when to return to the pre-lull trim settings. He also knows the boat's heading so he can let the boat climb to its previous heading as the puff hits. Giving an accurate countdown with a gap gives the helm time to consider when to start making fine-tune adjustments.

Downwind: Look behind

The best part of calling puffs downwind, especially on a keelboat, is that it's usually possible to stand and see them from a higher vantage point, which allows you to track the direction of the puff more accurately and gives you a better idea how much wind there is in the puff.

When calling puffs, scan everywhere behind and determine whether a dark patch is easy to get to. If you can, you generally want to head for a nearby puff or to at least place yourself in front of it. As you reach a puff, you'll usually get an initial header. As the puff begins to fade, and you enter its center, you'll slowly be lifted. If there's still pressure in the puff, you can jibe onto the headed tack and stay with it until the breeze returns to the median pressure. Then start looking for another puff.

Puffs that are abeam will probably be gone before you can reach up to get there so don't bother. It's better to look directly up the course to watch for puff development. If a puff isn't really catching up, then it's important not to chase it around trying to get in front of it, often it's better to sail less distance and let a puff go by.

A few more things to remember downwind: If the puff approaches from the left (looking upwind), it's a "lefty," from the right it's a "righty." If it's filling from astern,

track its direction and figure where you are in relation to its inside edge—that's where you want to place yourself. Boats behind are perfect clues as to what the puffs are doing. Generally, the boats toward the edges will jibe toward the middle of the puff so they sail the headed tack, or they will try to sail low toward the center in more pressure.

The most important part of calling puffs downwind is to make sure you maximize the time you're in the increased breeze. With this in mind, I'll often tell the helm to steer low because the breeze is going from windward to leeward. My advice to the helm as I do this is to "maintain pressure, stay low until the chute starts to de-pressure, then slowly head up for speed build." This allows maximum leeward separation from weather boats or allows you to get down into a different lane for tactical or clear-air considerations. Staying artificially low will also allow you to re-align for the next puff without having to jibe for it.

There's generally less talk about the characteristics of the puffs downwind since they come to you slower and you stay in them longer. As a tactician, you tell the helm whether to sail a VMG course or a course that will keep them in the puff the longest—there isn't much more you can say. A typical conversation when seeing a puff coming from astern is "building breeze going right to left, build speed and take it down when you're at max pressure." The important conversation deals with telling the driver when to shift gears from sailing in the current puff and setting himself up for the next one. The biggest mistake people make is not recognizing when they're in a dying directional puff; you'll have to step up to the next puff because the directional puff won't fan to you. Don't be afraid to make a quick but drastic course change to get to a lot more breeze, the pressure will allow you to extend and roll down later.

The hardest part of talking to the helm downwind is trying to figure how long the puff will last. Upwind you're sailing toward the puff so you'll usually see some increase, even if the puff is dying, and it will increase as you get toward the middle. Downwind it's possible to outrun the puff and it's very important to let the driver know that the breeze is dissipating. I'll often see a puff with a small increase and relay that, but in these situations, it's critical for the spinnaker trimmer to let the driver know when they feel the breeze in the chute—you can't turn down until the chute is loaded. When you have the pressure, you have to recognize where in the puff you want to be. The air inside a puff is semi-turbulent and may be a little unstable, on the edges it tends to be more defined and solid. However, the breeze on the edges is usually less so pick your poison.

==================================

Talk About Puffs - Upwind

When you see a puff approaching, make four decisions about it and succinctly relay what you decide to your helmsman and trimmer(s). Even if it's not your job to call puffs, practice this in your head. You'll be that much sharper next time.

1. Is it a lifting or heading puff? If it approaches from 45 degrees or forward of your course, it's a heading puff. From 45 to 60 degrees, it's a median puff. From aft of 60 degrees, it's a lifting puff.

You say: "Lifting puff"

2. How much more wind? Helps the helmsman and trimmer know how much to adjust their wind for the new wind.

You say: "with a lot of breeze"

3. How long will it last? Tells the helmsman and trimmer how long they'll sail with the new trim.

You say: "lasting for 10 seconds, followed by a big lull"

4. When will it hit? A countdown helps the helmsman and trimmer time adjustments they're making.

You say: "puff on in 3-2-1."

Talking About Puffs – Downwind

Calling puffs downwind is important because you have more flexibility to sail high or low to meet approaching puffs. When calling puffs downwind, ask yourself the same questions as you would sailing upwind: (Lift or header? How much wind? How long will it last? When will it hit?). In this case, the crew just off the trimmer's hip might say:

"Here comes a leftie. It's a fanning puff with lots more breeze. Head up five [degrees] to get to the header. Puff on in 3-2-1."

================================

Ten Moves That Don't Work in a Big Fleet

By George Szabo

When you go from racing in your local 10-boat fleet to a 50-boat regatta, life on the racecourse changes. In a small fleet, if you make a mistake it's possible to tack away, find clear air, get some leverage, and get back in the game. In a larger fleet, or on a small racecourse, there's less elbowroom and mistakes are amplified—especially at the start and at mark roundings. So before you head out to your next big event, commit to memory the following high-risk tactical moves that always seem as though they'll work, but actually have a low probability of paying off.

1. Claiming the caboose. What do you do when you're sailing down the line on starboard tack with 2 minutes to go, unable to jibe through the wall of port tackers returning to find a hole? You'll often see people wait to jibe until they reach the end of the port-tack train. The last starboard-tack boat to jibe is the caboose, and being the caboose is like being the last guy into the supermarket parking lot, unable to find a spot. On the starting line, all the holes will be taken.

If the line of returning port-tack boats is too thick to jibe into, head upwind a boatlength or two and either jibe or tack. Getting back into the port-tack parade sooner will increase your odds of finding a hole on the line.

2. Sailing down the line on port tack and putting your bow to leeward of the boat in front of you. How many times have you had your bow pinned to leeward of a boat in front of you, so close that you're unable to tack into a great hole that opens up? When you're stuck to leeward you have to wait until the weather boat takes the next good hole that comes along, leaving you waiting for table scraps. Instead of getting stuck, slow your boat by easing the sails or by making large S-turns so that your bow is directly behind the weather boat's transom. This will give you the freedom to move as you like and get the hole that you want.

