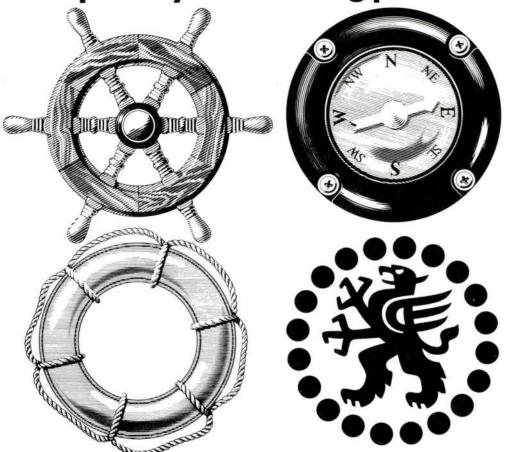


Looking for finance to improve your boating pleasure?



Associated Midland. We'll make it smooth sailing.

If you're a keen sailor, fond fisherman or just enjoy a cruise, you're probably keen to improve your equipment and keep it right up-to-date.

Associated Midland makes loans for all types of marine craft and accessories. They can help you out with a new boat, motor, trailer, a better set of sails or even a complete refit.

Associated Midland's financial facilities are arranged to suit a budget. And our staff will happily suggest the best, most convenient and easiest way to make repayments.

So if you're looking for boating finance, contact Peter Kemp on 2-0243. Associated Midland will help you keep your head above water.



Safe and sound, with a heart of gold.

558 AM 148

OFFSHORE Number 66 June-July 1982



Cover: David Lawson, a familiar face around the CYCA, is a veteran of many ocean racing yachts, having sailed on Helsal and Helsal 2, and in more recent times, on Geof Blok's Mary Muffin.

Photograph by Patrick Bollen.

CONTENTS

Offshore Signals	2
Nev Gosson's Odyssey; CYCA safety inspections; Bris- bane-Gladstone notes; CYCA crane facility; Yachtie's Fete; Associates news; Rockhopper to Noumea; Readership sur- vey; letters.	
Remeasuring the Clipper Cup Team	6
Problems with ratings abroad and at home prompted the AYF to remeasure the Clipper Cup Team before it left for Hawaii. Gordon Marshall, Chief Measurer of NSW, is interviewed about the results (Marshall's complete report and recommendations for measurement are included).	
Biggles Column	13

The SORC measurements scandal and its reverberations. The Building of Cassie II 14

Kosti Simons relates a tale of the backyard building of Cassie II, and includes some good tips on working in ferrocement.

Racing Rounds 17

A new regular feature with Duncan Van Woerden, who gives a rundown on racing – in this issue, the leadup to Hawaii 1982.

The Mooloolaba-Sydney Rally

Frank Sticovitch tells of a new idea for racing home that may catch on.

Chasseur - a yacht full of ideas

Bill Sherman looks this time at a new Hunter 54 on the CYCA Register.

Around the Marina



OFFSHORE is published every two months by the Cruising Yacht Club of Australia, New Beach Road, Darling Point, NSW 2027, Australia. Telephone (02) 32-9731. Cables 'SEAWYSEA'. Telex 72278 'SEWYSE'.

Advertising and Editorial correspondence should be directed to: The Editor, Offshore, C/The Cruising Yacht Club of Australia.

Subscriptions: Australia \$11.95, Overseas \$14.95, for six issues. Air Mail rate on application.

*Recommended price only.

Printed by Mockridge Bulmer Printing Pty. Ltd., 41 Hotham Pde., Artarmon 2064.

Registered for posting as a publication – Category (B)

18

20

24

OFFSHORE SIGNALS



Nev Gosson CYCA single-hander

The following news of Nev Gosson's Odyssey has been received from CYCA Associate Annie Wilson.

When Nev Gosson regained Leda in early May, he had access at last to the only Australian boat he believed suitable for his entry in the BOC Around Alone Challenge. Sponsored locally (in Australia) by Commonwealth Industrial Gases, the race is being sailed under the auspices of the Slocum Society, the Rhode Island State Yachting Commission and the Goat Island Yacht Club of Rhode Island.

Thirty-three sailors have entered the race from the US, Great Britain, France, Belgium, Holland, Czechoslovakia, South Africa, Australia and New Zealand. It will start in Rhode Island on August 28, with obligatory stops in Capetown, Sydney and Rio before returning to Newport to coincide with the America's



STINES

Nev Gosson aboard Leda just before his departure.

He had two main problems: how, in the few weeks left to him, to convert her for single-handed racing before a trial run to the starting line; and how to find a sponsor in that short time.

Pier One, the hosts for the Sydney stopover, indicated interest and checked Nev out thoroughly – but not being familiar with the high cost of yacht fittings and replacement of pear, there was not much time to

convince them of the importance to a successful result of a good bank balance; however they agreed to help in the conversion of her from her former role as an ocean racing sloop to her new guise as Leda – Pier One, a cutter

While a roll-up main from Hoods was Nev's greatest need, time and budget prevented him from visiting Auckland for this.

Firstly, she was stripped of her dodger and perspex windbreaker which the intervening owner had constructed – regretfully, windage was too important a factor to retain in. The coffee grinders were taken off as was much yardage of extremely heavy chain, self-tailing winches were moved to facilitate single-handed sailing.

Joe Adams, her designer, and Paul Kelly, her builder, were called in. A decision was made to remove 3,340 pounds of lead from the keel to reduce the overall weight of the boat and to reduce the draft for better downwind performance. An Onan generator was removed to lighten the yacht, and other unnecessary fixtures and fittings were removed to bring her back to her former state. Hoods had already installed a furling headsail, and they now added a furling staysail. Kevin Shepherd designed an MPS spinnaker sally, plus another spinnaker for which Nev designed a fearful-looking, but I believe successful, spinnaker sally.

A two-bladed fixed prop was installed for the trip to the US where a two-bladed folding propeller will be installed for the race.

Richard Chapman, whose trusty Coursemaster autopilot had had its first successful commercial trial run in earlier times in Leda, supplied an updated model for the trip. Kevin Fleming, who is becoming known on both sides of the Pacific for his comprehensive windvane steering systems, supplied one which has probably been the best toy of all. 'Flemo' is constantly being organised to ensure that the skipper gets some sleep!

John Noakes did his best, with the limited time available, to check rigging, make braces and keep an experienced eye on matters.

The whizbang Walker satellite navigator, which was already on board, was too shy to produce a readout until Nev reached New Zealand where, sailors beware, it cost \$1300 to replace the circuitry. The repairmen are reticent too; it took me six days to locate one from this side of the Tasman.

Repairs and checks, painting and fitting out were done at Mitchells Marine in Pittwater; there just wasn't time to bring her down to Sydney.

From there, I looked aghast at the empty lockers, and I called on Annie Adams and Rosemary Kelly to help. The provisioning job was Herculean, and we did not forget to provide a directory of 'what's where'.

Nev wrote in his letter from Whangarei:

"I approached Whangarei Harbour with no motor (fan belt broken), no batteries (shore in the system) and no fuel (had mysteriously emptied into the bilge): it was a difficult exercise coming up the channel. After locating the channel marker, I started to sail up the leads. The channel is marked all the way to the township, something like 15 miles, but the channel is narrow, about 500 metres down to 150 metres. When I entered and committed myself and started sailing up this narrow channel, I noticed a tanker with a full head of steam at anchor near the entrance. After I started, the tanker, plus two tugs that materialised out of nowhere, followed suit. Now Whangarei is just like Tasman Island. As you round the corner it blows 50 knots or not at all in fiveminute intervals. You can imagine the scene. I go about, and by the time I get the gear on, the 150 metres was up. I'd go about again and the wind would stop. By now, following close behind was a bulgingeyed tanker captain. A customs boat materialised and shunted me into an unmarked channel to let the tanker go by. I later found out it was the talk of the waterside.

"The next part was to come into the wharf for customs. It was blowing 50 knots. I freed sheets to come close to the wharf to find out where they wanted me to go. The closer I got to the wharf so I could hear, the more the customs man moved back into his office. Finally, I took almost all sail off, and he then carefully showed me into a spot marked 'x'. However, he forgot that it had eight foot of water over it, less two foot for low tide. The customs boat towed me off "

(Once in Suva, Nev was led aground by a customs boat!)

Well, on June 17 Nev called via Auckland radio and has just sailed through some pretty rough seas with predominantly SE Force 5-8. "Freezing" he said. He was already talking about Panama: "Tell them I'm coming," he said.

Well, best of luck sailor; you'll need extra good winds to get you to the starting line on time. Despite this, she is having a good fling, greatly admired by the New Zealanders; she, indeed, made front page on the Whangarei Northern Advocate! Much better than being tied to the bottom of Pittwater.

Dan Byrne, ex-editor of the Los Angeles Times and entrant in the race, wrote of the reasons why the men and women have entered the race:

"Single-handed sailors never ask other solo sailors why they single hand. They only rummage for reasons to satisfy nonsailors, or even sailors who are not single-handers. No one is more appalled by the thought of a long ocean passage alone on a sailboat than the sailor who makes identical ocean passages with a crew of a dozen.

Offshore Signals

"Sailing alone is an extension of the mystique of sailing itself. The New Yorker's E.B. White wrote of 'Men who ache all over for tidiness and compactness in their lives find relief for their pain in the cabin...of a sailboat.'

"In that cabin the questions are the most elemental: where am I headed, how fast am I going, when will I get there. For the single-handed sailor, the answers need only please him or her. Nothing has to be coordinated, discussed or agreed to.

"The space a sailor occupies ends at the boat's rail, but his awareness streaks to the horizon and beyond, and back and forth through time. Sailing is instant history.

"Robert MacNeil of Public
Broadcasting's MacNeil-Lehrer Report
calls it 'putting history on, wearing it. No
role play or pretense, because at least in
some ways (at sea) you really need to
do as your ancestors have done to
survive.'

P.S. At press date (July 6th) Nev's position was 21°36′S/117;°05′W.

Important: Annual Safety Inspection

The annual safety inspection will be carried out on the following dates: July 3rd, 4th, 10th, 11th, 17th, 18th, 24th 25th, 31st.

Seven (7) appointment times will be available for each day, so be sure to book early to obtain the most desirable time for yourself.

If you cannot book for your Safety Inspection in July we will have an inspector rostered for duty on Saturday mornings, August 7th, 14th, 21st, 28th. However, the inspector will be able to carry out only three (3) inspections on each of those days, and once the appointments are made, no further inspections will be carried out until October 9th.

Therefore, if you have not had your inspection carried out in one of the 82 appointment spots set aside, you will miss four Short Ocean Point Score races, and two Long Ocean Point Score races, including the Montagu Island Race. So please book early and avoid embarrassment, as entries will not be accepted unless a valid safety inspection in produced.

The following items have changed from last year.

Navigation lights. In-hull lights do not necessarily comply with the International Rules for Prevention of Collision at Sea, which could in the case of an accident void your insurance. We strongly recommend that you fit approved navigation lights or consult your insurance company.

Emergency sweep oar. It will be necessary to demonstrate the use of the sweep oar (in your marina berth) to the inspector, so please save time and have everything rigged at the time of inspection.

Re-inspection. If a yacht fails her initial safety inspection, a reinspection fee of \$10 will be charged and this must be paid before a re-inspection appointment will be made. So, ensure that your yacht complies with the regulations set out in the IYRU Rules and

the CYCA Sailing Programme. Copies of the inspection form are available at the Sailing Office

- David Kellett, Chief Safety Officer

Brisbane-Gladstone Race Note

Jack Rooklyn's ocean racing career has had its triumphs and its tragedies, and the Brisbane-Gladstone Race of two years ago saw the greatest tragedy of the lot when Apollo, his pride and joy, foundered on a reef.

This year's race, the 34th, though not without incident, was an entirely different story when Rooklyn scored a major victory with a record-breaking run in his new Apollo. It was his 8th such race and his second win. (In 1975 he took the line honours/handicap double in his maxi sloop Ballyhoo.

The 1982 Race was held in perfect recordbreaking conditions. Southeasterly breezes blew at around 20 knots for the entire race. Duncan van Woerden, on Apollo, reported an indicated boat speed at times approaching 24 knots. In fact, Apollo averaged 15 knots for the first half of the race, reaching the mark in just on eleven hours. The average time over the entire course was 11 knots.

When all the yachts were in and times and handicaps taken into consideration, the winner was Beach Inspector, skippered by Graham Jones and new owner Phil White, which won by just four minutes from the local Gladstone yacht, Wistari, skippered by veteran sailor Noel Patrick. Hot Prospect II (Bob Robertson) finished third.

Most of the leading yachts claimed time after diverting from course to go to the aid of the various troubled multi-hulls competing over the same course.

In the strong following winds the strain on gear and equipment was tremendous throughout the race. During the night Apollo snapped a spinnaker pole in half, sending one half spearing through the mainsail. As the boat broached the remaining half swung loose on the foredeck breaking the port standings.

Luckily, the crew were able to reef the mainsail to below the tear, and they continued to a record-breaking win.

