OFISHORE

NUMBER 69

DECEMBER 1982-JANUARY 1983

\$1.00*



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.

SB/AM/148

OFFSHORE



Cover: Bondi Tram is one of the latest additions to the offshore fleet, a 'plastic fantastic' which is the centre of attention as the latest of aspirants for next year's Admiral's Cup trials. In spite of the usual teething problems she is being mentioned as a 'possible' for the top prize in this year's Hobart Race. A sister ship, Di Hard, is racing to the starting line without almost no 'running in' time. Their results will be watched with interest. PHOTO BY ACE MARINE PHOTOGRAPHICS.

CONTENTS

Offshore Signals	2
Letters; Penta Base special skeds for Hobart returners; the Seiffert's are off again; 1983 Noumea-Cairns Race; the Drinking Man's SydneyHobart; new 27 MHz equipment; new Tamaya radar detector; the latest for calculating navigators.	
Hobart 18982: the weather and the winner Tony Cable does another of his (in?)famous predictions about this year's likely weather and winner.	6
Biggles Column Offshore readers' favourite columnist roams here and there in search of truth and justice.	9
The Offshore Reader Warwick Hoare gives a brief summary of the readership survey.	11
Kevlar 's out Offshore interviews sailmaker Bob Fraser about the latest IOR ban on some exotic sailmaking materials.	12
Functional, not Fancy Bill Sherman does another in a series on boats on the CYCA Register, this time Once More Dear Friends.	16
Racing Rounds Duncan van Woerden rummages around the vegetable and other patches.	19
The Australia-New Caledonia Races 1983 Peter Campbell gives a rundown on next year's Noumea adventures.	21



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'.

Editor: David Colfelt

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)

OFFSHORE SIGNALS



Letters

Popina sinking

Dear Sir,

Your recent article 'The Sinking of Popina' and its associated editorial comment might lead some to believe that the handling of Kurt Priester's distress call, by amateur radio operators, was less than efficient and expeditious. Such was not the case. As a concerned licensed amateur I have looked further into the facts surrounding the enisode

At approximately 9.00 p.m. that evening a radio contact between three Australian and two Canadian amateur operators was interrupted by a somewhat 'panic stricken' and 'foreign sounding' voice, saying what at first sounded like "Popina ten ten" (actually it was "Popina Pan Pan"). As you may be aware, 'ten ten' is a phrase used by CB operators; Kurt was subsequently asked for his radio call sign – a standard procedure on both marine and amateur frequencies and he did not comply with the request, giving rise to some doubts as to the authenticity of the call. However, because the interrupter sounded breathless and excited, one amateur operator, Don Oakley (VK3BKU), located near Dandenong, Vic., persisted with him. After becoming more attuned to Kurt's accent, he ascertained that the call was genuine and that he was. indeed, in difficulties.

It was necessary to get Kurt to repeat his position several times, as there were inconsistencies in the reported latitude and longitude. By this time Don was thoroughly convinced that the call was genuine and he indicated his willingness to assist. Kurt, apparently doubting Don's comprehension of his dilemma, asked him to telephone Bruce Henderson (VK2DFH) in Sydney with whom he had been in regular contact for over a year. Bruce is regional controller of the Pacific Maritime Mobile Net, an amateur organisation dedicated to the coverage and assistance of craft operating in the Pacific region, between the Bering Strait and the Southern Ocean, an area considerably

larger than that covered by the OTC Small Ship Service or any by any limited coast station

Bruce was operational on Kurt's frequency in less than 15 minutes after Kurt's initial call. Despite Bruce's ears being well attuned to Kurt's accent, he was unable to comprehend his messages, until he firmly requested Kurt to slow down his speech and speak concisely. Bruce inquired as to what action Kurt needed, and he replied that he would go and ascertain whether the leak could be contained. They maintained radio contact throughout the next 45 minutes during which time they had intermittent discussion, Kurt finally advising that the leak was out of control.

Kurt was then asked "Do you wish me to declare a MAYDAY", and he replied "Yes." Bruce immediately notified the ACSC in Canberra, and the consequences of their actions are well recorded in your article.

The suggestion in your editorial comments that Kurt "might have one less hurdle to negotiate" had he made his call to OTC or a limited coast station seems unwarranted; you perhaps assume that the operator he might have contacted would have spoken German and could therefore have been better able to interpret Kurt's situation. I suggest to you that this is unlikely. Don, the first recipient of his call, is familiar, as a radio operator, with conversing with other nationalities, and his employment with Telecom as a regional superintendent requires him to converse by telephone internationally. He must surely be better qualified than most to cope with such a situation. Remember, also, that the licensing requirements for amateur radio operators necessitates a greater degree of technical and operating competence than that needed for a Restricted Operators Certificate of Proficiency in radiotelephony as is required for ship operators.

In his preamble Ray Hollingsworth suggested that he had been told that Kurt was 'fortunate' that the ACSC got to know about his predicament in time. 'Fortune' suggest chance or luck, and I think this is an unfortunate choice of words, as there was no luck or chance involved with ACSC's having been informed

Kurt's remark 'That my counterpart at the other end did not know at all what to do with it" indicates either a loss in meaning through translation from the original German of Kurt's letter or, alternatively, that Kurt was having as much difficulty understanding Don as vice versa. Quite understandably, having water up to your ankles would hardly improve one's comprehension or diction. Perhaps this is indicative that there was some misunderstanding on both sides, but none of the difficulties significantly delayed his rescue nor inconvenienced, to any great degree, the parties involved.

In conclusion, most of the mention, in yachting circles, of amateur radio activity seems to emanate from a small number of individuals who vary from the bannerwaving protagonists, strongly advocating amateur involvement in yachting, to those who are adverse and almost paranoid about any amateur involvement in maritime affairs. The fact that Kurt relied on the

amateur network for 40,000 miles of sailing. and that amateur radio was directly involved in his eventual rescue, speaks volumes. I really need say nothing further.

Yours sincerely,

Bill White **VK2KWW**

We certainly intended no slight of the amateur radio community in the editorial comment referred to in Bill White's letter (i.e. that Kurt's rescue might have had one less hurdle to negotiate, etc.), although based on more than one phone call, this seems to he the interpretation some have put on it There seems no doubt that Kurt was at no time in other than the very best of hands; our comment about 'hurdles' was a based on the simplistic notion that in most cases the use of direct communications on marine frequencies with the network of coast stations available to sailors in Australian waters is the most expedient way to effect a rescue. Our editorial comment was also made in light of the wide misunderstanding about amateur radio's applicability to the ordinary yachtsman (Kurt Priester, by the way, at one time was a licensed amateur) and our concern that we not inadvertently abet those who proffer the illegal and improper use of the amateur frequencies.

There is no question that the amateur fraternity, by dint of a number of 'screens' that each and every amateur has gone through in order to get his licence, is composed of an exceptional group of people, and the assistance that this group gives to yachtsmen regularly is of the highest quality (a list of their involvements with rescues in the last year would fill an issue in Offshore).

Amateur radio involvement in maritime operations has been going on since way before the time that many yachtsmen had any sort of radio aboard. The advance of electronics in recent times and the fall in price of sophisticated amateur equipment has brought with it an attitude on the part of some that all that is necessary to gain access to the amateur frequencies is a cheque book big enough to purchase one of these sets, and these days that's not saying much. Whilst no one would deny any yachtsman any possible means of rescue in a distress situation, the use of amateur frequencies by those without amateur licenses is becoming more common. This is not only just improper; if it is encouraged by misguided yachting enthusiasts, race officials or just uninformed yachtsmen participating in the growing number of passage races it will ultimately lead to the demise of amateur radio and all of the good that goes

The Yachtsman, indeed anyone, is to be encouraged to improve his or her knowledge of radio and to go on to become a licensed amateur, and to enjoy all of the privileges that go with having a license. Such privileges, unlike many in this sport, are not, however, to be gained purely by the act of signing a cheque; they come only after many hours of hard work, and this needs to be better understood. - Editor.



Who's Who

The Editor:

I am ashamed to find that I am reduced to writing letters about the captioning of photographs, but it appears that a sorry state has been reached.

One cannot let pass the inaccuracy concerning the identity of the gentleman on the right of your dinner-suited Southerly crew photograph (Offshore August/ September 1982). Even one as young as I recognise a still active (albeit now less hirsute) Member. Clues to his identity are as follows:

- (i) Is not wearing a dinner suit because he has just rushed from actually doing the splining on Southerly rather than discussing it;
- (ii) still fanatical about his ocean racing; (iii) actually has some idea of sailing a boat (now that narrows the field);
- (iv) beloved of owners because he gives them an honest appraisal of their yacht and its sails:
- (v) always the perfect diplomat.

It is, of course, A.E. Ratcliff. His nickname is 'Bill' and his wife's given

name is 'Lee'. Perhaps that led to 'William' 1 66'7

William Lee, you will recall, was the Hong Kong investor who, after doing one Coogee Race, likened ocean racing to smoking opium through a sewer pipe and was never again seen on Club premises. Yours

John Harris

In the last issue, Leon Hertz wrote from New York identifying the gentleman at the extreme right as "one William Lee". Your Editor dutifully published this opinion, and stands corrected. - Ed.

Coffs Harbour charges

15 October 1982

Dear Sir

Yacht Owners at Coffs Harbour (including world renowned Eric Hiscock of Wanderer) are vigorously protesting the inequity of charges currently being levied at Coffs Harbour by the Public Works Dept.

Immediate interest to Members is a appalling impost of \$20-\$30 per night, according to boat size. Charges of \$20 per day after the first hour are also being enforced at the Fish Co-op wharf. The \$20-\$30 is in fact a weekly rate, but it is also a strictly enforced minimum, so that vachts merely overnighting are liable for this charge in full.

Members would sure appreciate a warning that Coffs Harbour, so long a favoured stopover with Sydney Yachtsmen, is now acutely inhospitable to cruising vachtsmen from a financial view point Representations have been made locally, but so far without success. Regards and good sailing

Stan Robinson

We have seen several letters on this subject, and similar ones have been published in other boating magazines. For those interested, the following is the 'oil' from the Public Works Department, Coffs Harbour District Office, about berthing there.

