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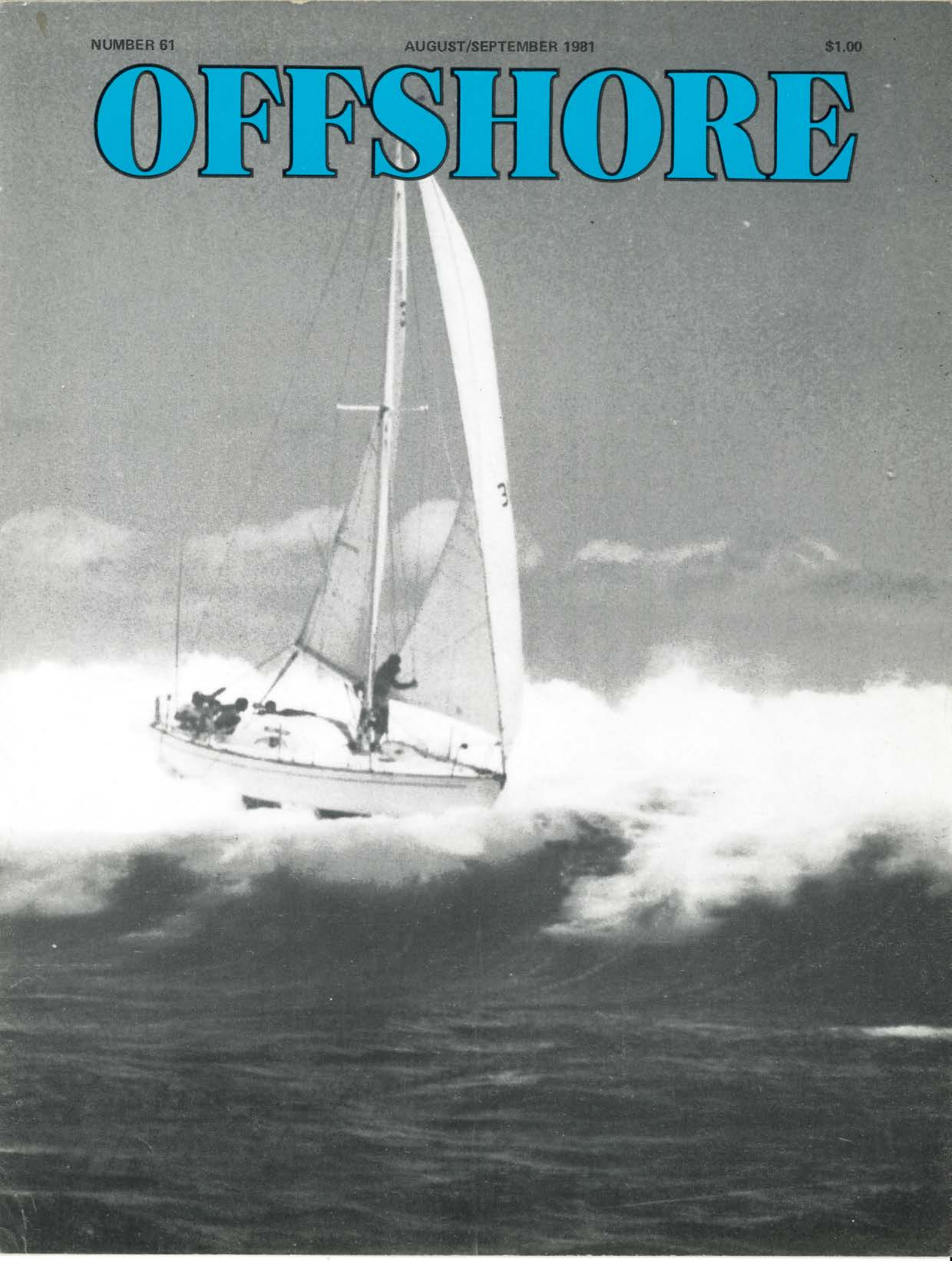
OFFSHORE



Editor's Note

With this, sixty-first, issue of 'Offshore', I have the sad task of reporting the death of the first Editor of 'Offshore', E.L. ('Tommy') Thompson. The spirit that he gave this publication in its formative years in the early '70s has lived on, and we dedicate this issue to Tommy, with the hope that he would have found it worthy. As an 'ad man', Tommy was both imaginative and had a formidable control of the language, which he not infrequently used on his successors on the Publications Committee, often at the Annual General Meeting. His counsel was never disregarded. Those who knew him at the CYCA or who sailed with him, cruising up and down the coast, will not forget him. Vale Tommy.

*I would like to take this opportunity to again remind Members that 'Offshore' is **your** magazine. We try to make it a forum in which any Member may say what he or she has to say, and we hope in so doing that dialogue and, therefore, communication takes place. Lack of communication is one of man's greatest problems, and it can certainly spell the death of an organisation whose fabric is necessarily as frail as that of any Club. Our policy is to 'edit' as little as possible to give maximum expression to the individual Member's views. In so doing we frequently publish items that do not necessarily reflect the opinion of the Club, its Flag Officers, the Editor or the Publications Committee. That shouldn't have to be said, but I think it needs to be said now and again.*

I am particularly proud to be Editor of this issue. Its contents show that we have immense strength and vitality within the Club. I am also particularly pleased with the amount of correspondence we have been receiving from all over the world. As long as we have the spirit demonstrated on these pages, the CYCA will be able to deal with any problem, financial or otherwise.

In this issue we have the first of what I hope will become an institution in the magazine . . . a new column entitled 'Point of View'. I invite any Member who has something he or she would like to get off his or her chest to submit your essay for publication. This month, Nev Gosson gives vent to something he has been bottling up for over a year now. Please remember that our deadline for copy is the 15th day of the month preceding publication, something about which I would like to remind all of our contributors.

— David Colfelt
Editor

OFFSHORE

Number 61 **August/September 1981**

CONTENTS

Cover: The sea subjects the hull of a yacht to tremendous stresses, and concern for safety in design of ocean racing yachts has led to the adoption by the CYCA of new guidelines for assuring the safety of competitors in our offshore races (see scantlings article, page 28). The stunning photograph was taken by Ace Marine Photographics — at South Head.

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OFFSHORE SIGNALS

Commodore's Message

Following the completion of my first term as Commodore, I would like to review developments at the Cruising Yacht Club of Australia and some of the more important issues facing us. Before doing so, I must pay tribute to our various committees and staff. I can assure you thay my task as Commodore has been made so much easier by the large group of most competent Members who regularly give their time to committee activities. Indeed, there is strong competition for a place on each committee, and it is pleasing to note such enthusiasm within our Membership.

Our Annual Meeting on 29th June 1981 saw an attendance of 108 members, which provides a clear indication that the Cruising Yacht Club of Australia is truly an active Club. Minutes of this meeting have been circulated to all Members; however, I do want to say that the views of Members expressed at that meeting are already being taken to account in the formulation of Board policy and objectives for 1981/82. Turning now to the year ahead.

Duty Officer System

Rear Commodore Alan Brown has organised a Duty Officer system. This is a significant step forward, and I look forward to your support, as volunteers are needed to serve for just a few hours each year. Our objective is to provide some Member in authority to welcome guests and generally attend to queries which are outside the province of the head steward.

Membership fees

Costs are continuing to escalate, and our five year cash projections clearly show that revenues from all services must be increased. Last year saw significant imposts upon the boatowners, and it is clear that our costs must be evenly shared by all Members. Club Membership is relatively inexpensive, and an Extraordinary General Meeting has been set for Monday 12th October to approve fee increases. Additionally, we must look to significant increases in race sponsorship fees as our costs of race administration have risen sharply over the past three years.

Debenture Issue

Members will be aware of our obligations to develop the Clubhouse and yard. This project is expensive, and our five year cash projection shows that the cost of redevelopment cannot be financed from outside sources because of our inability to service a debt likely to exceed $1,000,000 and the resulting effect on our profit and loss account following the expanding of interest charges and increased leasehold amortisation.

For this reason, we find it necessary to look towards a debenture issue to Members, supported by a building fund levy. The debenture issue is the subject of a special prospectus which will be delivered to all Members, and the building fund levy will also be considered at the Extraordinary General Meeting on 12th October.

I look forward to your continued support for these important issues.

Marina policy

We have a long waiting list for marina berths, and some instances of attempted abuse of the privileges of occupation of a marina berth have come to our attention. For this reason a sub-committee of the Board is currently reviewing our existing policy for berth allocations, and their report is expected in the near future. In the meantime, no new berth allocations will be made. The sub-committee has been asked to devise a policy that will give proper recognition to our Club's sailing objectives. Therefore, active racing and cruising yachts and motor cruisers which assist us in achieving these objectives should be preferred.

Passage racing

Our Sydney-Nouma Race produced a disappointing number of entrants from Sydney. The combined fleet was, however, satisfactory. I believe this race has tremendous potential and that the cruising yachtsman should give it his careful attention. Noumea is a delightful place, and our race presents an ideal opportunity to convey your boat, fully crewed, into the superb cruising grounds of New Caledonia. It should be possible to arrange to leave a boat in Noumea for the winter months and to fly various crew members to Noumea to participate in extensive cruising activities.

It is worth considering New Caledonia as an alternative to our Barrier Reef for winter cruising.

Rear Commodore Peter Rysdyk is also Race Director of the Xerox Sydney-Rio Race. He has taken the full burdon of this event upon his broad shoulders, and current indications are that we will have a major success on our hands. This type of race is a major departure from previous race activities, and we are carefully monitoring the effect it is having upon us.

Special Regulation 136

Elsewhere in this issue of 'Offshore', you will find Gordon Marshall's article concerning this regulation. Our Sailing Committee is properly concerned to ensure that it has proper foundation when raising any query about the integrity of yachts entering our Category 1 races. The Committee has taken a major step with the adoption of the ABS guide.

Governor's Needle Match

A unique sailing event, the world's longest match race involving two legs of more than 600 miles each has been inaugurated under the patronage of the Governor of Tasmania, Sir Stanley Burbury. Known as the Governor's Needle Match, the race wil be a duel between ocean racing yachts nominated by the Cruising Yacht Club of Australia and the Royal Ocean Racing Club of Great Britain.

The race will be sailed in two legs – one in Australian and one in Brisish waters. The Hitachi Sydney-Hobart Yacht Race will be one leg, and the Fastnet Race, sailed off the coast of Great Britain, will be the other. The event will be contested biennially, commencing in 1981.

A perpetual trophy for the winner of the challenge will be donated by the Governor of Tasmania, Sir Stanley Burbury, who seized upon the idea of the challenge after he was visited at Government House in Hobart by the British Southern Cross Team in 1975.

For the British leg of the race I, as Commodore of the CYCA, am to nominate this Club's representative from the Australian Admiral's Cup team, while the UK representative will be selected by the Commodore of of the RORC, though not necessarily from the British Admiral's Cup team. The first leg of the inaugural event, the 1981 Fastnet Race, has been contested by 'Hitchhiker', skippered by Peter Briggs for our Club. 'Dragon', skippered by Brian Saffery-Cooper, is representing the RORC.

In the Australian leg the Commodore of the RORC will nominate a UK representative from the team competing in the Southern Cross Series (which incorporates the Hitachi Sydney-Hobart Yacht Race), and I will select our representative – not necessarily a Southern Cross Cup team member.

Rules stipulate that in each leg the difference in rating of the two yachts should not be more than two feet. The winner of each leg will be the yacht with the lowest International Offshore Rule (IOR) corrected time.

Should each Club win one race, the overall winner will be the Club with the lowest aggregate corrected time.

CYCA Yard

Our yard continues to cause headaches. Over the past year we have undertaken major expenditure to upgrade facilities and this program continues. The yard looks better than ever, yet patronage has declined. We have established a yard management committee charged with the task of increasing our patronage, containing costs and devising a workable vertical or travel lift facility as our next major re-development objective.

If we are to retain the convenience of yard facilities at the CYCA, we are reliant upon major support from Members.

CYCA Annual General Meeting

by Staff reporter, Les Bass

The non-Members took their customary places at the bar, along with their friends, and the poker machines kept up their regular cacophony (no jackpot bells were heard, though!)... the hubub didn't desist, nor did the laughter, the raised voices, the clink of highball glasses.

Separated from these bright spirits by the bar shutters and the concertina partition, 200 more sedate and very concerned Club Members sat non-plussed at what was to this reporter the obviously critical state of the Club's finances – maybe existence. The CYCA's Annual General Meeting really reflected our diversity – non-Members having a ball on Club premises, Members behind the 8-ball considering teh Club's future.

It seems certain that Club fees will rise ...so will the marina charges... maybe even the bar prices at peak periods (relax you non-Members – you can quaff the Club's hospitality at probably very reduced rates during quieter periods).

The meeting certainly wasn't a gloomy gathering but, hell, there wasn't too much laughter either.

Re-elected Commodore Kerry Roxburgh brought forth a cheer when he made an 'election promise to 'True Grit' (Ray Hollingsworth) that Membership categories would be revised (and thus, for the 'more mature Members of the CYCA', be reduced, possibly to one tenth the current annual fee).

And Gordon Ingate raised a laugh: "I haven't been at one of these meetings for a long time because the committee is doing a great job without me!" (or something like that). Gordon nevertheless set a serious tone when comparing the Club's current subscription and entry fees to those of other clubs. "After all, our Club is among the best in the world and our subs are far too low. Back in 1945 when we operated from a place in the city, we all paid the average weekly wage to join... think about it." We did.

Treasurer David Don drew much of the Member's flak... well, he was in the firing line from those who had seen John Cleese's hilarious training film 'How to Read a Balance Sheet' and who queried specific items in the accounts. The rest of us thought: 'Ha, that's a good question... try and explain that.' And David did, time and time again.

Repairs to Club premises cost $60,000 – $11,000 of it for the marinas alone, the rest to upgrade the slipways.

Restoring the Clubhouse roof cost $6000 (not many Members had realised that the rainwater about their feet was from above, not below).

Laying out the car park cost $2000 (later revised to $200).

No, you can't have bottle sales in a separate area because there is no cold room or service facility. Don't worry, we are maintaining a reasonable profit from current bottle sales.

And so it continued – the cost of the dining room, the bar, car park, yard, tender service (a curley one): "Where's the $1000 worth of petrol that's missing from the bowser?" (No answer to that one; Ampol have been called in to find it.) And, God forbid, we were even told that the pokies lost!

Then to the vexed question of marina fees. David Don was prepared with graphs – those who had ducked out to see what was causing the non-Members increased merriment drifted back – and stayed.

"The MSB is raising our $14,000 a year rental by 207.5% to $43,000... $45,400 in 1982... $50,000 in '84... and in 1986, God only knows."

Members were on their feet: "It's the boat owners who're subsidising this Club... why should the boat owners always foot the bill... who wants to buy a 30-footer... who's for booze..."

The levity was forced – all were concerned at the imminent and long-lasting revenueraising tactics from the fiscal fiend of the sea (did we detect a hush, even, from those on the other side of the partition?).

Non-boat owners were also silent. It was obvious: to offset those rentals, marina charges look like being increased to at least 70% of commercial rates. One wag suggested we were really better off because D'Albora was charging about $500 per quarter for a 35-footer, or thereabouts. "Yeah," was the rejoinder, "he's using us as a guideline."

So, there was no result – at least at this stage. As Chairman Roxburgh kept telling a puzzled John Hawley: "John, all these things are being decided at the extraordinary meeting in September." (Something to do with the Annual Report not being out on time.)

Well, were there any bright moments? Sure, a few. The Club's purse from the Xerox sponsorship of the inaugural Xerox Cape Horn Yacht Race in January 1982 is about $40,000 – but it isn't back-dated. No, the sponsorship fee is not known (readers of the *Financial Review* can calculate the probable figure from Club Member John Connolly's recent article: "...$40 for every sixteen kilometres over the 12,872 km course isn't too short of the figure."

Entertainment on Sundays may be reintroduced. ("The more they dance, the more they drink.") But House Committee Chairman and newly-elected Rear Commodore Alan Brown wasn't committing any entertainment expense until the economics had been considered. (Bar sales for the year averaged a whopping weekly increase of, wait for it...$69!.)

The appointment of a Fraser-style razor gang into all aspects of the Club's operations received full support. Commented one Member: "Their first task could be those raucous non-Members standing in front of the 8-ball!"

Postscript: Chairman Roxburgh invited attending Members to have a drink on him ..."but only one round." The non-Member boys on the other side of the partitions beat everyone to the bar!

Changes in Safety Regulations

From David Kellett

As most of you are aware the new AYF Rule Book took effect on 1 July 1981, and several changes occurred, particularly with regard to offshore safety requirements.

The Safety Committee has prepared this text to highlight these requirements and to bring them to the attention of yacht owners who are preparing to race with the CYCA later this year.

All Categories

Main companionway hatch shall be fitted with a strong positive securing arrangement operable above and below decks.

Washboards, hatchboards, etc. shall be secured to the yacht by lanyard or other mechanical means.

Plugs, softwood type, to be attached to all skin fittings

Toe rail, 2.5 cm high, around the foredeck, and located not further inboard than one third the local beam (2.0 cm on yachts built prior to 1/1/81) OR a third lifeline between 5 cm and 2.5 cm abovedeck.

LP Gas installation to Australian Standard AS 1799 or 1975 and yachts carrying petrol or LP gas are prohibited the use of gas-operated water heaters.

Stove to have fuel shut-off valve.

Fire extinguishers serviced annually.

Bilge pump, two manually-operated, operable with all cockpit seats, hatches and companionways shut. One operable above deck, the other below; handles to be attached with lanyards or clips.

Flashlights. Three required for Category 1, two for Category 2.

Navigation lights to comply with international collision regulations.

Strong points required to secure two thirds of the crew.

Fuel fillers positioned so that fumes or spillage can not enter the yacht.

Identification, in 50 mm letters on transom or on either side of the stern, giving

(1) name of yacht,

(2) registered sail number,

(3) abbreviated name of yacht club, e.g. 'CYCA'.

