


# Match Racing



For many years match racing was the almost exclusive preserve of Twelve Metres, but with the emergence of events such as the American Congressional Cup and our own Lymington Cup there has been a revival of interest in racing against a single competitor.

**Jack Knights** examines the sport and its specialised techniques.

**T**HE literature of yacht racing is enormous, yet the part devoted to two-boat match racing could be printed within the normal regatta programme. Till quite recently, Corny Shields Sr, 'The Gray Fox of Long Island Sound' was the only writer to have dealt with the subject at any length and even though we can now add the views of Bus Mossbacher, Bob Bavier and, most recently, Gary Jobson and Ted Turner, this enthralling branch of the art remains little considered in print.

Whereupon the reader may well point out that only a few ever match race anyway.

This is no longer true. For a century the America's Cup kept alight the flame of match racing, a guttering glimmer in the otherwise pitch blackness but now in the USA there are many highly competitive match racing series, both inside and outside collegiate racing while the outer world, beyond the North American continent, is fast catching on.

Match racing received its greatest boost in the early 'Sixties when Someone who Counted decided that it was time the enormous growth in yachting on the Pacific coast was recognised. At that time there was a mounting murmur against Easterners and in particular the New York Yacht Club for their arrogance. So the combined US Senate and House of Rep-

resentatives presented to the Long Beach Yacht Club a trophy which makes the One Ton Cup look like a cat's milk saucer and a new match series was started in 1965 which within ten years took on world significance.

In 1974 Britain's Royal Lymington Yacht Club staged a replica. That they were quite happy to have it thought of as a copy may be seen from the fact that they themselves called it the Lymington Congressional Cup. Not till 1978 and the formal presentation of a trophy was it renamed. 1978 was the year when the French decided they would not be left out of this growing sport. Their first match was held at La Rochelle. Now in 1979 the New Zealanders have joined in with an event timed to enable those privileged to race at Long Beach to fly on afterwards to Auckland. West Germany is contemplating a series too. Before too long most major sailing countries will stage their own match race series.

The appeal should be obvious — spectator value, tension and above all the simple primeval scenario of one lot trying to knock the hell out of the other lot. Match racing is the most unforgiving form of yacht racing. There is no second place; only defeat. There is no halfway house between triumph and failure and even though a match series consists of several races, usually with every crew racing every

other crew, the only crew that is ever remembered for more than a few hours is the one that wins.

It should not be thought that the helmsman is the only man that matters. No other yacht racing throws into such sharp relief the virtues and shortcomings of good and bad crew work. In a match race, mistakes whether of tactics, timing or handling cannot be hidden within a fleet. There is no fleet, only one boat and her enemy. The sad thing about good crewing is that it is all too easily taken for granted. Only when other crews hourglass their spinnaker or loop a genoa sheet over a mast winch is it possible to see that merely to avoid such race-losing snarls is to be half way to success.

To this end it is essential that a crew should rehearse beforehand in the boats which have been chosen for the event. Several days are made available for this at Long Beach before the first Congressional Cup races. Recently Ireland's Harold Cudmore told me that his crew had run off a string of some fifty tacks simply in order to find out the best way to tack — whether fast in a quick arc or more slowly and so on.

Competitors at Lymington have been allowed only a couple of hours in their allotted boats immediately prior to the first race but there has been nothing to prevent keener crews from

borrowing similar yachts in the days and weekends beforehand and Phil Crebbin, winner in '76 and '77 took fullest advantage of this.

Every class of boat has its peculiarities so that experience pays which is another way of saying that it is extremely difficult to win first time around. Ted Turner won the Congressional Cup after around ten tries which included being runner up more than once.

They say that next time the Long Beach Yacht Club will replace the trusty Cal 40s. They also say that they have been saying this for several years and that, more than likely, the Cal 40 will be there again in 1980. If so, first-time competitors are advised to pack their boat with youthful muscle for by the best standards of today, the Cal 40 is woefully underwinched and inconvenient to crew. How many boats at this year's Southern Circuit for instance carried their spinnaker halyard winch on the mast? A short tacking duel in Cal 40s really does separate the fit from the thought-they-were-fit.

