Sails

Updated Chapter of Jim and Sue Corenman's Pacific Cup Handbook

In order to discuss sail selection, we need to first jump ahead and talk about which way the wind blows between San Francisco and Kaneohe. This can be most easily understood if we divide the race into four separate legs. The first leg is very short, from the starting line to the vicinity of Seal Rocks outside the Gate, and we'll call it The Beat. It is usually windy. We'll call the second leg The Windy Reach. The wind will be out of the northwest, so we'll be sailing on starboard tack, on a beam reach more or less. The conditions will be typical San Francisco coastal stuff: windy, cold and overcast. This leg lasts from one to three or four days, and towards the end the wind slowly eases and shifts aft, and you slide into the third leg, the Light Run. For perhaps four days, the weather will be delightful, the seas fairly calm, and the average winds will be in the 10 to 12 knot range. The transition into the fourth leg, The Tradewinds, happens surprisingly quickly. The Tradewinds are usually in the 15-25 knot range (but can be lighter or heavier), are usually light in the morning, build in the afternoon, and are windy and squally in the evening.

Leg One

Beat: For The Beat, we will use our basic headsails, a 95-110% jib if it is windy, a genoa if it is not. Once past the bridge, the winds often drop a little and maybe we will change up to a bigger headsail. It is important to do a good job on this leg, because it is the first leg of a long race and really sets the tone for the days that follow, but don't spend money on new headsails unless you really have to. There will be plenty of better opportunities for that later.

Leg Two

Windy reach: Most boats will sail The Windy Reach with regular headsails; a 150% genoa if it's not too windy, a smaller genoa or jib if we can't keep the boat on its feet. If we had a Jib Top or a Blast Reacher, we would almost certainly use them here. A Jib Top is a high-clewed genoa jib cut for reaching, while a Blast Reacher is a smaller version of the same thing, usually 115-125% on the LP. The high clew allows you to control the twist of the sail up near the head and provides lots of room for the ocean to pass over the deck underneath the sail. These sails are also draft forward and fuller than upwind sails, which tends to hold the bow down and reduce weather helm.

Polars: An important question is when to set the kite. A good rule is that if you are thinking about it, then you ought to try it; most people wait too long. If you can get ORR polars for your boat (from US Sailing), then do - they will help answer this and a lot of other questions. The ideal first spinnaker to set would be a 1.5 oz reaching spinnaker, with a small mid-girth and cut fairly flat. If you don't have one, don't buy one, because this is the only time it would be the first choice. As soon as the wind shifts aft a little, you would like to have a full-sized 1.5 oz spinnaker up. If you don't have one of these, then do buy one, because it

will be one of the most useful sails for the rest of the race (and may save your 3/4 in The Trades).

Leg Three

Spinnakers – Light run: We are now getting into the third leg when the wind starts getting light. You will want to change to a 3/4 oz spinnaker. A 1/2 oz kite may also be helpful for this leg; it has been proven that just getting the bag on deck (with the label plainly visible to the sky) will often be enough to get the wind up a few knots.

Pacific High: The most important thing for this leg is to keep the boat moving as well as you can in the right direction. This is the leg when races are won or lost. Be careful about wind angles – this is another area where polars can be very valuable. The scenario looks like this: It is light and you have a spinnaker up on starboard pole. You know that if you slide the pole forward and reach up (to the north) the boat will sail faster. The problem is that the Pacific High is right where we are now pointed, and there is NO WIND in the High. What about a jibe? Now we're pointed at Antarctica! (Talk about the rock and the hard place...). Be thoughtful, be patient and stay alert...this is the most difficult leg with the biggest gainers and losers.