3. Sailing up the middle of the course when the wind is light and the puffs are significant. If the wind is puffy, and the puffs are moving quickly, you can defend from the middle when people from the edges are coming across with pressure. Unfortunately, when the puffs are moving slowly, or in lighter air when the pressure differences are often great (such as Biscayne Bay or Tampa Bay), the edges of the racecourse can be better. When the puffs are moving slowly, and you're on the edge of the fleet, you can be patient and wait for the extra pressure and use that pressure to tack and cross those in the middle of the course. The only option for boats in the middle is to tack in order to maintain leverage, but they're losing all the time because you'll likely be sailing over the top of them with better speed.

4. Always demanding your starboard rights. You're on starboard, on a lift, or, for some reason, you're determined to get to the left side of the racecourse and a port tacker is coming. How many times have you gotten worked up and felt as though you had to enforce your rights by yelling, "Starboard!" as loud as you could, only to have your rival tack on your lee bow so perfectly that you're forced to tack away? Once you tack, you're on a header, probably sailing to less pressure and away from the best side of the racecourse. In a situation such as this it's usually better to let the port tacker cross. If you want to get left, wave them by. Tell them they owe you one and sail for the good wind or current. It may feel strange to let them off the hook so easily, but when they cross and later tack to weather and behind, you'll feel better about letting them go.

5. Tacking away from the layline for clear air. You're on port tack, sailing towards the starboard-tack layline as you near the weather mark, and someone tacks right on your nose. It's tempting to throw the boat into an immediate clearing tack, but before you fall victim to the knee-jerk reaction of tacking away for clear air, consider whether it's better to live in the bad air or foot off until you reach the starboard layline. If you're really close to layline, the odds are that the wind on the other tack (underneath all the boats on the layline)will not be any better. Tacking away will require you to do three extra tacks. In a bigger boat, or in light and lumpy conditions, three tacks in short order could be deadly.

6. Tacking shy of the starboard layline. Sometimes, as you reach the starboard layline, it looks as though you can tack just shy of the layline and to leeward of a pack of boats, pull off a perfect luff, and actually make the mark. I'm not sure why this always looks so good, but inevitably it turns out badly (except in the rare circumstance when the boat in front of you actually hooks the mark and drags it to leeward four lengths, allowing you to get around.) It's usually much better to go with the conservative duck of boats that are on layline and find a spot where you're slightly overstood. Approaching the mark on starboard tack, slightly above the fray, will allow you to close-reach over boats luffing to get around the mark, and let you watch the entertainment.

7. Jibing right on the team in front of you when they jibe early on the run. This is usually a sound tactic, but before you go attacking, make sure to look over your transom to see if your competitor is suckering you to jibe into the bad air of the fleet behind, which has already jibed. If the boat in front of you is certain that you'll jibe on him, it may lure you into jibing and then immediately jibe back into clean air, only to laugh at you as they sail away.

8. Taking the low road when everyone else is going high. Immediately after rounding the weather mark, you sail your normal course and realize everyone else is sailing hotter angles. You tell yourself that they're sailing away from the mark, and it seems it would be better to go low. So you work low, underneath the dark cloud of disturbed air from the fleet rounding the mark, only to find that the whole fleet is now rolling you. If you jibe, the situation is just as hopeless, and things look grim. Where should you go? If the seas are flat and the waves are not surfable it's usually better to stay high and keep your air clean. Staying high with clean air (outside or on the edge of the weather mark Bermuda Triangle) allows everyone else to make the mistake of sailing in the disturbed air zone while you sail in clean air and go fast. When the waves are more powerful than the wind, you may find that going low and catching a wave or two may get you low enough to get separation from the fleet.

9. Not keeping your nose clean on the reach. If there's a boat close to your bow and a boat behind that's tempting you into a luffing matching, be careful that the boat behind doesn't take you up to a point where your bow becomes hooked to windward of the boat in front of you. When this happens the boat in front of you will probably react by luffing you to the moon.

If the boat behind succeeds in initiating the luff, and getting you and the boat in front of you to take each other out of the race, he may quietly sail below the two of you and pass you to leeward. The best way to control this situation is to luff, but control your speed in order to keep your bow clean and have the ability to turn down.

10. Not thinking about windshadows on the run. How many times have you thought about jibing back to the middle of the racecourse in order to reconnect with the fleet, only to let the fleet behind you jibe first. You jibe late, only to find that you're in the entire fleet's bad air. Your other option was to keep going well past layline so that you could jibe and reach back to the leeward mark in clean air. It's important to know exactly where your opponent's windshadow falls. Practice sailing in someone's bad air to figure this out. Then, the next time you need to jibe into a narrow lane, you'll be able to live there.

==================================

Think Simple Thoughts

By Ed Baird

Ed. - When Ed Baird published the following column in Sailing World in 1996 he was on top of the match racing world—the game had become less complex and more enjoyable.

In my frequent role as a coach, I see a lot of talented sailors doing extraordinary things: straight-leg hiking for hours in Lasers, getting out of crowded mark

roundings with strong positions and speed, sniffing out windshifts that shouldn't have been there. It's fun to watch how the good guys do it. But it's also fun to see how they blow it!

Everybody has bad days. Even the best can only expect to win occasionally. If they win a lot in one year, you can be sure they went to a lot of events and didn't win a bunch, too. And those who do win regattas rarely win every race. It's nice to know that everyone makes mistakes.

In the debriefs we have at the dock, I'm always interested to hear what sailors were thinking at different times during the race. What's fascinating is how complicated they often make their race. The mental gymnastics they can put themselves through are amazing.

My suggestion is to keep the thinking process simple. There's enough going on that you don't need to add to the potential confusion. Every sailor I've worked with has been able to trace the majority of their disappointing finishes down to either being slow or trying to be too fancy. In being "fancy," they concentrate on the wrong aspects of the race. This leads to missed opportunities or taking large risks without realizing the danger.

Be assured that the winners win by looking at the same variables as you do; they just sift through them better. Take these examples: I sailed a Laser race with 107 boats in 10 knots of breeze. One sailor jumped off to an early lead and was quickly extending in the small shifts and bumpy conditions. He was doing everything right, until he sailed right past the layline for the mark. In fact, at the 1996 SORC, a Mumm 36 did the same thing. And this boat had eight people on board! What were they thinking?

Perhaps the most common brain hiccup happens when we get a great start at the pin, but our strategy is to go right. We'd like to tack, but there's one boat pinning us down, so we try to out-boatspeed them. Meanwhile, the fleet begins to tack away, and by the time we force that one boat to tack, everyone is hopelessly launched to the right and uncatchable. Could it be that this one boat was not worth the fight?

Speaking of fights, we've all battled for the inside at the leeward mark, only to round with the jib half up and the spinnaker half down. Wouldn't it have been better to take the spinnaker down earlier?