Category 1 & 2

Medical kit. Two to be carried if crew

greater than 12, or a 7 day race. Additional items:

1 tube atiseptic cream
3 crepe bandages 75 mm
20 tablets 'Lomotil' 5 mg
20 'Septrim'/'Bactrim' 80/440 mg
1 tube 'Garamycin' cream or a 'Neomycin' compound oint.
25 Daloxene Co.
1 tube 'Xylocaine' ointment.

Sails. Storm trysail (smaller than 0.175P in area). Storm jib (smaller than $0.05IG^2$ in area; luff not more than 0.65IG).

EPIRB of an accepted type to be carried where easily accessible from the companionway.

Life rafts of four-man capacity in a valise pack may be stowed securely below deck adjacent to the companionway but must be capable of being got to the lifelines within 15 seconds.

Engine propellor shaft must be locked.

Category 3 & 4

Medical kit. Two to be carried if crew greater than 12. Additonal items:

Antiseptic cream, 1 tube
3 crepe bandages 75 mm

Emergency navigation lights and a power source capable of being quickly mounted (Category 3 only).

Sails. Heavy jib (smaller than $0.0135IG^2$ in area). Main (reefable to 60% of P).

Engine. Fixed — propellor shaft must be locked. Outboard — capable of being placed in operating position and operated without crew being outside lifelines. Integral tanks must be capable of being filled while yacht under power.

Safety inspections for the coming season finish on 30th August and further inspections will not be carried out until 10th October, after the Montagu Island Race.

Ring the Sailing Office for an appointment now.

Cooking at Sea

with 'Knocker'

A new feature this time is the presentation of the wine of the month, which I have taken from my supply to try with new creations. This month:

Leo Buring Reserve Bin DW 288
Rhine Riesling, 1979 Vintage

A cute little number, I drank half of it whilst watching the rice boil. It can be purchased in Paddington if they ever get the place open.

A great response this month to the 'Find the Chef of the Month' competition. I find myself inundated with mail and scraps of paper with everything from boiled toads to a six-tiered spaghetti pie. However, I managed to isolate some to pass on through this column. But before that I'd like to say a kind word to a chap on 'Patrice III' who sent along a recipe for 'Curried Cherokee Love Darts' served on muffins — yuk! Yes, the yuk! award this month goes to 'Patrice III'.

A dinner for twelve at Luigi's Take-away Food Bar in Marrickville.

Some good things did come to light, however, and one of the entries from Cyril Cruet, who sails with the cruising set, is worthy of mention.

Squid Florentine (serves 12)
A delightful entree of cold squid and sliced avocadoes served on a bed of steamed spinach topped with a subtle mustard sauce.

12 squid (cleaned)
1 bunch of spinach (discard stalks)
3 avocadoes
4 cloves garlic (crushed)
½ cup chopped parsley
½ bottle of the cooking wine of the month
A quantity of cooking oil
Salt and pepper to taste

Sauce
100 g prepared mustard
1 carton cream
Reserved cooking liquid

Method
Step 1. To clean squid, chop off tentacles and head from top of the body and pull out the plastic backbone, cut off the tail, and poke your finger through the body and push out the insides. Rince with cold water. Leave the body intact.

Step 2. Place the cleaned squid in a casserole dish so that they all lie flat. Squid are funny like that; they like to get together occasionally.

Step 3. Pour over equal quantities of wine and oil to completely cover the squid. Add crushed garlic and parsley. Cover with lid or foil and cook in moderate oven for 1 hour.

Step 4. When 1 hour is complete, let the squid cool in the cooking liquid. How do you like it so far? If you cook the day before you intend to serve, let the squid stand in the liquid in the fridge overnight. If you happen to be in Bass Strait, put it all in a screw-top jar (not Bass Strait) after it has cooled

Right, now when you are ready to serve, shred the bunch of spinach, lightly steam, and divide onto entree plates; of course, if you happen to be on a ½-tonner, a small bowl will do. Place avocado on top, and slice and layer squid on top of avocado.

To prepare sauce, pull out your blender and blend together the leftover liquid, mustard and cream. Trickle over the squid, relax and enjoy.

The other recipe which I thought has a touch of unusual quality about it was the stuffed shoulder of lamb. This one comes from Herman Schwartz, a visitor from overseas who sails on the Dead Sea.

Stuffed Lamb Shoulder
A boned shoulder of lamb stuffed with dried fruit and rice and basted with rosemary and garlic.

1 boned shoulder of lamb
1 cup cooked rice
1 cup mixed fruit
1 sprig fresh rosemary (dried will do)
2 cloves garlic (crushed)
Oil

Step 1. Mix fruit and rice and stuff into the lamb, roll and secure with skewers or with string.
Step 2. Bake in moderate oven for 2½ hours. Most shoulders are about the same weight.
Step 3. Baste frequently with oil mixed with garlic and rosemary leaves.

Serve with potatoes, broccoli, carrots and another bottle of the wine of the month.

And now, the fried egg sandwich . . .

(Also known as the 'goog sambo')
Eggs were not designed for sailing. If they were, they would either be square or at least rectangular and nice and easy to stow. Square eggs would not roll around the galley and get under the kettle that you are banging down in a frenzy after putting the stove out with it. However man, despite his ability to put some joker on the moon, has not yet talked chooks into laying square eggs. Quite understandable, from the chook's point of view, I suppose. What is less understandable is your average yachtie's craving for eggs at sea.

Goog sambos are, at the best, a pretty chancy business, so before attempting any of the following recipes, make sure that all your insurance policies are fully paid up, and best have a complete medical check-up. At one stage there was a clause in the standard Lloyd's insurance form, which along with exempting acts of pirates, rovers, Princes, also rendered the cover void if egg sandwiches were part of the regular diet.

Indeed. First and most simple of all is the **Angry Girlfriend** recipe. This is worked on the principle that they are going to complain anyway, so give them something to complain about. Place the frying pan on the stove with a lump of butter, marge, dripping hog fat, or whatever, in the middle. When this becomes liquid, drop one slice of bread into it. From a height of at least eighteen inches, drop an egg into the middle of the slice of bread. If the egg bounces, pick it up and try from thirty inches. This usually gives a very pleasing aesthetic effect. Place another slice of bread on top, flip over and fry for about five minutes, plus or minus four. Toss the resulting mess at someone in the cockpit and if it is eaten, repeat as required. You never know; everyone's taste buds might be totally burnt out. Unlikely, but it will save you from cooking breakfast again.

This is all too time-consuming for the really keen racing man, so for them, **Egg Sambo a la Admiral's Cup**. This is prepared at home and frozen down in an empty ice cream container for instant use during the race. For eight sandwiches, take sixteen slices of bread, one hundred grams of butter or marge and eight eggs. Shell the eggs into a Mix Master, add the rest of the ingredients with a pinch of salt and pepper, and give it the fastest speed. Pour the resultant mix into the plastic product of Paul's, and freeze it down. Simply slice up and fry. If nothing else, the thought is there, and the crews' spirits will be suitably bucked. This recipe may also be effectively used by single-handers, though a few raisins and a bit of roughage should be added (egg shells make excellent roughage).

The traditionalist, of course, has his own recipe: **Cackelberries Kerosene**. The unique ambrosial bouquet of this dish is a direct spin-off from the traditionalist's compulsive use of the oil lamp. Inevitably the kero is stowed in the galley, and as the light from the lamps is so bad, Sod's Law of the Sea comes into effect and the kerosene bottle is picked up instead of the cooking oil bottle. Do not use too hot a frying pan for this recipe, as the ensuing conflagration is rather hard to put out and the full flavour may be lost.

After all this rambling through the outer reaches of culinary space, I suppose I'd best come back to the grim realities and give one that I've not actually tried myself but have heard works, through a usually unreliable source. The very essence of simplicity, even your average yachtie should be able to manage it without starting the third world war. Take two slices of bread, butter one slice, stick the two together and cut an egg-sized hole in the middle. Drop the bread in a frying pan and, yes,you've out-thought me, crack the egg into the hole. After the egg appears solid enough, flip the thing over and fry for a similar period, and then serve. I think it sounds as though it might work, but as our hen has gone out on strike since I started on this, and my girlfriend has hidden the frying pan, I'll leave it all up to you. I'm a lousey cook anyway.

Toodle pip.

Hamish

Letters . . . Letters . . .Letters . . .

Joggie protest

July 3, 1981

Dear Sir.

One must correct the uneducated or totally biassed aspersions cast (in Biggles' Column last issue) on the safety of JOG size ocean racers.

The so-called restrictions on small boats which exist (in the columnist's mind) could hardly be consolidated or extended by an incident involving a 'rogue wave' less than half a mile off the coast. And the questionable statement of 'loosening of rules called for by JOG adherents' presumes a great resurgence in the demand for long ocean races. Evidence the entry in the Division 4 OPS series last season — only two starters in the last race.

A knockdown on any size yacht [that is] extended under racing conditions is usually the penalty for relaxing of concentration (even for a few seconds in some conditions) by the helmsman. The Bird Islet race in which 'Corfu' took a dunking saw gusting winds of 40 knots with a very confused running sea. Sister-boat 'Waikikamukau' completed the same race without incident and covered the 45 miles from the Island to Sydney in five hours — a feat to be envied by many a larger boat.

The yachting experience and expertise (per capita) in the JOG boat crews compared with some of the larger boats would leave a lot of egg to be wiped off the countenance of the critic.

Regards,
Frank Martin
President, JOG of NSW

Knock for 'Knocker'

Dear Sir,

I enjoy your magazine but must add a comment about Knocker White's 'Cooking at Sea.'

I did the Freemantle to Bali Race in a UFO 34; it was mostly rough and very rough. Ten days at sea — a longish time, but no way could one indulge in the menus quoted.

Anything that needs heating past eating temperature borders on the dangerous, so that leaves tins, tins, tins and packets! Our four-man crew did not lose weight, complain or get scurvey. Your writer must have been on an ocean liner!

In truth, dry packet food and tins offer lots of variety — herbs and sauces are easy to add — especially in small(ish) yachts under (hard) racing conditions. To boil is out!

By the way, I see no mention of our big Bali event — 50 boats entered this event, all sand gropers, so I suppose we can't expect the other side to take any notice of goings on in W.A. (after secession to be known as 'Westland').

Yours, etc.
D.C. Hay
Royal Freshwater Bay Yacht Club

Mike Fletcher of the Elvstrom Loft

Is your sail inventory heading in the right direction?

A sail loft has to be concerned not only with the hot-shot Admiral's Cup, Southern Cross Cup, World Championship sailors, but also with the everyday, Saturday pointscore, Wednesday afternoon competitor. Their needs, believe me, are very different.

In the first case, the yacht is the very latest in design, expertly crewed and set up to handle the latest in sail technology. They are also normally run on a fairly extensive budget.

In the second case above, the opposite usually applies.

By talking to a customer in depth, with his *particular* interest in mind we can advise him on the most effective way to spend his limited dollars.

For example. if a sailor comes in to order a 2.9 Mylar headsail and I find in conversation that he sails his 30-footer with his wife and a couple of inexperienced mates from the office, it becomes obvious to me that he needs a 2.9 Mylar headsail like a hole in the head. In six months, if he is not letting the sheet go at exactly the correct moment when tacking, or on Wednesday afternoons if he is reaching around the harbour with it dragging over the rail, it will start to deteriorate, and we will both become bad friends.

I would suggest to this customer that he bring in all the headsails he now has for evaluation — a quick job to do at the loft. With some basic rig measurements we can check to see if the areas of his existing sails line up with the normal racing area drops, e.g. from No. 1 to No. 2, No. 2 to No. 3, etc. We can then advise with some certainty the best way to improve the yacht's performance.

Perhaps our customer would be better off giving the 2.9 Mylar a miss, replacing his regular No. 1 — a sail he will use most — and having a couple of seams taken up in his existing light genoa to give it a new lease of life.

Using this personal approach, not only do we spend the customer's money in the most needed area, but we have the necessary information to advise him further when the time arises.

At Elvstrom Sails you can be advised by Mike Fletcher, who races you both in the harbour and offshore. He also has a proven track record, from Olympic coaching to Admiral's Cup racing. Elvstrom sails is at 97-101 Pyrmont Bridge Road, Pyrmont, telephone (02) 660-6528. 660-6186.

Letters

The North Queesnland way

Dear Sir,

'Offshore' magazine must be joking printing the article 'How to Race the North Queensland Way' in the June/July issue, or else the Editor needs some instruction in Dale Carnegie philosophies.

This article is completely insulting to a small dedicated group of Cairns yachtsmen who have struggled for eight years with little support, little money, and very limited facilities, to stage what many enlightened offshore yachtsmen consider the best of all Eastern Seaboard races.

Contrary to the article, the race organisers accepted safety inspection sheets from the Brisbane-Gladstone Race and no monohull yacht competed without one. I pity the day when these monohull race yachts do not have the competence to sail 700 miles up the coast, never more than ten miles from the nearest land, without the aid of a radio relay ship dr mother safety vessel.

Let's hope that, just because we at the CYCA are fortunate enough and indeed wealthy enough to enjoy the best race facilities in the yachting world, that we don't become the arrogant Godfather to smaller clubs who enjoy their sport without undue and unnecessary regulation.

One can only hope that the organisers and sponsors of this event are not sufficiently soured by Mr. Goddard's criticism to refuse entry in future races to CYCA registered yachts.

Knowing Albie Baker and his committee from previous years' events, it's lucky that there is such a thing as 'the North Queensland Way'.

Yours,
D.H. Van Woerden
CYCA 1017

Baked instruments

Dear Sir,

I am writing in reference to an item that appeared in the CYCA 'Newsletter' (August) which, I think, gives ill-informed advice that would best be ignored by any Member who might be tempted to follow it. Your publication may reach Members before the next 'Newsletter', which will no doubt carry a retraction.

I refer to the item about dealing with condensation appearing between the dial and window of instruments. The 'Newsletter' advises that a supplier suggested that the only way to solve the problem was to disassemble the instrument, whereas the writer gives the advice of "one of our foredeck fumblers . . . place them in an oven with a 20° setting for a day."

Now, I realise that most ovens will not have such a low setting, and perhaps the danger of any damage resulting from this fumbler's advice, if it is followed to the letter, would be minimal. However, if anyone mis-read the advice as to oven setting, damage might occur. If one could rid oneself of condensation simply by heating and 'driving it out', there must be an exit for the moisture-laden air, and just as surely there is an entrance to permit moisture-laden air to re-enter, and you will be back at square one.

So, even if you do manage to find an 'oven' which can be set to 20° (it would be a refrigerator in the summer), I think the least time wasting remedy (and perhaps also the least expensive) may be that which the supplier offered in the first place.

Yours sincerely,
C. Degrees

Radio for safety

6 July 1981

The Editor, 'Offshore'

Dear Sir,

I would like to congratulate you on your excellent feature article titled 'Radio for Safety', which was published in the AprilMay (No. 59) issue of 'Offshore'. The article will be of great benefit in explaining maritime safety communications and the Australian Search and Rescue organisation to yachtsmen and other pleasure craft owners. It will also help to dispel some of the 'myths' concerning radio procedures and ship-to-shore communications generally.
With best wishes.

Yours sincerely,
W.M. Blumenfeld
Director, Maritime Safety Services
Department of Transport
Canberra

Compulsory 6 MHz?

Dear Sir,

I am concerned to hear that our Sailing Committee has been asked by the Dept. of Communications to nominate a date for the compulsory fitting of 6215.5 kHz as an additional radio requirement for the Sydney-Hobart Race. However, I am certain that the Committee's deliberations will take the following into consideration in the best interest of the PBOs.

The configuration of many aerial systems will need to be modified extensively to accommodate 6215.5 kHz. In some cases this will involve the physical shortening of the backstay section between insulators and/or the addition or replacement of whip aerial to suit. While this is certainly possible the result will be to compromise aerial efficiency on 2 MHz frequencies, and to a lesser but significant degree, on 4 MHz. As 2 MHz can be as useful during the evening hours as 6 MHz is around midday, the benefits of such a compromise, if any, are worthy of close scrutiny.

The addition of a 6 MHz frequency certainly will extend the range of daytime communications over long distances, a fact established for over fifty years. What is not so certain is why having 6 MHz is suddenly so important that it warrants immediate, mandatory status for Hobart Races; surely it could be 'phased in' through attrition of old radios or the acquisition of new yachts rather than by sudden ultimatum. This would afford owners the privilege of knowing what their radio obligations were before they purchased their sets and not afterwards.

One of the more popular radios in use amongst racing yachts is the International SB 80. Possibly up to one third of all NSW yachts carry one of these, and there are around 1,200 sets in general use around Australia. According the the designer of the SB 80, for technical reasons that are somewhat involved, modification of these sets to accommodate a 6 MHz frequency is out of the question. The many owners having purchased their sets in good faith, many of whom did so primarily to comply with the extant regulations, will find little joy in the prospect of discarding an otherwise quite satisfactory radio for the dubious advantage of a 6 MHz frequency being available in an alternative make.

As 4 MHz has excellent range at night and only suffers by comparison with 6 MHz around midday and over distances of greater than 300-500 miles, it is difficult to see why 4 MHz would not suffice for communications in the Hobart Race. 4125 kHz is already mandatory.

There have been in recent years several changes to radio requirements affecting the yachtsman – the changeover to SSB from AM, which meant the purchase of a completely new set; the changes involving the OTC Coast Radio Service Distress/Calling frequencies and working frequencies; the adoption of 4143.6 kHz as Race frequency, and then the change to 4483 kHz (a frequency which, because of very severe interference from a Russian shortwave station, is of questionable use outside of daylight hours). Let's think long and hard before setting the wheels of change inexorably in motion again.

