

From the Experts

Step 1

THE BOAT IS BALANCED and trimmed well, preparing for the approaching puff. Mainsheet and jib sheet are out of their cleats.



Step 2

AS THE PUFF HITS the jib is eased and the boat starts to climb to weather. The leech of the jib (on the J/22) is set 5 to 6 inches inside the spreader tip.

Step 3

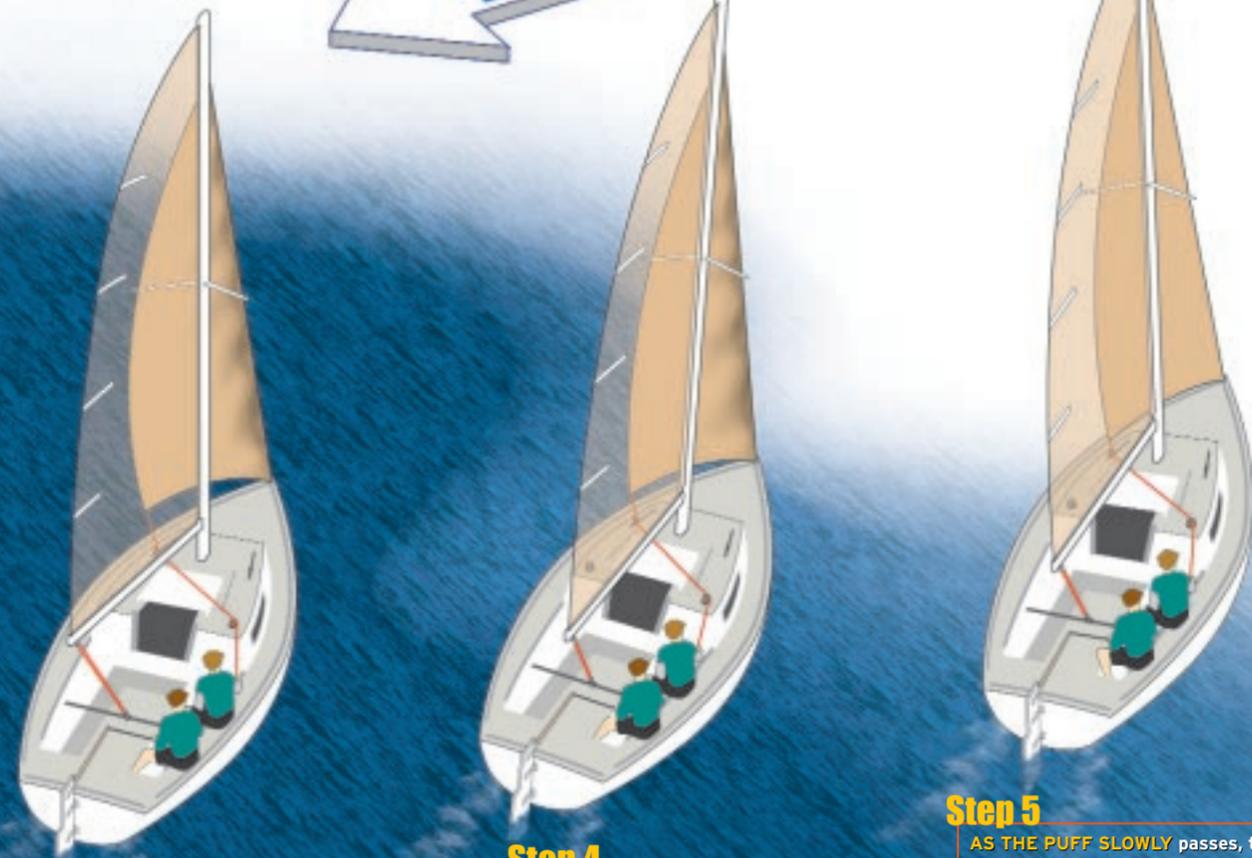
THROUGH THE PUFF, the skipper eases the mainsheet to flatten the boat and balance the helm. The jib remains eased, with the luff breaking as much as 1 foot back as the boat is feathered into the wind.

Step 4

ONCE THE BOAT is flat and the helm balanced, the skipper re-trims the mainsheet and the jib is slowly re-trimmed. The process should only take 3 to 5 seconds.

Step 5

AS THE PUFF SLOWLY passes, the jib is properly trimmed and the main is briefly trimmed harder—actually overtrimmed in order to keep the boat high into the wind. The jib luff is still breaking 1 foot back and the main is over trimmed a bit. The upper batten is hooked 10 degrees or parallel to the boom.



TECHNIQUE BY GREG FISHER

In, Through, and Out of the Puffs

I RECENTLY SAILED A J/22 REGATTA IN A TYPICALLY puffy northwesterly. On the second weather leg, our toughest competitor, Pete McChesney, was on our weather hip. My jib trimmer Skip Dieball was uncharacteristically quiet and I sensed we weren't moving well. When I asked him about our height and speed, his response was: "Well, I can still read their sail numbers." It was then that I realized I wasn't handling the puffs well. I also realized that there was nothing wrong with copying the other boat.