- Peter Wherrett

CYCA crane facility

This year the crane facility at the CYCA was leased to the spar manufacturer Zapspar. This was done to relieve the pressure on the yard staff and also with the hope of ensuring professional and efficient service. As is inevitably the case with the institution of change, a certain amount of comment has been heard, not all of it well informed. The following may be of interest to those who do not know what the crane arrangements are.

Zapspar has undertaken full responsibility including insurance of the crane facility.

The Company has not increased the charge rate to members, \$15 per lift crane hire and \$15 per hour for manning the crane. These charges have not changed in three years.

Zapspar mans the crane seven days per week which is a service the Club could not offer to members. The Company also mans the crane outside of normal yard staff hours during weekdays, between 7.00 a.m. and finish time. There is no overtime charge in the rates to Members, something which was not possible to achieve when Club staff were used.

The only prerequisite to use of the crane is that Zapspar be notified 24 hours in advance, or 48 hours for Sunday work. This can be done by phoning Zapspar on 938-5834 or 938-2449 during office hours.

The Club still has the use of the crane for its own purposes and any emergency lifting that may be required.

Some Members who remember the days when one could operate the crane with the supervision of Club staff have been the source of some grumbles. This, however, has not been Club policy for many years, for what should be obvious reasons — liability, and the cost and validity of insurance.

It is not possible for the Club to operate the crane on the basis that Zapspar offers, and the service will enhance the utility of the facility for all Club Members.

Have you returned your readership survey questionnaire from the April-May 1982 issue of Offshore? Please send it in now.



(Left to right): Jack Rooklyn, Janet Blake, Duncan Van Woerden, victorious in Gladstone.

Convert your surplus boating and sailing gear into money

It's on again; the chance to sell your unwanted boating and sailing gear at the Club - on Sunday, August 29, 1982. At year Australia's first Yachties' Fete was held winches, paints, rigging, ropes and anchors were sold at bargain prices. One of the best bargains of the day was a diesel engine sold for \$200. Displays of photographs and paintings were also included in the fete. It was a huge success and a social occasion.

Because of the wonderful response last year this will become an annual event. Again, our organising committee wants you to bring out any unwanted gear, gear that is still useful but which is cluttering up your

A trestle table can be hired for a nominal fee, and your bargains can be turned into cash. Take a table alone, or share one with friends. If you have only a few items to sell, our general stall will be available at a small commission. Price your items now. Entry forms are available at the CYCA office. Don't wait! The fete was so popular last year that we are anticipating an early sellout.

The day will be made even more enjoyable this year by clowns who will entertain children, and there will be boat rides for young and old throughout the day. Make it an outing for the whole family

Barbecues will be served on the pier; snacks or full meals will be available in the club dining rom and, of course, the bar will be open.

> Make it a date! The Yachtie's Fete Sunday August 29th 9.30 a.m. until 3.30 p.m.

Associates Committee

Our Committee was formed years ago to assist with the Club's fund raising activities. As our Club has prospered, so our Committee has lost some of its destination and support. We do perform an important role arranging and manning the hospitality desk for the SydneyHobart Race. Indeed, the equiries we handle and the sale of souvenirs during the week before Christmas relieves the staff of what would otherwise be an impossible burdon.

We also meet and lunch or dine at the Club monthly. We conduct the Annual Melbourne Cup luncheon at the Club, and last year we organised, with the aid of the House Committee, the first Yachties Fete. At last year's Winter Race Prizegiving the first of ten silver seahorses was presented to the winner of Division B in the Ladies Day Race, in memory of our most active member,

If the Associates Committee is to continue to make a useful contribution to the Cruising Yacht Club of Australia, we need new members with new ideas. Our role is not in conflict with the House Committee; rather we are a group of Members whose basic activity role is to meet socially and to enjoy the Club and its surroundings. Our contibutrion to Club life is a supporting activity, as is our role in providing a warm welcome to competitors preparing for major Club races.

Why not join us and enjoy the beautiful surroundings and meals offered by our

If you are interested in finding out more about the Associates Committee, or in joining us, please get in touch.

Rockhopper to Noumea with a **CYCA Navpak**

Mick and Jeanette York departed for Noumea about a month ago on a long-awaited cruise in their Salar 40 Rockhopper, to Noumea. Prior to his departure Mick had just learned of the CYCA Navigators Club Navpak (by Marshall et al) for the Hewlett Packard HP41CV. After getting his sons's HP41CV programed by Gordon Marshall, and after a bit of practice with some old exercises from his celestial course several years back, set off for Lord Howe Island and points northeast

By his own admission Mick has never been a crack navigator, relying on noon suns for fixing his latitude and DR for the rest; Mick is certainly not in small company in that regard.

We recently received a letter from Mick in Noumea.

I would first like to thank you for the assistance in the navigation as without that help I would not have been able to get positions out (you probably realise that all the exercises I was doing for practice were in a month with two digits). [Editor's note: Mick radioed for help on his way to Lord Howe, as his positions as indicated by the calculator were not making sense; the problem was quickly unravelled after a phone call to Gordon Marshall, who correctly guessed that Mick was entering the month of June as '6' rather than '06'. (Even with calculators you have to do some things a certain way!)]

We had a great time for three days in Lord Howe, had following or reaching breezes all the way to Noumea and sailed the rhumb line all the

We hardly touched the wheel at all between Sydney and Noumea, and I put oil skins on for about five minutes one night to drop the main and run jib and mizzen as it was blowing a little

Our worst night was standing off Noumea waiting for daybreak before going through the reef, as we made landfall about 2000 hrs in an onshore breeze, and we sat with the loom of the city and Amedé light in view all night.

The navigation worked out very well and I used transferred suns all the time. My positions were working out about 15-20 miles from the DR each day, and I believe I have a sextant error causing this. It is no worry, but when we get into an open coral reef later, and I know exactly where we are, I will play with the sextant and try to make the corrections.

Please tell Gordon that the program is fantastic and it has given me a new lease of life as regards navigation.

Offshore Readership Survey

The returns of Offshore readership surveys from the last issue were good, although not everyone has yet returned a questionnaire. If you haven't completed the survey form which was bound in the April-May Offshore. please complete it now and drop it, postfree, in the nearest letter box.

Without preempting anything that will come out of the final analysis, it is apparent that most Members really look forward to receiving the magazine and read most of it.

There has been an encouraging response in general - volunteers to contribute editorial, and general expressions of a desire to assist in any way possible. One respondent, Warwick Hoare (Ghost Too), offered the facilities of his market research company in analysing the results, a most generous offer as this will be a complicated task, and with his help we will get more from the questionnaire than would have otherwise been pos-

It is not too late to complete your questionnaire if you have not already done so; please

- Editor

Tape measure latest item for navigatorium?

With so much accent on IOR measurement and re-measurement these days, it would be understandable that some people might think that the measurers need new glasses or perhaps more accurate measuring tapes.

With the foregoing in mind it was not altogether surprising when Gordon Marshall, CYCA navigation teacher and Chief Measurer of NSW, opened a large mystery package addressed to him at the Club and found 60 steel measuring tapes enclosed.

The mystery was unravelled when Peter Green was contacted: he explained that he had intended to send Gordon 60 school rulers for use of his celestial navigation students, but someone in his warehouse got the wrong message.

Gordon breathed a sigh of relief that this was not yet another shot at the measurer!

The Sticovitch 10

Here are this month's twizzzlers for those who enjoy foraging around in the back rooms of their brains for rare finds in our ocean racing history (answers in the next issue of Offshore). The first correct set of answers to be received at the CYCA office (which is signed, dated and marked with the time of receipt by a member of CYCA office staff) wins a bottle of Jarman's Brut cham-

Recollections of the Hobart

- Who was the skipper of the 1954 Hobart Race winner, Solveig?
- Name the British 1973 Southern Cross Cup team.
- When was radio reporting of positions first used in the Hobart Race?
- Name the first Canadian entry in the Hobart Race.
- Only two CYCA Commodores have won the Hobart Race whilst in office. Who are they?
- Sparkman & Stephens designs have won the Hobart Race six times (Love & War twice). Name the first S & S winner.
- Which yacht has done the most Hob-
- Name the first British entry in the Hobart Race
- Which yacht holds the record for most 'fastest time' records in the Hobart
- 10. Name the 1971 USA Southern Cross Cup team.

(continued on page 23)

d'Albora marine NEW BEACH ROAD RUSHCUTTERS BAY EDGECLIFF, N.S.W. 2027 AUSTRALIA

TELEPHONE: 328-7666

d'Albora marine and Volvo wish to attract your attention regarding d'Albora marine and Volvo wish to attract your attention regarding maintenance of your craft. It is winter now and the boating season is just around the corner. This being so, I would like to suggest to you Just around the corner. Inis peing so, I would like to suggest to you that now is the time to have all those jobs done, so that you do not find that now is the time to have all those jobs done, so that you do not find yourself very disappointed with a craft that does not function properly.

- 1. Has your engine been serviced in the last 4 months?
 - Have you checked:
 - a) for water and oil leaks
 - b) engine anodes c) V-belt tension

 - e) heat exchanger for corrosion or leaks
 - 2. Are all electrics operational?

 - a) navigation and deck lights
 - b) bilge pump
 - c) starter motor
 - d) alternator
 - 3. Do your instruments work correctly?
 - a) log

 - d) all connections and terminals
 - 4. Battery condition:

 - b) are terminals clean and tight?
 - 5. Steering, gear and throttle cables:
 - 6. Gas line and connections should be in excellent order when were Next time you are on board your craft check these items and make the

Next time you are on board your craft check these items and make the necessary repairs as soon as possible. However, should you not have the necessary repairs as soon as possible. However, should you not have the time or expertise, please contact us and we will arrange to repair it for you.

Yours sincerely, d'ALBORA MARINE

JOHN BOX

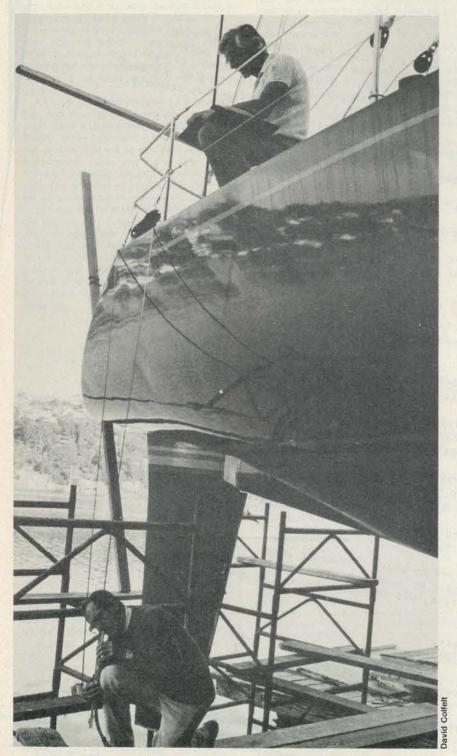
MARINA

VOLVO SALES SERVICE and SPARE PARTS

FITTINGS & REPAI SLIPPINGS CHARTERS BROKERS

CHANDLERS

REMEASURING THE CLIPPER CUP TEAM



David Holloway, President of the AYF, supervised the remeasuring of Margaret Rintoul III as Marshall had originally measured her.

The AYF recently called for the remeasurement of the Australian PAN AM Clipper cup team prior to its departure for Hawaii. The action was taken in light of problems with ratings which have sent shock waves through international ocean racing competitions over the past several years.

In this article, the Chief
Measurer of New South Wales,
Gordon Marshall, was
interviewed to give readers
some background to his report
of the team's remeasurement
(which is reproduced in full
following the interview). It also
explains a little about
measurement and ratings,
subjects that take on the aspect
of obsessions for the owner and
the designer of today's newly
launched 'Grand Prix' offshore
racer.

Ocean racing today has become a 'state of the art' business. To be in contention requires the input of huge sums of money, the best in modern design, the employment of space-age technology in the building of the boat and its sails. In a race, the crew work and tactics must be almost flawless, for the differences among the top boats is often as little as a few seconds lost during a tack.

It is perhaps little wonder when, in pursuit of rating reductions – of the order of tenths of a foot, which mean precious seconds over the course of one hour in the race – that all involved in the campaign are performing under extreme pressure, pressure which frequently exposes the frailty of the humans involved.

Offshore: Ratings 'scandals' seem to have become a matter of course in recent years. Could you give us a bit of the history, as it obviously was an important part of the decision to remeasure the Clipper Cup team?

Marshall: You're referring, I guess, to the incidents that took place in the USA prior to their selection of their 1981 Admiral's Cup team. That resulted in a number of disqualifications and the temporary suspension of at least one skipper from competition. Then this

year the gun British yacht of the 1981 Admiral's Cup, Victory, was found to have rating anomalies when she went to the SORC. The American Williwaw incident does appear to be one where what is called in the trade 'rating optimization' was carried to the point where they were doing illegal things. The IOR has told measurers that they must be careful that they do not become involved in rating optimization; they're there to measure. I refuse to get involved with owners on the nitty gritty of rating optimization because there is otherwise a clash of interests between the measurement of the yacht and the rating of the yacht.