P.W.D

Coffs Harbour District Office

Dear Boatowner, Casual Users, Coffs Harbour Pleasure Craft Berths

This is a State Government owned facility and the procedure for berthing is as follows:

- a) Application for a berth is to be made at the Public Works Department Office. 359 High Street (phone 066-520427, Mr Greg Hardy) at the first opportunity. Office hours are 8.30 a.m. to 4.30 p.m. Mondays to Frid'ys.
- b) Upon acceptance of your application you will be required to execute a formal weekly licence agreement.
- c) Payment will be in advance and is due and payable upon execution of the aforesaid licence.
- d) Fees for casuals are as follows: 10 m berths \$22.50 per week \$27.00 per week 12 m berths 15 m berths \$33.50 per week Over 15 m, piled moorings \$33.50 per

e) There is a minimum charge of one

week. [boldface ours - Ed.]

f) Stamp duty of about \$1.00 is also payable Yours faithfully.

H.R. Colley

District Engineer

Police Olympics

32 Beauford Ave. Caringbah, 2229

Mr P. Shipway, CYCA

Dear Sir

Having returned from Texas and the Police Olympics I wish to extend my thanks for the support and good wishes of the Cruising Yacht Club. It is with pleasure that I have to report that I obtained a silver medal in the Decathlon, surpassing my best ever results by over 500 points. I am sure I could not have attained this measure of success without the financial and friendly assistance given by your Club.

The Games themselves were an outstanding success, the New South Wales team collecting 83 medals in all.

Thank you again for your support. Yours sincerely,

Ken Hutt Sydney Water Police

Penta Base to have special skeds for Hobart returnees

Penta Base is again this year holding special skeds for any yachts returning to Sydney from the Hobart Race. These special skeds will commence January 1983 and will be held daily at 0800 hrs and 1900 hrs on 4483 kHz. These are additional skeds for Hobart returning yachts, and Penta Base's normal skeds will continue to be held at the usual times.

Unless Penta Base is advised otherwise, information about yacht positions and ETAs will be passed on to relatives and friends who make enquiries.

For those who wish to have information about returning yachts, the phone number of Penta Base is (043) 677-668. Enquiries may be made at any time between 0700 hrs and 2200 hrs (7.00 a.m. and 10.00 p.m.).

Puzzlers

As this issue is a 'Hobart' issue, the puzzlers are based on personalities of the Sydney-Hobart Race, past and present.

- 1. Apart from Magnus Halvorsen and Stan Darling, which other navigator has completed 25 Hobarts?
- 2. Who has been New Zealand's regular representative in the South Pacific Tap Dancing Championships?
- 3. Two other well known yachtsmen completed 25 Hobarts last year; who are
- 4. What famous Hobart Race personality wears a tin sugar bowl on his head?
- Who was skipper on the all-girl crew in the 1975 race?

Offshore Signals

- 6. Who is reported to be the best port runner winch hand in Australia?
- 7. In the history of the Race, there has been only one owner who has skippered more than five different yachts (not all at once of course). Who is he?
- 8. What famous personality has participated in 20 Hobarts but raced in only
- 9. Three previous Hobart Race winning skippers are entered in this year's race. Who are they?

Answers to last month's Puzzlers

- 1.) Apollo 11 hr, 01 min, 54 sec.
- 2.) Apollo 11 hr. 48 min. 17 sec.
- 3.) Helsal II 20 hr, 08 min, 17 sec.
- 4.) Kialoa 18 hr, 40 min, 37 sec.
- 6.) 1955.
- 7.) 1951. 8.) 1967.
- 9.) 1960.
- 10.)Helsal II.



The Seiffert's aboard their Cia Maria at the CYCA before they set sail for New Zealand.

Seiffert's off again

Celia and Paul Seiffert, who won the CYCA Cruising Trophy for their epic cruise to the Solomons in their 28 foot Northerner, are off again - this time to New Zealand. After several months spent on the boat in Pittwater 'getting acclimatised again' and doing some repairs, they set sail on for Picton, at the north end of the South Island. There they will meet friends and cruise the Marlborough Sounds.

Noumea-Cairns Race 1983

The Cairns Yacht Club intends to conduct the inaugural Noumea-Cairns Race to start after the Australia-New Caledonia Race in June 1983. The race will offer trophies worth an estimated \$10,000, and there will be

divisions for competitors for Line Honours, IOR, Arbitrary and Cruising. Each division winner will receive a replica of the perpetual trophy, a 4" miniature Low Island light with a diamond where the light is. (The perpetual trophy is a 14" replica of Low Island light.)

The inaugural Noumea-Cairns Race will take participants on the north side of the reefs that lie on the rhumb line, around Bougainville light and into Cairns via Grafton Passage. At this time the Cairns Yacht Club expects some 50 participants to do the course, which is expected to take 6-9 days to complete

The Cairns Yacht Club plans to charter of Boeing 727 out of Brisbane to go to Noumea to take charterers up for the festivities there following the Sydney-Noumea and Brisbane-Noumea Races which start on 22 May next year (see article by Peter Campbell in this issue). Anyone interested in participating in this charter should write to the Commodore, Cairns Yacht Club, PO Box 279, Cairns, 4870.

Peter Rysdyk is Race Consultant for the inaugural Noumea-Cairns event.

The Cairns Yacht Club expects that many yachts will take advantage of this Race to get back to the fabulous cruising grounds of north Queensland.

A Drinking Man's Sydney-Hobart

(or, What to Do During the Happy

by 'Knocker' (author of "Cooking at

Some yachts have happy hours and some do not. Some yachts have long happy hours and some try to have short ones. But whether or not you are the barman's friend of just a social drinker, a drink or two is about the second best way to relax either during a race or on completion, when you let yourself

If you are sailing on a dry boat you may read this with a wry smile. Then take along plenty of fruit cake soaked in rum and/or brandy to nibble on when the going gets tough.

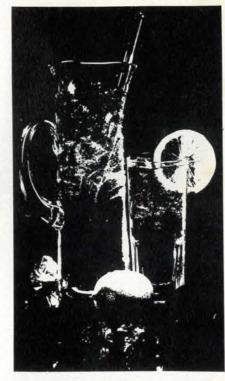
If you can't get to drink your supplies, it could be a great way to celebrate in the Dock with friends.

Dispense with beer and wine and stock up with some of the following:

Champagne Rum (light & dark) Teguila Vodka Bourbon Pineapple Juice Oranges

The extras will be shown in the following recipes, so don't forget to cut out this section and take it with you.

The recipes are in four parts, starting with breakfast revivers, or hangover cures.



Black Velvet

Equal parts of champagne and stout, poured together in a champagne flute and drunk immediately.

Russian Revenge

Ideal for headaches. Start with a glass of tonic water and drink a little from it. Top up with vodka. Drink a little more and top up with vodka. keep going until headache is cured. No ice required.

Of course, there are the old standbys of champagne & orange, or tomato juice with enough tobasco and black sauce to make you want to put your tongue in a glass of the Russian's Revenge.

Lunchtime coolers (to go with a salad for 12)

- 1 Plastic bucket
- 1 Bottle of dark rum
- 1 bottle of light rum
- 1 large pineapple juice 1 large mango juice
- Juice of 5 limes

Cocktails for the Happy Hour

(A blender is needed, but for the desperate, a shaker could be used)

Melon Daiquiri (blender a must)

Peel and seed one honey dew melon. Take 6 nips of Bacardi rum, ice, and blend together for a refreshing honey dew flavour.

Pina Colada

White rum or vodka, 1 nip per head Pineapple juice Coconut milk Blend together. Oh, so smooth.

Strawberry Daiquiri

- 1 shot of rum for every one set of red eyes
- 1 splash of lemon juice
- 1 punnet strawberries

Blend together. The ladies love it.

Zombie

- For each one, present:
- 1 nip light rum
- 1 nip dark rum
- Splash of lemon and orange juices
- Dash of orange curação
- Top with dash Bacardi

Garnish with cherry and pineapple on a toothpick. Serve with ice and discretion.

For those cold nights and late suppers

Hot butter Rum

- To make one mug: 3 nips dark rum
- 1 dob butter
- 1 stick cinnamon
- Spoonful of honey

Dash nutmeg

Place butter and honey in mug and add rum and cinnamon stick; top with boiling water and sprinkle with nutmeg.

Milk Punch (serves 12)

- 370 ml beer
- 300 ml strong hot tea
- 1/2 bottle rum 1/2 bottle brandy
- 250 g sugar
- Juice of 4 limes
- 1 litre milk

Boil the milk in a saucepan. In another saucepan, boil the beer. Add sugar and then the resht of the ingredience. Pur in milk and sherve in mugsh. (hic)

Mulled Wine (for 12)

- 12 cups dry red wine
- 6 lemon skins (use the lemon juice in another drink)
- 12 cloves
- 12 sticks cinnamon
- 12 sugar cubes
- Place all ingredients in a saucepan and heat slowly to dissolve sugar. Bring to a simmer, then fill mugs with a strainer toooooo retrieve cinnamon sticks to add to your drink.



New 27 MHz equipment

Greenwich Marine Electronics has recently announced the release of two new models of GME Electrophone 27 MHz marine transceivers. Models GX281 and GX282S are manufactured especially for GME by Cybernet, one of the leading communications



companies in Japan. According to the Company, they incorporate the most advanced electronic technology, providing superior communication, particularly in adverse weather conditions

The GX281 is an AM transceiver of 5 watts power. The GX282S provides the addition of SSB transmission, 12 watts power. All ten 27MHz marine channels are fitted to both sets, with large digital readout of frequency selected. Both incorporate GME's exclusive 'interference shield'.

The Company has also announced the release of a new 27 MHz base station GB590 which is designed to incorporate either of the above sets. It has a built-in power supply which operates from 240v AC and has a built-in digital clock.