To my knowledge the DOC cannot insist that any frequency other than the International Distress Frequency (2182 kHz) be made mandatory on vessels which 'voluntarily' fit radios, such as racing yachts. Obviously the scope of our racing is such, and our potential involvement with SAR authorities is such, that self-regulation and co-operation with the authorities is very desirable. But just where one draws the line in the interests of *safety* is what needs careful thought. Wouldn't we take a greater step in the interests of radio efficiency (which is what this is all about) if we adopted a serious, meaningful system of individual radio checks prior to the Hobart Race rather than the ludicrous exercise of each yacht calling the Radio Relay Vessel from across the marina on Boxing Day (which, by the way, is an hilarious joke amongst the trade). If we're really serious about radio efficiency, each yacht's radio should be tested against a reference radio – say, MV 'Offshore's radio on ½ power – and that signal should get an objective S-meter report from a location not closer than 30 miles or so, perhaps Penta Base or other station. Any yacht whose signal is less than ½ the strength of 'Offshore' on ½ power is not going to be an efficient communicator no matter what new frequency is installed.

In summary, the PBO has been bounced from pillar to post for five years or so now,

(continued on page 30)

BIGGLES' COLUMN

Just prior to the copy deadline for this issue of 'Offshore', all yachting action centred on the Solent, so that is where I headed for a brief visit. My excuse was to drum up the International Class A Yacht Association (maxi yacht owners) on behalf of the CYCA for a championship maxi series in Sydney in 1982, so with Peter Rysdyk's admonition to 'sell, sell, sell' ringing in my little ears, I arrived in Cowes in time for the English summer, which this year occurred on July 20th.

The ICAYA Committee had deputised Peter Bowker to negotiate details of maxi races with the CYCA, so we proceeded to negotiate, first at the Royal London Yacht Club's cocktail party for the maxi crews, later at the Royal Corinthian Yacht Club bar, and later still over a bottle of port after dinner. The next morning was something of a strain, and to make matters worse, Bowker claimed that I had traded him Life Membership in the CYCA and an entire December of free grog in return for two cancelled Fort Lauderdale tram tickets. I had a faint suspicion that Fort Lauderdale did not have any trams — streetcars maybe, but no trams — so I proposed more discussions which subsequently took place at the Gloster, the Globe Hotel and the Island Sailing Club. The next morning I found that I had traded the freehold of the CYCA and the telephone numbers of two ex-girlfriends for a case of English beer. Obviously my negotiating skills were improving rapidly.

Meanwhile, negotiations at the Three Crowns, the Fountain Hotel and the Vectis Tavern had netted us one of Bowker's old Mistress Quickly T-shirts in exchange for free use of the Commodore's yacht and the loan of his Porsche, whenever Bowker was in Sydney. I was getting the hang of it now; it seemed only a matter of time before I concluded a super deal on the Club's behalf. John 'Hanger' Harris would be proud of me (no more libel actions), and I could give up Biggles' Column to everyone's relief, especially mine.

The Seahorse Maxi Series ended with 'Kialoa' as top gun. 'Condor II' blotted her copy book by going aground during the Round-the-Island Race, not a hard thing to do in the Solent. However, for 'Condor II' it was disastrous, because it dropped her right out of a place in the series. 'Xargo IV' (Spain) was second and 'Flyer' (Holland) raced very consistently to be third.

In the handicap results 'Antares' (France) was first, 'Triumph' (US) second and 'Kialoa' (US) third. The next round of the maxi circuit is in Sardinia in September which is the second and last leg of the 1981 Maxi World Cup; it will see the first appearance of the new 'Ondine.' Many of the maxis at that series will continue on to Sydney for the Burns Philp Maxi Series in December. Probable starters for that regatta are 'Condor II', 'Kialoa', 'Ondine', 'Anaconda II', the new 'Apollo', 'Bumblebee 4', 'Helsal II', 'Siska' and possibly 'Condor of Bermuda' under charter. Think about that — nine maxis match racing in a 30 mile ocean race, a harbour race, and a 40-mile ocean race. That harbour race should be something to see.

The Seahorse Maxi Series on the Solent was sailed the week before the Admiral's Cup and boasted eleven starters including four of the Whitbread Round-The-World entries. One of those was the new 'Flyer', a Frers development of 'Bumblebee 4', which impressed by giving 'Kialoa' and 'Condor II' a hard time in the early stages despite being built heavy and designed with a bias toward running and reaching. However, the first day belonged to 'Condor II' steered by Dennis Connor, who took the gun two boat lengths ahead of 'Kialoa' after 40 miles of close racing. The two duelled mightily on the long beat home but still cleared out from all but a Spanish Frers maxi, 'Xargo IV'. This brought a big smile to Ron Holland's face as he watched because he had designed them both, although they are not sisterships despite a close family resemblance. The next race found the situation reversed when 'Condor II' started on the wrong side of the Solent and failed to catch 'Kialoa' and 'Xargo IV' after the blunder.

Two weeks before the Admiral's Cup start, the Australian team was out tuning and training on the Solent every day, sometimes running half a dozen practice races against each other, in contrast to a relatively casual approach by most of the other teams. Predictably, the exception was the Kiwi team, but to keep things in perspective the European boats were in the middle of their season, fresh from their own trials and thus tuned up. Nonetheless, if preparation was the sole arbiter of the Admiral's Cup, the Aussies were sure to win hands down; Syd only let the crews stop long enough for them to eat more nails.

'Hitchhiker' was still showing a clean pair of heels to 'Apollo V' and 'Ragamuffin', in reverse order of rating, which was a bit of a worry unless 'Hitchhiker' was incredibly fast in her own right. Another worry at that time was Billy Edgerton who had wrenched a knee, aggravating an old unjury. He could be seen hobbling around Cowes, using an old tiller extension as a crutch; visibly frustrated, he was forced to watch from the sidelines as 'Hitchhiker' got her act together on the Solent. Brought into 'Hitchhiker's crew at this stage was Harold Cudmore, who added tactical strength to an already strong crew and which had the additional advantage of keeping him from sailing with any opposition team.

After a meeting in the Union, the Pier View Hotel, the Anchor Pub and the Duke of York, Bowker came up with a compromise deal. My relentless pressure was beginning to tell; I could see he was nearly ready to crack. If the CYCA would agree to first class air fares, accommodation and free grog, he would send us all the overseas maxi paid hands and straphangers — no boats, just the crews. I had him reeling now, and closing in for the kill, I wrung out of him reciprocal rights for CYCA Members at the exclusive Okeefenokee Swamp Athletic Club as an additional bonus. I can hardly wait to see the look on the Commodore's face when I break this great news, so I leave for home. Besides, after what the Poms did to our lads at Headingly I did not want to be around in case they pulled a similar stunt on the Solent.□

PROFILE–SIR JAMES HARDY

by Lesley Brydon

Buzz Kennedy of *The Australian* described Sir James Gilbert Hardy like this: "A tall, fit man who drinks a bit and sails and drawls his words while he tells a good story and likes women and smiles a lot and has a rough profile like the map of Australia."

It's a pretty good description of Australia's best known yachtsman, who until June this year was just plain Jim – 'Gentleman Jim' to the press and 'Gilbert' to the crews he sailed with. Gilbert seemed to fit better with the deerstalker hat.

A post-race incident in the recent Brisbane to Gladstone Yacht Race might have led one or two members of the Queensland Police Force to wonder about the 'Gentleman Jim' reputation. It was the now famous joke with Hardy and the crew of his yacht 'Police Car' wearing police uniforms as the official rig for ceremonial occasions, race starts and finishes, that got him into trouble.

The Senior Sergeant in Gladstone was not amused to find yachties in typical post-race celebrations wearing police uniforms. It was bad enough to see uniformed men with their shirt tails hanging out, downing a Brisbane Bitter or eight at the yacht club, but the Sergeant was outraged to learn that two similarly attired officers had placed themselves on point duty in the main street and had re-directed the Harbour Festival Procession up a dead-end street.

Gentleman Jim had to do some fast talking to explain to the Senior Sergeant that the crews' behaviour was a simple case of post-race revelry, not a serious threat to law and order. It is doubtful if the knighthood will overtake the larrikin in Sir James Hardy.

Sir James hadn't thought much about knighthoods until recently, though he recalls Bob Blackburn, navigator on Gretel II in the America's Cup Challenge in 1970 saying "You'll get to Buckingham Palace if you win this, my boy."

It's interesting to find that several of the men he admired most of all received knighthoods. Two of them were early mentors, friends of his father who died when Jim was five years old. Perhaps somewhere there lurked a desire to emulate them.

The first was Sir James Goss, his Godfather, who paid for Jim's schooling at St Peter's College in Adelaide and who sent him books to read.

"They were always books that lead me into some new knowledge – and often books on yachting," says Jim. "My godfather always seemed more pleased by my achievements in football and rowing than he did by any academic efforts, however."

Sir Douglas Mawson, Antarctic explorer, was a second great influence. "I was riveted by his stories of hardship in the Antarctic, in particular by one tragic expedition in which he slowly but surely lost every member of his party . . . they died in blizzards or froze to death. It was a remarkable feat of human endurance."

In 1961 Jim met the legendary West Indian cricket Captain, Sir Frank Worrell, who joined the ranks of his heroes, and some years later in Sydney was greatly impressed by Sir Frank Packer. "He was tough, but he was just and, in my books, good news. When I sailed on 'Gretel II' in my first America's Cup Challenge, I was in no doubt as to what he expected of me."

Jim sees similarities between Sir Frank Packer and Alan Bond, who backed the two subsequent America's Cup Challenges in which Jim sailed, on 'Southern Cross' in 1974 and on 'Australia' in 1980. Both were very demanding.

"I often argued with them but never tried to override their decisions even when I knew they were basically wrong. I believe in the maxim that he who pays the piper calls the tune."

Jim recalls one classic moment in the 1970 series when he pointed out to Sir Frank that the US defender 'Intrepid' had a six-inch card compass for steering, and Jim felt they needed at least four-inch-diameter cards for 'Gretel ' II'.

The cost was about $500.

Jim Hardy was the subject of a 'This is Your Life' television program earlier this year.

David Walker (left) and Jim Hardy launching 'Mocroo', a 12 ft Cadet dinghy built by Jim in 1946.

"Sir Frank stepped behind the steering wheel and peered in the direction of the compasses through his glasses, which were like the ends of Coca Cola bottles. 'Jim,' he said after a bit, 'I think it would be cheaper to buy you glasses. Those compasses are clear enough to me.' "

"He was inconsistent about money; in another instance he insisted we carry a 7 oz jib – just because the Americans had one."

With numerous international successes – and disasters – under his belt, including the tragic 1979 Fastnet Race, Jim has no hesitation in putting the America's Cup Challenge up front as the toughest events in his career.

Indeed, the 1970 America's Cup Challenge scarred him quite dramatically. "I was so sure we would win that challenge . . . from the moment Sir Frank called me to ask me to sail the boat, my conviction was quite uncanny. And how close we came! Crossing the finishing line ahead of 'Intrepid' in two races, only to lose one on a protest. When they fired the loser's gun at the end of the last race, they might just as well have shot me. I couldn't believe it. Losing the series that year left me with a kind of depression that lasted nearly ten years."

Hardy was haunted by decisions he'd made, by unheeded premonitons, but mostly by a still-held belief that they should not have lost the protest.

"The judges made the right decision on the facts presented to them. But I believe we put up a poor case," he says, still with intensity.

Strangely, it was that tragic Fastnet Race that washed away the depression. "I guess it somehow shocked everything back into perspective,

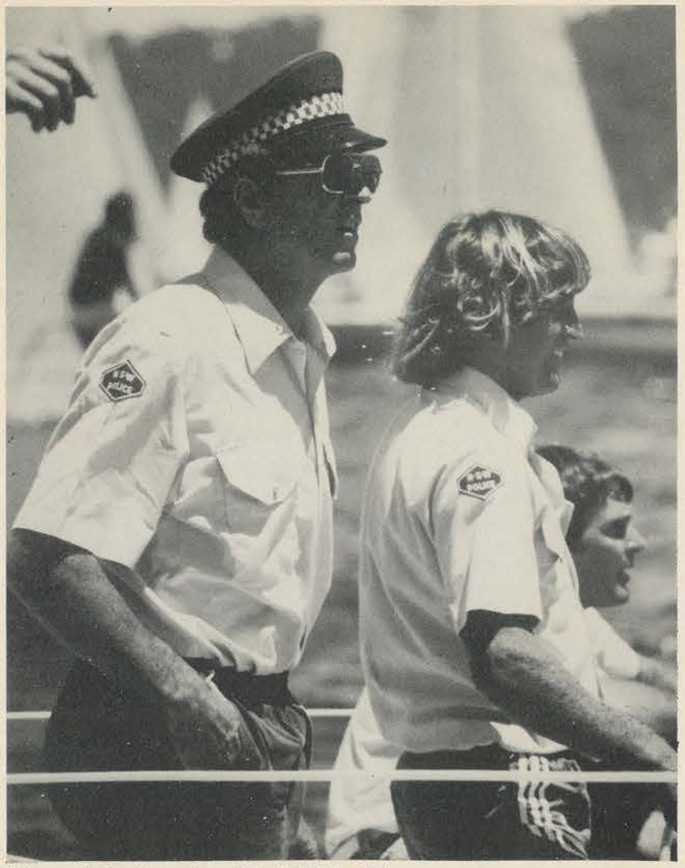
"The 1974 America's Cup was a good series. It was a great experience to sail with John Cuneo – he has strengths in areas where I don't try hard enough. He damands 100% effort in everything, drives his crews to distraction in his demand for perfection. I concentrate on the human end – motivation and crew morale. He spends as much effort on a dent in the hull, worries about the physical condition of the boat."

In the third challenge on 'Australia' Hardy was again successful in beating the Americans in one of the races. "I've learned a lot in three challenges but I've no desire to try again. In future I'd like to be a coach or advisor to help someone like John Bertrand to win. John's a professional, cold and calculating, he can do it . . . I'm basically a Corinthian at heart."

Jim's early interest in sailing was fostered by South Australian yachtsman Colin Haselgrove. "When I was building my first boats at home, Colin used to

On 'Tintara', National Champion 12 sq. m. Sharpie, in Perth 1959, Jim Hardy with Ian Gray and Doug Giles.

Jim Hardy addresses the 'Gretel' crew 1969/70 in Sydney Harbour.



The standard uniform aboard Hardy's 'Police Car'.

Losing the America's Cup to Bill Ficker in 1970, Jim and Bill get traditional dunk.

give me advice. I had a real thirst for knowledge which he was happy to provide. I will never forget the first boat I ever owned — a small dinghy called 'Mermaid' which my mother gave me. I just couldn't believe it. I treasured it . . . as I've always treasured all my boats."

It hurts Hardy to sail with people who see boats as a collection of spare parts that can be easily replaced, and boat owners as rich men with endless money to spend. "How often do you hear a bloke say 'Oh, the owner's got plenty of money. No need to straighten out that shackle, we'll get a new one' I guess owning my own boats makes me more caring about assets.

"I feel lucky, too, to have seen two distinct eras of sailing. I grew up in an era of cotton sails and galvanized iron rigging and watched the development of synthetic sails and stainless steel. It's given me a respect for the character of both." This sentiment no doubt explains his caring for the old yacht 'Nerida' which was built by his father in 1933. 'Nerida' was sold after the death of Jim's father, but Jim found her again in Sydney years later and restored her to her original condition.

International acclaim came to him in 1966, when he and fellow crewman Max Whitnall won the 505 class World Championship in Adelaide sailing against an international fleet of 76 boats. After a close duel in the final race, he defeated champion Paul Elvstrom, with Australian John Cuneo in third place.

Jim was a team member at two Olympic games, sailing 5.5 metre events, a reserve in Tokyo in 1964 and sailing in 5.5 metre events in Mexico in 1968. He has sailed in three Admiral's Cup Challenges, in 1973 as helmsman on Alan Bond's 'Apollo II', in 1977 skippering his own boat 'Runaway' and in 1979 as helmsman on 'Impetuous' in the winning Australian team.

Jim hasn't always been a winner — far from it — but has always demonstrated a spirit of competition which earned him the respect of opponents and spectators alike.

The knighthood was awarded in recognition of this, and the hundreds of letters that have landed on his desk since indicate that the title has popular support — even amongst republicans. In fact, it seems to fit quite naturally.

In the Adelaide-style cottage which serves as Hardy Wines' distribution centre at Botany, the staff have taken to calling the boss 'Sir James' without coyness. They are accustomed to dignity, of course. The spectre of the firms's founder, Thomas Hardy, looms large in these comfortable offices.

It is doubtful if the crew will alter their attitudes either. "I guess they'll still call me Gilbert." said Sir James.□

RIO (via Cape Horn) ANYONE?

BRIAN HAYDEN

'Great Britain II' skirts the ice line in the Southern Ocean on leg two of the Financial Times Clipper Race 1976 (iceberg to leeward, behind main sheet tackle).

by Maj. Brian Hayden

This article is written for the PBOs and PBCs (poor bloody crews) who are contemplating the race to Rio. What I have attempted to do is present a series of facts and figures which, hopefully, will assist all concerned if only by stimulating discussion.

My basic qualification for presenting this information on the Southern Ocean and other nasty places is having been there and done it. My reason for writing the article is because I am alarmed by what I hear being spoken about the Race at the Club, albeit not by the organisers.

The race that I will use as a model for discussion is the 1976 Financial Times Clipper Race. This was a race for fully crewed modern yachts racing under the IYRU regulations modified by the Royal Ocean Racing Club (RORC) Special Regulations. The yachts would attempt to better the record sailing time between London-Sydney-London, which stood at 168 days. The result was that the winning yacht, 'Great Britain II', set a new round-the-world sailing record of 134 days, 5 hours 51 minutes and 14 seconds. This race was similar in all respects to the proposed Rio Race — up to the latitude of Rio.

Vital statistics of 'Great Britain II'

To further help explain the model used, the following are the vital statistics of 'GB II' and her sailing performance figures.