By modern standards too, the Cal 40 has a full bow. Combined with her light displacement this calls for considerable skill in sailing to windward through a chop. Catch one wave wrong and that rubber-ball-shaped nose will bounce back from the water with a jerk of deceleration. On the other hand the Cal 40, being one of the first to feature a short fin and separate spade rudder set well aft, is a very sure turner and will bear away with

certainty in all conditions, without needing to ease the mainsheet. This means that in close quarter manoeuvring the skipper can bear off inside his opponent without risking a foul.

To try this in the Contessa 32s which have been used for every Lymington Cup series until the 1978 went, is to risk a collision. For whatever else the Contessa 32 is or is not, it is a slow bearer-off. Rudder and keel are close together and in front of the rudder is a large fat skeg with a large fat propeller just ahead again. The Contessa 32, shaped much like a Sparkman and Stephens design of the late 'Sixties, with its deep middle and big quarter wave is prone to roll when driven hard square running — a feature of nearly all match race courses is that boats are either beating or square running — with hardly any reaching.

How the Peterson designed OOD 34s, chosen for the coming series, will behave remains to be seen. They are light, flat and wide with big winches and workmanlike masthead rigs. They are capable of extremely high speeds offwind and do not appear to roll unduly, while their large rudders though giving a heavy 'feel' should confer great manoeuvrability.

In a sense, slow turning, heavy boats are best for match racing for they slow the duelling, make it easier to follow and to plan and make it necessary to think further ahead within the five or ten minute span of the vital 'opening game' of the pre-start period. A match race in Lasers would do little more than make each skipper giddy and confused. Twelve Metres on the other hand are close to ideal, both for competitors and spectators. They move with measured majesty, they will luff for almost ever and if one of the pair gains control it is fairly certain to be a minute or more before the tables can be reversed.

### The Pre-Start

Control that is the key to success in match racing and that is why the pre-start period is so important. At Long Beach pairs are allowed to tangle from the ten minute gun. At Lymington they must wait till the five. In both cases they approach one another from opposite sides of the line.

The common procedure is for each boat to try to get on the stern of the other. Gary Jobson in his new book recommends approaching one's adversary from leeward so that it is possible to luff onto his tail. This makes sense as luffing is an accelerating manoeuvre whilst bearing off saps speed. By luffing, then tacking onto the other's stern there is a greater chance of ending up close to him and thus tailing him rather than the other way round.

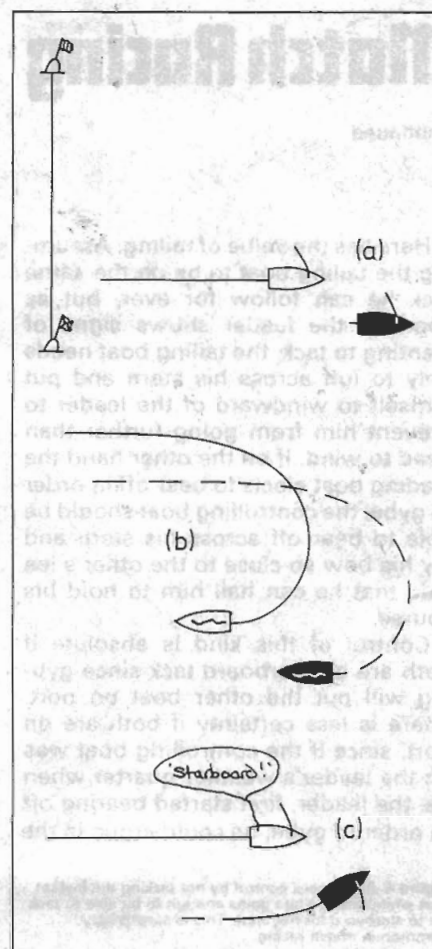


Figure 2. With both boats on starboard tack white has only to stay on black's lee quarter to apply the Hammerlock and have full control. Black cannot luff further than head to wind or bear off and gybe.

