

Start Young, Be Quick

Starting young can also mean starting fast in competitive sailing, once the basic concepts of why a boat sails are transmitted into a realisation of what made them fast. Here are some points for Flying Ant, Flying 11 and Cherub hot-shots.

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...In Cherubs, the understandings generated by the previous years of sailing are reinforced by their obvious success. But it becomes difficult to progress unless the basic understandings exist, as the reasons for failure are more complex and less obvious as the potential speed differences become greater.

Since Cherubs are not one design, one must make a choice of hull shapes. Those successful in recent years have been only the Jet/Crimson Dynamo deep vee and the Bethwaite series - two totally different hulls and rigs. The most promising new shape is the Iain Murray design, which remains unproven but initially showed some startling speed.

Probably the major criterion in selecting the boat design is crew weight, and then the waters on which it will be sailed.

The deep-vee hull shape is excellent for crews up to 115kg. It has no real weak points, the strongest point being choppy water and medium air.

The Bethwaite design is less weight sensitive, it's at its best in light airs and to windward, but is a little weak downwind.

The downwind slowness has one basic cause. The over-rotating masts generally supplied are not maximum length, have much lower hounds and spinnaker position, and are stepped on a low-

camber foredeck - all of this reduces the overall rig height by up to 700mm, which is extremely significant. It also reduces the horizontal and vertical separation of the sails, with important consequences. Maybe we should try a highcambered foredeck and put a conventional rig on a Bethwaite hull.

The sail design also needs adaptation for the differing hull shapes, the flatter boats needing slightly fuller sails sheeted wider for early planing, and the deep vee using flatter sails more closely sheeted. Dynac spinnakers seem best with large foot rounds allowed by the rules also beneficial. The headsail should have some leech round (about 75mm) but much more than this can only be useful in light airs.

Since there is no rule on centreboard and rudder shape, very large boards are being used. However, it would seem that the largest board needed for the highest-pointing boat with a heavy crew is a 1650mm by 325mm, with corresponding reductions for lighter crews and lower-pointing boats.

The best conventional mast is the Superspar. It has a more even bend than the De Havilland or Champion, and is lighter than the Speedspar, and the two previous spars.

The De Havilland and Champion spars always seem to bend excessively above the hounds and too much sideways all over, both of which reduce the chances of good all-weather performance to windward, especially pointing ability.

Problems confronting Cherub sailors generally stem mainly from the boats light weight, large centreboard, and short hull. These factors make it easy to capsize gybing, when it is impossible to pull the centreboard up far enough, plus the short length which promotes nosediving.

The Cherub stops easily in light airs because of the high wetted surface and since the crew weight is nearly twice that of a fully-rigged boat (consider the opposite a Finn), any small discordant movement jars the entire boat.

To help avoid capsizing with the excess board, all the normal steps should be followed. The crew should watch the wave pattern extremely carefully and if danger threatens during the gybe should quickly pull the board up straight the boom swings across as well as being ready to move aft. The same thing applies when setting the spinnaker in hairy conditions.

Tacking in light airs is also difficult, but reaching, the crew has priority for trimming the spinnaker.

The best way is to just balance up the boat and try not to move. If the selected positions are just sitting on the sidedeck and a little gust comes, the crew should resist the temptation to spring onto the trapeze, but just stretch a little while the helmsman steers the boat a little higher until the wind resumes its normal strength.

If the crew jumps onto the wire in this situation his inertia makes the bow deviate to leeward, the forestay tightens flattening the jib, the mast compresses flattening the mainsail. When the puff fades, the crew must struggle back to the boat, which has hardly gained any speed and lost about three metres to leeward.

The effects are dramatic in marginal conditions, and can mean the difference between winning and losing.



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