We have blokes who do rating optimization, so you have a party on one side who is looking after the owner's interest to get the best rating, and you have a measurer who is there to be impartial and measure what is presented to him without thinking about what they might want and trying to give it to them. It's better, in fact, if the measurer doesn't know what they want, that he just measures what he's got.

Designers often, after the fact, want to get better measurements measurements that will improve the rating than may be going to happen – for example, more 'bow down' or bigger depth measurements, and the rating optimizer is trying to get that for the owner and the designer. In the case of Williwaw it appears as though they fiddled with ballast to the point of putting fluids in the boat to make it float a lot deeper.

The case of Victory is not so easily explained because there was a whole series of small errors all in favour of the boat; from my experience of going back and remeasuring a boat you find a few little ups and downs, 1 mm here, 2 mm



there, some in one direction and some in the other, and these tend to cancel each other out.

A boat isn't a terribly easy thing to measure; it's got no flat shapes on it. All you can do is to be very careful. If two people measured a boat individually, there would be slight differences between their measurements — millimetres up and down, but over the whole boat these should cancel out. In the case of Victory, everything seemed to be running in favour of the boat.

The beam is the first dimension you get when measuring, and bear in mind that the beamier a boat is, theoretically the slower it will be. So it's in the boat's [rating] interest that the beam look big because that will give a low rating.

The beam is used to position girth stations on the boat, which will ultimately give you lengths of the boat. So if you make the beam look big, the effect is that it squeezes the girth stations closer together which makes the boat look small. So it's pretty important that you get the beam and BMAX right.

BMAX is the widest part of the boat. and because boats have funny bulges in them, there's a standard place - one sixth of the BMAX down from the shear line - where you measure beam. It's usually about 2-3 ft down from the deck. It is a mathematical fraction of this beam that you've got to try to wrap around the hull to get girth stations to establish the 'length' of the boat. In the old days they used to measure waterline length, which tended to produce boats with long overhangs, like the J boats. LOA still gets measured, but it's really an incidental measurement today. It's the length between girths that establishes the fundamental length of the boat today, and the position of the girth stations comes from the first measurement, beam.

Victory had a 1¼ inch error in her beam measurement, which is hard to understand. There's no reason why a measurer shouldn't get the beam and BMAX measurements within a millimetre or two of exact. When you are 1¼" out, that's 30 mm — not within a bull's roar.

The other important measurements on the boat are depths. The rule is trying to find out how much of the boat is submerged in the water because, again, the more boat in the water, theoretically the slower it will be and the lower the rating. So designers are always wanting the depths, i.e. the depth at the forward station (about halfway between the mast and the bow) and at the mid station (in the middle of the boat) to look big. In the case of Victory, all of those measurements were a little bit up. The overall result was a boat



that was actually 11/4 feet bigger than it's rating, which can make the difference between a star boat and not so shining a star.

Offshore: For some of our less experienced readers, could you give us a basic summary of what yacht measuring is about – what it attempts to do?

Marshall: All of the measurements finally establish the 'rating' of a boat what its effective length is. Going back to fundamentals, elephants have got to be faster than ants; a bigger boat has got to be faster than a smaller boat. The speed of a boat through the water is a fundament of its waterline length: the longer the boat, the faster it will be. This varies approximately according to the square root of the waterline length, i.e. if one boat is four times as long on the waterline as another, it should be twice as fast (the square root of four is. of course, two). A boat that's, say, 30' long has got to be slower than one that's 60' long - assuming we're talking about boats that cleave through the water rather than skimming across it.

A displacement boat — a boat that cleaves through the water — has a maximum speed after which the power required to make it go faster becomes very great. You can tow such a boat at a certain speed without much effort; if you keep increasing your speed, it will go faster and faster until you reach that point where the force required to tow it faster becomes extreme; at or approaching that speed, the towed boat will not respond to seas but will just go right through them. Many boats have been broken up by being towed too fast.

Getting back to the rating problem, owners and designers want their boats to 'look' small because small boats will get a better rating; after all, the purpose

Remeasuring the Cup Fleet

of all this is to enable us to race small boats and big boats together and have them finish up with equal results if they are both sailed the same way.

This is particularly true here in Australia, where overall results mean more than they do in many places overseas. Our racing has developed from the Hobart Race, where mixed fleets of diverse types compete with each other for top honours. On the other hand, if you go to the SORC, or the Admiral's Cup, when the results come out people talk in terms of who won which division: at the end of the divisional results there is a statement of who won overall, but it's almost an afterthought. Here in Australia, at the top of our results is who won the race overall, and later on almost as second class citizens - are those who did well in the divisions.

So the rating system tries to handicap boats of different sizes so that they can race in the same race, and an overall winner may be selected at the

Offshore: It seems that rating problems have flourished in recent times. Does this reflect the fact that racing has become such an 'all-out' business?

Marshall: I'm sure of that. The prestige, the publicity that someone gets from winning a race, is much more today than it was ten or fifteen years ago. National prestiges are involved. big money is involved, wealthy people have been drawn into the sport - the whole thing has become pretty serious. When we first went over to the Admiral's Cup the Brits commented on how seriously we took the sport; we got out and trained, and so forth. Everyone is doing that now; there's big money being poured in by owners who can afford to do it, to get the best boat. Gone are the days when gentlemen went out on the water and raced their yachts. Now we have advertising, and sponsorship, and all these things have put pressures on the system.

Offshore: Have you yourself, or have other measurers to your knowledge, ever had pressure put on you to fiddle a rating?

Marshall: I've never been approached outwardly with an offer of money to make a rating different. I think my attitude would stop that from happening, and it's a bit hard to believe that it ever would happen. But you're under intangible pressures when you've got a rating optimizer working on a job; he tends to be needling you on measurements you get, for example "We expected the depth measurement to be an inch bigger that that; are you sure that's right?".

Take a case just recently. After I'd measured [the new] Sweet Caroline the sister to Victory (and it does appear to be a very close sister, except that they've lowered the deck line an inch or two) - the rating optimizer said "Do you mind if I have the figures?" So I let him have the figures (he was going to get them sooner or later on a rating certificate). He compared them with the figures that the designer had given him, and they were all 'falling short' of what the designer would have desired. And he said "All your depths are a little bit less than the designer wanted." My answer was that I could do very little about it; I'd only measured what was presented, and I'd done it carefully, and I thought those were the dimensions as they were.

I'm told that that night, after putting their heads together, the optimizer and owner decided to get in touch with the designer, so they telexed him the depths. And the designer explained that that wasn't what they should be, and that they'd better get back and measure them themselves.

So the rating optimizer went to the job the next day and he measured them all, and found that they were the same as I had measured them. So they telexed the designer again to say that whether he wanted them one way or the other, that was the way they were. So the designer said, "Well, it hasn't been built the way I wanted it; you'll have to micro-balloon all those areas and bring the dimensions up."

Offshore: Doesn't the rule prevent that sort of artifact from being introduced?

Marshall: There's a school of thought that says that if you're going to start doing that you're only going to slow the boat down. It's understandable where, for instance, you want to race as a 2-tonner, and your rating is slightly over 2 ton — 32 ft. If the yacht is rating 32.2 ft, you've got to slow it down a little bit by 'bumping' it and getting the rating down in order to qualify for that division. But where we're racing 'open'such as we're tending to do as level rating has lost a lot of its attraction, I personally don't see that it gets the owner too far to micro-balloon here and there.

Offshore: So in fact, micro-ballooning puts little distortions on the hull where the measurements are taken, in order to 'fool' the system?

Marshall: Well, that's what they'd like to do, but the rules and the measurer sees that that doesn't quite happen. There's got to be a fair line to the hull; you can't just go along and put little breasts on all the little spots at which

you measure; they may put a blob there to get the right measurement, but then they've got to fair it away back to the hull so that there is a fair line. If I go along to a boat and there's not a fair line, I'd say "That is visibly bumped and there's a reverse inflection in the shape."

Offshore: In your report you refer to 'in-water trim' and 'shore trim', and others. Could you explain some of these terms to those who are not familiar with them?

Marshall: The measurer sets the boat up on the shore and measures all the freeboards of the boat (about eight or nine measurements), the vertical heights from a mythical waterline (mythical because the boat is not in the water); he uses a container of water and a plastic tube from which he can determine the shear line of the deck. He leaves marks for girth stations on the boat. The front and back freeboard measurements are marked with girth pins. When the boat is back in the water, he measures the very front and the very back ones again, and the computer takes the original set of heights and, using the new front and back measurements, rearranges all the ones in the middle. So you have a water trim and a shore trim.

A theory that has been popular is that if you measure your boat on the hard with the bow higher than it actually is in the water, it works slightly in favour of your rating. So boats have tended to come to the measurer 'bow up' (moreover, the slope of the slipway is such that all other things being equal, the boat will be bow up anyway). The measurer has to get the boat back into a more realistic trim; in fact the rule says that the boat should be measured on the shore in a trim approximating that which it has in the water.

Well, the measurer needs a crystal ball sometimes to achieve that shore trim; notwithstanding this, fooling the measurer is a bit like trying to fool the taxation office; they've seen all of the lurks, and can see them coming a mile off.

The modern rating certificate shows what the trim is, i.e. 'trim' is printed out on the certificate, and that shows how much the water trim measurements depart from the shore trim measurements. To me, as a measurer, it is some reflection on me if 'trim' is a big number. They haven't actually put a limit on it, but maybe they're going to have to in future. I think trim has to be within a few inches; it certainly can't be a foot out. Yet on the face of it, Szechwan had a trim error of about a foot. That's pretty serious — the boat was a foot out in its fore and aft stance on the

hard as opposed to what it was in the water. That ultimately caused the AYF to make the decision to remeasure Szechwan (and the other two boats in the team) again. As it turned out, Szechwan had a measurer's error in its forward freeboards of 0.1 m, which is about 4 inches, so it wasn't a foot out in trim on the shore, only 8 inches. That really should have caused a remeasurement anyway.

Offshore: What is 'SV'?

Marshall: SV is 'screening value'; it goes back to the work that the CYCA did four or five years ago on the stability of boats. The IOR conceded that self-righting was a problem in some boats, and they accepted the CYCA formula for self-righting, and then went a stage further and had the computer work out, theoretically, whether a boat might have a stability problem (it can only be in theory because we don't really take quite enough measurements to be completely accurate; but the computer can get pretty close). The result was the 'screening value', abbreviated SV. So on a new design, the computer will warn whether the boat appears to have a self-righting problem; if it has, you then do a practical test of dragging the boat down on its side, hanging weights from a certain place near the top of the mast, and see if the boat will recover.

Screening value isn't a problem with new designs because the designers have avoided it; it has come up recently in remeasuring some boats that were built a few years back - Vengeance is a case in point. You can re-ballast the boat if it has a screening value problem; whether doing so detracts from the performance of the boat is another problem; in a case such as Vengeance. where the object was to create a skimming type of hull that will skate over the water, it is obviously desirable not to get a lot of weight in the hull and weight it down too far in the water. So there is a clash of interests there.

It's interesting, incidentally, in measuring Sweet Caroline, whilst we didn't get the measurements that the designer wanted, the rating came out the same as that of the American-measurered Victory, to the second decimal. The BMAX, which is a fundamental dimension (and which was in error in the original British measurement) was. to the millimeter, the same as Victory; and the CGF (centre of gravity factor) which, again, was in conflict in the British vs. American measurements of Victory, was in Sweet Caroline the same, to the third decimal, as the remeasured Victory.

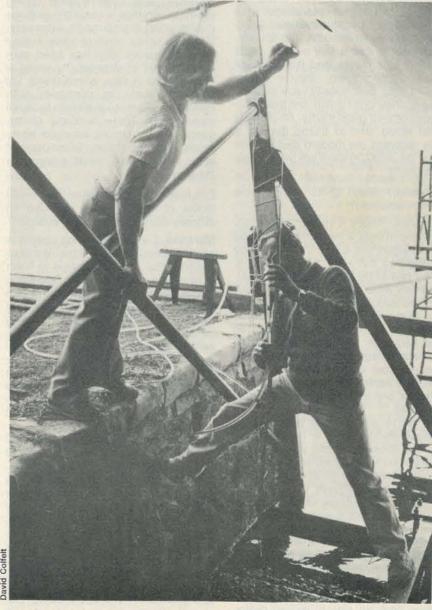
Offshore: What is CGF?

Marshall: CGF – centre of gravity factory. A very important measurement; the philosophy that the rule adopts is that, given that two boats are built exactly the same, with the same rig, and with the same crews, if, because of ballast differences, one leans over more in the wind than the other, the one that leans over more has got to be slower; it wont carry its sail as well; it has to reduce rig quicker. So the rule measures how easily a boat lays over with the pressure of wind in its sails. The designer and owner want the boat to appear tender so that its rating will be lower.

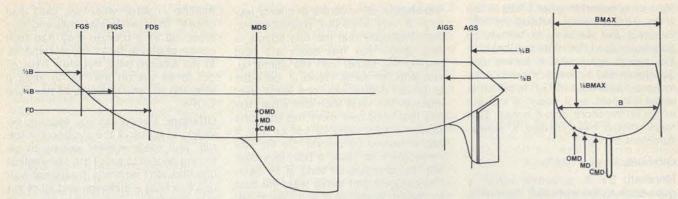
The old boats of five or six years ago - the Love & Wars and the old Raga-

muffins — were what we call 'lead mines'. They had heavy keels and they stood up in a breeze; they had high centre of gravity factor measurements. In the modern boat, the crew have all got to sit out on the hull to keep it standing up, and these boats have low CGFs.