There is little doubt that it pays to go for the adversary from the bell. Aggression may possibly induce defensiveness in the other party. It is of course possible to wait for one's opponent to approach, but to be stationary in the water is to invite him to place himself alongside, on the side that is nearer the start line, to win immediate control. No matter on what tack the pair are, the controlling boat will prevent the other from tacking towards the line and he may well be able to prevent the other boat from gybing (Fig. 1).

Figure 3. Almost the only escape from the Hammerlock applied from the lee quarter (unless white accidentally overlaps black) is for black to wipe white off against a committee or spectator boat.

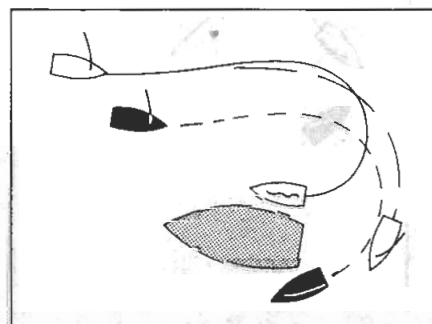
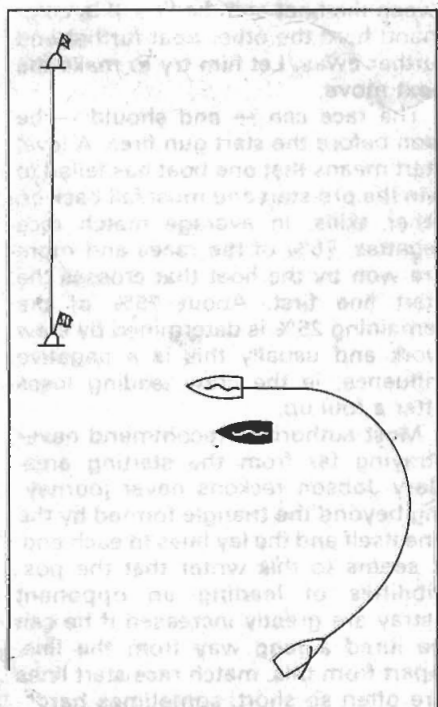


Figure 1. A major problem with coming to a halt, head to wind, before the start is that an opponent has only to place himself alongside and nearer the line to win control at the start.





# Match Racing

continued

will have to steer to one side or the other. If he creates an overlap to weather the lead boat will be able to bear off and gybe. If he overlaps to leeward the leading boat will have won freedom to tack.

Sometimes a boat being tailed will, in frustration, luff head to wind and stop. If he does this to one side or the other of the line, it is only necessary for the trailer to luff alongside him, on the side towards the starting line, for the tailers, control to be complete (Fig 1).

If skippering the boat that was ahead and which decided to luff, the better course is to gybe away as soon as possible. If the other tacks he may arrive at the line early. If he tries to follow and gybe inside, it may well be possible to luff him across the line early. (Mind you, it is almost impossible in practice to luff an opponent across a starting line without going over yourself. Here the consideration is whether it is possible to dip back and restart before he can.)

To go back to the beginning of the pre-start period it is probably better, if offered the choice, to approach an opponent on port tack while he is on starboard. In this way, after the opening manoeuvres, you will be on right-of-way starboard whilst he will be on port. If an opponent passes to leeward, then luffs hard to take up a tailing position, it may be possible to escape by luffing as if to tack, then

hanging there while the other hopefully becomes committed to a following tack. When this happens the leading boat peels off and gybes the other way (Fig. 6). If he is alert he will not be caught by this little ruse. In which case, with plenty of time remaining, why not let him remain in the tailing position for a bit? He may become over-confident and not notice that both boats are sailing towards a nice long spectator boat which can be used to wipe him off. As said before, it is the final 20 seconds that matter, not the four minutes and forty seconds (or nine minutes and forty seconds) that precede them.