Leg Four

Tradewinds; Squalls: You will know when you get to The Tradewinds. The wind will pick up, the seas will get bigger and more lively, and you will be surrounded at sunset by tall puffy clouds. Be careful, you are not in Kansas anymore. The first night in The Tradewinds is often the "most interesting", with shifty, gusty winds and shifty lumpy seas from squalls, which makes life tough for the driver. In these conditions you want to be nervous about running a 3/4 oz kite into the evening; change to a heavier spinnaker early (unless you have a spare and really want to support your local sailmaker). If it gets Really Windy, as measured by the size of the driver's eyes, change to a small "shy" kite or wing out a jib. If your small kite is a flat reacher, it will be OK if you fully choke it down to increase the draft and make it more stable. Use twings or lead blocks and choke the sheet down to the max beam point or slightly aft. You really want to try to avoid crashing at night if you can.

Blast Reacher: So what do you do when it's too windy for a spinnaker? This is where a blast reacher comes in handy again. The size is about right to be wung out with a spinnaker pole and the clew is way up in the air, so the pole will stay out of the water as the boat rolls. The most inexpensive way to get a blast reacher is to cut up an old 150% genoa – it doesn't even have to be your own. The important thing is to keep the clew away from the ocean, and your typical genoa won't do that. The boat can roll quite a bit in a wing-and-wing configuration, more than with the spinnaker up, and attempting to wing out a low-cut genoa would be to invite a broken pole or worse.

Spinnaker poles: When winging out a headsail, use a topping lift, foreguy and afterguy rigged directly to the pole (in addition to the jib sheet through the jaws of the pole). This will allow you to set the pole up opposite the jib and make it stable, and then jibe the jib onto the pole, without the pole thrashing around trying to eat the headstay and kill the foredeck crew. Once the sail is set up on the pole, be sure that the afterguy (the one attached directly to the pole) has some slack, otherwise the sheet (attached to the sail) will work back and forth in the jaw of the pole and chafe through.

Priorities

We have talked about a lot of sails, more than most budgets can accommodate. What should the priorities be? A 3/4 oz and a 1.5oz kite are almost essential. If you don't have both of these, you will probably be a knot slower than the boat that does, and that's a lot of hours by the time you finish.

The next choice would be between a blast reacher, a 1/2 oz kite, and a shy kite. Each is a specialized sail, and each is golden if the conditions are right, but be sure that you have something that you can wing out, either a high-clewed jib or a blast reacher. If we haven't broken the bank yet, consider a jib top for the windy reach at the start. Another option to consider is having both a flat and full spinnaker, particularly for the 3/4 oz workhorse. Most general-purpose 3/4 oz spinnakers are cut pretty flat, to be able to reach well, and a sail specifically designed for running will be a little faster over a lot of the race course.

What about a cruising spinnaker? If you have one, take it for sure. It will do a good job in the later part of the Windy Reach as the first spinnaker, and it may do a credible job at running in too much wind for a full-sized spinnaker (unless it's a 3/4 oz). The disadvantage is that they are smaller than a spinnaker, and are sometimes troublesome on a pole - either the pole is too small for the sail, or too big to handle easily. If it's Really Windy then a poled-out blast reacher will be better, and if it's not that windy then a shy kite (or full-size kite if you can carry it) would be a better choice.

Mainsail: What about a mainsail? As long as it's structurally OK, use what you have. There are marginal advantages to a lightweight Kevlar downwind main, but those units are pretty pricey and belong far down the priority list. Also, keep in mind that full battens can be a liability here as they will bend around the shrouds in a very odd way when the main is all the way out, and stress and chafe at the inboard end is an issue, unless fancy (and expensive) fittings are used. Current (non-full length) batten lengths are longer than they used to be and are the best compromise.

Don't forget the race requirement for a storm trisail.

Used Sails: Don't overlook the potential of used sails if the budget is limited. A used spinnaker won't be quite as fast as a new one, but will be much faster than not having one at all, or not having the right one for the job. The best place to look for used sails is at the sailmakers. Making a spinnaker shorter or taller in the

luffs is a pretty easy modification, but increasing the width, or decreasing it more than a few inches is more difficult and may not be cost effective. Have the measurements checked against your rating certificate; an oversized sail is a silly thing to get into a protest meeting over.