These are all examples of misplaced priorities. I like to ask myself these two things: "Am I doing the right thing, right now? Am I taking any risks that aren't necessary?" Don't let frustration or anxiety cause you to take risks that aren't warranted. If the strategy is to go right, get there. If it was correct, it won't matter that you ducked a couple of boats to get there.

When you are suffering from misplaced priorities, my suggestion is to refocus on the basics. So here are some simple rules to live by. I'll bet you'll be surprised at how often these truly basic concepts are forgotten, or replaced by something more, well, complicated.

Rule No. 1 is fundamental: You've got to be fast to look smart! If you play the shifts well, but still drop places, you're slow. I've been in a number of situations when it seemed like we were getting good starts and sailing lifts all day long, but still getting

beaten to the mark. There's nothing more frustrating than feeling good about a leg or race, but still doing poorly and not knowing why. When this happens, it's normal to be frustrated and second-guess your 20 tactical decisions. But often the real culprit is a lack of speed.

You must have good, reliable equipment, and know how to use it. This sounds so simple, but ask yourself, "Do I have the best hull finish on the course? Are my sails from the loft that's winning in our class or fleet? Is my crew ready for every condition? Are all the systems working?"

If your answer is anything other than an absolute "yes," then you're not going fast. Improving in this area means you'll accelerate off the line from difficult positions and not be forced to tack. It means you can round behind another boat at the leeward mark and hang on their hip until things clear out and you can tack freely. Can you do that now?

Don't kid yourself; this is the most basic, and yet the most overlooked, area of racing. You need to ask a lot of questions. How do I set up the boat for light air and heavy? What are the rig tensions that others are using? How are my sail shapes holding up? These are things you can find out with a phone call to your sailmaker, or casual chat at the bar. Then spend the practice time that it takes to be prepared. If you're slow, it's hard to look smart! In every sport, the best equipment makes winning easier, and in sailing it may be more so. If you refuse to put in the prep time or spend the money to have someone else do it, then you must also refuse to get angry when you don't win.

This brings me to my second rule: You can't win every race. Even the most dominant teams don't win all the time. When you look at scores, figure what the winning average might be. In most events with 20 boats, for example, an average of third in each race will easily win a six-race series. If you round the weather mark seventh, don't panic that it's a long way to first. Look at how far it is to third, and try to get there, a little at a time. In other words, let other teams take the risks and make the mistakes!

A common mistake is not keeping track of the wind. You can't tack on a shift if you don't learn the range of the windshifts before the race begins. When the start goes off and you look at your compass, you should know whether you're headed or lifted. It means doing your research. Get out early enough to sail upwind on both tacks.

Too often I see teams get out early, only to use up their time tying on sheets and hoisting sails, or worse, repairing something instead of researching the racecourse. Make it a rule that when your team leaves the dock they're ready to race. Assign preparation jobs for the whole team. Prepare the boat early, so you can think about strategy as you're sailing out to the course.

So now the race has begun, and here comes your first crossing. What is going through your head? Think of this: In every crossing, someone's going the wrong way. This thought is critical as far as strategy goes. You should "check in"—decide if you're headed the right way—by comparing yourself to the fleet every minute or two. If people are running from a burning building, you don't go in to see what it's like. Likewise, if the fleet is mostly going left, should you be going right? The answer can be yes, but you'd better have a strong reason to buck the common thinking. Again, let the other teams take the risks!

Remember this: You need a good reason to tack away from the fleet. So many people let the wrong things dictate their thinking. Have you ever tacked because you were cold and the other tack was in the sun? Or changed tacks when your legs hurt from hiking? Have you tacked because you were angry, frustrated that someone just passed you, or just bored? I have. But I try not to.

The right reasons to tack are that you can make a gain or limit a loss, or position yourself to minimize risk. If you tack for any other reason you could be making an error. Force yourself to do what's right at the time. Don't let laziness or a lack of confidence in your crew work keep you from tacking when the time is right.

When I first started sailing bigger boats, sometimes we would talk ourselves out of tacking because we didn't want to make the crew work too hard. Wrong! Come up with a strategy and then get on the best tack to follow it. If the rest of the fleet thinks differently than you and chooses the other tack, keep "checking in" to be sure your plan is working. The less confident you are, the more you should be on the same tack as most of the boats around you. Only if you're confident that the shift will go your way should you split more. That's managing the risk.

Here's another simple strategy rule often taught in junior sailing: You shouldn't have to turn your head to see the mark. Being on the closest tack to the mark doesn't make it the correct tack all the time, but many top sailors put a priority on staying away from the laylines until the end of the leg. Especially when the wind is fairly shifty, a quick way to confirm this basic strategy is to look for the mark. If it's within a few degrees of the bow, you have a strong reason to stay put. If the mark's over your shoulder, however, you have a strong reason to tack. Generally, the closer tack to the mark carries the smaller risk for failure.

And speaking of junior sailors, as adults we need to teach by example that yelling is a sign of being underprepared. Whenever I hear voices raised on the racecourse, I know they come from a boat that won't win consistently. Preparation breeds calmness. Being organized and prepared means things don't catch you off guard. It means you're ready for any situation.

Winning teams spend a lot of time talking about what they'll do if such-and-such happens. Don't fill in the long beats with chatter about last night's party; talk about whether you're on the right tack. Decide what you will do if other boats in the fleet start tacking. Top teams are rarely surprised by a sudden change in circumstance. They've been expecting it. There's no excitement, and especially no yelling, when the change happens.

Your team should make this commitment: no matter what happens, no one yells. If you blow something, talk about it after the race. If you get frustrated and want to scream, save it for when you're in the shower. Take your situation and make more of it than the next competitor. Next thing you know, your team will enjoy itself more, the race will slow down and be more clear, and you'll find that you're thinking ahead. You'll be prepared, and you'll be laughing as you pass the "yeller" on the course. Remember, let the other teams make the mistakes.

Finally, when faced with a frustrating race, I calm myself with this thought: Most of the fun is in the learning. People who enjoy competition the most are learning every day. The more you learn and improve, the better you feel about yourself. By taking

the focus off the goal of winning, the pressure of the race goes away and it's easier to make clear decisions. Concentrate on setting goals for the day, and get them accomplished. Don't measure yourself by finishes alone.

Try to keep the crew talking about the potential good and bad of each move before it happens. After each race, be sure to talk about why things went as they did. Remember that everyone is trying hard, but that people will always make errors. When they happen, look for ways to avoid them next time, not punish them this time. Smile when you talk!