If caught up in a whirl of circling before the start, be careful not to be caught port and starboard by accident. This could easily happen if an opponent suddenly reverses the circling direction. Guard against being made to manoeuvre faster than you can think. Things can usually be slowed down by cutting larger circles in the water or by easing sheets.

## Think Match Race all the time

Harold Cudmore of Ireland and Scott Allan, a previous winner, met in one heat of the 1979 Congressional Cup. After complex duelling both crossed early on starboard tack with Cudmore to windward. Both naturally turned away from one another to recross and restart. Cudmore tacked to port and then bore off whilst Allan bore off on starboard to gybe. Since this took place at the port end of the line the obvious course for Cudmore to take was to dip back on port, then harden sheets and sail off on port tack when he should have been clear ahead even though he might have been leaving Allan uncovered. Instead of doing this

Cudmore decided to continue to bear off on port tack and then gybe onto starboard. This brought him carving up towards his opponent with right of way. Allan only just managed to avoid a collision or foul (Fig. 7). It can be difficult to remain aggressive especially when returning from an early start.

## First Leg

After the start the situations will be limited.

(1) To be clearly ahead in which case the first priority will be to cover the other boat as he attempts to shake off the cover with quick tacks, false tacks and all the rest. The only thing that need be said here is that a helmsman and crew who remain calm and collected should, in the normal way of things, draw further ahead the harder the other struggles to break free. After a time it should be possible to drop close, tack for tack cover and instead give general cover. This will prevent him successfully making a false tack to break cover while he should still be receiving disturbed air.

(2) To be clearly behind at the start. The only option unless the gap is hundreds of yards, is to initiate the tacking duel, hoping that the crew will make up for the helmsman's tactical starting defects.

(3) An almost level start, on the same tack, both with clear wind. Now ensues a tense struggle for ascendancy. Usually both will remain on the starting tack, the leeward boat will be hoping to squeeze up till the other is backwinded. The weather boat will hope to be able to ease sheets bit by bit whilst driving off and footing over the other. It is likely that within less than ten minutes one or other will have established command. It is very unusual for two similar yachts to remain exactly even, when close together, closehauled on the same tack. It is essential that the crew settles down quickly, stops moving about and trims the sails to perfection.

Once one boat sees he is behind he will tack away. The other must respond immediately. It is while the boats are close that the boat behind will hope to catch the other out, either by a false tack or because the other snags a jib sheet or something of that sort.

(4) The start on opposite tacks, heading away from one another but fairly equal. This poses a problem who is leader and hence trying to cover and who is the trailer and hence trying to slip the hook? On a tidal course the leader is going to be the boat heading for the favourable current (either the strongest with him or the weakest against him). Therefore the other must, as soon as he can, tack over to stay with him.

In top level racing — and that includes match racing — the crew which avoids making mistakes in tight corners stands to make enormous gains. The other crew should always be the one which snarls a jib sheet — photo Gurney.



more than a gate in fact, that the triangle may be only a few boats' lengths deep. It may be possible to lure an opponent dangerously far away by letting him come for you, before the start. By waiting close to a big spectator boat one can normally expect to break his tail and give him the slip by wiping him off on the third boat. In a tideway especially, the long distance start will create opportunities.

Some good skippers, new to match racing, decide to dispense with pre-start tactics altogether and simply make a timed run in, at full speed on starboard tack. If they can time their approach perfectly so that they do not need to slow down at any stage and are aiming for the weather end, they can be quite difficult to stop. If their opponent is upwind of them, they will be able to take him high of the line. If their opponent approaches from leeward he will need to be on the other tack and this will entail tacking and hence slowing. If the opponent tacks far enough ahead of the fast approaching starboard tacker to be clear the latter will most likely be able to power through their lee or their weather before they gather way. The difficulty

and it is prohibitive — is to gauge distance and time so well that one can power in at top speed for a perfectly timed start. If preliminary timing runs are made the opponent should be able to disrupt these and initiate a bout of circling.