New Tamaya Radar Detector

The Chart Room is offering a new hand-held radar detector from Tamaya, 'Marine Check' should be most useful for small vessels without radar, particularly in circumstances of reduced visibility. It will detect an operative radar on another vessel, thus warning of possible danger of collision, and will allow the bearing of the transmitting vessel to be established. The Marine Check has a retail price of \$95.00 (for more information, The Chart Room, 31 Albany Street, Crow's Nest 2065 (02) 922-3378).

Offshore Signals

Blue Peter becomes Sobstad

Blue Peter Sails has announced its affiliation with the successful US sailmaker. Sobstad. and the name of the local loft is to be changed to Sobstad Sailmakers Australia Ptv. Ltd.

Three other US lofts (Watts Sails, California, and lofts headed by Mark Reynolds in San Diego and Richard Stears in Chicago) and Storer Sails of Canada have joined Sobstad also, to form an international group that will exchange information on sail design. construction and performance. A European loft is to be affiliated. The group will use computer design on grid patterns to reproduce the same sail in the same fabric at any one of its lofts at any time.

To Whidden, principal of Sobstad, sailed with Dennis Conner's Freedom team in its successful America's Cup campaign iof 1980, for which Sobstad produced a fast spinnaker



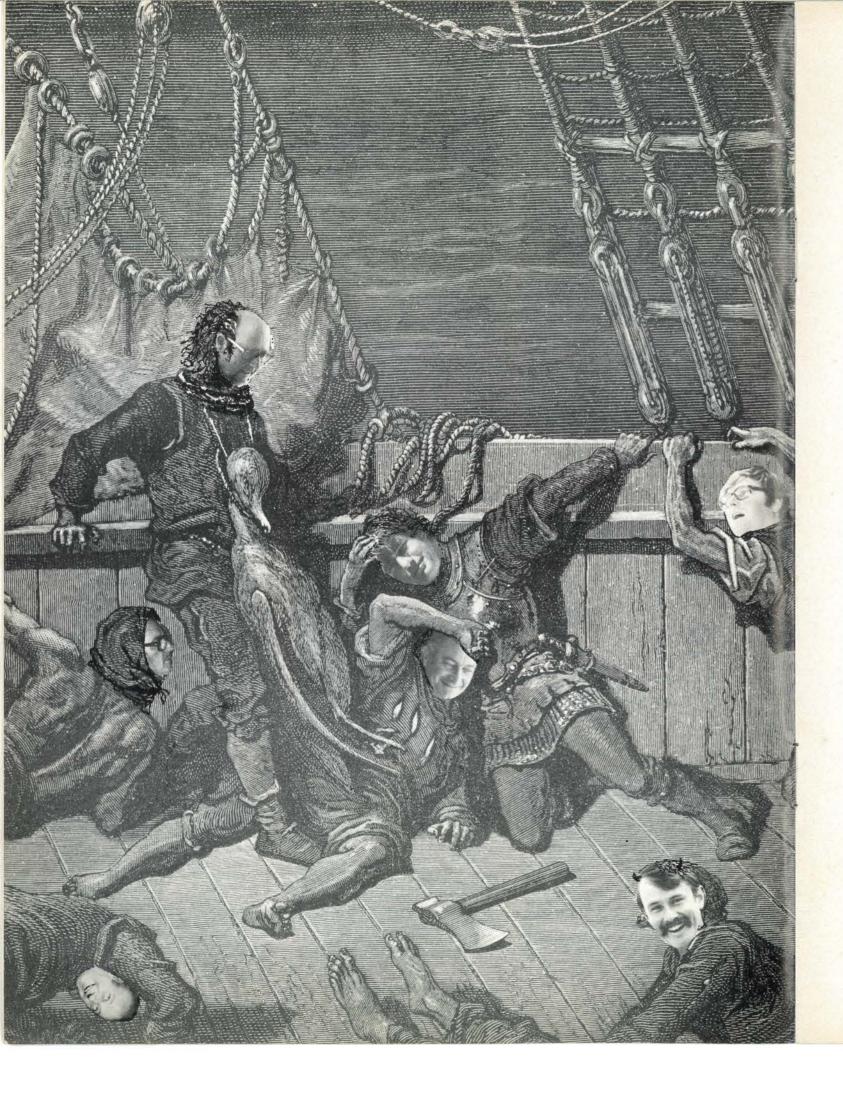
'The latest' for the calculating navigator

The Chart Room has announced that it is now able to offer the 'latest' thing for calculating navigators - the Chart Room Celestial Navigation Program, written by George Bennett, Hitachi prize-winning navigator and Head of the Dept. of Surveying at the Univ. of NSW. Written for the new Sharp PC 1500 pocket computer, this new navigation program enables the navigator do up to a 30position line fix using the sun, moon, planets and the 20 brightest stars without reference to the Almanac.

The program is unique in that:

- 1) It is the first time that a hand-held calculator has been able to deal with multipleposition-line fixes, with acceptable accuracy, using the planets and the moon without reference to the Almanac; the orbits of these bodies are subject to great variation, and the mathematics of calculating their coordinates has, until now, been too complicated for small computers unless some Almanac data is entered
- 2) The program enables individual sight evaluation and editing, allowing the user to reject or add individual sights to his calculations; the program readily identifies 'suspect' sights and these can be

(continued on page 8)



HOBART '82: THE WEATHER AND THE WINNER

A faultless and Accurate Prediction*

by Tony Cable

Well, Mr Editor, here we go again for my eighth annual predictions of the wind and weather for the Race. This time my readers will be astounded! I have never been more certain of my forecasts, particularly after all of these years of practice.

Nevertheless, I do have my customary doubts about doing this each December; while my motive is purely to help enhance this magazine, my reward for doing so is often nothing more than personal embarrassment. A large number of sailors take this opportunity to lampoon me. Why, even my own skipper, Kellett, will surely say again "Cable, sometimes you go on with a lot of (bull)".

Colfelt, you will have to shield me, from the ridicule of these self-styled 'famous ocean racers' (or not get next year's article!). You know that, over the years, my predictions have been well nigh uncanny, if not unbelievable. Your continuing confidence in me is very supportive; you apparently know that my remarks represent serious facts and are not just some sort of a comedy. [Sigh. – Ed.]

Notwithstanding, I have come up with an idea this year that will forestall the post-race abuse of my many critics. I will quote what several of these potential critics think the weather will be. We will then see who can predict and who cannot.

Upon meeting a number of the following chaps, I casually asked them what they thought the weather would do. Their comments I recorded surrepticiously, and here are some of them.

Biggles (nav. on *Apollo*): "Light and variable when not blowing a gale."

Rolf Mische (Taurus II): "Eighteen knots across the deck all the way down."

"Oh, what sort of weather does *Taurus II* like, Rolf?"

"Eighteen knots across the deck."

Frank Sticovich (*Helsal II*): "Northerly at the start for 24 hours, southerly across the Strait. Then it will die a little; then we'll be hit by another southerly."

Mickleborough: "If I go down it will be beautiful; if I don't, you'll get a hiding."

Messo is renowned for being a man of many words, but this time he was very concise: "We are due for a hard one—I'm not going".

On this evening at the bar it was starting to get a little late and it was nearing the time that I had to be home to be fed my sea biscuits. However, I do have a note, made at the end of the session, that someone said: "Everything has been late this year – very very hard – big storms in the Northern Hemisphere."

On another researching visit to the Club, I struck lawyer Peter Simms, a noted ocean 'racee', who presented the opinion: "Oh, mate! The last two have been drifters; I'll go for another one. That's a fact."

Woody Woodgate (Helsal II): "Start in a nor'easter, a swing to the south. In the Strait sou'west then sou'east".

Now I have taught Duncan Van Woerden (Apollo) everything he knows about predicting, so he was at pains to give me a seemingly well reasoned assessment. "It's going to blow 100 bags - hasn't happened like this for 20 years. There will be a black NE at the start (I noted something or other about Cape Barren Is.); then a southerly change at 70 knots will demolish the previous record of 50 retirements. It will be the most severe weather since '70. The '77 race will be a drift by comparison. There will be a great pile up of boats at Eden. All the mast makers will be down there to help pick up the pieces, and one of the vacht transport companies will even have a vehicle down there - in this case a dump truck for bringing back derelict hulls."

The same night I sought Curley's opinion. Now Curley has been known to swim the harbour single handed. Unfortunately, he was not prepared to comment at that stage.

Also, I tried Frizzle, (Grahame Freeman) but he was too surrounded by other sailors already asking his opinion about all sorts of other things.

I was onto a good prospect with Bob Scrivener (*Hitchhiker*), who is a famous Lear Jet pilot. He was even wearing his epaulettes at the bar. He explained that he could "...do it with a weather map, looking at the highs and lows, but tonight I haven't set my brain to it. The basic idea is to find where the centre of

the highs are coming across the Strait...Brisbane has had the wettest summer ever...Because the centres of the highs go across Melbourne, the weather there has been beautiful". Then he said something about "the length of the highs". I concluded the interview by saying something nice about how much he and Biggles seemed to know about the weather.

Brian Cramp (nav. Vengeance): "It will blow like stink. I hope we are in the Dock by then!"

Chas from Tas. gave me quite a lot of time; he seems to have sailed just about everywhere in the world this year including, for some reason, a trip 'past Gibraltar'. As we talked over a rum in the Coaster's Retreat, he referred to a point "...in Time magazine that had said something about 65% of weather has been normal as far as the galaxy is concerned...a volcano off Mexico has created the biggest cloud the world has ever seen...It extends all the way to Africa and affects everything...but I don't know how it affects Australia. It comes down like this (movement of hands) and out like this (more hands), past the Phillipines, to Africa...affects the Humbolt current and everything else.'

A couple of weeks later he was back in the Club after a boat trip to Melbourne, or thereabouts, with Mickleborough. He reported that the fishermen at Babel Is. had said "it was going to blow". Further, Hamish, who is driving some sort of a vessel around the oil rigs in the Strait, said that it has been "ferocious...the worst ever...for 18 days they couldn't get to the rigs". In all, Chas was an excellent research subject.