Offshore: Everything you seem to be saying in terms of the evolution of the rule and measurement seems to be forcing people to adopt the attitude that one shouldn't embrace 'traditional' values in a boat – stiffness, and all of the factors that flow on from this, etc. – but that you should go for designs that, on the surface of it, would seem less seaworthy and less comfortable.



The water tube is used provide a uniform datum for measurements of the yacht on dry land.



Marshall: That can be said, but you've got to be careful. There are two views - the old school, and the modern view. It's probably true to say, and you're using relative terms, that boats designed eight to ten years ago were 'wholesome' boats whereas today they're not so wholesome. The counterargument to that is that modern boats are not lead mines, and they're much more easily driven, they're lighter hulled, their gear doesn't have to be so heavy, they don't crash and bang because of their great inertia. An old-type boat would tend to thump through a sea, whereas the modern design bobs over the seas. So there are two schools of thought.

Offshore: Which gives you a more comfortable ride?

Marshall: That's a matter of opinion. The lead mines, if hard driven, crashed and banged into a sea; they didn't rise to the sea but went right through it. They had to be built strong to do that, and they were built strong; they weren't worried about high displacement. With the lead mines it didn't matter if you had a lot of furniture down below, so you had a lot, and bunks and accommodation were substantially built. The modern boat doesn't want that, so it has pipe berths. It's a matter of opinion whether one is more comfortable than the other.

If you're going to use your crew as ballast, they're going to be sitting out on the windward deck; you've got to answer for yourself whether you want to go across Bass Strait sitting on the weather rail of the yacht. Obviously one is not as comfortable as the other in that respect, but a new design that's filled with heavy furniture isn't going to win the next ocean race either. There is a clash of philosophies there; it's a matter of how much pain you're willing to endure to win the race. The result of lightness in design is a more easily driven boat, so the rig isn't so heavy, the mast isn't as strong, the sheets and braces aren't as heavy as they used to be on the same size boat.

Offshore: Do you think that the lightening of gear is part of the reason why so many masts seem to go over the side in ocean races these days?

Marshall: Well, they've been cutting down on windage and weight aloft, so they're going to lose masts. Ultimately, from the safety point of view, I don't know of anyone who has been seriously injured or drowned by losing a mast so, as a race administrator I'm nowhere nearly as concerned with masts not standing up as with hulls not standing up. There is plenty of evidence of people losing lives with boats sinking, but I don't know of incidents of serious injury with masts going over the side.

Offshore: How important are these tenths of feet in rating that are so ardently sought, or, perhaps, evaded?

Marshall: Our handicapping system is what is called 'time on time'. We take the time that a yacht requires to finish a race and apply a 'Time Correction Factor' (TCF) to that time to arrive at a new 'corrected time'. In our system, a decimal of a foot in a yacht's rating amounts to about ten points on its TCF (which is, incidentally, a four decimal number). In generalities, about 120-130 points is worth a minute an hour in the race. If, for example, a Hobart Race is 100 hours, 120 points difference in the TCFs of two boats would be 100 minutes in the result.

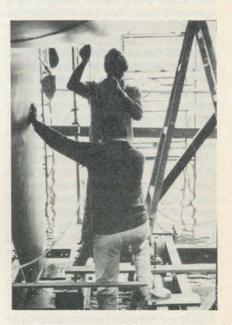
So a decimal of a foot is about 1/12 of that minute an hour, or about 5 seconds an hour.

In the case of Victory, which was 1.4 ft out in rating, or 70 points on our scale, or more than minute an hour, or 50-60 minutes' start in a Hobart Race; that can change the placings quite dramatically. Looking at it another way, it's not hard to drop 5 seconds in a tack; so if you were doing a tack an hour, and not tacking well, you would be losing about .1 of a foot in rating. Obviously attention has to be paid to sailing a boat properly; what the owner strives for, assuming the boat will be

	SOME ABBREVIATIONS AND TERMS USED IN MEASUREMENT
AGS	After Girth Station
AIGS	After Inner Girth Station
В	Beam
BMAX	Beam maximum
CGF	Centre of Gravity Factor
CMD	Centre Mid Depth
FD	Forward Depth
FDS	Forward Depth Station
FGS	Forward Girth Station
FIGS	Forward Inner Girth Station
LBG	Length Between Girths
MD	Mid Depth
MDS	
OMD	

sailed properly, is a decimal or two off his rating, which is worth 5 to 10 seconds an hour.

I personally think too much attention is paid to rating and not enough to sailing. If as much time and expense was put into getting a boat sailing better, you probably would achieve more than putting that time and expense into trying to reduce the rating.



REPORT ON REMEASUREMENT

by Gordon Marshall

Hitchhiker

Hitchhiker was stored in a warehouse at Balmain awaiting trans-shipment to Hawaii when it was remeasured; it was already dismasted and in its shipping cradle, and as a result, I was able only to remeasure the hull.

The boat was levelled and trimmed with help from the owner's representatives; we had knowledge of the previous 'in water' trim from the previous measurement certificate.

The first remeasurements, those of BMAX (maximum beam) and B (rated beam), resulted in smaller figures than on the previous certificate (the original B was 3.746 m, the new B was 3.737), and since B is used to position the girth stations, it was inevitable that a number of small discrepancies would emerge with further remeasurement.

Furthermore the yacht was originally measured with a 'shore' fore and aft shear of 0.250 m, whilst the 'in water' shear was 0.092 m. This disclosed a trim deficiency of 0.158m. Since this was corrected for the purpose of remeasurement, there was additional reason for changes of girth station positions and subsequent differences in the numbers.

The new measurements were fed into the computer using the previous rig, sail and water measurements (from its D certificate) since the latter could not be remeasured. The outcome was that its rating rose a nominal 0.2 ft, from 31.4 ft to 31.6 ft, although examination of the two 'Rs' to four decimal places showed a lesser rise, of 0.1545 ft.

In summary, then: (1.) a comparison of girth station beams from each measurement showed differences consistent with the new B and the new 'shore' trim; (2.) a comparison of depths from each measurement at both the forward and mid stations showed good similarity; (3.) stern heights varied consistently with the movement of the after girth station, though the differences seemed somewhat enlarged; (4.) a plot of 'shore' freeboards of both the new and the original measurements showed no irregularities of consequence.

Conclusion

A combination of the reduction of the rated beam of 9 mm, and the lowering of the 'bow up' trim of the original shore measurement caused a rise of 0.1545 ft, which results in a rating rise of 0.2 ft since the IOR specifies that the rating be rounded to the nearest first decimal of a foot.

Szechwan

Szechwan's rating had aroused interest since its original launching late in 1980. It had been designed as a minimum rater for Admiral's Cup contention, but its first rating was 29.5 ft, too low for compliance. The rating was built up, primarily by rig increases, to the 30 ft minimum, and Szechwan raced in the Admiral's Cup trials.

Szechwan missed selection in the Australian team for Cowes, and it then began rating reductions towards competing in the Southern Cross trials. (There is no 30 ft limit for the Southern Cross Cup.) Szechwan ultimately raced at 29.1 ft, and it was selected in the NSW team, which ultimately won the Cup. At that time there were rumblings about its low rating, and an examination of its certificate showed that its shore trim differed from its water trim by 0.315 m (12.5 inches). This suggested that the bow was a foot too high when the hull was originally measured on the slips. It was this discrepancy which finally led the Committee, at the annual AYF Offshore Racing Meeting in Melbourne, to call for remeasurement of the three Australian yachts before they headed for Hawaii. We were anxious to guarantee that a Williwaw or Victory Situation would not de-

Szechwan was slipped and its hull levelled to the approximate the water trim, as evident on its current rating certificate.

Measurements disclosed differences in keeping with he lowered bow, but no other serious anomalies were immediately evident.

I plotted the new freeboard line to check that there were no apparent inflections; there were none. I then plotted the old freeboard line as it was originally measured.

The source of concern was immediately apparent: there was a dramatic 'crank' in the freeboards as originally measured, commencing at the forward depth station. This caused the freeboards at the FG, FIG, and FD stations to be shown as 0.100 m higher than actual. This, in turn, caused the computer to believe that the yacht was deeper in the water on subsequent inwater trimming by 0.100 m at these stations.

Further remeasurements showed no serious deficiencies in rig, sails or inclinations, but a computer run with the amended freeboards showed the yacht to have a rating 1.0 ft higher than that with which it previously raced.

Summary

A full set of comparisons of the two rating certificates showed differences that could be expected because of the different shore trim, but no other serious anomalies, except for the three forward freeboards, were apparent.

Conclusion

The more accurate shore trim had some small effect on many of the yacht's measurements, but the serious discrepancy of forward freeboards had a dramatic effect on the yacht's rating. Whereas it had raced through the Southern Cross Cup with a rating of 29.1 ft, it now seems that its true rating at the time was 30.1 ft.

Margaret Rintoul III

Because I had measured this yacht originally, I asked David Holloway, an accredited measurer and President of the AYF, to supervise this remeasurement with me.

Rintoul was levelled on shore before the remeasurement commenced, and the original difference between 'shore' and 'water' trims of 0.189 m was corrected. Subsequent measurements of hull, rig, sails and inclinations disclosed no discrepancies other than those small differences anticipated due to the change shore trim. Rintoul was put through the computer again with the completely new set of measurements, resulting in a rating of 41.2 ft, the same as on its previous certificate.

Summary

No anomalies were found

Conclusion

Whilst a share trim similar to the water trim is desirable in terms of the rule, and whilst this would certainly help obtain results that were closer, measurement by measurement, to those shown in its certificate, the moderate trim discrepancy seems not to have significant effect on the final rating.

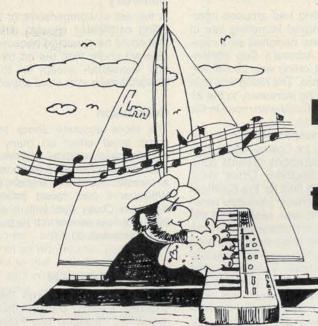
Recommendations

Checking for errors in freeboards

The Szechwan case is a classic example of the dramatic effect that errors of freeboard inputs can have on a yacht's final rating.

It is imperative that measurers construct a plot of final freeboard inputs (not initial water tube readings) before committing the input sheet to the com
(continued on page 22)

(continued on page 22)



Next time you go sailing, take along a Casio MT-40

Put some music into your next sailing adventure by taking along one of these CASIO MT 40 portable organs — the little marvels from Japan. Unbelievably compact, this lightweight keyboard has 22 pre-set musical sounds (from a guitar to a glockenspiel) 6 auto rhythms, auto bass and one touch sustain and vibrato effects.

It has its own built in speaker and will operate from any three power sources.

Phone Bryan Landis today and he will give you more details.

Rec. retail price

\$189,00

SPECIAL 10% DISCOUNT FOR ALL FELLOW C.Y.C.A. MEMBERS

TRADE-INS WELCOMED ★ TERMS ★ BANKCARD ACCEPTED



Landis music

40 PARK STREET, SYDNEY, N.S.W. 2000 Telephone 264 5613



BIGGLES' COLUMN

by John Brooks

With nightmares of the 1981 SORC measurement scandal (Acadia, Williwaw, and Louisiana Crude, for those who might have forgotten) and the 1982 SORC replay (Victory), disturbing its institutional sleep, the Clipper Cup Committee decided that forewarned is fore-armed. The Committee asked the AYF to remeasure the Australian Clipper Cup team prior to the departure of the boats for Hawaii. Somewhat daunted by the cost of the whole thing, the AYF at first declined on the grounds that it was up to the owners to request remeasurement if they thought that the situation warranted it and that, under the rules, there was no basis for the AYF to call for remeasurement.

Further discussion led to a compromise; Gordon Marhall agreed to remeasure Szechwan gratis, and the AYF agreed to a computer run, also free of charge. From this they hoped to establish guidelines to solve the dilemma of "when do you call for a boat to be remeasured"? This is a question of principle which could easily stem from a poor estimation of fore and aft trim for a hull at its initial land measurement. If the hull then displays different trim when it is in the water, at which point should it become remeasureable: a variation of 1% of LBG? or what?

Szechwan has seemed to indicate that its in-water trim was more bow down than that used for the original hull measurement on the hard, so it was

regarded as something of a test case. The AYF expected to come up with some sort of empirical data to use as a basis for a remeasurement guide. Unfortunately, that idea came to nought with the discovery of errors in Szechwan's freeboard measurements. Szechwan's rating shot up by a foot, causing the Clipper Cup Committee some anxious moments until it recalculated the results of the Clipper Cup selection races and found that the spread of evaluation points was reduced to five points. Fortunately for all concerned, it was still in Szechwan's favour.