LOA: 77.16 ft
LWL: 68.16 ft
Beam: 18.42 ft
Draft: 9 ft
Displacement: 73,000 lb
Ballast:34,313 lb
Sail No.: 3566
IOR DATA:
1: 70.4036;
B: 17.8;
BWL: 16.31;
D: 7.0509;
DC: 0.6832;
fc: 0.0949;
CGF: 0.9824;
EPF: 0.9865;
I: 82.000;
J: 33.250.
Ipg: 52.500;
P: 75;
E: 23.00;
RSAT: 2883.870;
MR: 71.4356
Rating: 69.05

Mast: 82 ft, 89 ft above water.
Main 12 oz
Dacron 862.5 sq ft.
No 1 Dacron 8 oz 2218 sq ft.
Mizzen Dacron 8.5 oz 276.75 sq ft (luff 41 ft).
Spinnaker 2.8 oz 4700 sq ft.
Mizzen spinnaker 660 sq ft.
Big Boy 2200 sq ft.

Crew selection

Numbers. The factors which drive this problem are firstly, space available and, secondly, the numbers required to sail the yacht to achieve the maximum performance at all times. When deciding upon final number of crew one must take cognisance of the possibility of illness and/or injury. My personal preference is to go for the maximum number even though living conditions are cramped.

Special qualifications. Besides experience, aptitude and personality, the PBO should examine each potential crew member for ability or potential in a specific skill that will be needed to maintain the yacht and her crew. Skills such as engineering, radio operation and electrical repair, sail repair, rigging repair, medical, are just a few. When something goes wrong (Murphy says that it will) at 60° south at Christmas — you're on your own. If you have the onboard skills to repair damage and faults, you are still in the race; if not, it will have been an expensive exercise in futility.

Compatibility. This attribute must be recognised as the most crucial factor, besides the yacht itself, when you are at sea for long periods, completely shut off. It is almost impossible to assess artificially; however, a good start is to have what I would like to call a 'common bond'. On 'GB II' the crew were all servicemen and, as such, had inherent discipline. They were generally accustomed to living in small, uncomfortable situations for long periods. This was the common bond. One cannot pretend, however, that morale did not fluctuate from time to time even with this bond. This was for many reasons — race positions, weather, etc. I am not for one minute saying that only military personnel have the ability to live and work together successfully; however, it takes time to achieve this state of compatibility, and a crew, unless it has sailed together for a long period, will need time to sort itself out. During this work-up period (three months minimum) any unwanted or unsuitable person will soon get the message to leave the project, and this applies equally to the PBO and the PBC.

Psychological training. During a long voyage such as the one contemplated it is known that different people react to differing stimuli in different ways. With this in mind all persons in the crew, whether they be skipper or cook, should be thoroughly briefed on what may happen to them psychologically and what they can best do to help themselves and other crew members. The phenomena are many: however, a majo one is space deprivation, as it is a likely cause of conflict among crew members. Counselling assistance should be available from a local university or any qualified practitioner of expedition medicine.

Clothing. I will discuss in this article only dress in the high latitides, as we all are, or should be, well versed in the dress required for sailing in tropic or temperate zones. I would draw your attention to Table A. and suggest that prior to rounding Cape Horn you will at times be sailing in the areas indicated as '(2) Increasing Danger' and '(3) Great Danger'. The Clothing and the discipline regarding the wearing of it has to be maintained at all times. There are no prizes for bravado when *you* have frostbite and the yacht has to withdraw from the race to get you medical attention. In areas indicated '(2)' and '(3)' in the Table, you are best given to wearing immersion suits or similar. These are difficult to obtain, costly, but will enable you to work on a wet deck in −20°C for a couple of hours or so with only minimum discomfort. The clothing indicated in Table B gives you an idea of what I recommend and the approximate life of the article itself. Sixty days of sailing continuously in a race such as the one in question is about six to eight normal seasons' wear.

You will notice that the Table requirement gives a maximum and minimum and allows for a limited washing of some clothing used in the Southern Ocean in the Atlantic. The obvious essential is that the kit should be light and compact as well as being warm, hence Helly Hansen Polar wear. The length of life before washing or discarding is based upon hygiene and the point at which thermal insulation deteoriates. If anyone doubts the estimates, I suggest he/she carries out the following trial.

10 hours a day, alternatively running and standing still under a cold shower.

2 hours a day rolling in snow.

8 hours a day sleeping in a damp sleeping bag, in a freezer.

4 hours a day drinking soup standing up in a the back of a moving 5-tonne truck.

Repeat the above for 10 days. Washing is permitted in ice-cold sea water every third day.

(more)

SAILING STATISTICS

From	To	Dist. (nautical miles)	Time (hours)	Speed (knots)	Avg. miles /day	Dist.	Running totals Time	Knots	Miles /day
Sydney	Stewart I.	1,145	150.00	7.63	183.12				
Stewart I.	Cape Horn	4,450	476.66	9.34	224.06	5,595	626.66	8.93	214.32
Cape Horn	Equator	3,960	509.34	7.77	186.48	9,555	1136.00	8.41	201.84
Equator	Dover	3,860	470.53	8.2	196.8	13,415	1606.53	8.35	200.41

Note: Close hauled: 37%; close reach: 35%; Running: 27%; Stopped: 1%. These figures are based on our track over the ocean and are a fair measure of the distance we actually sailed.

TABLE A. TEMPERATURES

EST. WIND SPEED (MPH)	10	4.4	−1.1	−6.7	−12.2	−17.8	−23.3	−28.8	−34.4	−39.9	−45.5	−51.1
Calm	10	4.4	−1.1	−6.7	−12.2	−17.8	−23.3	−28.8	−34.4	−39.9	−45.5	−51.1
5	8.9	2.2	−2.8	−8.9	−14.4	−20.4	−26.1	−32.2	−37.7	−43.8	−49.4	−55.5
10	4.4	−2.2	−8.9	−15.6	−22.7	−31.1	−36.1	−43.3	−49.9	−56.6	−63.8	−70.5
15	2.2	−5.6	−12.8	−20.5	−27.7	−35.5	−42.7	−49.9	−57.7	−64.9	−72.7	−79.9
20	0	−7.8	−15.6	−23.3	−31.6	−39.4	−47.7	−54.9	−63.3	−71.8	−78.8	−86.6
25	−1.1	−8.9	−17.8	−26.1	−33.8	−47.5	−50.5	−58.8	−66.6	−75.5	−83.3	−91.6
30	−2.2	−10.6	−18.9	−27.7	−36.1	−44.4	−52.7	−61.6	−69.9	−78.3	−87.2	−95.5
35	−2.8	−11.7	−20.0	−29.4	−37.2	−46.1	−54.9	−63.3	−72.7	−80.5	−89.4	−98.3
40	−3.3	−12.2	−21.1	−29.4	−38.3	−47.2	−56.1	−64.9	−73.3	−82.2	−91.1	−99.9

NOTE: Wind speeds greater than 40 MPH have little additional effect.

(1) LITTLE DANGER FOR PROPERLY CLOTHED PERSON: MAXIMUM DANGER OF FALSE SENSE OF SECURITY

(2) INCREASING DANGER OF FREEZING OF EXPOSED FLESH

(3) GREAT DANGER

Rio via Cape Horn

Each man should pack every individual item in a small-as-possible polythene bag with a label stating the contents. He then packs these in larger polythene bag with a tough sail-bag-type outer cover. These bags should be laid apart in different parts of the yacht, i.e. stow two changes in your locker, the rest laid apart to prevent all your clothing getting wet, as we all know can happen (however, down there it is not at all funny).

Finally, two points to bear in mind. Dressing and undressing with all the clothing involved will take about 20 minutes. This will mean amending normal watch change routine, and if you have a feather down sleeping bag, wet it and check the smell (ever lived in a chicken coop?).

TABLE B. CLOTHING INVENTORY

		Ideal to take (a)	Min to take (b)	Article life (days) (c)
Inner layer	Pants/long johns	15	9	6
	Vests/old shirts/under sweater	15	9	6
	Socks	16	9	6
	Pyjamas/track suit	3	2	20
Middle layer	Socks/HH socks	5	4	9
	Inner trousers/HH trousers	4	4	12
	Shirt/HH top	4	4	12
	Neck scarves/sweater necks	12	8	6
	Shorts	3	2	15
Outer layer	Trousers/HH trousers/track suit	4	3	12
	Sweater/HH top/greasy wool jumber	4	3	12
	Old Trousers	2	2	12
Over clothes	One piece oilskin/immersion suit	1	1	60
	Henri Lloyd trousers	1	1	60
	Henri Lloyd top	1	1	60
	Sailing boots (2 prs, 1 large)	2	2	60
	Harness (built in)	1	1	60
	Gloves	3	2	20
	Mittens	3	1	20
	Neoprene hood	1	1	60
	Lightweight oilskins	1	1	60
	Harness (detached)	1	1	60
	Deck shoes	2	2	60
	Separate life jacket (on board)	1	1	60

Note: HH= Helly Hansen Polar Suit

Safety

Safety should be paramount in everybody's mind throughout the race and, indeed, before it starts. Safety inspectors should be ruthless. We on 'GB II' were very aware that on a previoius race in the Southern Ocean a crew member had been lost overboard. He, after becoming immersed, could at best have lived only 5-10 minutes. Everyone took great care in the preparation and maintenance of his safety gear, and a nominated crew member performed routine inspections of all safety gear, both the ship's and personal, every couple of days. All safety harnesses, etc. were *personal* items and therefore were probably better looked after than if they had belonged to the yacht.

Mountaineering screw clips were used at the end of our safety lines which, once secured to the stainless steel jack stays that ran each side of the whole length of the yacht, were there for good and couldn't come undone accidentally like some that are marketed. Our safety harnesses had two lines and clips, one long and the other short. This system allowed you to remain tied on at times in rough weather even if you had to change to a strong point other the the jackstay. This may seem total overkill to the normal ocean racer. However, if you fall overboard down there, you are D-E-A-D. Our foul weather jackets had inbuilt life jackets and harnesses, and every man had his own set of mini flares, strobe light and UHF survival beacon, making it possible for the yacht to 'home back' to his location he should fall overboard and remain conscious long enough to operate these devices.

Positive-locking mountaineering clip for safety harness leaves nothing to chance where 'you've only got one'.

Another aspect of safety which was not forgotten was the inclusion of a watertight bulkhead forward. Few yachts in Australia have this item, as the likelihood of running into anything solid is pretty remote. The Southern Ocean is a different matter, what with icebergs and whales to contend with. Several yachts in recent years in Pacific waters have had scrapes with whales and have come off the worse for it, and at this time of year the Southern Ocean is full of them. One must assume that the worst will happen and prepare for it. I consider the following to be essential in this preparation:

(1) A watertight bulkhead forward, capable of containing water in a flooded compartment. This need not be an elaborate fitting, just a sealable heavy wooden plate fastened with strong backs.

(2) Each crew member to have his own waterproof pre-packed survival kit ready at all times containing a heavy jumper, spare shirt and trousers, hat and a set of light foul weather gear.

(3) Ready, in buoyant waterproof containers near the main hatchway, should be a first aid kit, EPIRB which every crew man knows how to operate, and food and water to supplement the meagre amount carried in life rafts even when surveyed to SOLAS standard.

Hygiene

Unless the yacht is of large proportions and has a desalinator, you will have very little freshwater with which to wash unless there is rain. However, cold salt water with a soluble soap is a satisfactory alternative.

As the weather becomes colder some people will need prompting to disrobe and apply cold sea water and soap to the body (you don't have enough energy on board to be able to waste it in the heating of water). Watch leaders should watch (no pun intended) for this tendency. If allowed to continue, the thermal insulation of clothing could break down, thereby reducing the crewman's efficiency due to him becoming debilitated by the cold — to say nothing of the yacht starting to smell like the gorilla pit at the zoo.

Radio

I believe that two HF/SSB radios should be the rule rather than the exception. From my experience if you want to maintain communications in the Southern Ocean, you will require an output in the vicinity of 400 watts PEP. Yachts (in the '76 race and subsequent Whitbreads) which had this power available were able to communicate constantly. We had a transmitter of 150 watts PEP output and were out of communication for long periods, even to Antarctic base stations. Any radio should be fully marinised and should not just be a commercial radio with a fancy title. Your yacht will, for a majority of the time down south, be full of condensation, and this will destroy all but the best radios even before the salt water gets into it, which it will.

Aerial installations are also important. We have had several articles in 'Offshore' regarding this point, and many of the fancy whip setups seen around the waterfront today are plainly not good enough. The ideal, of course, is to have an aerial 'cut' to each frequency and then led aloft with the shortest possible feeder. If you examine this proposal, it is possible, bearing in mind that you may be on one tack for possibly weeks at a time.

A thorough examination should be conducted into all of the frequencies involved, both compulsory and optional, and whether your radio has the capability to accept them.

If you can get in one of your crew a radio 'Ham' his radio on board may prove advantageous.

Weather information

It is imperative that at all times during the race you are aware of where the pressure systems are that may affect you because this is now the type of sailing you are into. The ideal is to have weather FAX machine. These are costly and will probably be a one-time-use item for you as they cannot, at present, be used whilst racing under normal regulations. There is another way to gain this information, and that is by receiving the 'CANAL', which is a Morse-coded, world-wide weather service that enables you to plot isobars and thereby build up a synoptic weather chart once you have decoded the Morse symbols. The catch, however, is that you need to be able to receive Morse code at about 30 words per minute. You may be able to slow it down to a speed that mere mortals can read by using a tape recorder that gives you the option of several different speeds.

All of this electrical 'hocus pocus' leads us to another area — power.

Power

This will be one of your most important assets, and, nagging worries. It will require your almost constant attention and judicious management. To run either your main engine or generator you
will need fuel. Do your homework and see how much fuel you will use at two hours charging a day for, say, 45 days. To go further, on, say, a 50-ft yacht, where do you store it in addition to the reserve that you require for your main engine to get you out of trouble if you lose the rig?

Water

This is another area of potential conflict that exists. You will not be able to leave Sydney with enough freshwater to allow unlimited consumption until you reach Rio.

On 'GB II', to prevent over-consumption a small holding tank was installed. It was pumped full from the main tanks every day at the 1600 hrs watch change. The ration, even on a boat the size of 'GB II', was 35 pints, or 1.99 L, per man per day. This was the complete ration for both drinking and for cooking. This was not adequate for the tropics, and one must be prepared to catch water in a 'boom gutter'. A point to note with the gutter is that it takes approximately 20 minutes of rain to clear enough salt from the sail and associated hardware to make the water potable even for cooking. It was my experience that gutter-caught water never completely lost its salty taste, but it was certainly drinkable. As this water partly retains its salinity it should never be drained into the yacht's main water tanks. A bladder is ideal for its stowage.

Energy for domestics

Your choice of fuel will depend on personal preferences developed over many years. Possibly the greatest domestic danger you will face will be a fire which, in turn, will cause burns; the possibility of fire should temper your decision. Whatever your energy source, check on consumption rates, especially your heater and stove (at the winter rate). You have thought of a heater, haven't you? Once again, plan carefully for its stowage, and don't underestimate (nowhere down there to 'pop in' for a refill).

Watchkeeping

The system that I prefer on a large yacht in this sort of race is what is called the 'mother watch' system. Using three watches, two watches would work

The psychological effects of a protracted voyage, space deprivation and other stresses makes crew selection and development an important consideration — something that won't 'just happen' on the eve of the race.

BRIAN HAYDEN

Rio via Cape Horn
normal naval watch timings:

0000 – 0400
0400 – 0800
0800 – 1200
1200 – 1600
1600 – 1800
1800 – 2000
2000 – 2400

This continues for 24 hours, then the third, the mother watch, relieves one of them. The relieved watch then becomes the mother watch and does all the cooking, cleaning, any necessary repairs and is on stand-by to assist the watch on deck. There are always two men below on immediate stand-by to assist on deck In bad weather these two need to be fully dressed (remember, 20 minutes to dress).

The mother watch will generally give one crew a very relaxed 24 hours. The system, I agree, needs a large crew on a large yacht; it, however, has the advantage of leaving the off-deck watch undisturbed except in unusual circumstances, and it insures that there is a fully-refreshed watch going on deck every 24 hours to keep the boat moving at its maximum speed.

Navigation aids
I would propose that to do this race you would be unwise not to have at least one SATNAV. 'Anaconda II' has two Galaxy Nav Computors, and whilst all of this gear is working and you can supply it with power, you are looking good.

We generally rejected computors, parabolic fixing systems and radar, on the grounds of weight, power drain, or complexity, and we carried the basic and traditional tools with the exception of quartz time-keeping, a precision barometer, and the latest-model compass, professionally swung and adjusted for the required latitude limits. I would recommend, if you decide to go simple, that you include either an NC 77 or Hewlett Packard calculator powered by an inverter (to keep things a little simpler (i.e. no replacing batteries). Whilst navigating in the extreme cold I found that it is very easy to make mistakes, and I would therefore recommend that two people do the observations, one taking, one checking, and that they also check each other's add-ups and take-aways during the reduction.

Whilst on navigation, a good game to play is 'what time will the compass light fail tonight'. You will be surprised how many globes, fittings and assorted pieces of wiring will fail. A box or two of Cylume will come in very handy or, if you are a PBO with plenty of 'the necessary', Beta lights are even better.


BRIAN HAYDEN

Immersion suits are necessary to combat extreme cold in the southern latitudes.

Engineering
'Great Britain II' was a one-off yacht constructed in a hurry by amateurs in their spare time. The comment of the designer, Alan Gurney, was that after two round-the-world races, 'GB II' required a new deck. In his opinion the foam sandwich hull was sound, but he thought that a laminated marine plywood deck would be the right solution. This is because the foam sandwich deck did not have the rigidity to take the loadings transmitted by the hull and water weight upon immersion, i.e. the whole boat out of the water, then falling, and the subsequent pounding.

Problems with the structure and plumbing arose mainly from the poor materials and workmanship used in the original construction. It is estimated that some $90,000 was spent on the major refit prior to the race. This sum was for materials and equipment installed, as 'GB II' was very sparsely equipped with 'creature comforts'. Some $50,000 was spent on sail repair and replacement.

On arrival at Sydney, all the hatches and skylights were leaking due to deck movement. This was overcome by double glazing (as you won't want them open anyway). The major defect from the first leg was that of the rudder quadrant keyway (which keyed into the rudder shaft; together with associated bearing surfaces, all parts had excessive wear. This wear meant that the boat could wander 30° to either side of the intended course.