So much for the opinions of a number of my critics. Maybe, Mr Editor, after reading the above you will not be so willing to let other contributors take the mickey out of me so much in your columns in future.

"What do I think the breezes will blow at?", I think you will be asking of me by now. If you are honest with yourself, you will know with certainty that after four easy races, dreadful things are about to befall us. Duncan is right, you know. How can you go to Hobart every year since '70 and not get caught in a good old old blow?

^{*}These are the author's own words. - Ed.

Hobart '83: the weather and the winner

I wouldn't be a for'ard hand for quids. The water will be everywhere. No. 4 and 5 heads'ls. Bang, crash, trickle, trickle. Seaboots full; seacook on strike. The pounding. The spewing. Wet blankets; 140% humidity below. 120 miles still to go across the Strait. Spray even through the dogged fore hatch! Black things with fur on them on the cabin sole. When pumped, the bilge smells like garlic. Never will end; last Hobart ever. No sights. All the opposition in front. Seas getting bigger. Oilies leaking. Beer strike in Tasmania. A really hard race.

With all of this, who is going to win? In this, the overriding question is 'who will survive a really good sustained blow?' If it blew really hard for, say, three days minimum, what would happen to the fleet that has not experienced protracted heavy weather for many years? Just ponder how the new designs would really take it?

I have it from one with expert authority that there will be a lot of fancy masts go over the side. If the really top boats have the potential of falling apart, one cannot just then go ahead and name the yachts of yesteryear that should do well in a blow. For example, *Pacha* could do particularly well this year in heavy weather, as she did in '70. She will do much better than many younger yachts, but she can't be predicted as a top performer until the breeze actually shows itself. The fleet, which at last

count totalled 128, is really low on class. Once one runs through the first 10 or so, the winning potential quickly runs out. The top group pick themselves, and if they hold together, the winner will come from these.

In picking the top eschelon I make it a practice to always check with Shipway who, I think, knows everything about ocean racing. This time our ideas coincided on six of the top yachts. However he alerted me to the potential of *Audacity*. In looking back over the galley proofs for the Hobart program, I noted that she is one of the latest van der Stadts, built in West Germany. She is sailed by some members of Bob Fraser's sail loft.

Bondi Tram has just been launched with, it seems, no expense spared. A top crew is aboard, and we will be hearing a lot about her from the other race tipsters.

I have always some reservations about suggesting brand new boats, for they seem to have a very high failure rate for one reason or another, whether through over-inflated crew, under-designed rigging, inadequate design, etc.

Hitchhiker has a proven form and a first-grade crew. I understand that she goes o.k. in heavy conditions. It should be a good race between these two.

Margaret Rintoul III, the Frers 51 footer, should be very well suited to the coming race and is certainly rightfully one of the favourites. Not knowing in

detail how Frizzle handles a boat, I would be interested in asking him sometime, whether he is at all prone to driving a boat too hard in stiff weather, which on the one hand ensures race winning performance but which on the other compromises her chances of staying in the race through gear failure.

A consistent performer lately has been *Once More Dear Friends*, which confirmed her status with a second in the recent 90 miler, which gave them a fairly fresh ride home. For a hard event, *Police Car* selects herself in the top group. She won the 90 miler just mentioned and the short race the week before.

The 7th in my top predictions is the new sister ship to *Victory*, *Sweet Caroline*. She is apparently a bitch in a heavy running, being very hard to steer, but apart from this weakness has a fair deal of class.

Once going beyond this group one cannot really isolate 'form' boats. *Challenge* will doubtless perform very creditably for Victoria, as will *Piccolo* for Lake Macquarie. From the west will be Tasker's new *Siska*, which should not be overlooked.

But the purpose of this article is for me to stick my neck out and pick a limited few, and to suffer the consequences if I am wrong.

Have a nice time in the Strait this year! \square



BIGGLES' COLUMN

by John Brooks

128 entries for the Hitachi Sydney-Hobart Race in a non Southern Cross Cup year confirms the fairly healthy state of Australian ocean racing despite an economic recession. Although it now appears that there are only a few new constructions for the Admiral's Cup trials in March, ocean racing continues to be a growth sport in all states.

Australian sport generally is very sensitive to the successes of its international respresentatives, and a string of overseas victories brings a corresponding boom in a sport at home. Ocean racing received its present impetus in the series of team victories at the Clipper Cup and Admiral's Cup in 1978, 1979 and 1980 which triggered an unprecedented boom in construction of new yachts in 1980 and 1981. The interest remains and the strength of the Sydney-Hobart fleet is an indication of this. On the other hand, the lone New Zealand entry Fidelis is an indication of just how much Kiwi ocean racing has been weakened recently. A shrinking IOR fleet and the rollback of a once great yacht building industry are but two manifestations of the recession in Kiwi ocean racing, although I am not suggesting that either is the cause of the other.

New Zealanders, too, are sensitive to the overseas success of their sportsmen, and since the heady days of the seventies when Chris Bouzaid and his contemporaries were household names, Kiwi international victories have been few and far between. In 1971, 1975 and 1977 New Zealand had a mortgage on the Southern Cross Cup, beating Australian state teams in their home waters and humbling some strong British teams into the bargain.

Now, it seems, it is back to square one for NZ ocean racing. This is something of a blow to the sport and not only in New Zealand, because strong Kiwi competition is very important to the standard of our own offshore wallopers, especially around Southern Cross Cup time. It is to be hoped that they rebound sufficiently to send over a strong contingent next year. The Southern Cross Cup would not be the same without them.

0 0 0

I thought that things had become rather quiet on the IOR scene lately. There we were, almost half way into the season and there was no sign of a yachting controversy anywhere, unless you count the *Tobiume* rating business during the Clipper Cup. The Offshore Racing Council of the the IYRU had been ominously subdued for a long time, and even Bruce Farr had recovered his dummy and ventured back into the IOR fray, this time based in America.

Then, the November meeting of the ORC in London decided to ban aramatic polyamides, which includes Kevlar, from use in sail cloth, on the grounds of unreasonable cost and poor durability. Most people, especially owners, would have agreed in principle except that the ruling was to be implemented in June 1983, which would preclude its use in the 1983 Admiral's Cup and, by extension, the Australian Admiral Cup Trials.

There were groans of anguish from boat owners with wardrobes of brand new Kevlar sails, such as Dennis O'Neil (Bondi Tram), but the fellows who were really hurt were the sailmakers, many with large existing stocks or contracted orders for the cloth. Hugh Treharne, for instance, had seven Kevlar sails in the process of final assembly in the loft and \$10,000 worth of cloth on the way from the US when the committee decision was announced - all of it suddenly useless. One can only guess at the inventories that some of the big American and European sailmakers were stuck with.

The haste with which the idea was introduced by the International Technical Committee and implemented by the ORC is rather curious. The Australian representatives, for instance, knew nothing of the proposal when they left home only a few days before the meeting. Jim Robson Scott fought hard at

the London meeting to delay introduction of the ruling until January 1984. He was outvoted 16 to 3, but as soon as the word got out the international flak began to fly. It got thick enough and hot enough to impress ORC Chairman John Roone, who began to perceive that the Council had acted in haste. He subsequently polled the ORC delegates again and revised the introductory date to January 1984, which is where the matter now stands. An English Councillor has evidently offered to resign, claiming that the second vote was unconstitutional, but at the time of closure for this issue the relevant date remained at January, 1984. A less controversial, and more com-

A less controversial, and more commonsense, decision was that affecting the level rating classes. The decline of interest in One and Two Ton level rating events prompted the ORC to do away with the Two Ton class altogether and to revise the One Ton rating upwards to 30.5'. In effect, they combined the two classes into one and this could regenerate interest at this level of off-the-stick ocean racing. Not co-incidentally, the new rating is just above the minimum figure for the Admiral's Cup and the Southern Cross Cup.

0 0 0

The America's Cup syndicates have been much in the news lately, partly as the result of active PR Consultants desperately trying to pry sponsorship out of an increasingly reluctant public, here and overseas, and partly as a result of a series of 'back to the drawing board' reports from America and Europe. Evidently, none of the overseas designs so far has been considered raceworthy.

However, in the 'now to be told' category is the story of a hitherto unknown 12 metre syndicate in Ireland which was only revealed exclusively to this column after the principal backer ran short of funds, not to mention freedom of movement. Called the DeLorean 12, the secret challenger was scrapped after trials demo strated disappointing performance to weather. It seems that the boat did not sail very high, only the crew did.

0 0 0

Finally, welcome home Neville Gosson and seasons greeting to all of my readers. I'll buy you both a beer in Hobart.

WELCOME HOME LEDA PIER ONE AND NEV GOSSON!

'The latest' for the calculating navigator

(continued from page 5)

excluded from the 'fix'; similarly, more sights may be added without altering good data already entered. This sight evaluation and editing facility, and the program's abilty to handle up to 30 observations, does away with the need to compute average times and altitudes, and it avoids 'traps' occasionally inherent in these arithmetic averages.

- The program incorporates additional routines for:
- (a) Identification of unidentified bodies (it provides SHA and Declination, and the Almanac is then be used to match the body and its SHA/Dec);
- (b) Predicted altitude;
- (c) LHA Aries;
- (d) Great Circle Sailing;
- (e) Traverse (updating of DR by 'adding' course and distance to existing DR).
- 4) For the first time, this program provides the option of allowing the time to be entered automatically by pressing a button. The PC 1500 has a very acurate time module, and the program has been constructed so that, if he so chooses, the navigator (or his assistant) may record the time of each sight automatically.