So, the actual team selection was not affected, and everyone breathed a sigh of relief, everyone, that is, but Jeremy Whitty, who was now faced with up to a foot increase in Szechwan's rating. Just how this large anomaly in the design rating escaped the notice of Szechwan's designer's office is a moot point. However, at the time of the first measurement, when Szechwan came out nearly one rating foot less than expected, Jeremy Whitty was more concerned with finding a foot increase so that the yacht could qualify for the minimum Admiral's Cup rating and the 1981 Admiral's Cup trials.

It is interesting to compare Szechwan's rating experience with that of Victory, which was remeasured three times in the UK prior to departure for the SORC in Florida. A lot of care and attention to detail was manifested by the designer and the measurerers in an effort to make Victory 'measurement proof in the aftermath of the Acadia/ Williwaw scandal of the previous year. When Victory was, nevertheless, protested and remeasured in the US, her rating went up by 1.4 ft, causing consternation amongst her crew, the Victory Syndicate, the designer and the RORC measurers alike. A further check by an international 'jury', including an RORC measurer, confirmed Victory's remeasurement, and she was disqualified from the SORC.

The incident has had far reaching effects. Victory is the organisational test vehicle for the new British 12 metre Victory Syndicate, and the innuendo and outright condemnation which accompanied the Victory disqualification in Florida has already soured the image of the British 12 metre challenge, in the United States at least. There seems to be little doubt that the Victory Syndicate will come under added pressure as a result of the Florida incident when they arrive in Newport, as if the ordinary pressure cooker environment of an America's Cup challenge was not bad enough.

In the meantime the skillful and dedicated crew of Victory bore the brunt of the debacle, and they saw months of hard work go down the plug hole at the SORC. The leading hand is, of course, our own Billy Edgerton, formerly of Hitchhiker, Bumblebee, Apollo et al. Some of Victory's problems stemmed from a difference in the bow-up trim when measured on the hard, but most came from small differences in hull measurements which were cumulative and all in a negative sense. In Szechwan's case, the mistake appears to be pure mathematical error in freeboard measurements, but at least, hopefully, the rot has been stopped here at home. and Szechwan will be 'bullet proof' at the Clipper Cup.

At the time of going to print it looked as if Jeremy would be able to save an inch or two here and there and, with some minor stern alterations, Szechwan will leave for Honolulu up in rating by about 0.7ft. Hitchhiker will be up 0.2ft and Margaret Rintoul III up by 0.1ft, neither of which is significant because the stringent new measurement requirements would put any boat's rating up by at least 0.1ft when remeasured.

A one-foot increase in rating is serious enough for a boat rating around 30 ft, but what to you do when remeasurement puts you right outside the IOR rating limits? This was the fate of Vengeance when she, too, was remeasured recently (it's all the rage, folks), in this case re-inclined after being fitted with a new rig. Some figures bearing no resemblance to her rating certificate emerged, and when I last checked with David 'Twelves' Kellett, he had added upwards of 5,000 pounds of lead ballast amidships in an effort to conform to the self-righting limits.

Vengeance also underwent an unscheduled inclination in the May 30th harbour race when Relish 2 tacked in her water and was snagged by Vengeance's topping lift as she rolled over the top of the smaller yacht. With Relish's masthead securely hooked in the topping lift. Vengeance dragged Relish for some boatlengths until an astounded crew reacted and threw all sheets to de-power the maxi. Twelves said later that Vengeance was dragging the Bounty 35 bodily sideways through the water and still making 41/2 knots. Amazingly, Relish 2 was not dismasted and suffered only minor damage during the ordeal. I have not been able to contact Bill Bailey to see if the same can be said for him, but I'll bet that is the last time he tacks in a maxi's water.

THE BUILDING OF

CASSIE II

by Kosti Simons

The suggestion that the UK is the best place in the world for the amateur builder was met with incredulity. But for use there were moments. Even the bank manager was suspicious when I walked into his establishment to give him our resources. And to find a place in salty Southampton to lay down a keel proved unexpectedly difficult. Desperate in fact. In despair an advertisement was inserted in the Southern Evening Echo:

Young Australian couple want a place to build their boat and somewhere to lay their heads.

Open Sesame. We were overwhelmed. Even the luxurious stables of a stately home with squash court - but fearful of patronage we chose hardworking Shirley and became a source of wonder to the locals, who dubbed our skeletal creation QE 3.

But why England? And why a stone boat?

As to the first, much of the chandlery available in Australia, Papua New Guinea, Spain and Holland (other countries we investigated) comes from the UK, so inevitably at source it must be cheaper. In addition, tax at even the old rate of 25% is less than in these other countries. As an example, luxury tax in Australia is 40%. Finally we picked on Southampton because it is the geographical centre of the boatbuilding industry, and I had spent a day there as a boy in 1946. A bonus, of course, is that the natives speak Eng-

The second question in greater depth.

I built my first ferro-cement boat ten years ago in Australia: it was one of the first; now there are thousands. Then and now it is fashionable to claim, especially by those in the market place. that a ferro-cement hull costs a fraction of a hull in any other material. This is not true. As an example, the material for a steel hull would not cost the same, but maybe less

And is there anything stronger than steel? I don't think so. Compared to glass fibre reinforced plastic, I cannot imagine that the extra cost of that material would mean much set against the total cost of the vessel, remembering that hull cost is less than one third of the final cost



So why ferro-cement?

1. Because it is stronger than foamsandwich or straight GRP, and stronger than timber.

Vis-a-vis steel, one has the possibility of a round-bilge boat, and no boiler making skills are required. There is no rust problem.

The material is totally fire resistant: it is easy and cheap to repair; and it can be built outdoors.

There are some major disadvantages. Poor re-sale value.

2. On plastering day too much depends upon the goodwill of others.

It is difficult to fix things to it. It is very easy to construct something that looks like a cross be-

tween a starving horse and an umbrella stand.

If you think about it the disadvantages are closely related, that is, a buyer or his surveyor can quickly discover the 'worth' of most materials. Not so with ferro-cement. It is difficult to survey; the blemishes could be more than skin deep; nobody knows how many layers of mesh went into the skin: nobody knows if the plaster was well compacted on plastering day; nobody knows if the cement used was really fresh. And so on.

Because of the cheapness syndrome, ferro-cement received a reputation in some quarters it did not deserved. And I have seen many sad advertisements on both sides of the world - home-designed hotchpotches usually unfinished in a tangle of weeds.

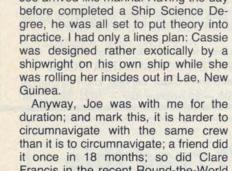
But if a ship is constructed with grace and honour, should you desire to sell later, there will be no problem.

At Southampton we struck a snag. As soon as our beast rose above the garden walls like a curious Brontosaurus, there descended on us a rain of zoologists disguised as building inspectors, planning commission officials, tea ladies and water board inspectors. After gibing us the official version of "Ullo, ullo, ullo, what's going on here?" they ran the tape measure around and shook their heads in total disbelief. They really did.

Talk about innocents abroad, had we not done this thing once before in my father's back yard in Sydney, with never a zoologist in sight for three

What Noah would do today in contemporary England only his father knows. And I'm sure Noah's father would give him the following advice: My son, it is quite plain that you must start writing letters which, as everyone knows, is the saving grace of all democracies. By the time you have inscribed one stone tablet, and they have reciprocated (by the way, use long words), you will have had time to build two vessels.

On the day I turned the first sod, so to speak, Joe turned up as the single



of a needle.



Cassie's dimensions are 43'x37.5'x13.5'x5.5'. Her draft is the maximum allowable in the European canals. She is pictured here in Holland.

response to another advertisement. Joe arrived like manna. Having the day

Francis in the recent Round-the-World race (she was the only one). I tell you it is harder to to come back with the same crew than to go through the eve

Joe got so involved he started to tell everyone he had designed the boat. Joe was marvellous.

It took us twelve months almost to the day to get Cassie INTO THE WATER. Engine, tanks and basic furniture was installed, but not much else. Working part-time, i.e. holding down a job. I would estimate four years to complete a boat her size.

As always with this medium of construction the most trying work is meshing. This involves tying together into a solid mass five layers of mesh and perhaps two layers of rods. In practice it means a tie every three inches. A team of well-trained gorillas can do it; after the first few hundred hours one starts gibbering. The first time I spent 800 hours. This Cassie...scratch, scratch...I can't believe it yet...give me a banana...absorbed 1800 man hours...fortunately...gibber gibber...not

Admittedly we have a ferro deck, and

sity of mesh with a gloved hand had while standing on your head inside the hull is not for the half-hearted or the poorly paid. Incidentally, the plasterers are not poorly paid, an item generally forgotten in the advertisements - £30 each plus expenses. Maybe more now. But you need them. House plasterers will not do.

ney are very humourous.

stop leaks.

We had six plasterers, and about 18 others to mix, carry, push and inspect, and they were barely enough. We did the hull one day, the deck a fortnight later, using a wet to dry epoxy glue at the join.

I am aware that hull fairness depends

on detail at this stage. The plasterers

can only be cosmeticians up to a point.

UK as distinct from Australasian

practice seems to be to have a plywood

deck, which makes a lot of sense, but I

rebel against composite construction. I

don't know how; in the long term, you

The question we were most often

asked, sometimes shouted over the

garden wall: "Will it float?" The deni-

zens of Southampton as well as Syd-

on plastering day, when one needs

people prepared to give their all. Push-

ing 'mud' through a near-opaque den-

Being strangers was most keenly felt

If you are contemplating or building in ferro-cement I cannot recommend too strongly that you seek out fellow builders and attend plastering days. They in turn will help you. It's surprising how quickly a freemasonry builds up. One plastering day is worth a hundred textbooks

As an indication of the state of ferrocement boatbuilding in the United Kingdom, the plastering team I employed were doing up to three boats each week

It seems that ferro-cement boats are plopping into the water everywhere like stones into a bond. It seemed to me while was in the UK that it was like Australia ten years ago as far as numbers of amateur boat builders are concerned. And why not? God bless Archimedes and his principle.



We purchased all our plywood and used it for a lofting floor.



A little out of place amongst all the strange craft around her...



marine in/Urance

In contrast to car or home insurance, insuring anything from a trailer-sailer to a huge ocean going diesel is not just a matter of cut-and-dried table rates. Our Marine Managers have a knowledge of boating and boating people and use their professional insight as to what makes for safe boating - with the nature of the boat and the experience of the owner given priority in writing and pricing the insurance policy.

As part of an international insurance broking group we are in a position to negotiate the best rates and conditions available. There is every chance that we can arrange a better cover with a lower premium for your boat. It must be worth a phone call to find out ...

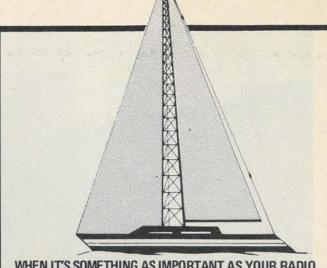


INTERNATIONAL INSURANCE BROKERS

AND RISK MANAGERS MINET AUSTRALIA LTD.

50 Bridge Street, Sydney, 2000. Phone: 232 1500.

Telex: 24609



WHEN IT'S SOMETHING AS IMPORTANT AS YOUR RADIO. DON'T BE JUST A LINE IN SOMEBODY'S SALES LEDGER. SUBSCRIBE TO A COMPLETE RADIO SERVICE.

Blue Water Communications supplies a complete radio service. We can sell you just about any brand you choose. Then we will install it properly so that it works as well as it ought to work. From then on, we are at your service. We stand behind our radio installations and we keep them working - we don't just forget about you the minute you walk out of the door.

Ring a radio specialist - Bill White, -- at **BLUE WATER COMMUNICATIONS** Radio and Electronics Sales, Service, and Installation [02] 389-1298 - 24 hours a day - [02] 389-1298

Don't read this unless you're a real lover...

of ships and the sea and of books on every aspect of boating. Nautical history, boat design, building, tuning, racing, cruising, power and sail. ropework, canoeing, maintenance, fishing, cooking afloat, navigation etc.

We have over 1500 titles covering virtually everything in print on just one fascinating subject

In fact, we are now the world's largest Boat Book Shop with Sydney's only Commercial A class CHART AGENCY and a range of Navigation Instruments. Come in and browse or send for FREE 16 page catalogue.



BOAT BOOKS

SYDNEY: 31 Albany Street, Crows Nest 2065 Phone (02) 439 1133 MELBOURNE: 25/27 Alma Road, St. Kilda 3182 Phone (03) 534 0446 BRISBANE: 109 Albert Street, Brisbane 4000 Phone (07) 229 6427 PERTH: 131 Stirling Highway, Nedlands, 6009 Phone (09) 386 7423



RACING ROUNDS

Duncan Van Woerden

PAN AM CLIPPER CUP 1982

At the time of writing, none of the Australian team has been loaded into a cradle for shipment to Honolulu, yet the rumours and predictions were flying thick and fast. Measurement fervour has arrived in Sydney, express delivery from the SORC.

As a precaution against re-enactment in Honolulu, the AYF proposed that the Australian team be fully remeasured by Gordon 'Holler' Marshall, and a wise precaution it has proved.

