

THE ADMIRAL'S CUP & ALL THAT!

THE Admiral's Cup Series of four races, two offshore and two round the buoys, finished with the Fastnet Race in early August with Britain retaining the trophy against seven other nations. This is a highly satisfactory result from a purely insular point of view, but what really made the series interesting was the performance of the Australian team which, at its first attempt in the series, were second with a total of 376 points against Britain's 420.

But for a ludicrously complicated set of race instructions for one of the events at Cowes Week, they would certainly have amassed an even greater total.

The point in this bit of re-evaluation is to stir the imaginations again of South Africans who may be hiver-hoivering over taking the plunge and entering a team of three in some future Admiral's Cup series . . .

Remember the Australians had two newish canoe-sterned yachts and a 12-year-old, the Clark-designed *Caprice* of *Huon*. It was the latter that did best of all in the team, with two outright wins and the highest scoring performance by an Admiral's Cup entrant in a third event, the Channel Race. It should be realised that there were large numbers of starters in each race besides those actually competing in the Cup series.

The skipper of *Caprice*, Gordon Ingate, is an Olympic gold medallist and his success must have been due far more to a superb crew than to any really outstanding design features on his yacht. The Australians certainly showed, as they did with the America's Cup challenger *Gretel*, that the crew is more important than the boat (within reason) and that a merely good, rather than superb, yacht, well sailed, can show its transom to the rest of the fleet in the right conditions.

Their performance should convince other countries that are considering entering the next Admiral's Cup series in 1967 that they stand a very good chance, even if their boats have not been proved in the hurly-burly of international racing.



In South Africa there is certainly enough talent available to turn out some first-rate yachts of imaginative design which could well be superior to the stereotyped in-fashion vessels which slide down the slipways of Europe and North America in such nauseating numbers. There are plenty of ways still available to exploit the R.O.R.C. rules which have scarcely been tried yet.

However, that sort of boat implies an owner who is not frightened to depart from the conventional and who is prepared to pay the designer a reasonable sum for his pains. No one can be really wholehearted about a job if he feels that what he is being paid limits the amount of time he can devote to thinking, sketching, doodling, asking questions, reading books and articles, writing letters for information and the thousand-and-one things that an imaginative design calls for.

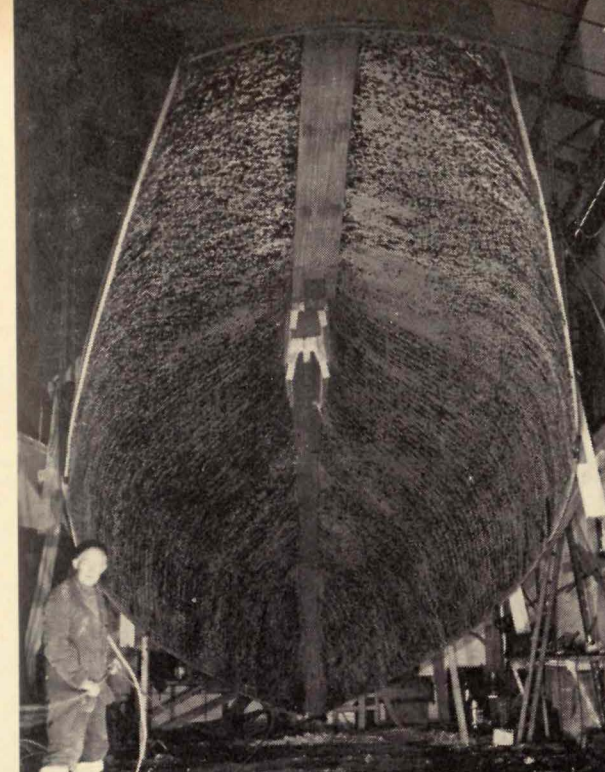
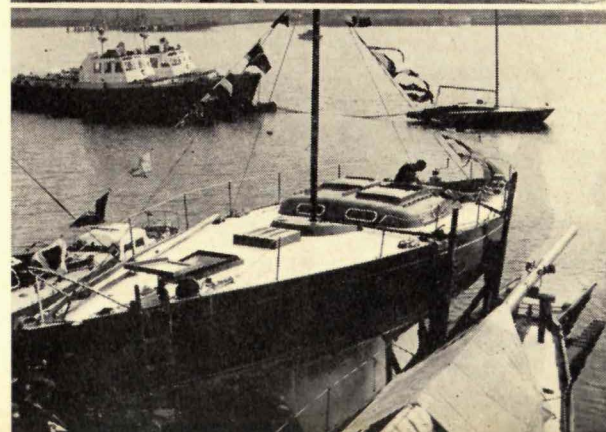
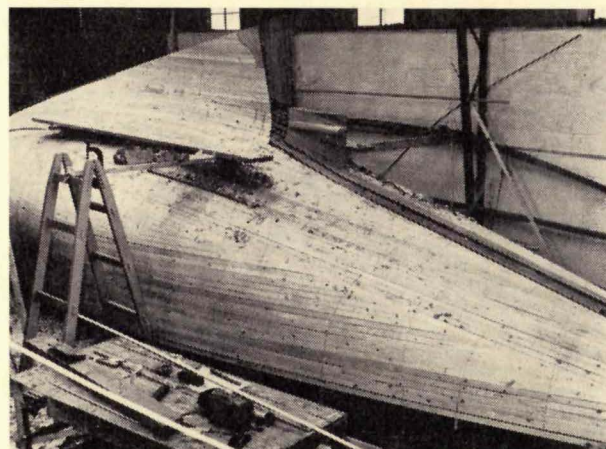
The working drawings are the result of all this preliminary labour and the quicker they have to be produced the worse the design will be. Once the boat has started to be built it is too late for the designer to have second thoughts.