I think it's great fun to see sailors start to think this way. Suddenly they are more relaxed. They get their heads out of the boat and onto the racecourse. One tremendous bonus of using each race to learn is that you laugh a lot more, and worry about trophies a lot less—what a great way to get around the course. And remember, the more you learn, the more likely you are to win!

So there you have it. The basics of our sport are where we win and lose most races. Pay attention to them, and you'll have your share of good days. Forget them, and you're sure to be disappointed. As complicated as we like to imagine our sport, it's basically a simple game of starting first, protecting your lead, and finishing strong.

==================================

Get to the Advantaged Side of the Course

By Stuart Walker

There Are Three Kinds Of Sailboat races—ones so short that the advantaged side doesn't matter, ones so long that the advantages tend to even out (or other factors are equally or more important), and races of medium length in which getting to the advantaged side is paramount. On medium-length courses, which are typically set near shore, there's usually an advantaged side. The first boat to reach the advantage usually wins, because after it does, there's insufficient time remaining for anyone to catch up.

In big fleets sailing long courses, the best strategy is to start in the middle of the line, keep to the middle of the course, expect that any advantage to one side (unless extreme) will be reversed by some advantage to the other, presume that boatspeed will get you into the top 10 at the weather mark, and await the mistakes of your opponents.

In small fleets on short- to medium-length courses, the opposite is true. Here, the best approach is to start at the extremities of the line, head immediately toward the advantaged side, and realize that boatspeed is of little value unless you get to the advantage first.

One side is almost always advantaged, either because of a persistent shift, the onset and subsequent veering of a sea/lake breeze, the dominance of a particular phase of a series of oscillating shifts, by favorable current, stronger wind, or smaller waves. Before the start, the competitor must evaluate the conditions and decide, not whether, but which side is advantaged and then develop a plan to get to that side first.

Essentially, this means that you must start at one of the extremities of the line—to leeward of all other boats heading left when the left side is advantaged, or to windward of all other boats with the ability to be the first to tack to port when the right side is advantaged. However, such perfect starts require precise timing and positioning and all too often a small mistake results in being driven through or over. Alternatives are available.

What matters most is getting to the advantaged side of the course before your opponents, not necessarily getting off the line first. The first step at about one to one and a half minutes before the gun is to sail into a position, either beyond the advantaged end or to the advantaged side of the fleet, from which it can be observed as it organizes for its final approach. From such a position, it will quickly become evident to which end of the line most boats are headed and whether most of them will be early or late. Perhaps everyone will act in accordance with Yogi Berra's presumption that "the place has become so crowded that no one goes there any more" or in light air will be unable to reach the desired end in time. Opportunities to make the perfect end start may then become evident and should be utilized.

There are two special circumstances in which this perusal will reveal such an opportunity: when the opposite end of the line is more upwind and will attract most of the fleet, and in strong current. A tack below the most leeward boat on the line when the right end of the line is more upwind, but the left side is advantaged or a position above the most windward boat on the line when the left end is more upwind, but the right side is advantaged is usually possible. In favorable current, seek the pin end from a position below the layline. In unfavorable current, approach the weather end from a barging position.

If the pin end is upwind and the left side of the course is advantaged, you should arrive at a location a few boat lengths beyond the pin and just below the extension of the line with about one minute to go. Try to be the last boat to come back on port, because if you're not, you'll be controlled by the one that is. From here, if the air is light and the fleet late, one may bear away on port, cross ahead, and tack in clear air to windward. If the fleet is on time or slightly late, you can cross below the pin with about 20 to 30 seconds remaining, tack under the leading starboard tacker, luff them if necessary (after completing your tack), and bear away to arrive at the pin with the gun. Vary the radius of your circular approach to the first starboard tacker so that at the tack's completion you are bow to bow with them. If the fleet is early, you should bear away at high speed below the first few boats, find a hole, tack into it, and come up tight under the boat to windward.

Sometimes, if the pin end is heavily favored, boats will be tacking to port as soon as the gun fires. Your speed will permit you to slide through the hole that one of them creates and to emerge and tack in clear air to windward of boats hung up at the pin.

If the weather end is upwind and the right side of the course is advantaged, two alternatives to approaching on starboard and arriving at the committee boat on time are available. One is to approach from the port end (just as you would have done if the pin end were favored) but timed so that you arrive close to the weather end 20 to 30 seconds before the gun. From here, you should tack under the most leeward of the starboard tackers that is luffing up to the line. Come in late with speed; arriving early will permit some of the boats to windward to escape and go around you to leeward. After completing your tack, you should luff the most leeward boat, initiating a chain reaction that will affect most of the boats near the layline, and cause them to

slow for fear of being shut out at the committee boat. You should then be the only boat in the vicinity that can bear away, get up to speed as the gun fires, and tack across the bows of those boats jammed astern and to windward.

The other, safer alternative is to make a late start, but do so right at the committee boat. At about one minute before the gun, take a position from which the fleet can be observed four to six boatlengths beyond the weather end and just below an extension of the line. If the fleet is late or excessively slowed by a lull or adverse current, you may be able to slide around the committee boat ahead of them. If they're early, but moving quickly, the'll have to bear away down the line, leaving you a hole at the gun. If they're on time, you should delay and bear away so that you come in with speed right on the transom of the most windward boat. From this position, you should be able to prevent that leeward boat from tacking and be the first to tack yourself.

There are two caveats to remember, however: 1. If you come into your final approach late with speed, arrive early, and are forced to slow down, someone with speed will surely drive through, above, or below, and you'll be in their dirty air all the way to the advantage and beyond. 2. Do not persist in your starting plan when another boat—beyond the port end or ready to barge—is attempting the same start. Keep to leeward and in control of them and be willing to go farther down the line or farther astern, if necessary, to avoid a catastrophe.