The three yachts, Szechwan, Hitchhiker and Margaret Rintoul III were all found to have measurement discrepancies, though of clearly differing magnitude. Szechwan, through an original hull measurement incorrectly transposed at computer input stage, found herself rating nearly a foot higher after remeasurement; Hitchhiker lookes like copping 0.2 ft, though minor rig alteration is planned to negate this difference. Margaret Rintoul, on the brighter side, suffered minor trim problems which will probably lift the rating 0.1 ft

When one considers the heavy campaigning these three yachts have endured and countess remeasurements prior to this, the whole measurement system was definitely in need of a shake-up. The mind boggles at the consequenses of remeasuring the entire Sydney fleet.

Remeasurement was not confined to the Australian team, and the CYCA 'Gold' team of Sagacious, Apollo, and Vengeance will all sail in Honolulu with ratings that differ from last seasons.

Jack Rooklyn's maxi, Apollo, has had 41/2 ft added to her boom giving a large increase in mainsail area and a rating increase of about half a foot, a cheap addition if you can affort the new mainsail and boom

Gary Appleby's Sagacious has had minor rig alterations and is the only yacht in Australia that looks like having her rating lowered, hopefully by about

Third team member, Bernard Lewis' maxi, Vengeance, proved a nightmare for sailing master Dave Kellett. In a thoroughly researched plan, Kellett, in conjuncton with the yacht's designer, Rolly Tasker, and naval architect Alan Payne, decided to increase sail area after her dismasting in April. With a considerably larger fore triangle than on the previous rig, all were confident that the yacht would slip in below the 70 rating limit by the tune of 11/2 ft.

The smiles after the rig was installed didn't last too long.

Kellett found the freeboards vastly different from those on her English rating certificate, and in her then current trim she didn't get near the 70 ft limit. It took nearly 4,000 pounds of lead to bring her forward depths down to those on her certificate. However, poor old Dave Kellett's problem did not stop here. After inclination tests it was found that the vacht had a positive SV and failed the theoretical self-righting screen. It took a further 1,200 pounds of lead to satisfy international screen requirements. Vengeance still does not pass the Australian screen, however, and will need major keel reballasting after her return from Honolulu before she is able to sail the Australian season.

Of the CYCA Blue team, the new Sweet Caroline, a Dubois 44', Apollo V and Police Car, only Caroline has yet to face the computer. With the controversy raging about her near sistership, Victory, Caroline's rating will be obviously accurate. At the time of writing she had just undergone her first sea trial and needed extra ballasting to achieve her rating target of 33.7 ft.

The other Australian yachts competing at the Pan Am Clipper Cup are the Victorian team of Challenge, Seaulater and Sequesta, and the Queensland team of Gold Coast Express, Galatea and the chartered maxi Kialoa II.

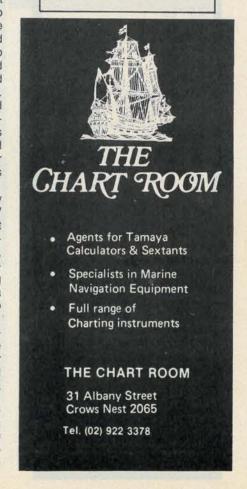
The Victorian team looks particularly powerful in the fresh Hawaiian conditions. However, I doubt the wisdom of delivering yachts of this breed on their own bottoms. Seulater was knocked down twice en route to New Zealand, both times whilst running under bare

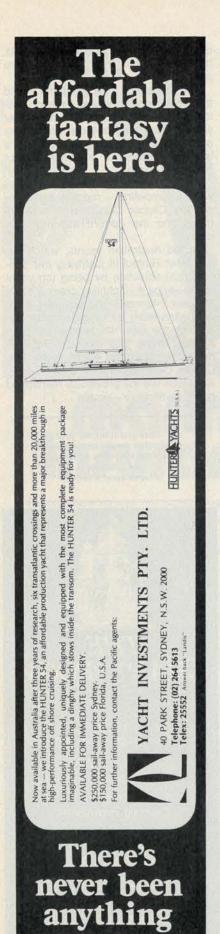
The Queenslanders are going to find the fresh conditions and time on distance handicapping not to thier smaller yachts' liking, and one can only guess as to how they're going to cope with a massive beast like Kialoa II without prior experience.

All in all there are fifteen Australian yachts competing - not bad considering the Clipper Cup's humble beginnings and the current economic climate.

Of the Australian yachts, watch for: Margaret Rintoul III justifying her controversial selection by being top yacht of the series . Hitchhiker proving she's the best 2-tonner in the business • the Australian team bringing home the bacon for the third successive series . Apollo proving that you don't have to be that big to be fast . and, finally, that Clipper Cup makes its Pommie equivalent look like the previously mentioned rating certificates - up the

> Have you returned your readership survey questionnaire from the April-May 1982 issue of Offshore? Please send it in now.





THE MOOLOOLABA-SYDNEY RALLY

by Frank Sticovitch

(photographs by Patrick Bollen)



Cruising aboard 'the Muffin

Cyclonic conditions that built up soon after the arrival of the tailenders in the Sydney Mooloolaba fleet spoiled the plans of many crews expecting a leisurely cruise back to Sydney over the Easter holiday.

For anyone waiting for the conditions to abate, the most comfortable place to be was at the Mooloolaba Yacht Club bar, where instant entertainment was provided by the social committee of In-Race Yacht Roadies Inc. and where, in between sessions, many of the problems of the world were solved and the best yachts were designed over a drink or two.

Some seventeen yachts were stranded, and it was obvious that the holiday time was running out. The working types made the decision to return to Sydney and fly back the next weekend, which was the ANZAC Day holiday weekend.

On the evening of Easter Saturday a bunch of yachties, mainly the Mary Muffin crew, came up with the idea of running a time trial from Mooloolaba to Sydney, all entries to submit a sealed envelope nominating time of departure and expected time of arrival. The word was passed around quickly (helped with some PR by local club member Rob Robertson) and twelve yachts agreed to participate.

Some rules had to be promulgated, and whilst these were being debated, Jean Hamer, a well known real estate agent in Mooloolaba, agreed to donate a suitable prize.

The notice of race in its completed form contained the following.

Entry Fee: \$2.00 per head (proceeds to Penta Base, Gosford).

Starting Time: Your discretion (see Note 1.).

Handicaps: This is a predicted time event.

Course: Mooloolaba to Sydney (see Note 4.).

Finish Line: Place of mooring, Sydney (see Note 2.).

Finishing Time: Your guess, but no later than 30/5/82 (see Note 3.).

Rules: International Rule for Prevention of Collision at Sea to override all others.

Protests: All protests shall be accompanied by one dozen bottles of OP Bundy. After due consideration Protest Committee (to be nominated) shall make a decision which shall be final and binding with no further correspondence entered into.

Entry Forms: Shall be sealed envelope nominating time of departure and time of arrival, plus entry fee. To be lodged at MYC before departure.

Race Director: David Lawson

Race Committee: Ivar Rajaloo, Patrick Bollen, Keith Le Compte, Rob Robertson, C. Herbert.

Sponsor: Jean Hamer Real Estate.

Chairman, Protest Committee: Maurice Drent.

Scrutineering: All yachts are advised to scrutineer eachother's progress; we warn that the Race Committee has other means.

Radio Schedules: Skeds shall be carried out with Penta Base or the Radio Relay Vessel at the same times as the Sydney-Mooloolaba skeds, to promote safety.

Prizes: One keg of rum, contents of which is to be drunk by the participants.

Of the twelve intended participants, the following ten actually submitted entries: Mary Muffin, Roperunner, Impetuous, The Buzz, Gidgee, White Pointer, Priority, Harum Scarum, Koel II, Grasshopper

In complete contrast with the weather of the previous week, conditions were favourable as the yachts departed; however, as they made their run down the coast, calms and windless patches were encountered and many hours were spent under power (as is allowed in the rules). Radio schedules were strictly maintained at the nominated times with Penta Base, puzzling Derek Barnard, who was not aware until the last day that a race was on.

This event was organised by the crews without involvement of any yacht club, and from its reception and success it will be run again next year (depending on the sponsor) and possibly it will be organised for a south-north run after this year's Hobart Race.

Proceeds from the entry fee (\$2 per crew member) amounted to \$136 (so far) which was donated to Penta Base.

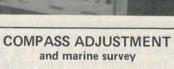
The winner of the inaugural event was George Mottle, sailing The Buzz. He was only 1½ hours off his predicted time.

NOTES:

- Starting time: any yacht leaving Mooloolaba between 11/4/82 and 11/5/82 shall be eligible to enter.
- Place of mooring in Sydney shall be the place where the vessel is normally moored (Sydney shall encompass the greater metropolitan area).
- Boats shall be deemed to be finished when within two boat lengths of its mooring.
- The course includes any stops in between Mooloolaba and Sydney.



Penta Base's Derek Barnard in the radio room at Holbrook, NSW, where a combination of low local noise level and high elevaton assist excellent radio reception and propagation. Penta Base shepherds yachtsmen right across the Pacific.



CAPT. DAVID PYETT, B.Sc. Licensed Compass Adjuster (formerly Hedley Watson's practice)

Going to Hobart, or cruising? Have your compass and autopilot adjusted by Dave Pyett, a licensed adjuster. Rates \$60 for first compass, \$30 each additional unit. No travel charge on the Harbour; small charge for Pitterster.

Phone 27-4389 b.h., or 344-8589 res.



Presenting the cheque to Penta Base. (Left to Right:) Geoff Blok, Jeanine Barnard and Derek Barnard of Penta Base, David Lawson.



like her.

CHASSEUR – A YACHT FULL OF IDEAS

by Bill Sherman

There can be few yachts on the marina with so many unique ideas as the big Hunter 54, Chasseur.

She is a versatile yacht. While not fitted out below as a luxury cruising yacht in the Swan tradition, she is very comfortable and practical in her set-up for passage making. While she does not carry enough sail or rate well enough to be a top-line IOR racer, her class has a number of substantial race wins and trans-Atlantic crossings on their record. Altogether she is a yacht hard to ignore.

Chasseur is the only Hunter 54 in Australia, owned by Yacht Investments Pty Ltd, a company owned by Brian Landis, Bill Ferris, Graham Ellis and Sam Gazal. Chassuer was built in Florida by Hunter Marine, who describe her as 'a fast family cruiser' (they must have big families in Florida, because even with self-tailing winches, furling headsails and all other goodies, a 54 ft (16.5 m) boat is still no dinghy).

Her most unique design feature is a very long sloping transom and a sealed off separate storage area in her stern designed to carry an 8 ft (2.4 m) dinghy. The transom forms a big boarding platform, and a door lifts up to reveal a cavernous storage area into which the dinghy is slid. While this feature uses about 20% of the total hull length, and could be regarded as wasteful, it also provides a very functional solution to the dinghy storage problem (a serious inconvenience on long cruises) and keeps excess weight out of the stern of the boat.

The hull itself has a few breaks with current practice. Her LOA is 52' 10" (16.4 m) and she is very narrow, with a beam of only 11' 4" (3.5 m), and, visually, her long stern accentuates the sleek effect that this creates. She has a smallish fin keel and the rudder is set well forward under the hull, some 8 ft (2.7 m) from the stern.

The area where she was developed has a lot of shallow water and, because she is a 'cruising' boat, she was given a draft of 6 ft (1.8 m). Her owners have found this inadequate for racing, and using a 'factory' conversion kit, an additional 18" were added to her draft, resulting, according to boat master Ray Hollingsworth, in a better balanced boat with far better windward performance and a nice bit of weather helm.



The hull of Chasseur is built around an internal fibreglass frame running most of the length of the boat, which stiffens the hull and carries all major hull and rig loads. An 'A' frame, mounted on the base frame, carries the deck mounted mast and also takes shroud loads through the rods joining the chain plates to the 'A' frame.

The mast is a two-spreader alloy section, finishing 53' 6" (16.3 m) above the deck. Runners are fitted, but mast support is sufficient without them under normal conditions, and Chasseur's are tied off at the shrouds. There is a Nautec hydraulic backstay, but that is the only hydraulic assistance. Other sail controls are conventional, with the main sheet mounted on the cabin top, leaving a very large open cockpit.

On deck, jammers abound, and the layout is neat and simple. As would be expected on a boat in which Bill Ferris has an interest, the winches are Barlow's – all eight of them self-tailing Il Ferris is Managing Director of Barlow Marine Ltd. – Ed.. The main cockpit winches are Barlow 32s.

Sail and power

Standard for the Hunter 54 is a cutter rig with a self-tacking staysail and furling yankee. Chasseur doesn't carry the staysail, although she is rigged for it. Her most competitive point of sail is a reach, as she doesn't really carry enough sail for a long downhill race. Her prototype, Tuesday's Child, which

won the 1981 Trans-At Dayton to Bermuda Race, reported having attained speeds up to 14 knots on power reaches. Total sail area (main and 100% fore triangle) is 912 ftÅ (84.7 mA).