During the voyage a lot of sail-control gear broke, namely snap shackles and swivel heads of the spinnakers. These were made of either brass or bronze, chrome-plated to give the appearance of stainless steel. Spinnaker head swivels should always be of stainless steel. If a requirement exists to preserve the spinnaker, use a snap shackle on the halyard as this will trip under excessive loading. We, however, found that bowlining the spinnaker to the halyard and changing halyards daily was the best method. On a yacht of this size, wrong drills can cause even the best equipment to fail.

Tools carried should be in 'shadow boxes' or on boards. A plentiful stock of drills, taps, dies, bolts and nuts are essential, as is a powerful, high-torque, low-speed 24V electric drill for use on stainless steel. A small lathe, such as a 'Unimate', would also be desirable, as work can be drilled and held better in a seaway.

We had no trouble; however, several competitors were 'deep in it' when they got salt water and diesel mixed in their main engines and generating plants seized and ceased to function. No power, no refrigeration, no food. Several yachts I have sailed on and owned have had fibreglass fuel tanks; they are porous, and the result is obvious; you may get sea water in your fuel. Line them, or use bladders.

(continued on page 32)

WHO SAYS YOU CAN'T DO CELESTIAL?

by David Colfelt

A few weekends ago I was listening to the radio on 2524 kHz (the yachtsman's chatter channel) and overheard a station in the harbour talking to a small commercial vessel that was 'lost' at sea. By lost I mean that neither the skipper nor his crew knew quite where they were. They had been steaming around looking for Lord Howe Island and couldn't find it. Some 580 miles had been put on the log since they left Broken Bay, but as yet they had not sighted land. Whilst they had cargo aboard that islanders were waiting for, and whilst the owner was evidently pretty unhappy about it, the skipper had exercised his command and had decided to come back home to the mainland.

I never heard the final chapter. I am told that the skipper was a professional, if not the boat's regular skipper. On the day I listened to all the drama, which went on for many hours, there was most certainly a visible sun and moon in the sky, at the same time, and there was a sextant aboard the ship. Still, the skipper was coming home. With some 580 miles on the log, even the act of turning around and heading for home was not without some hazard; if the unknown departure point were very NE of Lord Howe Island, the course 'home' could have taken the vessel over Middleton Reef or Elizabeth Reef.

Whatever the skipper's qualifications were, he certainly was not confident of his navigation; I couldn't help thinking that if he'd had one of the new calculators aboard, his problems would have been solved for him.

Are you one of those men of the sea who, because you are also a man of the back lawn, your job, and sometimes even Mum and the kids, you get less practice at navigating than you really need to maintain your proficiency? Or are you just one of those with arthritis of the arithmetic who long ago decided that, when it came to navigation, anything beyond 'coastal guesswork' was definitely 'diminishing returns dept.' stuff?

Several issues ago ('Offshore', Dec./Jan. of this year), John Brooks wrote about a demonstration given at the CYCA Navigator's Club — hand-held calculators used in navigation. I'm sure many who are not technically-minded and who may be 'put off' by calculators and computers perhaps got no further than the title (in spite of Biggle's way with words, which is the envy of many of his professional journalist friends). I hope some of those who did switch off will perservere just a little further this time. There seems little doubt that, for the foreseeable future, small craft skippers will have to have some means of fixing position by the stars, planets, sun and moon even if it is only a back-up system to an electronic position-fixing system. I personally feel that the availability of these compact, relatively-inexpensive, immensely powerful machines and the programs that are being written for them by our own local navigators will cause many a yachtsman to reassess his priorities when purchasing the next bit of equipment for his 'black hole in the water'.

For those who haven't yet got their feet wet with celestial navigation, there is nothing especially difficult about it. All of the operations are simple, but there are a fair number of simple operations in each sight reduction, and you need to do three sight reductions to get a good fix. Any one of these steps offers an opportunity to make a small error in either arithmetic or transcription.

When you think about it: that you are standing on earth with a very basic hand-held instrument, the sextant, which you point at a speck of starlight that originates so far away that it would take you about 190 hours, counting as fast as you possibly can, to just count the miles to the nearest such source of light, and that by correctly measuring the angle between that speck of light and your visible horizon you can fix you position on earth (with two more such angle measurements) to within 350 metres or so — it becomes apparent that even small errors should be capable of introducing sizeable inaccuracies.

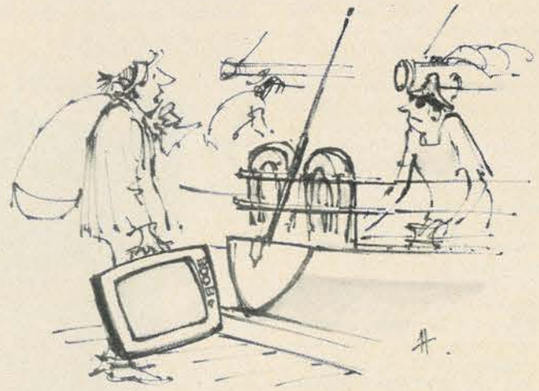
After you've had a bit of practice, you can become quite adept at all of the little number jugglings, and your speed and accuracy improves. The converse is, alas, also true: after you've let it lie for a little while, you become rusty — slow and, perhaps, more subject to making small errors. You may also forget the order of the steps, or perhaps just what you are supposed to do with the various columns of numbers in the Nautical Almanac or the sight reduction tables. At least that's the only explanation I can think of for the preceding anecdote.

Navigators have traditionally been a bit like medicine men, some of them shrouding their trade in 'cosines' and 'haversines', trigonometric calculations and other mumbo jumbo that, by design or accident, has successfully kept away the great masses of the mathematically unwashed. The thought of learning celestial has struck terror in the hearts of those of us born with arthritic arithmetic. Fortunately for us, some members of the navigators' guild have broken ranks with their soothsaying bretheren and have offered admission to heathens who were prepared to undertake a minimal course of study and a minimal financial commitment to basic tools — a star finder, a Nautical Almanac, and a book of tables.

I first offered myself up for the navigational laying on of the hands at the CYCA when I enrolled in Gordon Marshall's course.

Several weeks later, after proving on several occasions by celestial fix that the sewer vent just north of Bondi Beach was actually located five miles out to sea, and after bringing down Air New Zealand Flight 485 instead of Alpha Centauri a few times, I graduated somewhere around the middle of a class of celestially navigating monkies. Far from deserving the label 'celestial navigator', I did, nevertheless, know how to reduce a sight using stars, planets, the sun and the moon. Far from proficient, in fact, slow, error-prone, and without real comprehension of what I was doing, I did know what I was 'supposed' to do and could carry it out, monkey-like. At the same time I started reading to fill in the gaps. As someone once said, "when I left university and began my education. . . "

Critics of Gordon's cram courses say that you simply cannot learn all there is to know about celestial navigation in 21 hours, and Gordon would agree. What he set out to do



"You did order a prize-winning navigator, didn't you?"

Who says you can't do celestial?

with this type of course was to reduce the horrendous drop-out rate, and in this he has succeeded (he has also succeeded in turning out several prize-winning students).

His approach to navigation has always been one of trying to simplify, and to eliminate errors. His course methods, including the use of pre-printed sight forms, are all directed towards this. At the same time he has never compromised on the need for accuracy; students were expected to 'shoot' every object five times and to average their results to minimize the effect of errors.

No one was surprised that Marshall had some reservations when the first programmable calculators came along, and no one was surprised, when it came to a showdown between man and machine at the CYCA one evening in September, 1974, that Gordon beat the machine working with only pencil and tables.

Marshall's reservations about calculators have never been about the calculators themselves. He has doubted that the programs written for them would end up making the operator either more accurate or faster. Whatever doubts he has had in the past, they are gone now, and he is today an ardent proponent of the calculator. With some help from "more able mathematicians than myself" he has come up with what can only be described as a beautifully simple-to-operate program capable of reducing six sights and providing, therefore, a six-position-line fix, spelled out in degress of latitude and longitude, in – guess – about six minutes! The first time I tried it I took nine minutes, but I did do it without a single mistake. Why a six-body fix, you may ask? Well, the more sights you take, the better your chances should be of minimizing error due to poor observation; if you can do six without mentally exhausting yourself, six is better than three; you certainly do not have to do six.

Gordon's CYCA Navigators' Club program is written for the Hewlett Packard HP41CV programmable calculator, an immensely powerful machine which has what is called, in the lingo, 'alphanumeric' dialogue capabilities. This means that, unlike past calculators, such as the very fine Tamaya NC 77, where you had to learn a series of symbols in which the machine conversed (or you could carry with you the manual, or a cue card) this one can talk to you, prompt you with instructions in English as to what to do next. The HP41CV is really in a league of its own, and the comparison with the Tamaya NC 77 is in deference to that pioneering machine, a very good machine with lots of uses; but for reducing celestial sights, the two machines are chalk and cheese.

The tremendous capacity of the HP-41CV has enabled Marshall to store almanac data for the sun and for twenty brightest (first-magnitude) stars, until the year 2000. The program works up your first-magnitude star and sun sights without reference to the Nautical Almanac (for planets and the moon, you need a few whole-hour figures from the Almanac). It gives you a position in lat. and long., tells you how big the 'triangle' formed by your sight position lines is (i.e. how much confidence you can put in the result), tells you how far off your DR you actually are, and if you then tell the machine how long it has been since your last fix, it will tell you the current speed and the direction of the set. It can do transferred sights, too.

The program is also capable of averaging times and altitudes, plotting a dead reckoning course (you put in starting lat. and long., course and distance, and it feeds you back your DR in lat. and long.), great circle courses (you want to sail from here to Lord Howe Island; you put in starting lat. and long., finishing lat. and long., and it tells you what the course is and how many miles away your destination is).

One very useful feature of Gordon's celestial sight reduction program is the 'predicted altitude' which can be used as a means of checking star plots, or to facilitate sight taking in rough conditions (when bringing down a star, particularly if it is high in the heavens, can be maddening) or when it's too light for you to find a planet or star with the naked eye (as with daytime Venus observations or star sights taken before twilight). You simply 'work-up' the star for a given time by entering the usual data, put in any figure at all when it asks you for 'sextant', and the machine will give you a predicted altitude and azimuth. You then set your sextant with the predicted altitude, and point it at the horizon in the direction that the machine told you to.

For anyone who is familiar with working up and plotting a three-position celestial fix, the benefits of all this will be apparent. For those who are not familiar, to do a three-star fix by hand, although it involves no difficult maths, does involve a large number of little steps (over 100 individual number calculations), page flipping in the Nautical Almanac, adding and subtracting, interpolating, making sure the '+' and '–' signs are applied correctly, getting the correct page of the tables, finding the correct line, reading the sometimes ambiguous print, doing some more adding and subtracting. At the end you have three sets of somewhat unintelligible numbers which must then be plotted with a protractor, on graph paper specially ruled up for your latitude – and then you can see where you're supposed to be. FIGURE 1 is not meant to be read, but it will give you an idea of what operations are involved with each hand-worked star sight (the simplest), and it assumes that you have already done your star plot to identify what you will be shooting.

The CYCA Navigator's Club program by Marshall (and others, including ex-CYCA Commodore Joe Diamond, Eric Richardson and Joe Hooten) is slick. In typical Marshall style it is designed for minimal ambiguity and operator error with maximum speed in getting a result. The whole exercise is over in a twinkle.

There can be little doubt that using a calculator such as this one will result in much faster and most probably more accurate results. Although working up sights by hand involves nothing difficult (once you've found your way around the many columns of figures), it does involve a lot of steps each of which offers the opportunity for an error in arithmetic, a recording error, a mis-assigned value (+ instead of –). Three bodies is about the maximum that ordinary mortals can handle without getting 'punchy'. In rough conditions on a boat, chasing all those volumes across the chart table, keeping the ruler on the correct line in the tables (and if you're one line out, your results will be utter garbage), seeing and recording the proper sights and values in dim cabin light, dripping all over your plot with wet foul weather gear – all go to make the job more subject to mishap. If you're feeling slightly seasick when you go below to start your calculations, you will be 'bilious' by the time you've finished, and your results may also be bilious.

(continued next page and on page 36)

Hewlett-Packard's Quad Memory Module (centre) quadruples the memory of the HP-41C calculator, giving it the same memory capacity as the built-in memory of the HP-41CV. That amount of memory can accommodate 2,000 lines of program.

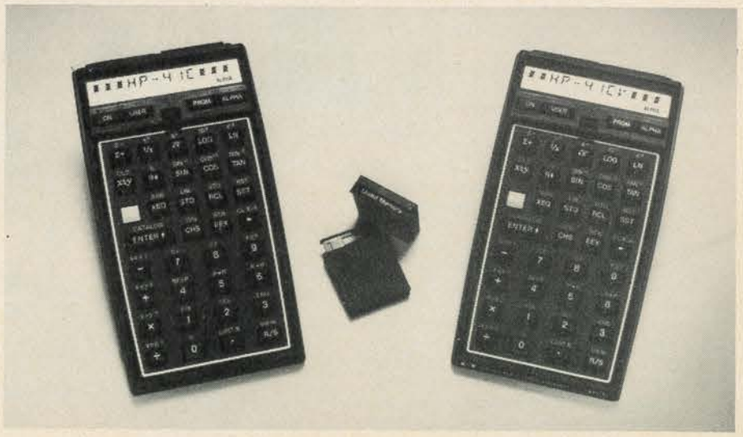


FIGURE !. DOING IT BY HAND

(steps involved in reducing a star sight – not recommended reading, but it does make a point.)

1. Plot on graph paper the individual times and altitudes for each sight. The plots of each sight should follow a straight line. Toss out any that are wildely deviant.

2. Average the times and altitudes.

3. Plot the averages to check your arithmetic; if each doesn't fall near the middle of the individual time/altitude plots, go back and average again – you've stuffed up the arithmetic.

4. Convert zone time/date to GMT/date.

5. Look up and note GHA body (Aries for stars).

6. Note SHA (of star) and declination.

7. Look up GHA increments (in buff pages at back of almanac).

8. Add (5), (6), and (7) as appropriate to obtain full GHA.

9. Select chosen longitude, i.e. that longitude which is as close as possible to your DR longitude but which also adds up to a whole degree figure when added to (8), full GHA.

10. Add (8) and (9) to obtain LHA, local hour angle.

11. Select chosen latitude (nearest whole degree to DR).

12. Enter (NP 401) tables with LHA and Declination as arguments (note N or S declination) to get correct page and run finger down Dec. column, then across from appropriate Dec. to appropriate latitude column.

13. Note 'Tab. Alt.', 'd' (altitude difference) and 'Z' (azimuth angle), interpolating 'd' according to declination increments. Squint carefully at poor print to determine correct value of 'd' (+ or –);

14. Compute azimuth ('Zn') by subtracting 'Z' from 180 if LHA is greater than 180, or by adding 'Z' to 180 if LHA is less than 180.

15. Compute correction to Tab. Alt. by dividing declination increments by 60 and multiplying result times Alt. Diff. (or use the interpolation tables at the front and back of the tables, doing a lot more squinting). Depending upon sign of 'd', add or subtract this from Tab. Alt. to obtain calculated altitude (Hc).

16. Compute corrected sextant angle (True Altitude) by subtracting: (a) height of eye correction (extracted from the almanac); (b) altitude correction (extracted from the almanac).

17. Subtract (15) from (16) or, if (15) is larger than (16), (16) from (15), to obtain 'intercept'. If True Altitude is greater than Calculated Altitude, affix '+' sign and call it 'towards'; if Calculated Altitude is greater than True Altitude, affix (–) sign and call it 'away'.

18. Whew!

19. Start all over again for sight No. 2.

20. Whew!

21. Start all over again for sight No. 3.

22. Whew!

23. You know what you can do with sight No. 4.

24. Take graph paper (which has already been prepared with correct longitude rules,i.e. with appropriate spacing for latitude, and on Chosen Latitude line plot vector from Chosen Longitude position towards each sight azimuth; construct a line perpendicular to azimuth either 'towards' or 'away from' vector arrowhead at a distance from Chosen Longitude dictated by the figure 'intercept'.

27. Inspect size of triangle formed by the three position lines. If it is more than 3-4 miles wide, unless you're sure you got lousey sights in the first place, go back and check figures for possible errors. If error is found, rework that sight and re-plot it.

28. Your position is probably in the middle of a circle drawn within your triangle. If it's a tight 'cocked hat', you got a good fix. Good work!

TOTAL TIME: Depends upon the individual's proficiency. A computer slayer like Marshall could do all that in about 11 minutes. Lesser mortals may very well take that much time just to average their sights.

SEPTEMBER 1974, MAN VS. MACHINE

FIGURE 2. DOING IT WITH A CALCULATOR

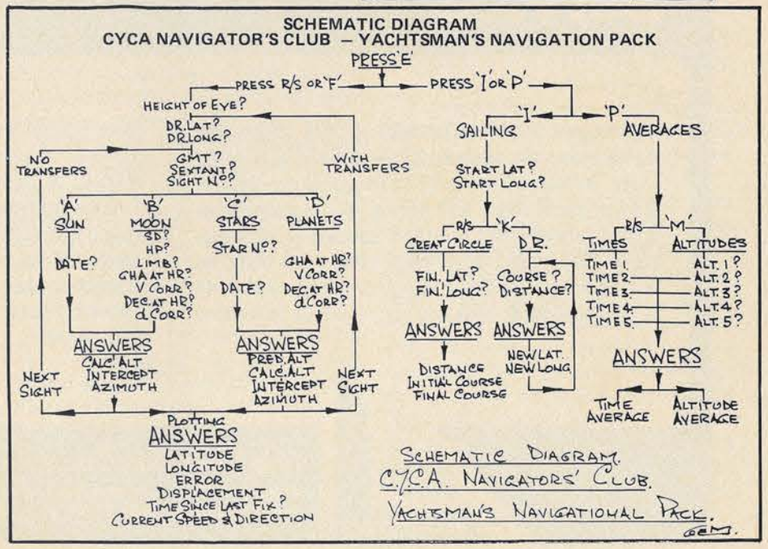
1. Plot your times and altitudes, discarding any that are significantly deviant.