============================

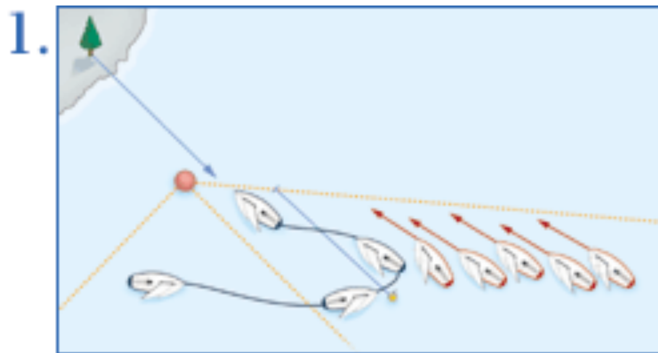
Win the Pin With Match-Racing Moves

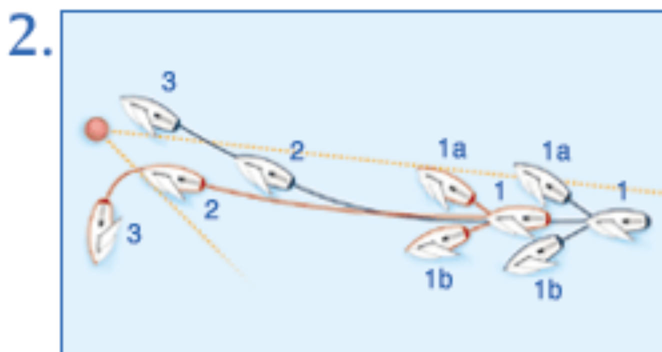
By Betsy Alison

If the pin is favored, many sailors will jockey for the perfect pin start. The ability to leg out on starboard below the fleet or to tack and cross the competition is an advantage worth fighting for. Of course, you may have to battle for it; rarely will a good fleet give you the pin end at the start. The trick to winning the pin is to control the situation and take charge of your own destiny. There are two match-racing moves that can help you win the pin, but you must make one critical decision: Do you lead the pack to the pin, or do you push them?

<u>Leading to the pin</u>

This maneuver is best executed with a port-tack approach to the line. In a typical starting scenario, the flow of boats will move counterclockwise between the race committee boat and the pin. If you want to lead the pack to the pin on starboard, it's best to be the last boat on port and tack closely to leeward of the boat nearest to the pin. A port-tack approach allows you to see any available holes and how others are positioning for the start. Tacking tightly below the boat closest to the pin allows you to control the situation. From this position, you can prevent the boat above from moving towards the pin, and you can herd the pack in a windward position while protecting your hole to leeward. A critical element in making this work is the concept of "time and distance."





In order to accurately position yourself to win the pin, you need to gauge how far away you are from that sweet spot, and exactly how long it will take you to get there. It's important to spend some time in your pre-race preparation gathering this information. Being one or two seconds early can ruin your start, forcing you to jibe around into traffic. To properly execute this start, you must know three things: 1. How long it takes you to sail the length of the line. 2. How long it takes you to get from any stationary object in the water, a lobster pot or anchored spectator boat, back to the pin. 3. How long it takes you to tack and accelerate. The time to sail a given distance will vary with your sailing angle—reaching is faster than running or beating. And don't forget to consider current set.

Once you're in a lee bow "leading" position, your time and distance homework should pay off as you pick the moment to put your bow down towards the buoy, accelerate, and win the pin start. The biggest risk is a rogue boat coming in from astern attempting to snatch your hole while you're herding the pack above. Keep a wary eye astern, and to discourage a rogue boat, put your bow down, ease your boom out, and close the distance with the pin layline. Make it obvious that the rogue will not be able to sail to leeward of you and still fetch the pin. In fighting off the rogue, however, make sure you don't underestimate the time and distance required to reach the pin. In other words, don't run out of room yourself.

1. To lead to the pin, approach on port and tack to leeward of the crowd 2. To push to the pin, get on the tail of the lead boat. Your goal is to overlap to leeward and luff them, or make them early.

The best times to lead back to the pin are: 1. In light air, because tacking angles are wider and you can accelerate more easily with no one under your bow. 2. When you have a large runway available to the pin. 3. If a pack of boats is crowding toward the pin. With everyone overlapped, it's much easier to control the group.

<u>Pushing to the pin</u>

Pushing an opponent is another way to win the pin, but it requires a keener sense of time, distance, and layline position. Before the start, test the layline to get a feel for its position, and then sight through the pin for a marker on land—a shore sight. Check this layline reference several times to ensure that it's accurate—wind shifts will cause it to change.

Pushing is most effective when you're vying with one other boat for the pin. It's more effective in stronger wind because it's easier to accelerate and the ability of the lead boat to slow and stop is reduced. Pushing requires using the match racing technique of tailing another boat closely. The goal is to force the lead boat to use up its runway to the pin, forcing it to luff and slow prematurely. This should allow you to establish a leeward controlling position, or to pressure the lead boat into being early and jibing out.

When pushing the lead boat toward the pin, match their sail trim and angles in order to stay on their transom without gaining a weather overlap. As you push, the lead boat will probably fishtail back and forth, trying to slow its rate of progress toward the pin and attempting to "hook" your bow into a weather overlap. If you become trapped to windward, the lead boat has won. With luffing rights, the lead boat can control the action, slow its approach to the pin, and create a hole to leeward.

As the lead boat tries to hook you, your move is to bear away, cross their transom and overlap them to leeward with speed. If you can establish a substantial overlap to leeward early in this dance, you can then luff and stop the lead boat and control the approach to the pin. If the lead boat bears away before you get a solid overlap, you'll soon fall astern in their dirty air.

Once astern, you have two choices: the first is to aim for the pin and continue sailing fast, forcing the lead boat to match your course to stay ahead. Alternatively, you can luff sharply if you're running out of time or if the lead boat has sailed past the pin layline.

As the pusher, keep in mind that if you establish a leeward position from clear astern, you are required to assume your proper course after the start. If you have erred on time and distance, misjudged the layline to the pin, or trapped your bow to leeward with mere seconds to go, you're in big trouble. At best, you'll have a second row start; at worst, you may not fetch the pin.

Having a great start almost ensures that you'll be in the top pack up the first beat. Confidence in your ability to handle the boat in tight quarters, hold position, generate and protect a hole below your bow, and accelerate at the proper time are vital to winning the pin. One match racing technique that helps is backing the jib hard to windward to swing the bow down and accelerate without a lot of rudder movement.

There is nothing more satisfying than winning the pin and having all the options open to you. Try these aggressive moves in smaller, less competitive fleets at first. Then try them against a more competitive pack. Slowly, your timing, boat handling, and confidence will improve. The pin will be yours whenever you want it.