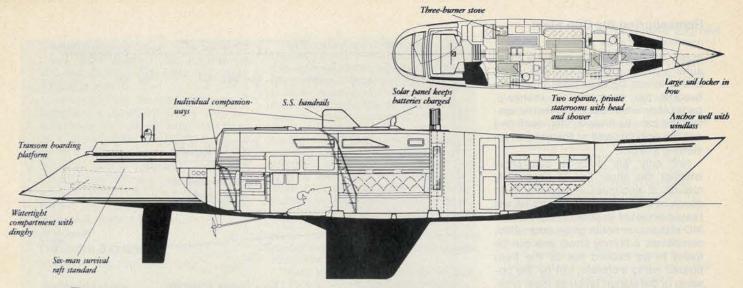
Chasseur is fitted with a Universal Atomic diesel of 40-50 hp (different brochures give different ratings) which is enough to push her along at up to 8 knots in calm water. The engine also provides the energy for battery charging (there is an auxiliary generator as well) and hot water for showers. It is mounted under a built-in unit which also supports the galley sinks. Access for routine maintenance is easy, and the whole unit unbolts for engine removal.

Down below

Accommodation on Chasseur is not ostentatious but is very adequate. Behind the forepeak is a two-berth cabin (convertible to a double berth); next is a toilet/shower compartment with cupboards and hanging locker opposite; then comes the main saloon, with an L-shaped settee (convertible to a double bunk) to starboard and another settee to port with a folding table in between.

One of the two companionways comes down into this section of the boat.

The remainder of the interior space is used for the separate owner's cabin, to starboard, complete with its own double bunk and toilet, shower and basin, and for the galley and navigation



area. The navigation area is at the foot of the main companionway and has adequate space for charts and electronics.

The galley is split by a central passage and should be easy to work in in rough weather, with plenty of places to hold on to or to lean against. A threeburner stove and oven is fitted, and ice boxes and a fridge are provided.

Good ideas to finish

Chasseur is fitted with both 12 volt and 240 volt mains circuits and has had extra batteries fitted with 270 amps available for normal use and a separate 60 amp battery for the radio. Battery charging can be from the engine system, from a separate generator, from mains, or from solar power (there is a solar panel mounted on deck).

The other idea which rather appealed to me is the provision of hanging seabags in the fore cabin. I have seen on a number of boats canvas, or similar, bags hanging inside the boat in place of lockers and built-in stowage (I think the North Shore 27 was the first), but Chasseur's hanging seabags are one up. They unclip and are fitted with all sorts of zippered pockets. The idea is that you take them home, pack them

with your gear and then roll them up and take them aboard (they have carrying handles in the appropriate positions for this). Once on board they are simply unrolled and hng up ready for use. A really neat design idea.

That probably sums up Chasseur fairly well – lots of good ideas and a well thought out design. So far she has not done much racing – which is a pity. Perhaps we will se her on some of the longer offshore races in 1982-'83. Her prototype crossed the Atlantic in 18 days 7 hours 23 minutes – so in the right conditions, who knows...!



A COMPLETE SYSTEM, COMPACT, EASY-TO-INSTALL WITH EASILY READ 17mm LCD DISPLAYS, LOW POWER CONSUMPTION, HIGH RELIABILITY

Available from

STURROCK'S SHIP CHANDLERS Pty. Ltd. Rushcutters Bay 32-1939 Birkenhead Point 81-4909

COCKPIT UNIT (305 x 140 x 25mm)

Provides continuous display of:-

- Boat Speed to 19.99 knots
- Wind Speed to 75 knots
- Boat Speed Trim + or -
- Close Hauled 10 to 50 deg. P & S
- Close Hauled 10 to 50
- Distance Sailed to 99.99 miles
- Visual & Audible Depth Alarms



NAVIGATOR'S REPEATER UNIT (280 x 180 x 76mm)
Provides repeater monitors and controls for all functions plus 2 logs (resettable to 999.99 and total to 99999.99 miles). Data averaging and light dimmer controls.
Shallow and deep water alarms adjustable setting from 0 to 15 metres.

All sensors, cables and skin fitting supplied. Now installed in Adams 12, Choey Lee 43, Endurance 35, Dubouis Oneton, Solar 42, Freedom 40, Revolution, Swanson 42, S&S 34, Swarbrick S 9.9 & S III, South Coast 35.

Trade & Technical Enquiries to YACHTSPEED (02) 451 2845



puter. Such a plot will give the measurer a pictorial elevation of the yacht, and whereas he may have tended to become too engrossed in numbers, particularly when using the metric system, he can, as it were, step back and see the wood as well as the trees when viewing this plot.

Not only will such a plot show whether the shear line is acceptably realistic, it also gives an opportunity to check whether the LBG (which he will have calculated to position the FD and MD stations) is not in gross error. Also, sometimes a bumpy shear line can be found to be caused not by the free-boards being incorrect, but by the position of the station (such as max. draft, or prop.) being recorded in the wrong place by simple mathematical error.

The plots of Szechwan's shear line will show how patently obvious the error was, if viewed this way; yet it had escaped detection for 18 months during a period when literally dozens of people had been examining its certificate, including 'expert' competitors, other measurers (she was scrutinised and partially checked during the Admiral's Cup trials) and, most surprisingly, apparently by its designer.

The BMAX station

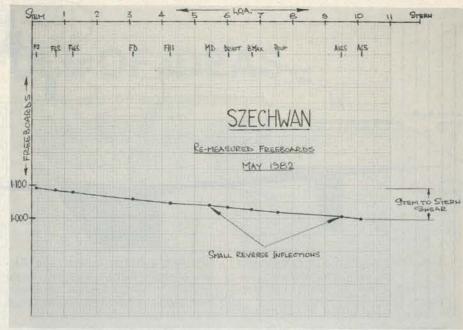
Since the measurements at the BMAX station control the position of the yacht's girth stations and also ultimately the BWL, all of which have a significant effect on the final rating, great care must be taken to achieve accuracy. It should not be considered unreasonable to spend more than an hour locating and measuring B.

For and aft trim

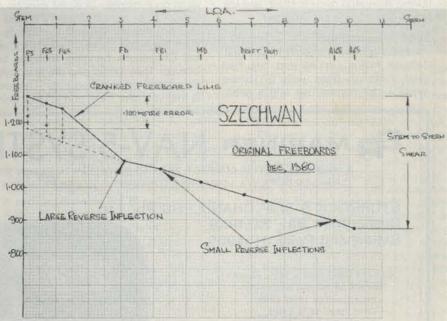
The IOR requires that the shore trim for hull measurement shall approximate the trim that will be used when taking the floating freeboards.

Whilst the measurer may initially feel that he needs a crystal ball for this purpose, he must be aware that if a measuring protest develops, then the second measurer will enjoy the advantage of hindsight by way of the availability of a certificate which details the previous water trim, and will no doubt require that the yacht be levelled accordingly.

If the first measurer appreciates this situation, he will take more care in getting the fore and aft stance closer to the ultimate water trim than he may have otherwise attempted. He should be conscious that, particularly where grand prix yachts are concerned, there will generally be a tendency for the yacht to be presented in a 'bow up' state.



This plot, which is greatly magnified on the vertical scale, enables the measurer to see small inflections in the shear of the yacht. It is one way to remove any 'fog' that may be induced, particularly with the use of relatively unfamiliar metric numbers.



The original plot of Szechwan's freeboards departs dramatically from the expected and immediately alerts the measurer that something is awry.

The measurer should not hesitate to enquire whether the designer has supplied information as to how he wishes the yacht to trim when being inclined. If there has been a sister yacht measured, then its water trim could be taken as a good guide. It is not unreasonable for the measurer, if necessary, to state that the trim is not acceptable and to suggest that perhaps he should leave the job, offering to return the next day after correction, if problems of levelling don't look like getting resolved to his satisfaction. This usually gets the message home that you are serious about

your requirements. The new certificate layout shows a print-out of the 'shore – water' trim difference on page 2, column 2, line 9, headed 'trim', and the measurer should aim to keep this below 0.100 m as a maximum, and preferably below 0.050 m (since the 'second' measurer will almost certainly achieve a low figure). The three figures achieved during this remeasurement series were: -0.001 for Hitchhiker; -0.016 for Szechwan; and 0.021 for Margaret Rintoul III. The minus sign before the number indicates bow up, whereas no sign indicates bow down.

(The American measurers achieved 0.064 with Victory's remeasurement and the British 0.229 with their initial measurement.

As a footnote, the re-calculation of Szechwan's Southern Cross Cup results using 30.1 as its rating instead of 29.1 shows that the NSW team, of which it was a member, won the series by three points (originally ten), with Great Britain still second; that Szechwan still won its division in the Sydney-Hobart Race, and that Division B remained its correct division.

Offshore Signals

(continued from page 4)

Reciprocal rights

In April this year at the direction of the Board, Commodore Kerry Roxburgh wrote to several yacht clubs exploring the possibility of arranging 'reciprocal rights' with the CYCA. The replies are reprinted below:

7th May 1982

The Royal Ocean Racing Club 20 St James's Place London SW1A 1NN

Dear Commodore Roxburgh,

I am writing in reply to your letter of 19th April 1982 addressed to the Commodore. We are of course extremely proud of our long and close relationship with the Cruising Yacht Club of Australia and long may this liaison continue.

Our formal arrangements of association with other clubs are perhaps a little different from the usual. We do not have any reciprocal arrangement with any club but prefer instead to operate under our rule whereby visiting offshore yachtsmen may be made temporary Honorary members for a period of up to two weeks in any one year. We normally expect a visitor to either have a letter written in advance from his club or alternatively to carry a letter of introduction from his club.

I am pleased to say that in this way we are able to welcome quite a number of visitors and we are very appreciative of the warm reception which has always been given to RORC members at the Cruising Yacht Club of Australia.

I hope this explains our situation.

With best regards.
E. Alan Green, Secretary
May 10 1982
Waikiki Yacht Club
Ala Wai Boat Harbour
Honolulu, Hawaii

Dear Commodore Roxburgh,

Thank you for your letter of 19 April 1982 regarding Waikiki Yacht Club becoming an 'Associated Club' with the Cruising Yacht Club of Australia. You may rest assured that yachts of the Cruising Yacht Club of Australia are a familiar sight in the biennial Clipper Cup Yacht Series and cruising through Hawaii.

Unfortunately, our constitution and Bylaws do not allow for the exact relationship outlined in your letter, but we do recognize memberships of Yacht Clubs not on Oahu and offer Guest Memberships to their members. A Guest Membership may be easily acquired by registering with our club manager and it entitles the holder to full privileges of the Club, excepting voting, including charging at the bar and restaurant, use of the parking and wet mooring. We try to accommodate visiting yachts but due to very limited wet mooring facilities we must handle this on a case by case basis.

For the third Pan-Am Clipper Cup Yacht Series in August of this year, we are making special arrangements which will be sent to each entrant.

Thank you for your correspondence and we hope to see you, your staff and your members during the Clipper Cup Yacht Series this August.

Aloha, Tom Isaacson Commodore

1 June 1982

Sandringham Yacht Club Jetty Road, Sandringham, Victoria 3191

Dear Commodore Roxburgh

Your letter of 19th April 1982 addressed to our Commodore reached me on 4th May, just in time for our General Committee Meeting.

My Committee has asked me to let you know that we would be delighted to become an 'Associated Club', subject to the outcome of our recent approach to the Victorian Liquor Control Commission, to see whether they will permit us to alter our Constitution to provide for some form of reciprocal membership such as you suggest.

In the meantime, we will, of course, be happy to continue our present practice, whereby the General Committee, using existing Constitutional powers, may elect any person who is a bona fide member of a recognised Yacht Club and whose usual place of abode is not within a radius of 100 km of the General Post Office, Melbourne, as an Honorary Member for any period not exceeding three months.

Our approach to the Liquor Control Commission is to see whether by listing certain reciprocal Clubs in our Rules, we will be able to achieve form of automatic Honorary Membership for a limited period without the General Committee having to process the matter.

In the meantime, of course, we will continue to give whatever assistance we can to your members who visit us and we will let you know as soon as possible the outcome of our approach to the Liquor Control Commission.

Yours sincerely, Fred C. Pain Secretary

24 May 1982

Royal Papua Yacht Club Champion Parade Port Moresby Papua New Guinea

Offshore Signals

Dear Sir.

Thank you for your letter of 19 April 1982 concernig the proposal for reciprocal rights for our respective members.

The Royal Papua Yacht Club has an active sailing component among its membership. The club hosts, in conjunction with the Cairns Cruising Yacht Squadron, the biennial Cairns to Port Moresby Yacht Race. Last year a PNG team of three yachts competed in the Southern Cross Cup Series and a contingent comprised largely of RPYC members will contest the 1982 Sardinia Cup Series. Next month our club is host to the South Pacific Hobie 16 Championship for the second year in succession.

We firmly believe that reciprocal rights between your club and ours will bring useful benefits for our respective members.

In summary, the Royal Papua Yacht Club wishes to become an 'Associated Club' and we will certainly extend a warm welcome and the use of all club facilities to your members when they visit Port Moresby.