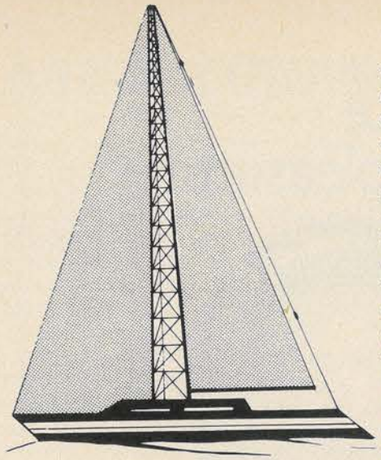
2. Switch on the calculator, and press button to initiate the program. Press appropriate button as instructed by the calculator to average times and sights. Record averages.

3. Push button for sight reduction. The calculator will then, by means of verbal prompts, ask you to enter, in order:
(a) Height of eye
(b) DR latitude
(c) DR longitude
(d) GMT
(e) Nominated sight number
(f) 'SU', 'M', 'ST', 'P' (Sun, Moon, Star, Planet) will appear; push button immediately beneath the appropriate prompt to nominate which.
(g) Star No. (the twenty first magnitude stars are listed on a calculator cue card – you probably wrote them down on your sight form, so at this time you simply enter a number between 1 and 20.
(h) Date (GMT)

The calculator then indicates 'computing' and about 15 seconds later in the case of a star sight (less for planets or the moon) it starts spitting out:
(a) predicted altitude
(b) calculated altitude
(c) intercept
(d) azimuth.

It then asks you if you wish to plot, and if you don't, it starts asking questions for the next sight, eliminating the necessity of repeating height of eye, DR lat., DR long., date, which you have already put in with the first sight. After each sight it prompts 'Plot G' (if you wish to plot, press 'G'); after you've entered you three (or more) sights, you push 'G'. It then takes about 10 seconds to plot a three-star fix and to give you lat., long., error (the size of the triangle), and displacement (the distance from where you thought you were, i.e. your DR). It then asks for hours and minutes since the last fix, and after you've entered this, it will give you 'set' and 'drift'.





RADIO SKED

by Bill White

a regular appointment with radio specialist, Bill White

The Xerox Sydney-Rio Race which starts January 24th, 1982 will introduce an entirely new concept in race communications. For this event, communications between the fleet and the CYCA race headquarters will be provided through a network of Amateur Radio Operators both here in Sydney and throughout the Pacific region.

This idea was conceived and arranged by our Rear Commodore, Peter Rysdyk, in collaboration with the Hornsby and District Radio Club through their Joint Coordinator, Barry White (VK2AAB) (no relation to your scribe).

The headquarters for this operation will be the Manly-Warringah Radio Club building atop Beacon Hill, north of Sydney. Aside from this 'net control' station, participating amateur stations in Australia, New Zealand, Tahiti, Argentina, Brazil and possibly McMurdo Sound (Antarctica) will be available to act as relay stations should direct contact with the fleet not be possible. It is also likely that both the CYCA and the Iate Clube do Rio de Janeiro will have facilities at their respective Clubs to enable them to operate in the system via licensed operators.

As it is now legal for amateurs to conduct 'third party' traffic it is possible for them to handle personal traffic from competing crewmembers to their families, or vice versa, free of charge. Radio facilities on board three of the competing yachts will be provided by Ham operators who will accompany the fleet as regular crewmembers. I understand that the long list of volunteers for these berths includes several with extensive sailing experience. A trial exercise was conducted during the recent Sydney-Noumea Race to evaluate the potential of such a system, and it proved most successful – despite the fact that the distance was a trifle 'short' for the working frequency of 14 MHz. A few minor technical difficulties and the inevitable seasickness were the only problems encountered by the five Hams on board 'Salacia', 'Wyuma II', 'Cyclone', and 'Banjo Patterson'.

The Ham radio operators have several advantages to offer us in supplying this type of communication facility.

Firstly, there are so many of them (around 15,000 in Australia, and nearly 1,000,000 world-wide) that almost every township has one. Lord Howe Isalnd, for example, can boast two of them despite its low resident population. Present indications are that Hams might prove a valuable asset for communications even on shorter yacht races.

Secondly, a relatively wide range of frequencies is available to Hams as opposed to our miserable allocations in the marine service. This enables them to communicate over much greater distances. Whereas the Small Ships Service is basically limited to 2, 4 and 6 MHz, the Hams have sizeable segments of the spectrum around 1.8, 3.5, 7, 14, 21 and 28 MHz. In January, 10 MHz will be added to this list, with 18 and 24 MHz segments promised for the future.

Thirdly, the cost of imported Ham radio equipment is around one half or less that of its marine counterpart, and generally it is much more sophisticated (lots of bells and whistles), so for a modest outlay the back room Ham can avail himself of facilities many yachties would admire and envy.

Which raises the obvious question: 'Why don't we all rush out and buy a Ham set-up?' The catch is, of course, the license requirement for this service. A License is not a simple 'over the counter' allocation but is dependent upon your ability to demonstrate a knowledge of the basic principles of electrical and radio theory as well as the ability to send and receive Morse code at not less than five words per minute (5 WPM) for the Novice class license or 10 WPM for the Unrestricted license. The Morse code requirement alone of 10 WPM could take between 50 and 200 hours practice, depending upon your individual aptitude. If that hasn't already put you off, the theory exam might. Here are two samples of multiple-choice questions for the Novice ticket.

(1) With reference to the single sideband carrier mode of transmission, which stage of the transmitter suppresses the carrier?
  a) the linear amplifier
  b) the balance modulator
  c) the microphone pre-amplifier
  d) the reactance modulator.

(2) The function of a doubler stage in a transmitter is to:
  a) double the frequency of the previous stage
  b) allow push-pull transistors to be used to increase efficiency
  c) enable two final stages to be fed by the one oscillator
  d) act as an impedance doubling device

And now, two examples for the Unrestricted, or full, license.

(3) Keying chirps from a telegraphy transmitter would most likely arise from:
  a) a lack of filtering at the key
  b) keying the final stage
  c) keying a stage close to the oscillator
  d) thermal drift of the oscillator tuning components

(4) The purpose of the local oscillator in in a superheterodyne receiver is to:
  a) make possible the reception of continuous wave (CW) signals
  b) produce a difference in frequency by heterodyning the oscillator signal with the carrier
  c) provide feedback voltages
  d) provide a means of calibrating the receiver.

The correct answers should be (I think!): (1) b; (2) a; (3) c; (4) b. The 'pass' level is 70 percent.

A 'Regulations' paper is applicable to both classes of license; it is about as difficult as learning the rules of the road for your driving license.

If you have survived this far, you could be capable of obtaining a call sign and joining the fraternity; however, those starting from square one will have a year or two of study ahead. Frankly, my advice would be to anyone over 25 years of age who has not previously had the irrepressible urge to indulge in the hobby, it's probably never going to be within your reach. Or, as a famous black musician once said to an elderly female enquirer, "Madam, if you have to ask what rhythm is, you ain't got it."□

AGE ALLOWANCE AGAIN

by Gordon Marshall

The coming season of ocean racing under IOR handicapping will disclose a number of changes on revalidated rating certificates. Apart from variations of formulae associated with the control of stern shades, etc. the Mark III A portion of the rule, the part which grants concessions for age, has also been modified quite dramatically.

Since the AYF was pre-advised of this situation, it circularised each State organisation seeking propositions on next season's age allowance so that the proposals could be discussed at a forthcoming National Conference.

For this State (NSW) the YA of NSW set up an advisory body to investigate the likely effect of the new Mk III A on our fleets, and its composition was:

G. Marshall
J. Dunstan
M. Fletcher

They met on three occasions prior to formulating the recommendation, and the writer undertook to handle the mathematics involved in graphically depicting the effect of Mk III A for 1981-82.

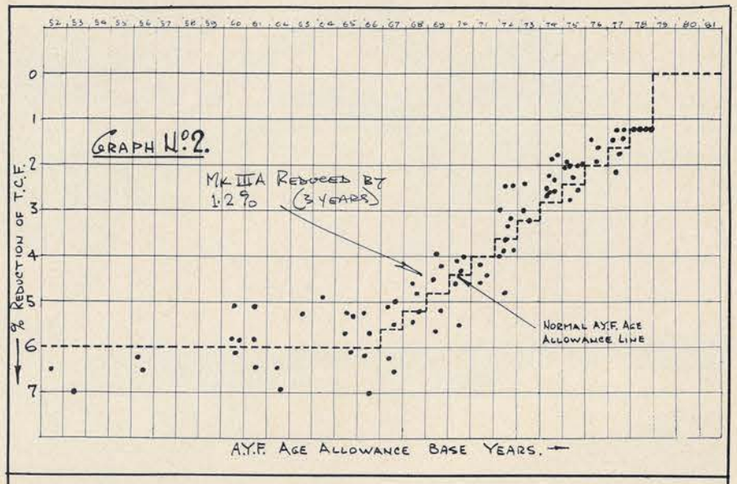
Investigations on previous occasions had shown that age allowance, quoted as percentage reduction of TCF, was the most revealing way to make comparisons. A fleet of active racing yachts taken from the Australia-wide files of the AYF was therefore chosen, numbering about ninety and of varying age and size. These were run through the computer using the new program which was to apply in the forthcoming season, and rating certificates were produced.

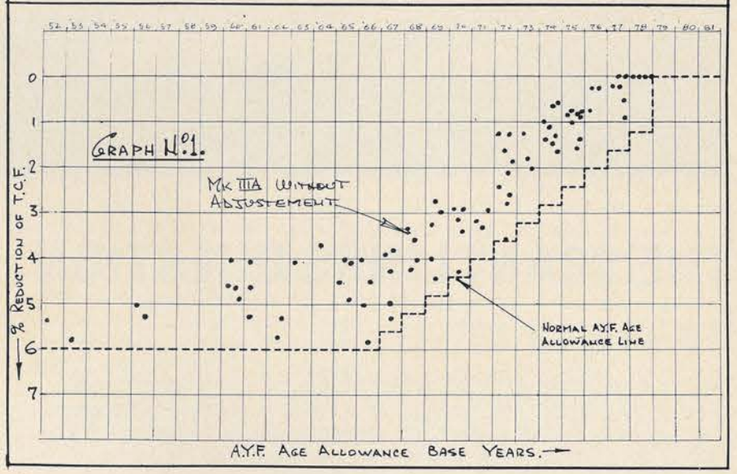
The percentage reduction of TCF resulting from the *new* Mk III A rating, as compared with the Mk III A rating, was then calculated.

These were plotted in a graph form in which they could be compared with the original AYF Age Allownace (0.4% reduction of TCF for each year of age).

Graph Number 1 shows a stepped dotted line which depicts the old AYF allowance, whilst the random dots show the reduction for each yacht in the chosen fleet resulting from Mk III A.

It was immediately apparent that whilst Mk III A went much further than previously in granting age allowance, it still fell short of the original AYF provision.





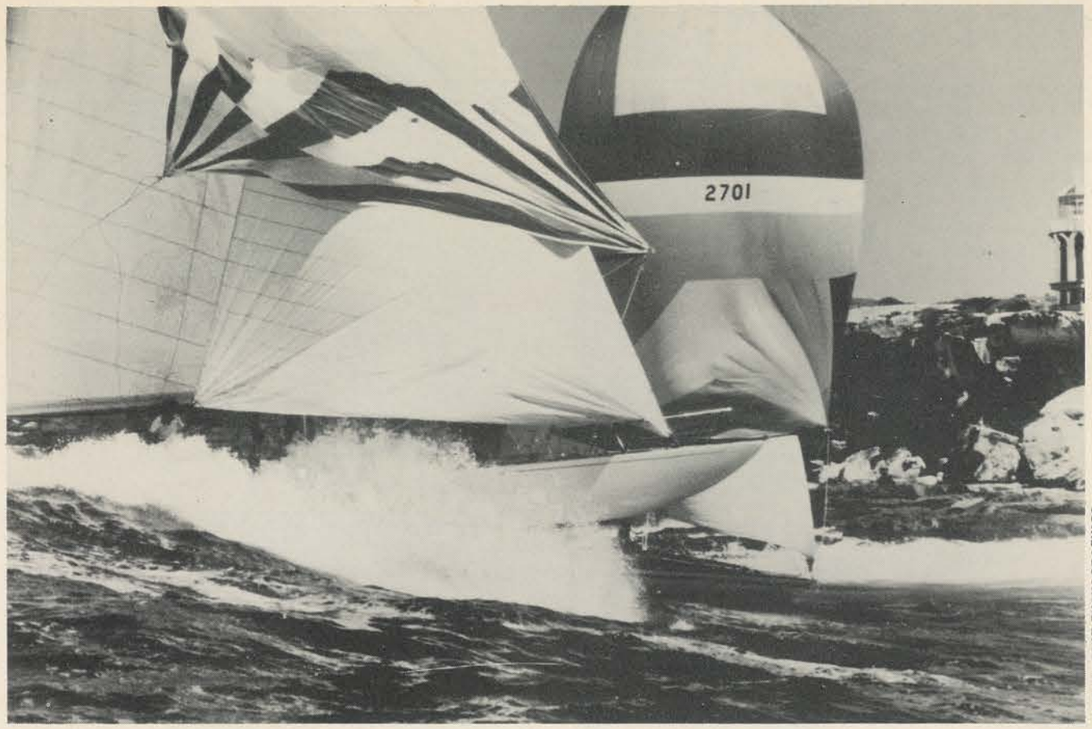
A further calculation and plot was done (see Graph Number 2) wherein an additional 1.2% (3 years under the original AYF scheme) of age allowance was applied. The results were plotted against the same stepped AYF line and a reasonable fit was achieved.

If anything, it was agreed that perhaps a trifle more allowance might be desirable, but it was finally decided that the simplicity of the adjustment was very attractive and that, if adopted nationally, we could carefully monitor the results over the forthcoming season.

This, then, was the NSW proposal: use the new Mk III A rating to calculate the TCF, which was then to be reduced by 1.2% (3 years of the original AYF scheme) extra.

As it transpired, no other State came up with a proposition, so it wasn't surprising that the NSW formula was adopted, though some last-minute *ad hoc* suggestions were aired, but got scant attention.

Summarising then, next year will see age allowance of very similar effect to that of past years, but in those particular races which require TCFs unmodified by local age rules (viz. Southern Cross Cup races), Mk III A will strictly apply, and its increased allowance for age may make some of the best old boats competitive. For instance, 'Margaret Rintoul II' (the original 'Ragamuffin'), if well equipped and sailed, could easily make the Tasmanian team of three now that she has moved to Hobart.□



ACE MARINE PHOTOGRAPHICS

THE SCANTLINGS QUESTION

by Gordon Marshall

The CYCA has 'grasped the nettle' and declared its stand for the forthcoming season on the subject of hull integrity. This is bound to cause some controversy, so we have asked Gordon Marshall, who Chaired the Sailing Committee's Hull Integrity Sub-Committee over the past two years, to explain the history of the need for and the detail and intent of the Special Regulation, the text of which is reproduced below.

SCANTLING AND CONSTRUCTION REQUIREMENTS

The Cruising Yacht Club of Australia adopts the scantling and other construction standards of the Americam Bureau of Shipping as its guide for Category 1 races, and an owner/charterer may be called upon by the Sailing Committee to show that the yacht he wishes to race complies with either the whole of the standards or such part of them as the Sailing Committee may nominate.

(Owners are urged to discuss the standards of the Bureau with their designer and/or builder well before making application to race with the Club in Category 1 events for the first time. Copies of the publication ***Guide for Boating and Classing Offshore Racing Yachts*** 1981 (American Bureau of Shipping) are available from the Cruising Yacht Club of Australia.)

The history of Scantling Regulations for yachts goes right back to the original days of the Royal Ocean Racing Club and the RORC Rule as it came to be known in the infancy of offshore racing. This rule was adopted by the CYCA and we raced under it for many of our formative years.

The 'scantling' part of the rule gave bonuses for heavy construction in the form of rating advantage rather than focussing on the safety aspect of yacht construction, since there was no tendency in those days for yachts to be built lightly. The fleets, though numerically small, consisted generally of heavily constructed, conservatively designed wooden or steel boats, and there was much emphasis on survival. These were the days when 'ships were wood and men were iron', and the result of an offshore race often depended just as much on the ability to survive the course as to cover it quickly. The boats were, on the whole, slow 'wallopers', and because they spent so much time on the course, they were more prone to run into heavy weather.

About 15 years ago, the sport was becoming accepted by a wider range of individuals, and international competition began to flourish. This created the need for an 'international' rule, and so the IOR was born (International Offshore Rule), administered from headquarters in England, though with heavy accent from the US. In the meantime, the governing body of yachting, the IYRU, recognised the need for the IOR and gave the newly created Offshore Racing Council a charter to control this growing type of yachting.

It was immediately apparent that US influence in the creation of the new rule had dispensed with the old scantling provisions, which were originally of British creation, and yachts were now rated strictly on measurement criteria. These, in turn, became much more extensive, and so the sport progressed for the next ten years or so.

The advent of time had brought on a greater popularity of the sport, more recognition from the general community, bigger fleets, more races and, inevitably, much more intense competition. The prestige of winning a major race was now of considerable consequence, particularly where international competition occurred, and national pride was often at stake.

Hand in hand with the foregoing was the evolution of 'Ton Class' racing which had started with a French One Ton Cup series but very quickly spread to Quarter, Half, and Three Quarter Ton classes. These were fleet classes, defined by a maximum rating under the IOR, and they 'level raced', that is, there was no handicapping of results; they sailed 'off the stick'.

This development of ocean racing snowballed in popularity, and the racing also became intensely competitive. The CYCA responded to the trend and ran the first Australian Level Rating Regatta, in March 1974.