By and large, it will pay to start to windward of an opponent (assuming starboard tack) if the starboard hand end of the line is favoured and to be to leeward of him if the port hand is favoured. Tidal conditions may also decide which side of the opponent to

be placed at gunfire. Thus in the West Solent off Lymington, given the prevailing westerly wind and a tide which will always be either ebbing (to the west) or flooding strongly, one side of the course will always be favoured and the first to be able to tack towards it will get a big jump. Thus should the tide be flooding with the wind from the west, the windward berth, coming in on the starboard tack will be the one to go for, enabling a tack into the mainland shore where the stream will be weakest.

For however long the two boats duel before the start, the final twenty or so seconds are the vital ones. Control is often swapped in this period. The best match skippers know this and hold something back for this final sprint. Dennis Durgan, present holder of the Congressional Cup was being luffed by his opponent as both slowly approached the line on starboard tack. They were luffing and bearing off in unison since they knew they were early. With 20 seconds remaining, Durgan by accelerating slightly, invited and received a harder than usual luff which brought the pair head to wind. Durgan knew that because of this his opponent had lost all steerage way. Quickly he tacked onto port, then filled away to gain speed whilst the other was desperately trying to back his jib and reverse his helm to get across the eye of the wind. The outcome was that Durgan was able to sail clean away on port then tack back again onto starboard and make a high speed approach to start clear ahead of the other. The point about being leeward boat when both are approaching on starboard is that if the weather boat tacks the other must follow so closely that the first to tack is unable to tack

back again onto starboard. This can only be done by keeping close to the other through the tack. Time and again control is lost in the final few seconds because the leeward boat drops far enough behind to let his opponent tack back freely (Fig. 4).

If being controlled by the other boat it may help to approach the line early. Corny Shields recommends this. This will give the controlling opponent something else to worry about, helping the other boat to seize the initiative. Against a shrewd opponent, beware of being caught high of the starting line. Most match race lines have an inner limit at the starboard end, a boat's length or so in from the moored committee vessel. Once above this lay-line with an opponent beneath, the windward boat is in trouble. He may need to cross early to cut you out but it will take him much less time to bear off on starboard and dip back and restart than for the windward boat to tack and gybe around in a circle.

If tailing a boat that decides to swing around the committee boat, consider cutting the corner (Fig. 5). If only fifteen seconds or so remain, it will be possible to head him back towards the line or, even better, place him on the lee quarter where he can only luff very gradually (if he is too close to the quarter he will not be able to luff at all since the windward boat will not be able to respond without pushing her stern into his weather bow) (Rules 37.3 and 40).

An inexperienced tailer can be given the slip by surreptitiously slowing by easing jib sheets and possibly bringing the mainsail amidships. Unless he responds early he is likely to run up on the leading boat and then he

Figure 5. Two ways in which black can head white off at the start. Tailing is a good pre-start tactic but should not be extended to crossing the start line last.