The time element comes into it all the way through, for a worthwhile boat is likely to take at least a year from its inception to launching and entrants for the next series will have to reckon on having their craft complete and ready for tuning by the beginning of 1967. That is only a bit over a year from now!

It is not always appreciated that the R.O.R.C. rules need careful study. It is likely that several outline designs will be drawn to see what can be squeezed from them before settling on any particular form. Having decided the general type and shape—heavy, medium or light displacement; fin keeler, normal deep keel, centreboard and shallow draught, centreboard with normal draught; transom or counter

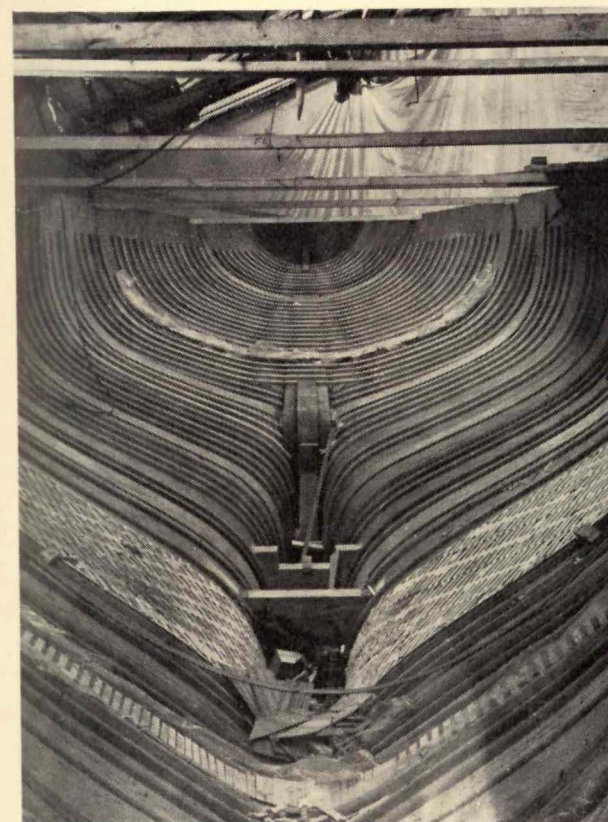
JOHN TEALE MUSES
ON S.A.'s CHANCES

BELOW: The mould of the Class I ocean racer *Outlaw*, which was designed by Illingworth and Primrose Ltd., of Emsworth, Hampshire, and built by Souters, of Cowes.
MIDDLE: The first layer of planking goes on the mould, which is covered with plastic sheet to prevent the planking sticking in unwanted places.
BOTTOM: *Outlaw* takes to the water, complete with dummy mast, so that she can be dressed overall for her launching.



ABOVE: The hull is lifted from the mould, upside down of course, and ready for "floors" and so on to be fitted. On a more extensive mould these can be incorporated in the laying-up process. Planking is so quick by this method that, even when the cost of the mould is taken into consideration, there is little difference in final cost between cold moulding and conventional planking.

BELOW: Timbers were used in this craft, and are here being fastened into place. Even the coachroof was cold-moulded for light weight, strength and watertightness.



stern; yawl, sloop or cutter; all have their individual advantages—the naval architect must then decide on the construction best suited to the job.