Whilst the initial popularity of this type of racing could not be disregarded, the Sailing Committee of the CYCA began to have misgivings as to the direction the sport was taking as regards design and, as a Club, we very quickly dropped out of level racing.

History now clearly shows the decline of this type of yacting competition, in our waters at least, to the point where it would be presently difficlut to make up the numbers of a fleet for a championship; in the meantime, ocean racing in the stricter sense went from strength to strength.

It was at this time, late in 1977, that the full impact of the problems created by design development became apparent in Australia. The Yacht Squadron at Kirribilli had just run a World Level Rating Half Ton Championship, and some of the participating Half Tonners made application for entry in our Sydney-Hobart Race, the last leg of a Southern Cross Cup series. Also, we had a crop of One Tonners fresh from a World Championship in N.Z. Between the two, we had the latest in lift keelers and ultra-lightweights, and there was great concern expressed at the CYCA.

History tells its own story. The Race was run, several weather fronts went through the fleet, and many of them were found wanting. A record number of yachts retired, and the ultra-lightweights suffered the most — only one of them made the finishing line. Fortunately no lives were lost, though this was not to be the case in the following tragic Fastnet Race.

The CYCA issued a lengthy report immediately following the '77 Hobart Race and highlighted two areas of concern of modern designs — stability and fragility.

In correspondence with the Offshore Racing Council, the CYCA undertook the investigation of the stability problem, and charged them with handling the scantling question.

In due course the CYCA promulgated a stability rule, and it soon became a world-wide one. Notwithstanding the dire predictions of those critics of our efforts, the rule is now well accepted, and the problem has vanished from the sport.

In the meantime, however, activity on the scantling front was not so apparent, and increasing concern was felt in Australia that something needed to be done before tragedy struck. Unfortunately 'Charleston' vanished without trace whilst sailing to Sydney for the '79 Sydney-Hobart, and other yachts completing the same passage reported severe storm conditions off the northeastern tip of Tasmania, the area from which 'Charleston' last reported.

In the Trans Tasman Race which followed the '79 Hobart, 'Smackwater Jack' encountered severe storms and also vanished without trace.

Here we had two modern ultra-lightweight racing yachts lost within weeks of each other, and whilst we may never know the details, we at the CYCA had to suspect their ability to safely weather severe storms.

The upshot of these and other fatalities in our waters caused the CYCA to set up a Sub-Committee of the Sailing Committee, the Hull Integrity Sub-Committee, and it was decided that we had to become the masters of our own destiny since it seemed that no one else would come up with answers with the degree of urgency that we thought it deserved.

The Committee chosen was made up of Alan Payne, Professor Peter Joubert, Mike Fletcher, Joe Ward, and the writer as Chairman. They were all Club Members, they had all experienced many Hobart passages and several were accomplished in the field of design technicalities.

Their immediate problem was soon apparent; there was no published information regarding the loads imposed on a yacht by storm conditions. (There was ample data for planing hulls, but our problem was centered on 'plunging' hulls.)

It was quickly agreed that basic research would have to be undertaken, and that all yachts which had been subjected to a strenous passage, suffered damage, but had been able to get to port, should be investigated.

With this in mind, six yachts which fitted the requirement were quickly identified and came under detailed scrutiny.

The principle we were applying was that a complete study of the construction of a yacht which had begun to fail would show, by a reversing of normal design procedure, what loads it had been subjected to.

This, of course, took time, but eventually we had enough data for 'numbers' to be forthcoming, and a picture began to clearly emerge as to what the hull loads must have been when failure commenced. We were now in February 1981 and began to prepare the actual text and formulae for our rule. Just at that point we received advice that the American Bureau of Shipping, which had been seconded by the International Technical Committee of the ORC, were about to issue the promised scantling rule.

We immediately began correspondnece direct with the Bureau and were sent an interim copy of their deliberations. Ultimately, the final printed version came to us, and so we were able to compare notes.

In summary, the figures evolved by them were very close to, but slightly less than, the figures we had come up with. For instance, we came up with hull 'slamming' pressures of 23 lb/sq.in. whereas their figure was 20 lb/sq.in.

It became apparent that their analysis was very similar to ours, and since their total 'package' was so well presented, we really had no alternative but to accept their rule.

The Sailing Committee, and the Club's Board of Directors, both of which had been actively supporting the Sub-Committee's work, were acquainted with the latest situation and unanimously accepted the recommendation that

Scantlings

the ABS Rule be adopted for our coming season. (In the meantime, the ORC had given the rule 'recommendation only' status for twelve months before deciding whether they would make it obligatory.)

So we have a new rule, and it follows that we are bound to come under some criticism. In the meantime, the following is the Sailing Committee's philosophy of implementation.

Administratively, the Club does not intend to ask that every yacht in the Hobart fleet have an ABS survey; this would be totally impracticable as well as unnecessary, but where information comes to the Sailing Committee that a yacht is seriously suspect, then a survey will be called for. In this case, the survey may not need to be a complete one; we may ask only to be shown, for instance, that the hull complies, or the deck, or the keel attachment. To accomplish this requirement, the owner may may approach the ABS asking that they conduct the survey, or he may seek the services of a qualified naval architect who would conduct the survey (in consultation with the ABS), supplying the results of the survey to the ABS, so that they may pass judgement on the technicalities. The Club itself will not become involved in the perusal of construction specifications; this must be done by the ABS.

Regarding protests between yachts, it is highly unlikely that such protests will be upheld because of the Rule's wording, and this is the way we wish it to be — in the first year of implementation, at least.

The possibility of a survey being requested, even a partial survey, will obviously be distressing to an owner, but the issues at stake have been exhaustively researched by the Club, and bearing in mind the record of safety we have set and maintained we cannot, as responsible ocean racing administrators, turn our back on the problem any longer. We are convinced beyond all possible doubt that our actions are proper, and that history will show us to be right. It now requires that the participants in our races also face up to the responsibilities they accept when they take their yachts to sea, and assuming that this will be achieved, we will all have taken another major step forward in the evolution of the sport.

SPECIAL REGULATION NUMBER 136
Scantling and Construction Standards
(text of an official release from the CYCA explaining the Regulation.

The Cruising Yacht Club of Australia has introduced Special Regulation 136 into its Sailing Programme for the 1981/82 season. This Regulation applies only to yachts racing in Category 1 events.

Since there may be confusion amongst yacht owners as to how the Club intends to implement this Special Regulation, we make the following points which should clarify the matter and put to rest the concern which may be felt in the minds of owners of existing yachts concerning the effects that the Special Regulation will have.

The American Bureau of Shipping has recently produced a publication entitled *Guide for Building and Classing Offshore Racing Yachts*. This document is a guide only and was published in 1981 following development jointly by the International Technical Committee (ITC) of the Offshore Racing Council (ORC) and the American Bureau of Shipping (ABS).

At their 1980 Annual Meeting the guide was presented to the ORC after which the Council announced that the guide would be advisory for the first one or two years.

In the words of the ABS: "The intent of the guide is to provide scantlings that will reflect, but not in general exceed, those of existing yachts that have proven satisfactory in service over an appropriate period of time in which heavy weather has been encountered." In this regard owners of yachts who have had considerable offshore racing or cruising experience should read Section 1.15 of the guide which clearly provides that the ABS has the discretion to accept alternative arrangements and scantlings which can be shown through satisfactory service experience or a systematic analysis, to meet the overall safety and strength standards of the rules.

The Cruising Yacht Club of Australia has chosen to be guided by the scantlings and other construction standards of the ABS Guide. However, the Club does not intend to apply such a requirement in a wide and indiscriminate manner. The Special Regulation will only be implemented when, in the view of the Sailing Committee, an entry in a Category 1 race is suspect.

Yacht owners wishing to enter the Hitachi Sydney-Hobart Race and any other Category 1 Race should apply for an entry form in the normal manner. The application for entry neither requests nor requires that owners should supply an ABS Survey classification, and yacht owners should therefore not be deterred from making application in the normal manner. Upon receipt of applications for entry, the Sailing Committee will consider each application on its merits, and before forwarding an entry form, any queries they wish to make concerning Special Regulation 136 normally will be made of the applicant at the time. In effect, applicants receiving an entry form can proceed on the basis that Special Regulation 136 will not apply to their yacht, unlsess some compelling reason subsequently arises.

The wording of the regulation has been slightly amended [see paragraphs at the beginning of this article] in order to clarify interpretation.□

Letters *(continued from page 6)*

and he has been involved in a lot of expense with new radios, new crystals, re-tuning, etc. The adoption of mandatory 6 MHz will mean more expense and will, if taken seriously, perhaps mean some compromise in the efficiency of the more generally useful 4 MHz and 2 MHz frequencies. We would achieve more for safety by making sure that existing equipment is working well on 4 MHz, which is the best all-rounder, by adopting a meaningful system of radio checks.

Yours sincerely,
Bill White

Thanks for hospitality

Dear Members of the CYCA,

I am writing to thank you for your extreme hospitality while was in Sydney and visiting the CYCA. I found it the most friendly club I've ever been to. When I enquired at the reception about visiting the Club I was given a Membership for the three weeks I was in Australia and invited by to your Australiana night by your very friendly receptionists. When I came in I was introduced to some charming characters and thoroughly enjoyed the evening and the company. To my surprise I had been organised to sail aboard 'Vanguard' with Dick Cawse and team; my regards to them, and especially Alan Brown and John Keelty for their help in making my stay as enjoyable. Please give my regards to all the stewards at the bar, sorry the names escape me, and also a very big thank you to Clem Masters and his wife for accommodating me and also Howard Drudge for lending his boat for the night. I mustn't forget Mark, whose surname escapes me, but who put me up one night after a great night out.

I thoroughly enjoyed racing from the CYCA and found everybody very hospitable, which is amazing to me being a 'Pom'.

Many thanks again, and I really hope to visit you all again soon.

Yours sincerely,
John 'The Pom' Fullerton

Offer of hospitality

Dear Sir,

C.R. McDonald's letter in the Feb./March issue advising of his move to Bermuda inspired me to write a similar note although am in a less exotic place.

Any Member who is visiting Karachi and would like to get out on the water and away from the heat and dust is most welcome to contact me at:

ICAO,
C/ UNDP,
Box 430, GPO Karachi
Telephone 542862 or 480914 (office)

except during August.

I am a Member of the Karachi Yacht Club

(continued on page 35)

POINT OF VIEW . . .

Well, all seems fine again.

The reconciliation came over the dinner the other night when our very own Editor and myself attended a talk at the Institute of Navigation. After a fine meal and a reasonable amount of wine I agreed to tone down my cryptic comments on ocean racing trends, and he agreed not to throw my screwed up copy with such gusto into his dust bin. After all, he complained, it was flaking the point.

It all came about last year when I was expounding, fairly strongly, I must confess, my 'cone' theory. I was trying to point out that ocean racing, my pet sport, was moving in ever decreasing circles and would arrive at a point of disaster.

My thesis was based on the input of lighter boats, made of unproven materials, with decreasing engineering principles, all-'round diminishing tolerances, designed by self-appointed yacht designers who were, or are, getting out of their depth.

Added to this were crews, younger in age and experience, and the whole schemozzle piloted by cheque-book skippers.

It's now been pointed out to me how bigoted and narrow-based my theories have been, and I should see some hope somewhere, surely. So I now see things in a somewhat lighter vein and have corrected the error of my ways.

My concern was the direction in ocean racing, international attitudes and, in particular, our own yachting association. But most important, our own Club.

Of course, having subscribed to the Club's indisputable 'slogan' for so long (you know the one I mean . . . 'if you ain't ocean racing, you ain't nobody'). . . it wasn't until I dutifully took up my position on the non-racing side of the bar that I detected the increase in confusion as to where we go from here.

We know how voices carry over liquids, and those that carried across the bar were quite surprising in their intensity, particularly after the Admiral's Cup selection (?) trials (I dare not comment). It would be a shame to lose some of the talented people who participated at the trials, for it's these type of skills that are needed to blood those others coming on, and when added to its regular Club talent, the Club, racing-wise, at the moment, has a lot going for it.

Ocean racing and yachting generally has always been expensive. Today, with the current model disposable racer (what else can you do with it), vast cost increases, inflation and whatever, the very nature of our racing world is changing so rapidly, it's bewildering. Yachting has always been about money. Now it's about heaps of it.

I remember after the Admiral's Cup trials in the mid-seventies when my expensive toy had performed disastrously. I was standing on the wharf eyeing my investment, with 7/8 rig before its time, and telegraph pole mast after its time, and obviously a look of despair on my face. The word 'dog' was floating out the Club windows, and as I forlornly stood there, Jack Rooklyn appeared out of a haze of smoke. He quickly summed up the situation and, without a change of pace, counselled me with the wisest of words, "Don't worry, Nev, it's nothing $100,000 won't fix." Before I could close my mouth, he was gone. It was ocean racing philosophy at its best, and just how right he was.

If the gap is to widen between the 'haves' and the 'have nots', and I fear it will, the where-do-we-go-from-here thoughts must be expanded.

Have you ever noticed, when you drop the word 'professional' at the bar, just how many beer glasses slip through the fingers and onto the floor. What a raw nerve it strikes. One could be excused for thinking it was not already here.

It seems that the ocean racing world is going to have professionalism in an 'ad hoc' sort of way. With the hindsight of cricket and what happened there, and to other sports, are we to still put our head in the water?

We must have it. There is no option. Money and professional performance are natural bedmates. I can't think of a more monied sport than ocean racing. It's only been the dedication of a select few that has kept it out for so long, in such an unbalanced manner.

So it must come; so be it on our terms, with guidelines set down, phased in over time to whatever degree. We could all plan our yachting futures and decide if, when, where and in what manner we may participate.

With big business already moved in, there will be no room for the naive administration. A very professional approach will be essential.

And what of the present measurement and rating rules? Are we to blithely go along with a designed product that may not suit our part of the world, or should we, like America, question the validity of the rules for general racing? It may be all right for Europe to go their own way on fine design, but surely our weather and passage racing demands something safer and more comfortable.

My concern, then, is the lack of direction Australian ocean racing is taking. When one views the transient nature of our membership and race participants, perhaps there are many that share the same concern. The increasing popularity of inshore winter racing must continue to be food for thought, and one wonders, on present trends, will it be extended to summer?

I feel there is a strong division of opinion coming on as to type of racing, and 'offshore' could be in trouble in years to come.

So in not pushing my 'cone' theory, I hope I am doing the right thing. Disaster means legislation, and governments look locally, not necessarily internationally. That's where the votes are.

If there were no ocean racing as there is today, just think! We might have to join those other cruising folk who sail and enjoy themselves. After having been ingrained with ocean racing and the Club's slogan over the years, well, hell!, we couldn't do that, could we?□

Nev Gosson

(continued from page 18)

TABLE D. SAIL UTILIZATION – DAILY RECORD

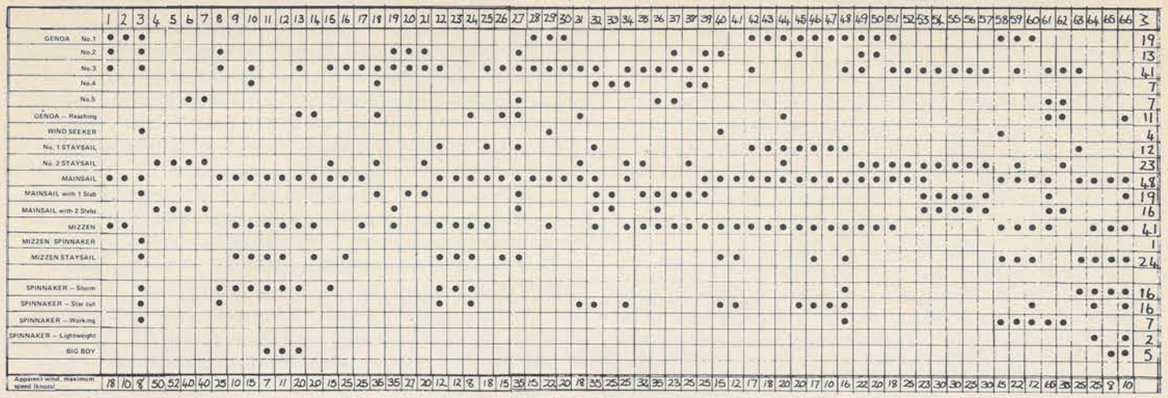
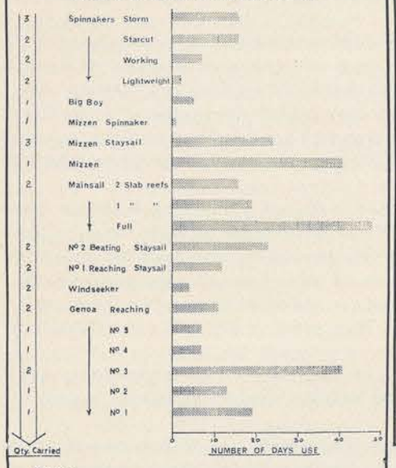


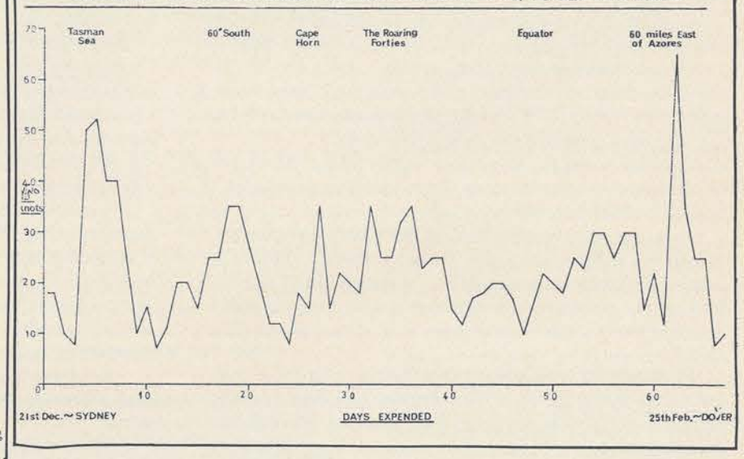
TABLE C. SAIL UTILIZATION



Notes

(A) The light genoa, floating spinnaker and trysail were never used.
(B) The luff of the BigBoy blew out, necessitating a 46-day repair.
(C) Minor repairs were completed on No.1 and No.3 genoas, also No.2 stays'l.
(D) Two working spinnakers were severely damaged by head swivels shearing.
(E) The running genoa was blown completely out in two hours.
(F) Over 40 new piston hanks replaced those destructed whilst the headsails were boomed out for running.