New algorithms

In developing the new program, George Bennett, who as a surveyor is not unfamiliar with such problems, spent some six months modifying the basic formulae used by the Royal Greenwich Observatory and the US Naval Observatory in compiling the Nautical Almanac data. He has devised a new set of 'algorithms', as they are called, a series of mathematical steps or collection of formulae, which are compact but which are acceptably accurate (with a maximum error of a few tenths of a minute of arc). Up until this time algorithms that had been employed in commercially available navigation programs were based on a set developed by the U.S Naval Observatory, which was looking for a set of simplified, repetitive formulae that could be adapted to simple machine calculations: these algorithms needed to be repeated some 200-300 times to produce the coordinates of a celestial body, and because they were a simplification, accuracy was of necessity sacrificed. Bennett's algorithms employ a lot of trigonometric functions and they recognise the minor variations - 'perturbations' in astronomical language - in the orbits of celestial the bodies produced by the interaction of their gravitational forces, particularly the orbits of the near bodies such

as the moon and planets. In fact, some two thirds of Bennett's 11,000 program steps are taken up by the generation of the coordinates of the moon and the planets!

The program is divided into sections which are accessed by using keys on the calculator keyboard that have been assigned to these program sections. The sections are for: (1) basic data entry (date, sextant error, watch error corrections, DR, nominated time of fix. course and speed of the vessel (to allow automatic 'transfers' of individual sights taken over a period of time); (2) calculating intercepts and azimuths; (3) plotting a position; (4) data correction - addition or rejection of observations; (5) DR updating; (6) Identification of unknown body; (7) Predicted Altitude of known body; (8) LHA Aries; (9) Great Circle sailing. The logical flow, the facility for the user to move from one section of the program to another just as one would enter data over the natural course of a voyage, is an outstanding attribute of this program.

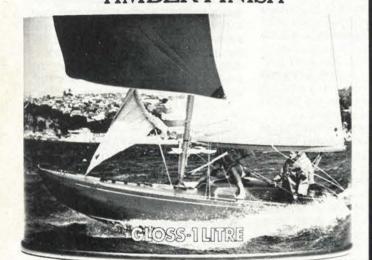
Program operation

The first stage of operation is the inputting of the basic data used in any navigation

(continued on page 23)

The long-lasting clear finish from the experts.





Now there's a marine finish specially designed for Australian conditions by Wattyl, the creators of Estapol.

Estapol Marine Clear has been researched and tested to cope with the unusually harsh ultra-violet rays of the Australian sun.

Estapol Marine Clear contains an effective ultra-violet absorber - to counter the sun's rays, and resist the damaging effects of salt water spray and wind.

It provides an attractive, high-gloss finish for timber masts, spars, windows and other exterior timber surfaces.

Estapol Marine Clear. A remarkable marine finish. From the experts.



Available from leading Ship Chandlers and Hardware outlets in 500ml and 1 litre cans.



SPECIALISTS IN **YACHT CLUB** MARINE INSURANCE

Before you renew your marine insurance, ask yourself these auestions...



Am I getting the best value for my insurance dollar.



Do I receive personal attention.



Do my claims receive prompt attention

If any answer is in doubt phone Jayn Warner on 232-1500 and check our rates and conditions.



50 Bridge Street, Sydney, Australia, 2000.

YACHTING PARADISE MOOLOOLABA SUNSHINE COAST, **QUEENSLAND**

THIS IS THE ULTIMATE IN LOCATON

Deep water Mooloolah River frontage, directly opposite the Mooloolaba Yacht Club (the famous Sydney-Mooloolaba Race destination and with world class marina nearing completion). The Mooloolaba Harbour is renowned for all seasons safety. Brisbane International airport is only one hour's drive away. The sunshine Coast has the new Maroochy Jet Airstrip under construction.

THIS IS THE ULTIMATE IN LIVING

This superb 'open plan' home with northerly aspect features high timber ceilings over the enormous living area opening out on to the wide, slate outdoor entertainment area. Garden breakfast room, centrally positioned bar and timber-pannelled kitchen (complete with large cold-room) are all there. A lift has been installed to gain access to the master bedroom and partents retreat which occupies the entire upstairs front section of the house leading out on to the slate balcony with views across the river. The front garden with the delightful Japanese garden and the manicured lawns on the river front are watered by an underground reticulated water system. Plans approved for private jetty.

ALL THIS PLUS YOUR OWN PALM FRINGED SANDY BEACH

THIS IS THE ULTIMATE IN VALUE

Where can you buy such position and life style for

Answer: This property at Mooloolabah!









'SHARA', 134 Alexandra Parade, Alexandra Headlands, P.O. Box 168, Maroochydore, Qld. 4558 Telephone (071) 43-1888 FOR FURTHER INFORMATION

Cut out this coupon and mail to the above address.

ADDRESS

PHONE

POSTCODE

FUNCTIONAL, NOT FANCY

by Bill Sherman

Once More Dear Friends would have to be one of the most fancied boats in this year's Sydney-Hobart.

Built as minimum rating Admirals' Cup contender for Peter Kurts, one of the most successful owner/skippers in the CYCA, *OMDF* is the current Club Blue Water Champion, and at the time of writing she is leading this year's Short Offshore Points Series and the Long Offshore Points Series, with wins in two out of the first three long races.

She was designed by Ed Dubois following his trips out here in 1979/80, to be a replacement for *Love and War* in which Peter Kurts had won two Hobarts. The specification given was that she had to be: capable of making the 1981 Admirals' Cup team (in the event she narrowly missed selection); capable of winning the Sydney-Hobart (she came second in Division just after being launched in October 1980); fractional rigged (based on the success enjoyed by *Deception* and *Relentless*); and built according to the latest state of the art – a light boat, carrying plenty of sail.

Construction

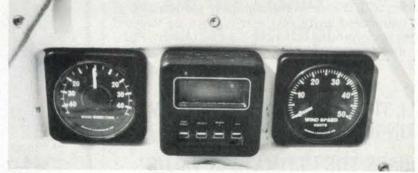
When John McConaghy took on the building of *OMDF*'s hull and deck, he had built a number of 18 footers using vacuum forming techniques but no 'big' boats, so *OMDF* was a first for him – a learning experience.

The technique is not that difficult when John explains it (Houdini made his job look easy too).

- A well finished mould is made of ply and pineboard and the boat is built inside out.
- The mould is covered with vinyl sheeting and a wax release agent is applied.
- A light gelcoat of the interior colour is then painted on (in OMDF's case the interior is white).
- The first layer of Kevlar is laid on and resined. For OMDF's a 5 oz bidirectional Kevlar was used with an isothalic polyester resin. The Kevlar is similar to a medium/coarse fibreglass mat to look at.
- A second layer of Kevlar and resin is applied and then ¾" thick Klegecell foam is fitted all over the mould and vacuumed into the wet mat.
- Additional layers of Kevlar and resin are applied and the outside of the hull painted.
- Between each layer of Kevlar, and between the Klegecell/Kevlar lay-



OMDF is fitted with Barlow winches. She is tiller steered.

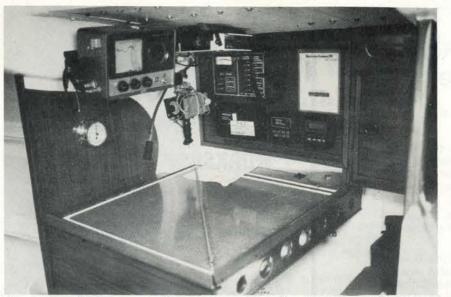


The helmsman has wind speed and wind direction indicators and boat speed on a digital readout.

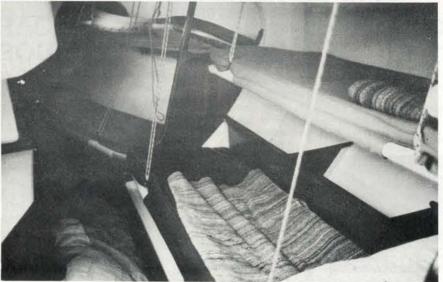
ers, a layer of $\frac{1}{3}$ oz chopstrand fibreglass is used to aid adhesion.

8. Hull and deck are both built in this manner, with the foam removed and filled solid where extra strength is required, in areas such as the mountings for stays, rudder and keel. Some framing is also built in using foam with uni-directional fibreglass and Kevlar.

As this was John McConaghy's first vacuum formed ocean racer, there was a certain amount of learning along the way. For example, unidirectional Kevlar is now used instead of bi-directional, as experience has shown that better longitudinal rigidity is achieved. However the result of this first big job is, to use John's words, 'Beaut'. Once More Dear Friends has a fine light, rigid and strong hull



The nav. area, with Brookes & Gatehouse Hercules system, HF radios, RDF, recording depth sounder and barometer.



Eight pipe cots are fitted, four on either side of the cockpit.



The galley is small but functional.

Interior Layout

Down below she is laid out in the classical offshore racing model, with the location of the various elements being largely dictated by the deck configuration and balance requirements.

The forward 40% (approx.) of her hull is basically open space used for sail storage, hanging wet weather gear and, by the bulkhead, for a toilet.

The rear 40%, under her cockpit is given over to bunks with four on either side arranged in two banks of two berths. The bunks are adjustable pipe cots.

The remaining centre 20% is a clear area, used for a neat timber galley with stove, sink and ice box, to port and navigation area to starboard.

The interior could hardly be described as luxurious, but it is very functional, and *OMDF* is, after all, designed and woked as a top-flight racing boat. The workmanlike interior reflects this.

Sailing Gear

The most dominant feature of *Once More Dear Friends* above decks is a long shallow cockpit taking about 40% of her overall length.

She is tiller steered and well fitted with a Zapspar mast and Barlow winches, self-tailing where required. Sail adjustment is manual except for hydraulics in the main outhaul.

She is fitted with the Brookes and Gatehouse Hercules system, and the helmsman has analogue readouts for wind speed and direction and a digital boatspeed indicator available to him, duplicated on the bulkhead on either side of the companionway, at the forward end of the cockpit.

Her measurements are: LOA 12.0 m; LWL10.0 m; Beam 3.78 m; and Draft 2.2 m. Her IOR rating as listed in this year's Hobart Program is 30.3.

Once More Dear Friends is proving a formidable competitor and one that seems to get better the more she is raced.