Spinnaker Snuffers

What about a snuffer to help with spinnaker handling? A snuffer is a long sock, made of soft nylon, with a hoop or scoop at the bottom, that is pulled down over a spinnaker. A continuous control line, connected to the hoop at the bottom, with one side led through a block at the top, is used to raise and lower the sock. Setting the spinnaker involves hoisting the top of the sock-enshrouded spinnaker to the masthead, and then raising the hoop as the guy and sheet are pulled back. Dousing is the opposite, but in any wind the kite must be first collapsed by easing the pole forward to the headstay and getting the spinnaker behind the main. The snuffer should be brought down quickly, before the sail has a chance to wrap. A spinnaker net may also be worth considering.

The advantages are many for a short-handed crew, and if you are double-handing a big boat then they probably make sense. Stan Honey and Sally Lindsay Honey used ATN snuffers on all of their kites when they sailed the '90 and ’96 races double-handed on their Cal 40, and reported excellent results. For a fully crewed boat, they are not worth the trouble since there will presumably be enough experienced bodies to handle the sail.

All snuffers are not created equal. A must is a separate compartment within the sock for the control lines, to keep them from twisting around the spinnaker. The design of the bottom is important, as this is what will have to collapse the kite for dousing. Some snuffers incorporate a plastic hoop at the bottom to hold open the sock on the douse. The ATN (Ft. Lauderdale, Fla) snuffers mentioned above use a fiberglass scoop at the bottom, which is more robust and provides a smoother entry during the douse.

Sail Preparation

Sail Condition: Another important topic is sail preparation. Each sail needs to be checked carefully, both by you and by your favorite sailmaker. The best way to do this is to drag the sails over to the loft, spread them out on the floor, and walk all over them. Check the stitching for chafe and broken threads; check batten pockets for chafe at the ends; check for wear at points where the sails meet the spreaders or stantions; check the rings, cringles, and hanks for distortion and/or wear; and check the cloth itself to be sure that it is up to the rigors of the trip. The main needs chafe patches for the spreaders, and the headsails need chafe patches for stantions and the pulpit, even if they aren't chafed yet. It's also a good idea, if you haven't done it already, to mark the corners of the sails with a marking pen, to help the crew keep them straight in the dark (for example, "#1 Tack" for the tack on the #1 genoa, or "3/4 clew" for one of the clews of the 3/4 oz kite).

Chafe: You also need to go over the boat carefully with any eye to any chafe points. The trailing edge of the spreaders will be seeing a lot of the mainsail; be sure they are friendly (particularly if they are swept back). Applying a strip of 1" wide sticky-backed Dacron insignia cloth over the back edge of an aluminum spreader will help a lot, and will keep the spreader from leaving black marks on the mainsail. Tape or leather the spreader tips, the lifeline fittings at the bow, or anything else that can snag a wayward sail, and be sure that the headsails have patches at all of the same points. An anchor on a bow roller will eat the spinnaker every chance it gets, and there are not many places to anchor between here and Kaneohe anyway, so stow it below.

Sail Repair: Also put your sail repair kit together. The best way to fix almost any tear is to tape it. Get enough adhesive-backed insignia cloth to tape a couple of kites back together, as well as some straps and a couple of D-rings in case you have to make a new clew. Get this stuff from your sailmaker; the typical sail repair tape sold at chandleries is mostly useless.

You will also need acetone or alcohol for cleaning and drying wet sails, sail twine (light and heavy), needles, a sailmaker's palm, and scissors. The principle of spinnaker repair is easy: get the salt off (by wiping with fresh water if you have it); clean and dry with acetone or alcohol (watch the paint and varnish with acetone!); put the torn edges together the way they came apart as well as you can, and tape it together with a 3" or 4" wide band of insignia cloth tape. For high-load areas, tape both sides. If the sail was clean and dry, it will hold; if it doesn't, nothing else could have done any better. For mainsails and jibs, the theory is the same, with the addition of some stitching under or through the tape to help reinforce the repair.