==============================

Top of the Beat Tactics

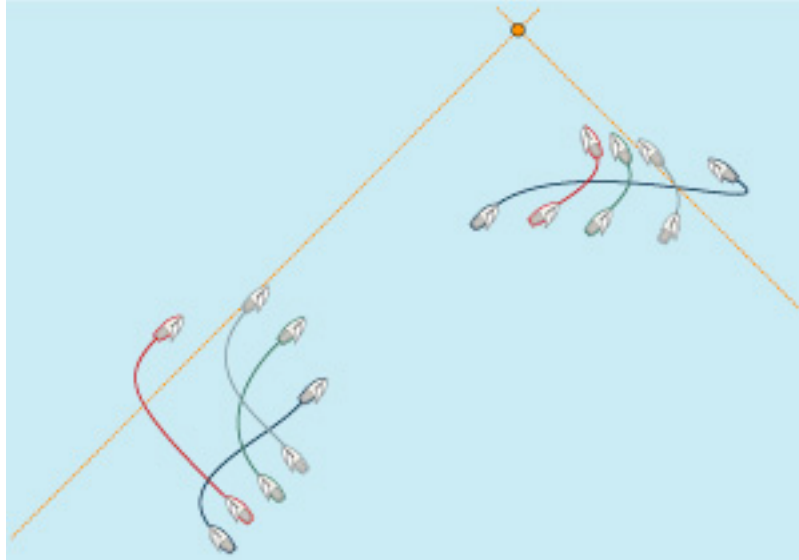
By Bob Merrick

As you approach the weather mark in a crowd and sail in a progressively smaller cone of water, finding a clear lane becomes more difficult. It's important to know what boats are ahead of you, anticipate their next moves, and react accordingly.

Doing so will allow you to sail in clear air for as long as possible while sticking close to your overall leg strategy. Here are tactics for dealing with situations you may encounter at the top of the beat.

Just behind, approaching a long layline

You're just behind a pack of boats as you approach a long port or starboard layline. In this situation, tacking on the layline will result in a lot of time spent sailing in bad air. It may also force you to overstand in an effort to find clear air. Both scenarios will cost you boats. You can avoid this by tacking before the layline. The tricky part, however, is choosing exactly when to tack.



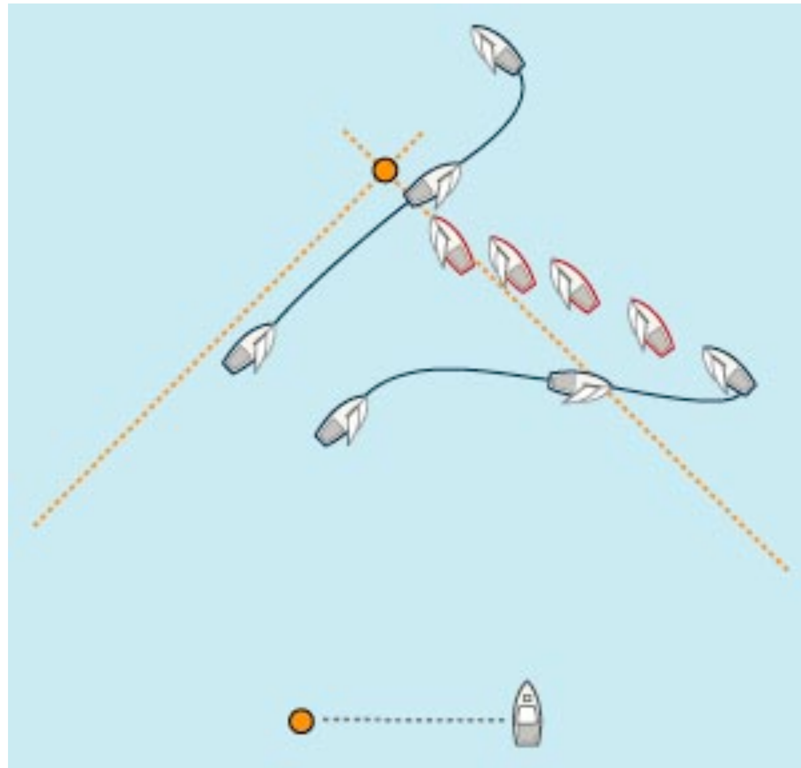
It's likely that you, as well as the boats around you, are sailing towards the layline because it's the correct way to go. Maybe you're waiting for a shift or sailing toward a puff. If so, you may have to tack early to avoid the layline and stay in clear air. To avoid tacking any sooner than you need to, anticipate when the boats in front of you will tack. How early you need to tack depends on how many boats are ahead. You don't want to give up any more than is necessary with regard to the shift or puff. Keep in mind that everyone else will be trying to stay in clear air as well.

International 505 champion Peter Alarie explains this concept by thinking of clear lanes as numbered in order of desirability. The lead boat is going to take lane No. 1. The number one lane may be right on the shift or on the layline. To keep its air clear, the second boat will take lane No. 2, to leeward of No. 1. The third boat will take No. 3 and so it goes down the line for all the boats that are close enough to affect your air. If you're in fourth position, you can't tack in lane No. 3. If you try, you'll end up in bad air.

There's often an opportunity to be the "vulture." If you're in fifth position and you see the fourth boat sail past lane No. 4, then it's yours. The fourth boat will end up overstanding or sailing in bad air. If this is the case, you will most likely pass them on the next crossing even though you sacrificed some of the shift or puff.

Make sure you consider how much you'll give up strategically and weigh it against the gains you'll make by sailing in clear air. Occasionally it pays to spend some time in bad air in order to get to a good spot on the racecourse.

Just behind, approaching a short starboard layline



Imagine yourself behind a pack of boats, approaching a short layline. This is similar to the previous example except that you're closer to the mark. When approaching the port layline, it's usually best to tack out early any time you're not leading, especially when you're in a pack of boats.

Approaching a short starboard layline is a common scenario. If the group in front of you is tightly packed, consider overstanding. As the lead boats tack on the layline, boats approaching on port will be tempted to leebow rather than duck a long line of starboard tackers. A boat that successfully leebows outside the two-length zone may have to pinch in order to make the mark, forcing the boats to weather to also pinch. The result can be a large group of boats all sailing slowly towards the mark. An extreme case of this can result in a pile up at the weather mark.

In these cases, you can make a big gain by coming in above layline at full speed and sailing around the pack while your competitors luff each other at the mark. How much you need to overstand will depend on the boats in front of you. You may need to overstand slightly more than a boat ahead of you trying to do the same thing. There's a point of diminishing returns. If a lot of boats in front of you overstand, you'll have to overstand too much in order to have clear air. In this case, it's better to slightly overstand and sail in bad air. Tacking below the pack should be avoided. If you're close to the mark this is likely to force you to the port layline and ultimately present you with a wall of starboard tack boats on the layline.