When she was launched many of the crew of *Love and War* were available to sail her. With Peter Kurts as skipper, and an experienced crew she has always been very professionally raced, and it is that professionalism that has enabled her to do so well.

Whether she wins the 1982 Hitachi Sydney-Hobart Race remains to be seen, but she is a boat with that blend of good organisation, good equipment, good design and good leadership which makes it very possible.

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 – BOATING.

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



Write for address of your nearest Chart Room Stockist



WORKSHOP EQUIPMENT IN CITY!!

Japanese Quality Power Tools

Makita

3 mm/8 mm/10 mm CORDLESS DRILLS S69

with Recharger Pack and Nickel Cadmium Battery

Prices Plus 71/2% Sales Tax at 1/1/'83

ORBITAL SANDER WITH DUST BAG \$79

- FINISHING SANDER
 520W MOTOR
- 10,000 ORBITS PER. MIN.
- PAD SIZE 114 mm x 234 mr



ALSO AVAILABLE

4" (100 mm) ANGLE GRINDERS \$49 9" (230 mm) ANGLE GRINDERS \$113



BENCH DRILL \$169

- 12 SPEED
- 0 to 45° TILTING BASE
 ¾ HP MOTOR
- % CHUCK
- 2 MORSE TAPER

SYDNEY 52 WENTWORTH AVENUE
CITY OPPOSITE GOULBURN STREET
211-0516



RACING ROUNDS

by Duncan van Woerden

From doggies to veggies

In past years I've heard racing yachts described as everything from behaving like one's favourite mother-in-law to the recently chronicled canine series of Admiral's Cuppers, e.g. *Once More Dear Dingo* and the *Police Dog*.

Recently, however, an exciting new jocular grouping has arisen from the bar floor – the 'vegetables'.

It sounds a little like some punk rock culture rather than yachting terminology, but this latest affectionate degradation relates to the most impressive and expensive breed of racers – the maxis.

It originated, I think, with the debut of Jack (Auntie) Rooklyn's newest *Apollo* some years ago, where she carried some very uninspired nicknames such as 'The Slug', 'Log'. 'Green Log' and, finally, the creative masterpiece, the 'Gherkin'.

In typical Australian fashion she was only awarded this title after cleaning up the last Burns Philp maxi series, in straight races, escaping the previous tag of the 'Green Zucchini'. Gherkins are much more slippery than zucchinis!

So far I've heard Vengeance referred to as the 'Tomato', the 'Turnip' and the 'Radish'. with tomatoes coming out on top. That elegant maxi, Condor of Bermuda is described as either the 'Pumpkin' or the 'Potato', and Helsal as the 'Parsnip' (there being a lack of white vegetables with a sufficiently aerodynamic shape).

As yet I've heard nothing worthy of either *Rampant* or *Anaconda* (the mind boggles) but trust that by Boxing Day both yachts will be suitably endorsed.



Back in the main fleet most interest lately has centred around the launching of the O'Neil Syndicate Frers design, Bondi Tram. Billed (built) as the ultimate in exotic plastics the Tram has been haunted by problems of her own design ingenuity. The problem appears to be that the builder, John Machonaghy, of eighteen foot skiff fame, has managed to construct the hull a massive 800 kg lighter than designer Frers thought possible, making a mess of her initial freeboard and inclination predictions.

The *Tram* is currently carting about 5½ thousand pounds of internal ballast in an attempt to achieve her designed trim. The *Tram* has shown flashes of brilliant speed upwind and also square running, but has not been consistent as yet — probably due to the constant retrimming of the yacht and a spate of annoying gear problems that are slowly being sorted out.

Machonaghy has also just completed a new sister ship, the P.N.G owned *Di Hard*, which was launched on the 13th of December – just in time for the Hobart rating cutoff. *Di Hard* is not as light as Bondi Tram, carrying a heavier interior and deck – the ensuing performance comparison will be one to watch.

The past month has also seen the complete domination of *Police Car* in LOPS and SOPS racing, recording four wins from four races after her return from Hawaii. Sir James won't reveal the secret of his new found lease of life for the car, but I've had it on good authority that there'll be a rash of lolly pink spars if the the *Car* wins the Hobart.



The Battle of the twelves has also started, in Sydney and Perth, with some encouraging performances. Gordon 'Wingnut' Ingate's *Gretel II* has just undergone a major refit, and from all accounts is proving a worthy trial horse for the RSYS challenger, *Advance*. *Advance* appears to have little in common with the Payne-designed Gretel other than a probable liking for lighter air.

Funding for the Sydney twelve has not been spectacular, unfortunately, but hopefully with the two yachts gaining increasing exposure in the Harbour, support for the effort will be increased to the level it deserves.

My spies in Perth have related that the Melbourne syndicate yacht, *Challenge*, is proving a handful for the Bondbacked Australia in lighter airs and downhill. Both yachts reportedly have differing keels and underbodies, though from the same designer, 'Ben Bob' Lexcen. It's early days yet, but don't be surprised to see either Challenge sailing under the Bond banner or a new hull appearing in March.



In view of the fact that I made such a mess of predicting the Clipper cup series and also that Tony Cable will be correct on only one point this year, I feel obliged to help the reader in his quest for domination of the bookies.

Firstly, I would like to state that Cable has finally got the weather sorted out. If anyone thought that 1977 was a little windy, then I would suggest that 1982 will make '77 look like a cat's paw by comparison.

If you're sailing in a $\ensuremath{\mathcal{V}}_2$ -tonner I'd suggest a late entry in the Coffs Harbour Bonanza as a better alternative to schooners and tuna salad at Eden.

Handicap honours I would expect to come from either Margaret Rintoul III, Marloo or Police Car, and maybe Rolly Tasker's new Siska if in tune.

The line honours duel is anyone's guess! All I know is that the 'vegetables' will be that wet and thumped that they'll all look like Campbell's soup cans when they get to Constitution. My totally biassed opinion will remain with the Gherkin.



I've heard that Dave Lawson is organising the QLD rally, a predicted-time event for the return trip to Sydney. 'Lawso' organised a similar event from Mooloolaba this year with great success; for those cruising back it is a must. Prize giving for the rally will be at a special function at the Club in February. Organised by the QLD, it will adopt the format of a Rum and Scallop Pie tasting. You'd better book early.

COURIER YELLOW TAXI TRUCKS ARE NOW IN THE COURIER GAME



WE'D LIKE Your Business Radio Room 51-2434 51-5840

THE 1983 AUSTRALIA-NEW CALEDONIA RACE

by Peter Campbell

The 'French Connection' of Australian yachting, the biennial Club Mediterranee ocean race across the South-West Pacific to New Caledonia, is almost with us once more – next May, to be more precise, and already the Cruising Yacht Club of Australia has received more than 90 firm enquiries about the race from yachtsmen throughout Australia, from New Zealand and New Caledonia

Although entries don't close until March 1, 1983, more than a dozen yachtsmen already have paid their entry fees and started planning for 'the great Pacific happening'.

The Australia-New Caledonia Race is a most challenging voyage across the South-West Pacific, requiring well-found yachts, skilled seamanship and expert navigation to negotiate the danger spots such as Middleton Reef and to make a landfall at historic Amedee Lighthouse which marks the passage through the coral reef south of Noumea.

Noumea is always a great attraction to Australians, our nearest foreign country. This old outpost of French colonialism abounds in superb restaurants, duty free shops and fine beaches just for relaxing and with an out-going friendliness that (some say) make it different from the mother country.

Two Races

Once again there will be two yacht races from Australia to New Caledonia in 1983. One fleet will start from Sydney, on Saturday, May 21, the other from Brisbane, on May 23 Both fleets will finish at Noumea. The distances will be 1080 and 720 nautical miles. There will be an identical trophy list for each race, including the Club Med Line Honours Trophy and trophies for the first three placegetters in each Division and Section.

For both fleets there will be an IOR Division for yachts with a valid IOR certificate, an Arbitrary Division for yachts not wishing to race under IOR handicaps, and a Cruising Division for yachts whose primary method of propulsion is sail but which may use their engine to keep up with the fleet. They will also be permitted to use self-steer-



Regardless, winner of the 1980 Club Med Sydney-Noumea Race, slowly runs towards Amedee Lighthouse and the finish of the 1080 nautical mile voyage.

ing, radar and other equipment to assist their passage and safety.

Yachts in the Cruising Section will be given a handicap to add to the atmosphere of competition.

All competing yachts will, of course, have to comply with the Australian Yachting Federation's stringent Category 1 Safety Regulations. The minimum size of eligible yachts is an IOR rating of not less than 21.5 feet or a waterline length of not less than 24 feet.

The 1983 Club Med Australia-New Caledonia Race will also be the first ocean race conducted by an Australian club in which the use of satnav units will be allowed for navigation.

All competing yachts also will have to be on the Australian Register of Ships to enable them to receive a certificate of clearance from Customs officials.

New finshing line

Another feature of the 1983 race is that the finish line will no longer be off Amedee Lighthouse, that towering guardian of the main entrance through the coral reef which surrounds the southern coast of the island of New Caledonia. The Cercle Nautique Caledonien, the host Club in Noumea, has agreed to a suggestion by the CYCA that the finish line be located at the Petite Passe, near the yacht club.

Suitable temporary navigation lights will be placed on the reefs between Amedee Island and the finish line to make navigation easier and safe at night across the lagoon. No longer will contestants have to wait at Amedee Island to be escorted to Noumea as each yacht will be met at the finish line and taken to its berth immediately on arrival, at any hour.

This arrangement will also be easier for members of the CNC who in the past have had to spend up to a week camped on Amedee Island taking finishing times.

According to Race Director Alan Brown, interest in the 1983 Pacific Happening is fairly evenly divided between IOR and cruising yachts. Owners of both the racing and cruising boats have indicated they plan to cruise the tropical islands that surround New Caledonia before making the return voyage to Australia. Several cruising yachtsmen plan to use the race as a stepping stone to extensive Pacific cruises.