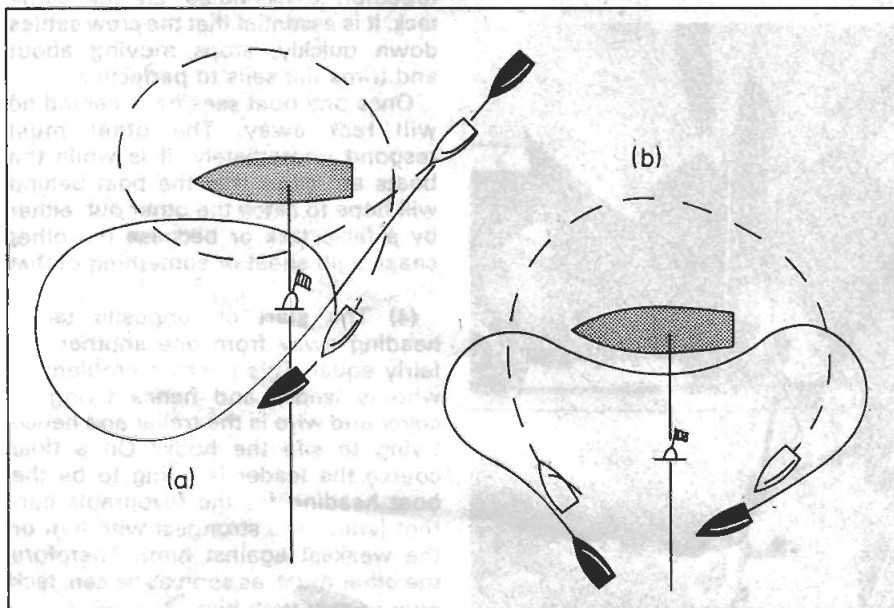
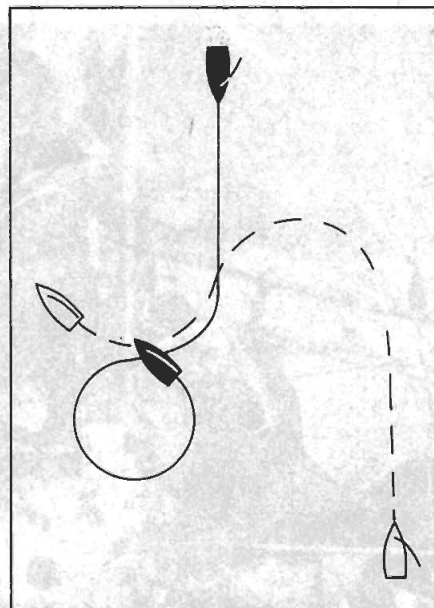


Figure 6. When black and white first cross black escapes the Hemmerlock by making a successful false tack — which white buys — then gybing round on white's stern.





If the stream is of no significance, the wind becomes paramount. If racing in the afternoon in the northern hemisphere one has a right to expect a veering tendency, in which case the port tacking boat is likely to be heading the correct way which means that the starboard tack starter should be first to tack over. This applies with extra force if land lies on the starboard hand as on Long Beach in the prevailing wind. On the other hand, as with the first day of the 1979 Congressional Cup, when big backing shifts were coming in with some regularity, the starboard tack starter should hold his course and the port tacker should tack just as soon as he feels the first header (if he has nothing but freers he is in trouble).

This opening beat after an even start on opposite tacks, is the only time in a match race when wind shift tacking is the first consideration. Just as soon as one boat becomes the leader, covering becomes the number one requirement.

### First Mark Approach

The next stage is the approach to the first mark. If clearly ahead the only worry is to judge the final tack to lay the mark comfortably and do not overstand.

If clearly behind one should try to lure the leader into covering so closely that he overstands. In displacement keel boats, as he eases sheets to get down to the mark, the leeward boat will reduce the deficit, even though she may be sailing in dirty wind.

If the race remains close in the final tacks there will be much more scope for surprise tactics. The boat behind can make a false tack when short of the lay line hoping the leader will then tack before he can lay. In any case the trailing boat will want to avoid going out to the layline till the very last moment.

When behind, anything which can be done to lengthen the leg or lengthen the race, will increase the chances of catching up. The classic example of this was the third race of the 1934 America's Cup over a leeward-windward course when 'Endeavour' already two wins up, led around the first mark after a run from the start by seven clear minutes. Because 'Rainbow', behind, started to edge up to weather, 'Endeavour' luffed up too even though the veering wind had turned this leg into a fetch and she was well above the finish. Finally, unbelievably, 'Endeavour' put in an entirely unnecessary covering tack. She lost ten minutes on this leg to lose by three minutes. Had her afterguard not lost their nerve they would have won the race and with it the America's Cup.

If approaching the mark on opposite tacks there may be a very small difference between the leader being forced to sail on to cross the other rather than tack in the other's water or the leader being able to get in his tack in time. If he has to sail on, the other will be able to duck his stern and round first.

If on the same tack the narrow leader will need to avoid being caught in a position ahead that prevents him from tacking till the other behind tacks. He will have to squeeze and squeeze well beforehand in order to get clear to weather.