Just ahead, on the port layline

If you must approach on or near the port layline, duck boats you cannot cross. If you can cross, make sure to delay your tack until you're completely clear of the crowd.

Sometimes you can't avoid approaching the mark on the port layline. If you're not crossing boats on the starboard layline, you have to duck them to avoid fouling. If you're crossing, be careful not to break Rules 13 or 18.3. Be sure to completely cross starboard-tack boats before you start your tack. You'll probably round after the boat you crossed, but that's better than doing a 720.

Just ahead, approaching a short starboard layline

If you're ahead approaching a short starboard layline, you're in good shape but not quite out of the woods. It's important to tack right on the layline. By nailing the layline you force your competitors to either leebow—and risk not making the mark—or duck. Since you would much rather have your competitors duck, it's good to give them a little encouragement.

If it looks as if they're going to try a lee bow, bear off a little bit. One of two things will happen. A savvy competitor will realize that you're about to force them to tack below layline, and decide to duck you. A less experienced sailor will be forced to tack sooner than expected and probably botch the lee bow. In this situation, you should be able to use the extra speed generated by footing to pinch up and make the mark. Be careful not to overdo it. You don't want to foul (breaking Rule 16.2) and you still want to get around the mark without having to tack.

All of these situations call for a good deal of anticipation. Ask yourself, "what would I do if I were in their position?" If they behave as you anticipate, you'll have had plenty of time to plan your move in response. If they do something you don't expect, it means they've probably made a mistake. This means you'll have an opportunity to take the better lane and make a gain before you round the weather mark.

==================================

Tactics: How to Claw Back

By Scott Ikle

The difference between having a mid-fleet regatta and a great regatta is often the ability to come back after a big mistake. As much as you may try to sail flawlessly from the outset, if you're human, you're going to make a mistake at some point, in some race, somewhere in the regatta. Those who make the fewest mistakes win races. Those who can claw their way back from mistakes win regattas.

The most important skill may be attitude. If you can stay positive after a mistake, you'll be better off than a competitor who allows their anger to blind them to the realities of the racecourse. Once you've made the mistake, acknowledge it, and let it go. Begin your comeback by taking a few deep breaths to relax and then start attacking the fleet. It'll be important not to commit any more errors, so stay calm and alert.

After a poor start, your initial reaction may be to immediately tack for clean air. This will work well if the beat is square, giving you the ability to weave through the fleet and look for those all-important clear lanes. Tacking too soon after the start, however, may be dangerous; you may have a pack of boats on your hip that'll be nearly impossible to get through. You may have to crash tack or duck the entire fleet. Avoid these potential pitfalls by being patient and tacking into an open lane.

Sometimes tacking is not the answer. If the first beat is heavily skewed, it may be better to stay put. In a major windshift, you may also want to stay on your original tack. Don't forget your pre-race prep, if you determined before the start that you wanted to be on this tack, stick to your guns. Try footing off to increase your speed, watching for lanes as the boats ahead are forced to tack away. If you have to tack

off, but plan to tack back quickly, consider tacking to weather of a starboard-tack boat rather than on their lee bow. You will then have a blocker protecting your lane.

Once things have settled down and you're in a clear lane, start paying close attention to windshifts and the boats ahead. Once you've devised a windshift game plan, concentrate on sailing the beat well and out-sail the mid-fleet pack by sticking to basic tactics. Remember to be ahead and to leeward when leading boats to the next shift, and wave boats across when sailing on a lift. A common mistake that's made by the mid-fleet pack is losing track of the weather mark; often the pack gets to the layline too quickly, stacks up in the corner, and overstands the mark. Often you hear of someone passing 40 boats in a race when coming from behind. They've likely made that big move by passing packs of boats that have all made the same mistake, not by knocking them off one at a time. Capitalize on the pack's mistakes.

The best opportunity to pass the pack is at the weather mark. The pack will tend to stack up on the starboard layline, with all but the leader going slow in bad air. Sail well to leeward of the starboard layline parade. As boats are forced to tack out farther to clear their air, you can expect a hole to open up, which will allow you to sneak around the mark ahead of the pack.

Working a hole to leeward of the port layline isn't the only way to pass boats at the weather mark. As much as we try to avoid overstanding, sometimes it can be advantageous. There could be a windshift at the mark, which slows the fleet as they approach. There could also be adverse current at the mark. Suddenly the fact that you're overstanding means that you're coming into the mark with pace, laying it, and looking smart as you pass the boats that had to tack twice or were pinching.

When clawing back on the first reach it's critical to make up distance on the leaders. This is purely a function of using boatspeed to minimize distance on the leaders before the reach mark. Avoid boat-to-boat battles. Before you close in on the opponent ahead, decide whether to go high over the top, or to dive low, breaking through their wind shadow. Decide early and set yourself up with some space in order to pass them. In some classes, when the first reach is tight, the passing lane is always high. Go high early, avoid luffing matches, and blast over the pack. Only when the reach is broad, or there's adverse current, should you consider sailing low on the first reach. And only go low if the pack is reaching high of the mark. This doesn't mean sailing below the mark, but instead, sailing the fastest course straight to the next mark, delaying any passing maneuvers until you can begin to fight for the inside overlap.

On the second reach leg the dynamics are a little different. The inside overlap position is going to be fought by going high. Avoid the pack that's fighting high and attack from the low road. The low-road move on the second reach is often an effective way to gain boats because you avoid the overlap battle and can sail faster on your own. As you approach the leeward mark, since you've sailed low at first, you'll be able to reach up and pass the boats sailing low and slow into the mark.

The run is always a good leg for catching boats. It's important to know how to round the weather mark. If you're headed when rounding the mark, bear away and set. If you're lifted, consider a jibe set. But there are other important considerations in determining which way to go on the run. It always comes back to what the wind is doing. If you believe that you'll get a favorable shift, it's often a good idea to sail away from the shift first so you can maximize your gain. However, if there's more

pressure coming, always sail for the pressure. If you can stay in phase and in pressure, you'll always gain. As you near the leeward mark, always protect the inside position for the rounding. Remember, if you can't get an inside overlap, slow up and round behind the pack, not on the outside. Rounding outside of the pack will put you in dirty air and reduce the number of lanes available to you.