Skip and bowman Jeff Eiber studied our competitor's sail trim and boathandling for some time and eventually pointed out that they were using a different technique. I was easing the main as each puff hit, as I had been accustomed to, but our competitor was easing the jib first. I was allowing the boat to feather up into the wind and letting the luff of the jib break 4 to 5 inches back, but our competitor's jib was breaking a full 12 inches back. Their jib trimmer was easing the jib as much as 8 inches in the largest puffs

and the skipper was actually trimming the main harder after he carved up into the puff. Once the boat settled, the jib trimmer re-trimmed the jib to its normal upwind position and the skipper eased the main to its normal trim. With each puff, our competitor gained to weather, and I started rethinking how we could better handle the puffs.

There are many techniques that work in different conditions and boats. Each puff is different, requiring a different reaction, but one thing is consistent and es-

sential—anticipation. The entire team must be aware of when a puff will hit, so someone on the boat must be in charge of counting down the time until it arrives. Before the boat enters the puff, the skipper and jib trimmer must uncleat their respective sheets. Unless it's a significant header, allow the boat to carve up into the wind. How high you should feather the boat usually depends on the conditions and the particular boat. In very flat water and breezy conditions, a boat can be pinched into the wind until nearly the front half of the jib is breaking. The main can remain trimmed to help keep the bow

up and the boat feathered into the breeze. In contrast, if sailing in heavy, confused chop, it can be difficult to feather the boat much at all. In these conditions, the boat can stall and slide sideways.

Feel on the helm plays a large part when dealing with puffs in heavy chop. A flatter spot between waves, a windshift, or a tactical consideration can influence whether you feather the boat with the sails barely eased. Heavier boats, and boats with well-shaped centerboards or keels, can usually be feathered higher and longer without stalling. When sailing in lightweight boats, or boats that may have a tendency

to slide sideways, you must maintain flow over the blades and not press to sail higher than the boat is designed to.

No matter what kind of boat you're sailing, maintain a constant heel angle as the puff hits and then dissipates. Obviously, this is easier said than done, but if you allow the boat to heel too much, the skipper will feel significant weather helm (tug on tiller). Excessive weather helm is simply rudder drag—a brake in the water. The mainsheet, jibsheet, or both must be eased to help maintain the boat's balance and control. Which sail you ease first, and by how much, is again a "feel thing."

Feather when it's flat

The extra speed and height you can gain from handling a puff well is largely determined by the water conditions and the type of boat. In flat water, it's possible to "feather" extremely high without losing too much speed, but if conditions are choppy and your boat is more likely to stall, adjust your feather accordingly.

JOE COMEAU

Sea conditions play a big role, too. Sailing in chop often requires easing the mainsheet so the boat can travel forward through the waves without increasing the heel and load on the helm. Perhaps only a slight feather into the wind is possible because stalling is a constant concern. However, if you're sailing in flat water, easing the jib before the main will encourage the bow to carve up into the wind, allowing to the helmsman to better control his feathering.

Boats with different sailplans and helm balances will require different trimming techniques through a puff. Interlakes, Thistles, and Snipes, which seem to load up with heavy weather helm in puffs, will need more ease of the mainsheet to help keep the boat under control and tracking. Boats with a lighter helm, such as Lightnings or J/22s, react effectively to a jib sheet ease as long as you keep the boat relatively flat. Of course, in these boats the skipper must be prepared to ease the

mainsheet and fine-tune his feather. If the boat happens to slam into a wave, or is hit with a header, you must ease the mainsheet immediately.

It's important to remember that once the boat has reached its higher, feathered course, and the skipper has settled the boat down, the jib must quickly be trimmed to its normal position. In sharp, puffy conditions, it's common for the jib to be eased and trimmed as quickly as 2- to 3-second intervals. If your class allows it, and it's appropriate to your boat's set up, 2-to-1 jib sheets make the trimmer's job much more efficient.

High-performance boats such as 505s, Vanguard 15s, and 470s, will react best with both sails eased slightly as a puff hits, in conjunction with a quick bear-away to initiate a plane. Once on a plane, the boat is brought back to its previous closehaunched course.

Sometimes, the amount that the jib breaks can be extreme. In conditions where stalling is a concern, the carve is much less exaggerated and the luff break minimal. You must adjust the sails to control the turn toward the breeze, and in different conditions, you will adjust the sails in varying amounts.

The final technique to a well-handled puff involves adjustments to the main. Too often, trimmers leave the main eased after the puff hits, which keeps the boat underpowered. As the puff subsides, and the boat becomes controlled after its carve, valuable power and speed can be lost if the main is not quickly re-trimmed. A harder trim—to a point tighter than the main was trimmed before entering the puff—can help hold the boat longer in the feathering position. But don't forget the boat can only hold this height for so long. Before you lose power, ease the main, bear off slightly, and shift gears to accelerate. Make sure the boat is up to top speed before reaching the next puff.

In our earlier J/22 experience, it was evident that this technique was working. Our competitor appeared to double his distance to windward. Again, his jib was breaking a good 12 inches back from the luff and the main was eased as much as a foot, depending on the angle of heel and the velocity of the puff. The boat would climb up into the wind and the jib trimmer would quickly trim the jib back to the normal upwind position and the skipper would re-trim the main to a position at least as tight, if not tighter than, before they entered the puff. After that revelation, I realized I was the missing link on handling the puff! Once I became more comfortable with allowing the boat to climb into the breeze and trimming the main harder once into the puff, we were able to hold our lane, and at times, gain an inch. ♦