Brown is confident that the total of the two fleets starting from Sydney and Brisbane for this seventh race to New Caledonia will exceed

the previous total of 43 boats - 27 from Sydney and 16 in the inaugural race from Brisbane.

The 1983 race is once again being sponsored by Club Mediterranee, the giant French tourist organisation which now operates what was the famous Chateau Royale Hotel and resort on the outskirts of Noumea.

So while yachtsmen are planning their week to 10-day passage race across the South-West Pacific, their friends and family are already booking flights on the French airline, UTA, and planning to relax in the sun at the Club Med whose staff last time did such a magnificent job in looking after the yachting visitors and in entertaining the yachtsmen when they arrived.

Noumea hospitality

The hospitality given the yachtsmen and their friends and families is always overwhelming in New Caledonia, with the sailors feted from the moment they enter the port of Noumea to the grand trophy night at the Club Med – in itself a remarkable and colourful event.

For the 1983 race the fleet will again be moored at the 'old port' of Noumea instead of on marinas at the Cercle Nautique Caledonien. As in 1979, barges will be moored bringing all the yachts together rather than spread out as they were after the 1981 race.

If 1979 is any guide, the old port will be virtually turned over to the yachtsmen, with entertainment almost non-stop along the waterfront – dances, feasts of local food, native dancers and steel bands.



All aboard for the 'Funny Race' in Noumea when competitors in the Australia-New Caledonia Race traditionally entertain their hosts for a day of fun sailing.

The crowd which visited the yachts on the Sunday after the finish of 1979 race was the largest and most colourful I've ever seen at any yacht race finish other than the Sydney-Hobart. Large families of native people came in from the villages especially to see the yachts.

The yachtsmen return the hospitality by taking the locals out on their yachts for the 'Funny Race' – a carefree excursion out of Noumea Harbour and around several islands in the lagoon, with an accompanying fleet of native craft and windsurfers (they are all the rage in New Caledonia).

Most of the yachts dress ship for the occasion, decorating masts and rigging with palm trees and even having their own steel band and dancing girls aboard. And the crew of 10 suddenly expands to 60!

After the last two Noumea races many of the yachts, by now joined by friends and families, have cruised the magnificent islands which surround New Caledonia, islands like Turtle and Amedee within the coral lagoon and further offshore to the famous listed be Pines and up to the lovely Loyalty Islands atoll.

Entries already received

Among the yachts already entered for the 1983 Club Med Australia-New Caledonia ocean race are *lle Ola* from Geelong, *Kai-Vita* from Brisbane, *Lotus* from New Zealand, *Mandalay II*, *Mystic Seven* and *Satin Sheets* from Sydney, *Yoko* from Melbourne and the Tasmanian sloop *Solandra*. Near certain starters are the maxi *Anaconda* and *Onya*.

Ile Ola, owned and skippered by Geoff Wood is the famous Herreshoff three-masted schooner which has sailed in almost every major ocean race on the Australian east coast, including the last three races to New Caledonia. Since he launched Ile Ola in 1952, 'Gentleman Geoff', as he is known because he always starts a race in full yachting rig of reefer jacket and cap, has sailed the 55-footer in three Sydney-Noumeas, three Sydney-Suvas, 17 Melbourne-

Devonports, 11 Melbourne-Hobarts, five-Queenscliff-Portlands and two Sydney-Hobart Races.

Trans Tasman singlehanded yachtsmen Arthur Eady has entered the New Zealand designed and built 10.26 m sloop, *Lotus*, in which he finished fourth in the 1982 race – this time with a crew, of course. Arthur has raced and cruised extensively in New Zealand waters and also sailed his previous yacht, *Acrux*, in the race to Port Vila.

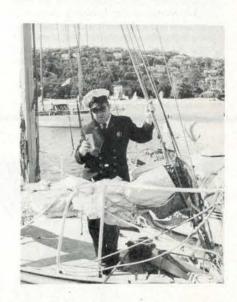
Sydney yachtsman David Beer has entered his 15.2 m ketch Mandalay III for its second race to Noumea in the Cruising Sections, while two of the early nominations for the IOR Division from Sydney are Andrew Strachan's Satin Sheets and Neville Chidgey's Mystic Seven both of which sailed in the 1981 race.

Satin Sheets, a Peterson Two Tonner, is currently one of the most consistent performers in the CYCA offshore pointscore, while the comfortable Mystic Seven, a Swanson 36, sailed well in the recent Lord Howe Island Race.

Former Race Director and certainly the driving force behind the revival of interest in the race from Australia to New Caledonia, Peter Rysdyk, has also entered his latest *Onya of Gosford*. This boat is a Miller 40 designed by America's Cup designer Ben Lexcen, and Peter sailed his new *Onya* in the recent Lord Howe Island Race.



Line honours winner in 1980, the schooner Anitra May gets a tropical breeze to take her across the lagoon to Noumea after the finish as Amedee Light.



'Gentleman Geoff' Wood from Geelong is always the immaculately dressed yachtsman for the start of any ocean race. He is one of the early entries for the 1983 Club Med Australia-New Caledonia Race with his famous old three-masted schooner lle Ola.



Brisbane-Noumea

The one firm Brisbane entry so far is Kai-Viti, an 11.5 m sloop owned by Royal Queensland Yacht Squadron member F.M. Harland who has sailed in ten Brisbane-

In all there are 15 prospective competitors for the IOR Division from Brisbane and 18 for the Arbitrary or Cruising Divisions.

Sydney-Noumea

Some 40 owners have indicated their interest in racing from Sydney to Noumea including entries from New South Wales, Victoria, Tasmania, South Australia and Western

With the yachts which have already officially entered, this makes more than 80 owners definitely intersted in sailing in the 1983 Club Med Australia-New Caledonia races with a probable total fleet of between 40 and 50 boats starting from Sydney and Brisbane next May.

Among the potential Brisbane starters are several of last year's fleet including Doug Jewry's 59' Siska II which took line honours in the inaugural race from Brisbane to Noumea last year. Envy, skippered by Mal Hewitt, the winner of the Brisbane division on corrected time, is again a likely starter as are Vindicator, Breakaway, Demonstrator, Amon Re, and Timana II which all competed in 1981. Panacea, Banjo and KaiViti which



Regardless crew go spinnaker flying at Amedee Island in New Caledonia

sailed in the Arbitrary Division last year are also expected to start in 1983.

The Sydney fleet boats last year which look like fronting up again include Double Bogey, Satin Sheets, Borsalino and Tasmania's little Thylacine which finished fourth in the IOR division last year.

There is also a good chance that last year's winner on corrected time, the New Zealand sloop Regardless, will again enter for the 1983. Talking to designed/builder/ skipper John Lidgard and his wife/navigator. Heather, in Hawaii during the Clipper Cup they indicated they were definitely considering another voyage across the Tasman to take part in the race to New Caledonia.



- · Personalised rigging service at any
- · tuning, troubleshooting
- all types standing & running rigging
- mast maintenance & inspections

John Noakes Rigging Pty. Ltd. 41 Muttama Road Artarmon NSW 2064

(02)419 5245 30 years rigging experience

'The latest' for the calculating navigator (continued from page 8)

problem - entering the year, month and day. The machine asks for this information item by item with big, clear prompts; mistakes in keying can readily be edited using the cursor to delete or overwrite mistakes. When you've checked your keying you enter each data item with the ENTER key, and move on to

If you know that you have a sextant instrument error, or watch error, this is entered in the data file and becomes a correction factor that will automatically be applied to all calculations; once the information is entered, it resides in the data file until you change it.

"Time zone" is is called for, and you enter your local time zone in plus or minus hours to Greenwich; for example, on the Australian east coast you would enter '-11' (during daylight saving time), and thereafter you can stop worrying about subtracting hours from your watch times in order to convert them to GMT; the machine does it automatically and what's more, looks after the change of

Height of eye is also entered in the data file; if you find that you are shooting from different parts of the yacht and height of eve is changing, you will have to go back and update this data each time (entering at Data 2, which begins with this piece of data); as is more often the case, you can just leave height of eye alone once you have entered

Today's racing yachts are capable of great speeds when reaching or running in fresh airs with all gear on. A navigator doing evening star sights, especially if there are clouds in the sky, could be up taking shots for as much as 20-30 minutes. In the past it has been the custom to disregard the direction and speed of the yacht during the course of taking these grouped observations: however one can appreciate that this practice may result in significant error, as the position from which the first observations were made may be 10 miles distant from where the last

ones were taken. The Chart Room program asks you to nominate your DR position, a time of fix, and the course and speed of the yacht. With this information the program will automatically correct for the speed and direction of the vacht during the observation period. If for example, you start your observations at 2030 hrs and nominate this as your time of fix, you then enter the DR position corresponding to this time together with the course and speed of the yacht. All observations, with the exception of the first, will be retarded by the program so that they correspond to what they would have had the observer been stationary at and from 2030 hrs. You may have been, say, 8 miles down the track from your first observation when you completed your sights, but the program has taken this movement into account. This technique is very convenient if you siwh to advance or retard your observations to, say, the even hour when it is customary to read the log, the limitation being that the course and speed of the boat remain reasonably steady for the period of time under observa-

Updating for subsequent sights

Once data is entered, at the beginning of the trip or when you are about to work up sights it is remains intact until it is changed, even if the computer is turned off.

If at any time any changes need to be made or you wish to review what is in the machine, the data may be entered at any of the three stages by pushing one of three marked buttons on the keyboard; thus, if you wish to change only the nominated time of fix, which is the ninth item asked for in a list of eleven items, you can enter at Data 3 by pushing that button, and you won't have to review all the rest of the data too.