It is usual to see foredeck hands sprinting around the decks at this stage, rigging poles and positioning spinnaker turtles. In many classes it seems more sensible to attach the pole to the mast and attach hoist and downhaul to the pole, and even place the bagged spinnaker in the bow with sheet and guy already in place, before the race even starts. These opening legs are usually very short. Pure boat speed in the sense of the gain from reduced windage and bow weight makes far less difference than being able to concentrate on sailing and most important, the match.

If the spinnaker and its gear is prepared beforehand only one man need creep forward at the last minute to attach the spinnaker halyard. Others will be able to hoist the pole from their station amidships.

### Turning the Weather Mark

It is assumed that the second leg is directly downwind. When leading narrowly it will be best to keep high in an effort to prevent the following boat from getting onto your wind. Turn the mark in a big arc with a small rudder angle to retain speed. Only when following closely should consideration be given to turning sharply in order to round inside and maybe gybe before setting the kite.

Having watched boats set their kites whilst still on the starboard tack (we assume marks to port), then gybe later and compared them with the more ambitious boats that gybe and then set the kite immediately after, we would say without hesitation that it is better to set the kite first. Only gybe after it has been pulling long enough for the boat to attain full speed.

The gybe-set tends to lead to a tangle on the foredeck, nearly always, too, the spinnaker needs more time before it fills with wind. The centrifugal forces involved in the gybe, however slight, tend to swing everything amidships whilst the other action of simply bearing off, will tend to swing the pole outboard. The chances of a twist in the spinnaker are considerably increased by gybing first.

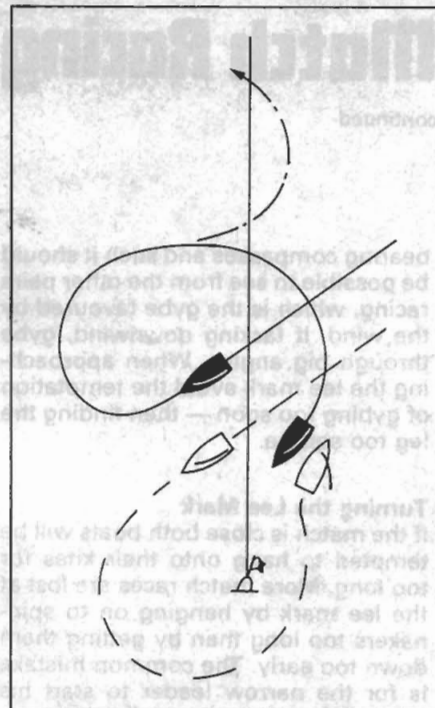


Figure 7. Harold Cudmore (black) and Scott Allan (white) both start early and return by turning outward. Instead of luffing when on port to make a clear start he gybes on to starboard and Allan barely keeps clear.

Gary Jobson too, says that the gybe-set should not be contemplated unless the wind favours the other tack by at least 20°. Let us raise that to 40°.

Another point about holding to the starboard tack when leading, and hoisting on the same tack, is that an opponent will be encouraged to turn the mark sharply, slip inside, gybe and then set. This will slow him down and — very possibly — lead to a gear foul-up.

Dick Deaver and others like to stop the top quarter or third of the spinnaker (with elastic bands or cotton). This seems a good idea as it enables the halyard man to hoist the first seven or eight feet of sail even before rounding the mark. If the boat has a big overlapping masthead genoa, lower it just as quickly as possible even while the spinnaker is on its way up. Let it go with a run even at the risk of the clew finishing up over the side.

### The Square Run

With most match courses, the start line is in the middle, halfway between the windward and leeward turning marks. Read the sailing instructions carefully to be sure about whether or not it is permissible to run through the line. Otherwise, when leading, an opponent may watch to see which side of the line you commit yourself to before going to the other side himself. If required by the instructions to avoid the line there is an advantage, other factors being equal, in passing to the side which will give the inside berth at the leeward mark. Even without hand ▶