Yours sincerely, Claud Clark, Commodore

27 May 1982

Royal Queensland Yacht Squadron Manly Clubhouse Box 21

Manly 4179

Dear Kerry,

Having, on more than one occasion, enjoyed the facilities your Club provides to visiting vachtsmen. I do appreciate and acknowledge the necessity to provide a similar facility in Brisbane, and can now proudly offer marina and slipping facilities of world class in our recently completed 283 berth floating marina. Our present rules provide that berthing and slipping facilities and the use of Club House facilities, are available to any visiting yacht and her crew, being a member of a recognised club, flying Club burgee, provided satisfactory arrangements are made on arrival with Marina Manager and Club Manager, to complete formalities in relation to mooring and compliance with our State's Licensing Commission requirements.

Arrival time by sea is often unpredictable; however, if your members wish to visit by land, prior advice is desirable and your members will be made welcome provided usual formality of signing in is observed. The incidence of members visiting by land is more likely to occur with our members when visiting Sydney, while it would seem that there is a greater likelihood of your members visiting us by water. Common ground rules do, however, need to be set in relation to these arrangements.

It may be of interest to you to know that this year we completed construction of the first stage of our floating marina project, which now provides 283 berths, together with a 30 tonne Travelift and a 2½ tonne crane for off the beach keel boats. Design work has commenced on a further 250 berths, construction to commence within the next 12 months. Only this week did construction work commence on a

(continued on page 24)



around the marina

It is a pleasure to introduce 'Around the Marina'. Hopefully we can keep it alive with items of interest to all our Members who race, watch or just bum about in boats. The main idea is to let Members and readers know that the marina is 'alive and kicking' and that it is a place where things happen.

We shall include in each issue news. of vachts that have visited the marina and also notable departures of our own boats.

Both club staff and Members are asked to assist me in gathering this information as I can't possibly know of all boat movements; if Members will also provide newsworthy particulars

complex?

new dinghy ramp and other facil-

Recent Arrivals

Schnoufi, a small ketch from the Cercle Nautique Caledonien Noumea with a crew of two:

Odd Bodkins, a cutter from Seattle, which got good TV coverage due to and Police rescue, with a Police tow for the last 60 miles to Sydney;

Pepina, a big, magnificently equipped ketch from the Transocean Yacht Club, Dusseldorf, Germany.

Quite a fleet is making its way to forthcoming northern summer an answer for that one. racing season. Our teams are: Pan Am Clipper Cup: Margaret Rintoul III, Szechwan, Hitchhiker.

Waikiki Yacht Club Cup: Blue Team: Sweet Caroline, Police Car. Apollo V: Red Team: Vengeance, Apollo IV,

haul under sail. The other com- venture started and finished to look at the boats, and to leave cargo.

place? As our marina has been liday down to admire her. more Members and their crews we still have around the marina wouldn't be too much trouble? and friends, have been using our who would even remember that

schedules, this will be greatly appreciated. In fact, any interesting bits and pieces will be welcomed even personal gripes can be fascinating, but please keep them relevant. Just post any contributions to (or drop them off at) the CYCA office for attention of the Editor, Offshore, who will see that I get them. To meet the publishing deadline this

of their overseas racing and cruising

time, we have had to rush things a bit, and a few more personal ramblings and reminiscences have crept in tha should be here; with a bit more time and a little news contributed by you, the column will be a little better put together next time.

facilities, admittedly. However, awful flight of old stairs? Slippery should this equate with the imand trecherous in the rain, to personal atmosphere of a large carry a nine gallon keg up or down was a real feat, particularly It's a little sad to walk down the when the lights were put out a marina, pass 15 or 20 people and 9.00 p.m. on a wet and windy a broken rudder and a dramatic Navy not be greeted by as much as a night. Surely no one really single "Good morning" or even misses those stairs! Many of us ah "Hi". An overseas visitor old timers, though, with real sor asked me, only recently, why, in row, remember the days past the idyllic surroundings that we when there was an air of real enjoy at Rushcutters Bay, is it comraderie and the good old that the place (our marina) ap- CYC, when anyone - yachtie the keen racing and and pleasure peared so unfriendly and the fisherman, tugman, or whoever in the Hawaiian Island for the people even hostile. I wish I had as long as he had an affinity for the sea and boats - was wel-

come and found immediate com-

The old original wharf was pulled pany for a convivial glass or two. As I said, I must be getting old. out by the roots recently. The

ities will be a wonderful improve- Have you noticed, early in the ment. I loved that old jetty. It was morning, recently, glasses and 'rustic' to say the least, inconven- cans on the tops of the marina ient and, even, dangerous. But it piles? It seems to be the done Vengeance, Police Car and was 'boaty' down to its last bro-thing lately, to go for a stroll in Apollo V have all left for the long ken plank. Many a yachting ad- the evening with a drink in hand, petitors have left, or will be going there. Many a soul, a few sheets the drink container, when empty shortly, by steamer as deck in the wind, had an involuntary on the nearest pile. Guess the swim off its short length. When I same people throw rubbish out of brought my first boat in Sydney,to the windows of their Mercedes the CYCA for the first time, I tied and Holdens, too. A little bit more Why is it that, over the years, the up there before staggering up the of 'do the right thing' wouldn't go CYCA marina has drifted away old wooden stairs to the Coaster's astray - cans back to the garfrom being a happy and friendly Retreat, to invite Capt. Jack Hal- bage tins and glasses back to the har or at least to the tables at extended, more boats, and hence I wonder how many Members the foot of the marina. Surely this

Offshore Signals (continued from page 23)

\$600,000 project to extend and refit our Clubhouse. Other development projects at present include the installation of 24-hour self-service fuel facility and card key operated gates. Our Clubhouse, dinghy rigging area, hardstand area and carparks now spread over 8 acres of reclaimed land. and with the completion of Stage 2 of the marina project, this area will be doubled.

We look forward to welcoming you, and any of your members, at Manly.

With kindest regards,

A.J. Love, Commodore

18 May 1982

Coffs Harbour Yacht Club Limited Jetty Beach Coffs Harbour 2450

Dear Mr Roxburgh,

Like yourselves, our Club receives tremendous traffic in visiting yachtsmen, and it has always been an unwritten law at our Club that visitors showing evidence of membership of approved Yacht Clubs automatically have use of all facilities.

Unfortunately, some cruising types take more than they give, and occasionally we have to pull the plug.

Our Club is open at 4.00 p.m. daily and has all the comforts offered by a licenced club. Dining facilities at present are still under construction. Slipways and yard are under private control, but charges are very reasonable

Berthing facilities are excellent, with floating marina pens available. These are owned and controlled by the Public Works Dept., who allocate and charge on a daily basis, again at reasonable cost.

The Club is currently negotiating to have Stage III of the new marina under construction allocated for vachts only, and we are hoping that a few pens will be provided for overnight visitors at no cost.

In all, we are committed to a programme of continual improvement and an associated Club bases could only be of mutual benefit.

Yours sincerely John C. Williamson Commodore

24 May 1982 The Royal New Zealand Yacht Squadron Squadron Rooms Westhaven Auckland, N.Z.

I am pleased to tell you that your suggestions were appreciated and agreed to unanimously. As many of your members will know we have always made them welcome during visits to New Zealand whether by sea or otherwise, but the more formal arrangement now being entered into does have the effect of making the paperwork easier.

Our facilities at Westhaven do not include any berthing. This is entirely under the control of the Auckland Harbour Board. It is hoped, however, that we may be able to make a few berths available in the not too >

distant future, but we would never expect to be able to provide the same as you have in Sydney.

The Squadron operates strictly on a cash basis for any transactions in our bars or dining room, though we will, of course, accept credit cards.

All that we would require of any of your members would be to contact the office on arrival and produce a current membership card. This then would give us the opportunity of showing your members our facilities and advising them about certain house rules

We look forward to a long and happy association with the Cruising Yacht club of Australia

Yours sincerely

Douglas M.C. Dick Secretary Manager

20 May 1982

Royal Melbourne Yacht Squadron Lower Esplanade St. Kilda 3182

Dear Sir.

In reply to your letter of April 23, 1982 regarding entering into a reciprocal rights arrangement with your illustrious Club.

This Squadron is always very pleased to welcome visitors from the Cruising Yacht Club of Australia at any time and for them to use the facilities of the Squadron, and the General Committee would be delighted to enter into such an arrangement. However, our Constitution requires the Squadron to issue an Honorary Membership Card to visitors.

We sincerely hope this will prove satisfactory to your Committee

Yours faithfully. D.J. Walters Secretary/Manager

State of the Club

20 June 1982 Lindfield, 2070

The Editor, Offshore

Dear Sir.

In the May 1982 issue of the Newsletter on page 5 it was interesting to read "our CRUISING Yacht Club has for many years neglected to look after its cruising members '

I've had this feeling for quite a number of years as I've watched from the sidelines the trendy racing yachties strut the scene before the limelight and I've read copious coverage of their doings here and overseas. Although I am no longer interested in racing I am proud of their achievements.

However the CYC was formed by rugged individualists so that, at reasonable cost, Members could have somewhere to tie up their boats, have slipways nearby and somewhere to have a quiet drink with the rules for gentlemen as the order of the day.

The Club has outgrown the simple objectives and committee members have developed great expertise in race organisation and safety at sea.

I do feel that the simple needs of cruising and/or harbour bound Members who as

Offshore Signals

Clubhouse by some visitors is very sad to

With respect, Yours sincerely,

Les Cosgrove

O.Y.C.A.

The Ocean Youth Club of Australia is seeking the assistance of yacht owners - racing or cruising to expand the club's sailing programme to include weekends.

Our club members are over 15 years of age, come from metropolitan and country areas and would welcome the opportunity of sailing with

The Ocean Youth Club has a mid-week cruise programme using the yacht "Destiny", that has been loaned to the Club by its owner, Theo Taylor. We are looking for support from other yacht owners to commence sailing on weekends and maintain the interest our members have to date.

If you would like to know more, or would like to assist the development of the Club, by allowing the Club use of your yacht for ONE WEEKEND - ONCE A YEAR, please contact:-

Serena Knox.
PROMOTIONS OFFICER O.Y.C.A. 22 Bridge Road, Glebe. N.S.W.

Budget Pest Control



TO THE CYCA PHONE NOEL LEWIS 519-2122

DAVID PALMER

ELECTRICS

SYDNEY MARINE **ELECTRICS**

-w--w-

such don't require much looking after, have

been playing second fiddle to the demands

As an "inactivist" who just likes to muck

about in boats at my convenience for my

activities in which I have no interest.

pleasure I will strongly resist any attempts

by committee members to organise me into

Beware! I carry knotted ropes for just such

Some day the denizen racing types will

I'm sure that many Members will want to

see more information in Newsletter on the

approved plans and conditions of approval

When I look at the rundown state of the

slipping cradles I don't know how the Club

management of the slips and repair shops?

To lose the slips alongside the Clubhouse

will also lose a lot of character and interest

for true boat lovers looking out from the bar

The proposed and indeed expensive

I hope their rental is commensurate with

generous donation of time by committee

and I miss the more intimate feeling of

lack of dignity shown at times within the

Something seems wrong with the Club,

mutual drive to keep things going, and the

concrete platform alongside the work wharf

is to be used for standing day-racing boats!

I recognise the hard work associated with

can reduce the slipways by half and not

have long waiting lists for laying up. Is it

The work wharf could do with power

points and side rails to protect vacht

proposed to call tenders for the

topsides and rigging at low tide.

present-day real estate values.

making the Club work and also the

and dining room.

confrontations. I know that among some

members I am not alone in this attitude.

mature like old wine and slow down to

someday sick that guiet Cowan Creek

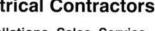
backwater on every patroniser of the

regarding the extensions to the Club.

Clubhouse

on Club facilities that the racing scene

Marine & General **Electrical Contractors**



Installations, Sales, Service

All electrics to: • lighting • power • switchboards • generators • alternators • chargers • batteries • starters • alarms • control systems . motors . autopilots . pumps . fans, etc.

27 years of experience, including general contracting for domestic installations. • Extra lighting and power outlets installed with the same care as on your boat.

> Phone David Palmer 559-5711 all hours 66 Canobury Grove, Dulwich Hill, 2203 Contractor to the CYCA for all electrics

Gibb proves a point or three.



GIBB 7 SELF-TAILING RATCHET WINCH.

When it comes to scoring points, Gibb is outright winner.

With this super tough, Gibb 7 self-tailing winch.
It can handle jobs like reefing, sail control, sheets and halyards so there's probably a place for it on your yacht. You can mount it any which way and it's a real lightweight, especially on the pocket.



Point 2

ROPE TERMINIALS

No more splicing with this revolutionary combination Gibb snap shackle and rope terminal. It retains full rope strength and is exclusive to Gibb.

Available to fit rope sizes 6mm to 14mm.

Point 3

SMOOTH CONNECTION SNAP SHACKLES.

No more sail hangups with the maxi strength, top opening snap shackle for spinnaker sheets and guys. And for halyards and the rest, you can't beat the Gibb side-opening snap shackle, with the ultra smooth connection and the unique "oval throat."

Constructed from rugged 316 stainless steel in four sizes, to suit trailer sailers to maxi yachts.



BAR 1103

BARLOW MARINE LIMITED.

52 Wentworth Street, Granville N.S.W. 2142 Telephone: (02) 637 9333 Telex: AA24301.