Reducing Sights

When you are ready to reduce your sights, you enter the LOP mode (Line Of Position) and the computer prompts 'OBSN NO 1' and thereafter it will automatically number your sights in sequential (numeric ascending) order. Because the program is designed to handle up to 30 lines of position, you do not need to average altitudes and times of individual body observations; the 30 entries

How to be fractionally faster.













faster, come and talk to us at Fraser Sails,

you own a Mast head yacht, and you'd like it to be fractionally



DIAMOND CUTTER & ONCE MORE DEAR FRIENDS

The fact that all these fractional rig yachts have been putting the wind up most mast head rigs, has a lot to say for our sail cutting technology. Now after much experimentation and development, we can pass on this same winning technology to the owners of Mast head yachts, so if

Contact NSW: Bob Fraser or Ron Jacobs, 6 Nield Ave. Rushcutters Bay. Phone (02) 334341, 334836. WA: Will Hammond, Hammond-Fraser Sails Pty. Ltd.,

you've nothing to lose only races to win. Fraser 345 Stirling Hwy., Claremont. Phone (09) 384 5446. QLD: Rob White, Fraser Sails Qld. Pty. Ltd., 188 Barry Parade, Fortitude Valley. Phone (07) 52 8262

'The latest' for the calculating navigator

(continued from page 23)

that the computer will accept may be used to do five observations of six different bodies, or 30 single observations of 30 different bodies, or any combination of 30 that you like. If at any time during entry you stuff up an entry, it can be edited (if you correct it before you have pressed the ENTER key you do so simply by moving the cursor back to the mistake and deleting or overwriting it, or if you discover the error after you have ENTERed it, you may use the DELete and/ or ADD parts of the program which enable you to add and delete any observation you choose to by number.

Each of the twenty brightest stars, Polaris, the moon (upper and lower limbs), Venus, Mars, Jupiter, Saturn, Sun (upper and lower limbs), has a number assigned to it which you key in when identifying the body you have sighted. Provision is also made for manually entering SHA and Declination for second magnitude stars.

As each observation is keyed in, the computer takes 11 seconds (or longer for the moon or a planet) to display AZimuth and INTercept. Another press of the ENTER key. and in the display 'OBSN NO' plus the next sequential sight number is automatically presented, and you go on to enter your sights in order. The quality of your observations becomes apparent even at this early stage because the intercepts from the multiple observations to a body should show reasonable agreement.

If you are doing, say, a grouped observation of stars/planets, after entering the data for your last observation you press a button labelled FIX, and the computer calculates and displays latitude and longitude (side by side, as the Sharp PC 1500 can display some 26 characters at one time).

As you continue to press ENTER, the computer then displays the ERROR for each individual sight; this is the perpendicular distance of that particular line of position from the observed position. This enables the user assess the 'quality' of each particular sight, and those that are at obvious variance can then be deleted using the DEL button and by entering the number of the observation to be deleted. If further sights need to be added, this can be done by using the ADD mode and entering new data, which will be sequentially numbered automatically. Once a sight has been deleted, or another added, pressing the FIX button will recalculate the observed position and display a new ERROR for each individual sight.

Friendly software

The ability of the user to obtain immediate access to almost every stage of the program makes it extremely 'friendly' to the user; there is no need to re-enter data unless it changes, such as date, time zone, perhaps height of eye; the computer retains previously entered data until it is replaced; Bennett has also made it possible to obtain access to this basic data file at any of three levels; this means you don't have to review all of the entries each time you turn on the calculator but can go directly to that part where you may wish to change data (e.g. nominated time of fix); anything residing in the data files, such as date, existing DR position, watch correction, etc. may be ed-

ited as necessary, or it may be viewed without changing it.

The ability to delete and add information for recalculation also is an extremely 'friendly' aspect of the program. One never has the horrible feeling of watching a whole series of numbers eradicated because a wrong button was inadvertantly pressed. One is freed from the drudgery of averaging altitudes and times: such averages can, according to George Bennett, sometimes mask errors, and with this program weak sights can be weeded out without throwing away (or distorting) the good ones.

Other features

The program has a TRAVERSE section which is used for doing course and distance problems and which automatically updates the DR in the data file. After finishing your sights and getting an observed position, you manually update the DR in the data file. The progress of the yacht up until the next set of sights can then be entered using the TRAV-ERSE mode; you enter course steered and distance travelled just as you would make entries in the ship's log, and a new DR, in latitude and longitude, is displayed and simultaneously stored in the main data file. Thus if you have updated the yacht's progress right up until the time of beginning the next set of sights, you will be ready to calculate a new fix simply by nominating a new time of fix and entering the new sight

The program can calculate Great Circle courses. It also has an IDENTIFICATION mode which will give you SHA and Declination of a body based upon your observation of time, sextant altitude and azimuth; you would then use the almanac to obtain the nearest match of SHA and Dec and thus determine which body you have 'shot'.

The PREDICTsection of the program is extremely useful for predetermining the altiude and azimuth at which a body may be found at a given DR position; this enables

the sextant to be pre-set and the horizon scanned to pick up the body, a procedure that will enable many navigators to find stars well in advance of the time that they would find them looking upwards with the naked eye, thus facilitating the taking of multiple sights before the horizon starts to fade. It also can be a great assistance in rough weather because one can assume a comfortable position on deck, brace oneself and not have to worry about keeping a wildly gyrating star in the mirror as you 'bring it down' with the boat hopping about in a seaway. Predicted altidude can also be used to make up a star plot without resorting to a Rude starfinder.

LHA Aries can also be obtained from the computer using the LHA Aries mode (e.g. to tell you how to dial up the star finder to make a star plot for a given time and date).

Spare capacity

The PC 1500 still has a small amount of reserve memory even when loaded with this massive celetial navigation program. George Bennett has suggested and given instructions for a number of subsidiary programs which may be loaded as well as the celestial program, including: a program that employs the time function of the PC 1500 to become a stopwatch/countdown timer; a program for converting metric to imperial measures, and vice versa, along with an extensive and useful list of constants for use in such conversions; an apparent and true wind program; a height of tide program; several distance programs for calculating distance to horizon, distance from object of known height from vertical sextant angles, etc.

How much does it cost

The Celestial Navigation Program and the Sharp PC 1500 computer and peripherals cost (at normal retail prices below):

PC 1500 Computer 8K RAM (CE155)

\$144.50 \$463.50

SYDNEY MARINE **ELECTRICS**

DAVID PALMER **ELECTRICS**



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

The Program \$120.00 Total basic cost 583.50 Printer/Interface 256.30 Total complete cost \$839.80 NOTE: The Chart Room is offering a 10% Christ-

mas discount on purchases of Sharp Hardware (i.e. the discount doesn't apply to the program); thus the programmed calculator may be obtained for \$525.15 including sales tax.

So, \$525.15 will obtain you a PC 1500 programmed and ready to go. If you wish to have the facility of being able to load the program yourself, you will need the CE 150 printer interface for an additional \$256.30 (with special discount, for \$230.67); the Chart Room will supply you with an audio cassette tape which you can then load into your PC 1500 using any standard or micro audio casette recorder that has remote/microphone/ear-phone jacks (most do these days). The program takes about 11 minutes to load. The CE 150 printer is a remarkable piece of equipment that is capable of printing out 4-colour graphics; in fact, the whole outfit will have many uses beyond the celestial navigation capability that it provides. The computer itself is programmed in BASIC language, which is easier to use for those uninitiated at programming than are some other programming languages should you wish to get into some programs of your own. Programs written in BASIC are also far easier to edit. George Bennett's Chart Room Celestial Navigation Program and the Sharp PC 1500 and pariphers are qualible for peripherals are available from The Chart Room 31 Albany Street, Crows Nest, NSW 2027.

It should go without saying...
Whether it be the Chart Room Program for the Sharp PC 1500, or Gordon Marshall's Navpac for the H-P 41CV (which has been written up on several previous occasions in *Offshore*, or perhaps only a Tamaya N 77, or some other (and there are other new ones every day), the purchase of a calculator will make life easier for you when reducing celestial sights.

Any electrical device, especially when kept in a marine environment, is subject to failure and should never be depended upon as one's only means of doing anything. Whether a calculator is your first back-up for a satellite navigator, or is your first-line means of determining your position, you will not prudently abandon either your Tables or your

ability to use them.

Nor should any navigator who is not well versed and confident with hand-working of sights purchase a new calculator and program and expect to put to sea with it immediately and obtain '100%' results. If you buy any new piece of equipment, allow yourself plenty of time in the living room to familiarise yourself with the program instructions and operation of the machine. If you do not invest several hours with any new program, you are almost certainly bound to strike difficulty with it when you put it to use, and frustration (if nothing worse) may initially be your only reward for an investment of \$500 or so. It would be foolhardy to buy one and head for Hobart on Boxing Day or for Lord Howe Island after Christmas without first having had a shakedown with it at home.



PURE WATER FOR ALL MARINERS **NAUTILUS MK II DESALINATOR**

Brings to you a host of major benefits: Natures own distillation technique — evaporation and condensation

All materials used are lightweight and corrosion resistant

Total Reliability, no membranes, no preheating, no electrical generators

Uses only waste heat from your engine as an energy source

Revolutionary, in it's simple design and operation

Easy to maintain

Starts producing pure water when your boat engine reaches operating temperature no long warm-up, no waiting, no back flushing

Powerful Eductors dispense with all residue and waste

Unnecessary to retain large capacity water storage tanks

Reduce fuel costs with less dead (water) weight, increase your range.

Engines less than 112 kw (150 BHP), do not need a marine heat exchanger, nor keel cooler

For further details please contact: TILTINS AUSTRALIA PTY. LTD.

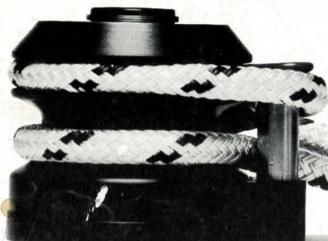
52 Amelia St., Fortitude Valley. Phone: (07) 52 4854, (07) 48 8448 a/h. Telex no.: AA43913 SYDNEY: 514 Miller St., Cammeray. Phone: (02) 92 0837. Telex no.: 73716

469 Kings St., West Melbourne. Phone: (03) 329 8383

DESIGNED AND MANUFACTURED IN QUEENSLAND, AUSTRALIA



Gibb proves a point or three.



Point 1

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.



BARLOW MARINE

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