This is not straightforward either, for steel, aluminium alloy, fibreglass, cold and hot-moulded wood, and conventional planked systems all have their place in the sphere of things and must be considered.

There is a great deal to be said for an all-welded aluminium alloy structure, for if two thin skins are used with, say, balsa wood between, a light and very strong hull can be achieved. Enough is known about the problems of electrolytic action between dissimilar metals to make the use of aluminium at sea a perfectly practical proposition now. However, it takes a well-equipped yard with experience in argon-arc welding to make a success of this form of construction and, because of this, it is rather neglected. Anyone after a real lightweight flier, though, could do worse than to go into the economics to see just how much it would cost.

In Britain one boat for next year's Powerboat Race will be constructed that way and, whatever people may think about the sport, it is teaching everyone how to achieve tremendous strength without incurring great weight as well.



In Britain interest is also concentrating on moulded hulls, whether of fibreglass, or wood in hot or cold-moulded form. The reasons for this are not only that slightly reduced maintenance is achieved but that these days ocean racers are sailed harder than they used to be and have higher rigs, bigger winches and so on. These place greater strains on the structure than was the case formerly, particularly at the mast step, chain plates and runner or backstay connections at the hull.

What is happening is that the mast is trying to dig a hole in the bottom of the boat while at the same time the rigging is trying to wrap the hull up in a neat parcel round the mast!

This sort of treatment tends to strain conventionally-built yachts because large local loads cannot be properly distributed by a structure consisting of individual planks fastened to individual timbers and longitudinals. A strained boat is a leaky boat and something that is costly to repair.

Another advantage of moulded construction, particularly where wood is concerned, is that a lighter hull than the normal can be achieved. If one thinks about it, this is quite obvious. Imagine a 30-ft. o.a. sailing yacht built up in the traditional manner. For various reasons, not the least of which is the need to provide a good depth of wood for caulking purposes, the planking is not likely to be under about 1 in. thick. If this craft were of plywood, however—and cold or hot moulding is simply a method of making plywood on the premises to a particular shape—a designer would probably wonder about specifying a planking thickness of $\frac{1}{2}$ in. and might eventually go for $\frac{3}{8}$ in., on the bottom at any rate.

The planking area of a 30-footer might be something like 450 sq. ft. If 1 in. Honduras mahogany were used for the job—a light and strong wood eminently suited to the purpose and weighing about 34 lb. a cu. ft.—the planking weight would be 1,275 lb. Steamed timbers would work out at some 500 ft. run. These might be 2 in. by 1 $\frac{1}{2}$ in. in size and if of the widely-used Canadian rock elm at 44 lb. per cu. ft. would come out at 382 lb. or thereabouts. These two together plus the fastenings required would add up to roughly 1,700 lb.

On moulded building no steamed timbers or frames need be used, the whole hull being a homogeneous and self-supporting structure. Thus the planking area of 450 sq. ft. alone can be taken, without fastenings even. If we assume that $\frac{3}{8}$ in. mahogany ply were used at 1.8 lb. per sq. ft., this part of the hull would weigh 810 lb. total, a saving of nearly 900 lb.

More weight can be saved on the hull by moulding in floors, keel and gunwhales while still achieving a leak-free, strong hull with a good expectation of life if built by a first-class yard. Whatever one's feelings may be about traditional construction—and it is certainly the most aesthetically satisfying form of all—when it comes to ocean racing everything must be sacrificed to speed and efficiency.

(Continued on page 27)

51 BOATS AT THE ITALIAN ONE-OF-A-KIND TRIALS

The English catamaran *Shark*, manned by Cowel-Lewis, showed herself clearly faster than any potential opposition in the One-of-a-kind races held recently in Italy. Second was the catamaran *Shearwater IV* with the Italian crew Tulli-Odoriso, showing how the earliest successful twin-huller is still keeping abreast of progress.

THIS year a One-of-a-kind regatta was organised in Italy for the first time under the aegis of the magazine *Nautica* and the Anzio Tourist Board, both of which realised the interest and the importance of these races. Response was wider than forecast and entries amounted to 51 boats—13 French, five British, two Dutch, two German and 30 Italian—which were inspected by the rating control committee on September 24.

There was great interest both in France and in England in the Italian One-of-a-kind, and the success of the event was thanks principally to the crews of these two countries.