An awareness of how the breeze has shifted as you're rounding the leeward mark can be a key to making a comeback on the last beat. You want to get on the lifted tack right away and stay in phase. If you need to tack at the leeward mark, don't just go around the mark and tack; sail for a few moments, and look for a lane. If you need to stay on the tack, pinch up around the mark, and almost shoot head to wind to get your bow above the centerline of the boat ahead, clear of their dirty air—the worst thing you can do is two quick clearing tacks. If you're coming out of a crowded leeward mark rounding and there are few lanes to be had, your only recourse is to sail in phase, go the right way. The only way you'll pass boats is to sail the shifts better than the next person, so let the others search endlessly for lanes, and let them gamble on the flyers. Just play the fleet, the wind, and make winning percentage moves.

Never give up on the last beat, and always finish at an end. You'll be surprised how easy it is to pass boats near the finish line. Race towards the favored end of the finish line, and don't sail any extra distance. If it's close, shoot the line. You'll be amazed how a properly executed shoot can win a finish.

Clawing back from a mistake means never making another mistake. The strategies and tactics don't change, only your perception of the situation at hand. There'll be dirty air, fewer lanes, and lots of traffic. Turn that into your advantage by waiting for other boats to make mistakes. Sail better than the rest of the fleet, stick to what works, and usually you'll get back in the hunt.

===========================

Sail Like a Veteran Today

By Luther Carpenter

Years ago i was a young, hungry, youth sailor. I had great starts, flashy roll tacks, the ability to steer perfectly, and my parent's Visa card. I could do anything.

But as I started competing around the world, I learned that desire and raw talent were not enough to win major regattas. There were always other guys, a few years older and a bit more serious, who consistently finished at the top of the fleet. I realized that their edge wasn't talent or luck. It was experience.

In 1992, I coached at the Barcelona Olympics and witnessed a near perfect blend of youth and experience. Coaches Jonathan and Charlie McKee and team members Randy Smyth, Keith Notary, Mark Reynolds, Paul Foerster, Mike Gebhardt, Brian Ledbetter, and Hal Haenel had all been to the Olympics before—some had won medals—and they shared what they'd learned from their past experiences at the Games with our energetic and talented Olympic rookies. It was a powerful combination that resulted in medals in nine of 10 classes.

OK, you're saying, I know experience is important. But what, aside from a suntan, rope burns, and wetsuit rashes, do you get from logging countless hours on the racecourse? And, once you know what's so important about all this time on the water, how can those without experience quickly learn the veteran's game? I found myself asking these questions while coaching in Europe this spring and assembled a list of veteran techniques, traits, and habits that would help some of our sailors earn their veteran wings.

1. Veterans have a top-notch boat, and are meticulous about maintenance. The centerboard fits perfectly, the lines and purchase systems are of the best quality and exactly the right length. Accurate marks are made on the boat for trim reproduction. The rudder/tiller system is tight and the extension is the right length. Veterans constantly improve their equipment. They study competitor's boats and innovative ideas in other classes.

2. Veterans read the weather forecast. They think about the "big picture" for the current and following day. This gives them a sense of what to expect and how to distinguish between localized effects and weather system changes.

3. Veterans never sail past laylines.

4. Veterans assess the length of the starting line and the size of the fleet. Will there be enough room for everyone? How long will they be able to hold their lane? Having these questions answered before the start enables them to visualize the opening minutes of the race. Veterans also determine the favored side of the line and the course. They think about the length of the beat and how long they will sail on each tack. At the SPA Regatta in Holland this year, the Europe beats were long so we emphasized getting off the line clean, sailing in clear air without tacking early in the beat, and then returning to the center of the course.

5. Veterans know when to go for the big starts and when to back off and start more conservatively. Veterans track the fleet psyche. U.S. Sailing Team coach Gary Bodie used to encourage his college teams to stay away from the pin end during the opening race of a regatta. The fleet's adrenaline is usually high at the beginning of events, and pin-end starts are risky. However, Bodie also told his teams to go for the pin after the lunch break, when the fleet was sleepy.

6. Veterans "beat the fleet" on local knowledge. In the first race of a series in normal conditions, they're not afraid to use local knowledge. At SPA this year, the first day had a typical sea breeze, which we knew would favor the left side. Much of the fleet was hesitant to commit heavily to the left in the first race, so it was a great time for our sailors to leverage left and produce a big opening race.

7. Veterans use the time sailing to the racecourse to assess conditions, and determine what technique and setup will be fast. They compare present conditions with the forecast. They set themselves up for a changing wind scenario, so the gear change comes naturally, and without hesitation.

8. Veterans go after wind velocity. They believe in what they see. Veterans are not afraid to wing it on a side if they need to make a move, or see something good. Veterans are the first to react to big changes.

9. Veterans have perfect weather mark roundings, and they immediately execute their downwind game plan. They're not afraid to stray from the pack for clear air. They've researched the wave angles and are the first to catch waves.

10. Veterans demand to pass boats. They're never happy with status quo.

11. Veteran technique is smooth and fluid. They're sensitive to helm pressure and respond with weight and sail trim.

12. Veterans focus on balance first, and then add kinetics. They feel the boat. Balance is most important; kinetics enhance the balance with extra power. If your kinetics are rough or don't have flow, go easy and feel the boat.

13. Veterans are aware of sheet pressure on all sails. Pressure is everything. A perfectly trimmed sail is one that is pulling on the sheet the hardest.

14. Veterans have excellent leeward mark roundings. This is the gateway to passing boats on the second beat. They focus on execution.

15. Veterans avoid traffic. They know that groups of boats have less wind than single boats. If you find yourself alone, don't rush to get back to the other boats.

16. Veterans have good reasons to tack. If they're going fast in clear air, they keep going unless something changes (windshift, too leveraged, more wind).

17. Veterans rarely sail upwind in bad air. Everyone knows bad air costs you boatlengths; you don't need to prove it.

18. Veterans sail with their heads out of the boat as much as possible. They always know where they are, and where the marks are. They rarely make a navigational error. Chris Nicholson, of Australia, won three 49er world championships by being better at watching the wind up the course, while everyone else focused on a more immediate view.

19. Veterans note wind trends during the race, and think about how they will affect upcoming legs. A big left shift on the second beat is going to tighten the top reach on a trapezoid course and favor reaching on the last downwind leg. Veterans set up the boat perfectly for these changes and open both offwind legs with a gain over those still assessing the leg.

20. After the finish, veterans drink plenty of water, reflect on the wind, think about rig changes, and get to the starting line so they can relax before the next race.

21. Veterans understand the importance of physical size and fitness. They sail boats that match their body types. They know the physical requirements of their class and are properly conditioned. They also can readily admit and act to improve upon or compensate for any weakness.

22. Veterans sail and practice in a quality manner more than their competition. It's a simple fact: Time on the water with specific goals equals improvement.