Anzio—in whose waters the regattas took place—went through a week of sporting fever and the contagion spread to the local population, with the atmosphere of a minor

Yet another catamaran was third at Anzio, ahead of all the planning dinghy opposition—this time *Exocet Senior*, crew Conti-Conti.

An Italian catamaran *Seawind*, built by Italcat of Milan, was placed fourth, crew Trovato-Fadigati.

olympiad.

Fifty-one boats included important boats such as the British Macalpine-Downie catamaran *Shark*, the French 470, by Cornu, the two new Italian dinghies *Strale* of Ettore Santarelli and *Classe S Alpa* of Vittorio Lombardi. The One-of-a-kind was also the first Italian regatta of importance for catamarans and trimarans, and no less than 12 of these boats entered. The British *Toy*, of Jack Allen, was also present and the plastic prototype of Jack Holt's Enterprise.

Fastest of the dinghies was the French "470", Cornu-Morin, ahead of even the Flying Dutchman. Length overall, 15 ft. 5 in., 14 ft. L.W.L., beam 5 ft. 6 in. and sail area 137 sq. ft. A dinghy from the same designer contested the recent IYRU singlehander trials.

An interesting Italian 16-footer *Strale*, designed by Santarelli, was placed eighth.

Only two of the four trials were run in the programme for September 25. The other two, to be held on September 26, were scratched as a result of the strong wind and the sea, at force 4-5, which prevented leaving the port.

The two regattas which actually took place, wind at 7 m/sec, were on a triangular course and were run on two legs approximately 8.2 miles in length. The classification was made according to real time.

The British catamaran *Shark*, by Sail Craft crewed by Cowel Lewis, outdistanced the other competitors in both trials and thus won first place in the classification and the first edition of One-of-a-kind.

Second place was gained by a *Shearwater IV* crewed by Tulli, Europe's Lightning champion, and Odorisio. Third was the French catamaran *Exocet Senior*, crewed by the Conti Brothers, and *Seawind II*, an Italian catamaran of Italcat, crewed by Trovato and Fadigati, was fourth.

After the four catamarans, the French dinghy 470 by Cornu, crewed by Cornu-Morin, reached the mark sixth and fourth, only 19 min. and 53 sec. behind the winner. Considering the various types of hulls—the first a catamaran, the second a gliding dinghy and sail areas of 12.70 sq. mts. for the 470 and 24.15 for the *Shark*—one must conclude that this boat has exceptional qualities, especially when there is a wind and a rough sea. Its performance explains the success it has obtained in France. In eighth position was *Strale*—the new intermediate Italian dinghy designed by Ettore Santarelli. With a more experienced crew—we recall that Cornu has been world champion on the 505—it could have better opposed the French 470.

The Flying Dutchman with Chiozza at the helm, the winner of the recent International Week at Alassio, was preceded in the classification by *Strale*, the 470, the *Windy* and the *Ponant*.

In the single-handers, a Finn crewed by Montuori was once again the best. While in the little classes the plastic Flying Junior was classified sixteenth, followed by the 420, twenty-second, with 8 min. 19 sec. The Vaurien was well placed at seventeenth, 1 min. 19 sec. from Flying Junior.

A Köper-designed Tempo scow finished in both races—thirty-third in the first, twenty-first in the second.

These very satisfactory results for the first edition of the Italian One-of-a-kind marks an important stage in the history of Italian yachting and provide valuable performance pointers to followers of dinghy racing.

Franco Bellomi,
Editor, *Nautica*.

Admiral's Cup From page 25

Before leaving the subject of the Admiral's Cup, it is interesting to report that a simply colossal ocean racer has been commissioned in Britain for delivery early in 1967. The owner, who had better remain anonymous for the time being, certainly has his eyes on that piece of silverware as well as the Fastnet Cup.

Anyway, the boat is 71 ft. overall and 60 ft. on the waterline to fit in right at the top of Class I and will be, as far as I know, the biggest craft ever built in Britain for the sole purpose of ocean racing. The object is to beat such vessels as *Stormvogel* and Baron de Rothschild's 90-ft. yawl *Gitania IV* boat for boat and damn the handicap rules!

The latter craft, incidentally, holds the course record for the Fastnet race, covering the 605 miles in 3 days 9 hr. 40 min. this year.

I have seen some of the drawings prepared for this new venture, which is sloop-rigged and of cold-moulded construction, and it certainly looks a flier. The point about all this is that the owner has put work in hand early enough for the boat to be launched and tuned up in ample time for the 1967 season.