TABLE E. MAXIMUM DAILY WIND STRENGTH – '75/'76 CLIPPER RACE



Sails

The Tables show the number of sails carried by type and how much use each got. These are self-explanatory; I will leave it to your good judgement as to the number and type of sails you require.

Wind strengths

It would be a far braver man than I (maybe Cable) who would attempt to predict what the wind and weather may do this Christmas, especially in the Southern Ocean.

I offer you Table E., which shows the maximum apparent daily wind strengths that we encountered, and I believe that '75/'76 were 'average' years.

As I previously stated, all wind strengths are apparent, and for a true comparison you should consult the sail utilization table to ascertain which sails were up for a particular period to get a picture of the raw values, albeit a little rough. For example, on day 22, with storm spinnaker flying, the true wind velocity would have been approximately 30 knots.

Victualling – comments and strategies

Victualling, in my mind, is a most important factor in winning a long-distance race because the crew matters most. Their strength and morale depend upon a good diet with enough variety for the diet not to become monotonous. The following is written so that the lazy may copy and be successful, whilst the more enterprising may wish to use it only as a proven guide. Having completed several CYCA overnignt races on soup, sausages and bread, I feel that the knowledge gained from the rationing on 'GB II's second leg, Sydney to London, will, hopefully, enhance my own standards in the future.

There are basically two types of stragegy one can follow in rationing: pre-packed, preselected (i.e. planned menus using predominantly canned food); or bulk purchase, random selection. The former is predominantly used by the Services, whilst the latter is to be found on civilian yachts. 'Great Britain II' used its basic, main rations with various supplements, and Leg 2 added six 'happy-day' menus all of which were pre-packed and pre-selected. This system is ideal when you have a large crew (16 in the case of our Leg 2) each of whom is expected to cook.

Minimum preparation and thought is required when at sea so that those who dread cooking don't waste too much of their time. Pre-packed rations are also useful in the case of an emergency such as abandoning the vessel. There are, however, three main disadvantages: cost; too much dehydrated foodstuffs; and no allowance is made in the menus for climactic change.

'Kriter II' and 'Anaconda II', on the other hand, implemented bulk purchase and random selection, which primarily provides a better selection for varying climactic conditions. Requiring little preparaton before sailing, this system is ideally worked with no more than three cooks, and due to ths fact is is suggested that it is less wasteful and encourages the cooks to a more creative state of mind. The system is highly recommended for crews of up to six. The most important factor to consider if you use fresh food is the danger of either main engine or generator failure. This happened to several of the competitors, with unhappy results.

Comments on victualling Great Britain II's Second Leg, Clipper Race '76

The rations were 14-day-cycle bulk rations. Comments made were that the rations were ample but there was room for improvement considering:

(a) the length of the race;
(b) dehydrated foods such as those issued make little allowance for water conservation because open saucepans are used to prepare soup, etc. Severe condensation occurs, together with the danger of boiling fluids; the obvious remedy is to use a pressure cooker.
(c) In a long-distance race, meal times should be something special to look forward to, e.g. milestones. The extra effort required by a winning crew needs thoughtful backing and boosting.
(d) Every meal differs whilst watch-keeping, e.g. the same meal is breakfast for one watch, lunch for another..

It was decided to take six happy-day menus and up to 1500 lb extra stores. An abundance, however, of Christmas goodies appeared on the morning we departed, to add to our already large list.

Storm conditions in the Tasman Sea punctured our synthetic rubber flexible water tanks, which are not recommended. Plastic or polythene 5-10 gallon containers must be used for additional water stowage.

The poor-quality and repetition of the lunch meal was the main criticism; 'too much dead fish' or 'not corned beef again' were the main comments. More tinned fruit was also requested.

It is only fair to say that a menu supervisor will please only some of the crew some of the time, never all of the crew all of the time. It is a time-consuming occupation with little reward.

The following ration requirements and menus are shown for information. The point to note above all is the quantity and, therefore, the stowage areas required.

(continued next page)

'GREAT BRITAIN II' 14-DAY DAILY MENU CYCLE

DAY 1

Item	total quantity required
Breakfast	
Muesli	14 x 1½ oz sachets
Sausages	3 x 650 ml cans
Beans in tomato sauce	3 x 650 ml cans
Main Meal	
Cup 'O Soup (beef & tom.)	14 sachets
Stewed steak	8 x 650 ml cans
Dehydrated veg. (green beans)	4 x 4-serving sachets
Potato mash powder	2 x 650 ml cans
Apple pudding	4 x 680 ml cans
Snack meal	
Salmon	3 x 650 ml cans
Cheese, processed	14 x 1½ oz portions
Vegetable salad	3 x 15 oz cans
Sundries	
Coffee, instant	3 x 1¾ oz sachets
Coffeemate	30 serve
Tea	16 x ¾ oz bags
Sugar	3 x 650 ml cans
Milk, instant	4 x 450 ml can
Milk, evaporated	1 x 16 Oz cans
Biscuits and bread	(see bulk rations)

DAY 2

Breakfast	
Breakfast cereals	14 x vatiety packs
Egg powder	1 x 16 oz sachet
Bacon grill	3 x 650 ml cans
Main Meal	
Cup 'O Soup (beef & tom.)	14 sachets
Chicken curry	7 x 650 ml cans
Pre-cooked rice	3 x 650 ml cans
	1 x 450 ml cans
Dehydrated veg. (peas)	4 x 4-serving sachets
Fruit (salad)	4 x 650 ml cans
Snack Meal	
Hamburgers	3 x 650 ml cans
Cheese, processed	14 x 1½ portions
Corn, cream style	3 x 15 oz cans
Sundries	
Coffee, instant	3 x 1¾ oz sachets
Coffeemate	30 serve
Tea	16 x ¾ oz bags
Sugar	3 x 650 ml cans
Milk, instant	4 x 450 ml cans
Milk, evaporated	1 x 16 oz cans
Biscuits and bread	(see bulk rations)

DAY 3

Breakfast	
Quaker natural cereal	1 x 20 oz packet
Baconburgers	3 x 650 ml cans
Beans in tom. sauce	3 x 650 ml cans
Main Meal	
Cup 'O Soup (chicken)	14 sachets
Casserole steak & onions	8 x 650 ml cans
Potato mash powder	1 x 650 ml can
	1 x 450 ml can
Mixed veg. (canned)	3 x 650 ml cans
Fruit, peaches (canned)	4 x 380 ml cans
Snack Meal	
Sausages	3 x 650 ml can
Beans in tom sauce	2 x 650 ml cans
	1 x 450 ml cans
Cheese	14 x 1½ oz portions
Sundries	
Coffee, instant	3 x 1¾ oz sachets
Coffeemate	30 serve
Tea	16 x ¾ oz bags
Sugar	3 x 650 ml cans
Milk, instant	4 x 450 ml cans
Milk, evaporated	1 x 16 oz can
Biscuits and bread	(see bulk rations)

DAY 4

Item	Total quantity required
Breakfast	
Breakfast cereals	14 x Variety packs
Egg, powdered	1 x 16 oz sachet
Sausages	3 x 650 ml cans
Main Meal	
Cup'O Soup (mushroom)	14 sachets
Goulash	8 x 650 ml cans
Potato mash powder	1 x 650 ml cans
	1 x 450 ml cans
Carrots, canned	3 x 650 ml cans
Rice pudding	4 x 650 ml cans
Snack Meal	
Hamburgers	3 x 650 ml cans
Tomatoes, canned	1 x 380 ml can
	1 x 1 lb can
Sundries	
Coffee, instant	3 x 1¾ oz sachets
Coffeemate	30 serve
Tea	16 x ¾ oz bags
Sugar	3 x 650 ml cans
Milk, instant	4 x 450 ml can
Milk, evaporated	1 x 16 oz cans
Biscuits and bread	(see bulk rations)

DAY 5

Breakfast	
Muesli	14 x 1½ oz sachets
Bacon, canned (Plumrose)	3 x 1 lb can
Egg, powdered	1 x 16 oz sachet
Main Meal	
Cup'O Soup (onion & beef)	14 sachets
Pudding	8 x 650 ml cans
Potato mash powder	1 x 650 ml cans
	1 x 450 ml cans
Dehydrated veg. (green beans)	4 x 4-serving sachets)
Fruit, apricots (canned)	4 x 380 ml cans
Snack Meal	
Pilchards, canned	14 x 5 oz cans
Potato salad, canned	3 x 15 oz cans
Sundries	
Coffee, instant	3 x 1¾ oz sachets
Coffeemate	30 serve
Tea	16 x ¾ oz bags
Sugar	3 x 650 ml cnas
Milk, instant	4 x 450 ml cans
Milk, evaporated	1 x 16 oz cans
Biscuits and bread	(see bulk rations)

DAY 6

Breakfast	
Breakfast cereals	14 x Variety packs
Kippers	7 x 7 oz cans
Tomatoes, canned	1 x 380 ml cans
	1 x 1 lb cans
Main Meal	
Cup 'O Soup (beef & tom.O	14 sachets
Chicken supreme	7 x 650 ml cans
Pre-cooked rice	3 x 650 ml cans
	1 x 450 ml cans
Dehydrated veg. (peas)	4 x 4-serving sachets
Cheese, processed	14 x 1½ oz portions
Snack Meal	
Corned beef	8 x 12 oz cans
Vegetable salad	3 x 15 oz cans
Sundries	
Coffee, instant	3 x 1¾ oz sachets
Coffeemate	30 serv
Tea	16 x ¾ oz bags
Sugar	3 x 650 ml cans
Milk, instant	4 x 450 ml cans
Milk, evaporated	1 x 16 oz cans
Biscuits and bread	(see bulk rations)

DAY 7

Breakfast	
Quaker natural cereal	1 x 20 oz packed
Egg powder	1 x 16 oz sachet
Bacon, canned (Plumrose)	3 x 1 lb cans
Main Meal	
Cup'O Soup (mushorrm)	14 sachets
Casserole steak & onions	8 x 650 ml cans
Potato mash powder	1 x 650 ml cans
	1 x 450 ml cans
Mixed veg. (canned)	3 x 650 ml cans
Fruit, pears (canned)	4 x 380 ml cans
Snack Meal	
Herrings in tom. sauce	3 x 1 lb cans
Tomatoes, canned	1 x 380 ml can
	1 x 1 lb can
Sundries	
Coffee, instant	3 x 1¾ oz sachets
Coffeemate	30 serve
Tea	16 x ¾ oz bags
Sugar	3 x 650 ml cans
Milk, instant	3 x 450 ml cans
Milk, evaporated	1 x 16 oz can
Biscuits and bread	(see bulk rations)

Rio via Cape Horn

DAY 8

Breakfast

Rolled oats	7 x 4 oz sachets
Bacon grill	3 x 650 ml cans
Beans in tom. sauce	3 x 650 ml cans

Main Meal

Cup'O Soup (chicken)	14 sachets
Spaghetti (short noodles)	3 lb
Minced beef	14 x 450 ml cans
Vegetables, carrots, canned	3 x 650 ml cans
Apple, solid pack	3 x 380 ml cans

Snack meal

Corned beef	8 x 12 oz cans
Vegetable salad	3 x 15 oz cans

Sundries

Coffee, instant	3 x 1¾ oz sachets
Coffeemate	30 serve
Tea	16 ¾ oz bags
Sugar	3 x 650 ml can
Milk, instant	4 x 450 ml cans
Milk, evaporated	1 x 16 oz cans
Biscuits and bread	(see bulk rations)

DAY 9

Breakfast

Fruit cordial	14 x 1 pt sachets
Sausages, canned	3 x 650 ml cans
Tomatoes, canned	1 x 380 ml cans
	1 x 1 lb cans

Main Meal

Cup O' Soup (beef & onion)	14 sachets
Minced beef	14 x 450 ml cans
Pre-cooked rice	3 x 650 ml cans
	1 x 450 ml cans
Dehydrated veg. (green beans)	4 x 4-serving sachets
Fruit salad	4 x 650 ml cans

Snack Meal

Luncheon meat	3 x 650 ml cans
Vegetable salad	3 x 15 oz cans

Sundries

Coffee, instant	3 x 1¾ oz sachets
Coffeemate	30 serve
Tea	16 ¾ oz bags
Sugar	3 x 650 ml cans
Milk, instant	3 x 450 ml cans
Milk, evaporated	1 x 16 oz cans
Biscuits and bread	(see bulk rations)

DAY 10

Breakfast

Breakfast cereals	14 x Variety packs
Egg powder	1 x 16 oz sachet
Bacon grill	3 x 650 ml cans

Main Meal

Cup'O Soup (beef & tom.)	14 sachets
Stewed steak	8 x 650 ml cans
Potato mash powder	1 x 650 ml cans
	1 x 450 ml cans
Dehydrated veg. (peas)	4 x 4-serving sachets
Cheese, processed	14 x 1½ oz portions

Snack Meal

Hamburgers	3 x 650 ml cans
Beans in tom. sauce	2 x 650 ml cans
	1 x 450 ml cans

Sundries

Coffee, instant	3 x 1¾ oz sachets
Coffeemate	30 serve
Tea	16 x ¾ oz bags
Sugar	3 x 650 ml cans
Milk, instant	3 x 450 ml cans
Milk, evaporated	1 x 16 oz cans
Biscuits and bread	(see bulk ration)

DAY 11

Breakfast

Rolled oats	7 x 4 oz sachets
Kipper fillets	7 x 7 oz cans
Beans in tom. sauce	3 x 650 ml cans

Main Meal

Cup'O Soup (chicken)	14 sachets
Goulash	8 x 650 ml cans
Potato mash powder	1 x 650 ml cans
	1 x 450 ml cans
Vegetables, carrots, canned	3 x 650 ml cans
Fruit, pineapple (canned)	4 x 380 ml cans

Snack Meal

Corn cream style	3 x 15 oz cans
Sausages, canned	3 x 650 ml cans

Sundries

Coffee, instant	3 x 1¾ oz sachets
Coffeemate	30 serve
Tea	16 x ¾ oz bags
Sugar	3 x 650 ml cans
Milk, instant	3 x 450 ml cans
Milk, evaporated	1 x 16 oz cans
Biscuits and bread	(see bulk rations)

DAY 12

Breakfast

Muesli	14 x 1½ oz sachets
Bacon, canned (Plumrose)	3 x 1 lb cans
Tomatoes, canned	1 x 380 ml cans
	1 x 1 lb cans

Main Meal

Cup'O Soup (mushroom)	14 sachets
Chicken Suprame	7 x 650 ml cans
Potato mash powder	1 x 650 ml cans
	1 x 450 ml cans
Veg., creamed corn (canned)	3 x 15 oz cans

Snack Meal

Sardines, canned	14 x 4 oz cans
Vegetable salad	3 x 15 oz cans

Sundries

Coffee, instant	3 x 1¾ oz sachets
Coffeemate	30 serve
Tea	16 x ¾ oz bags
Sugar	3 x 650 ml cans
Milk, instant, 3 x 450 ml cans	
Milk, evapourated	1 x 16 oz cans
Biscuits and bread	(see bulk rations)

DAY 13

Breakfast

Breakfast cereals	14 x Variety packs
Sausages, canned	3 x 650 ml cans
Beans in tom. sauce	3 x 650 ml cans

Main Meal

Cup'O Soup (beef & onion)	14 sachets
Steak & kidney pudding	8 x 650 ml cans
Potato mash powder	1 x 650 ml cans
	1 x 450 ml cans
Vegetable salad	3 x 15 oz cans
Fruit, peaches (canned)	4 x 380 ml cans

Snack Meal

Hamburgers, canned	3 x 650 ml cans
Tomatoes, canned	1 x 380 ml cans
	1 x 1 lb cans

Sundries

Coffee, instant	3 x 1 ¾ oz sachets
Coffeemate	30 serve
Tea	16 x ¾ oz sachets
Sugar	3 x 650 ml cans
Milk, instant	3 x 450 ml cans
Milk, evaporated	1 x 16 oz cans
Biscuits and bread	(see bulk rations)

DAY 14

Breakfast

Muesli	14 x 1½ oz sachets
Baconburgers	3 x 650 ml cans
Tomatoes, canned	1 x 1 lb can

Main Meal

Cup'O Soup (mushroom)	14 sachets
Chicken curry	7 x 650 ml cans
Pre-cooked rice	3 x 650 ml cans
	1 x 450 ml cans
Dehydrated veg. (peas)	4 x 4-serving sachets
Cheese, processed	14 x 1½ oz portions

Snack Meal

Corned beef	8 x 12 oz cans
Beans in tom. sauce	2 x 650 ml cans
	1 x 450 ml cans

Sundries

Coffee, instant	3 x 1¾ oz sachets
Coffeemate	30 serve
Tea	16 x ¾ oz bags
Sugar	3 x 650 ml cans
Milk, instant	3 x 450 ml cans
Milk, evaporated	1 x 16 oz cans
Biscuits and bread	(see bulk rations)

14 DAY CYCLE BULK RATION REQUIREMENT

ITEM	QUANTITY
Meat and fish	
Sausages	18 x 650 ml cans
Bacon grill	9 x 650 ml cans
Baconburgers	6 x 650 ml cans
Bacon	9 x 650 ml cans
Hamburgers	12 x 650 ml cans
Stewed steak	16 x 650 ml cans
Chicken curry	14 x 650 ml cans
Casserole steak & onions	16 x 650 ml cans
Steak & kidney pudding	16 x 650 ml cans
Goulash	16 x 650 ml cans
Chicken supreme	14 x 650 ml cans
Corned beef	16 x 12 oz cans
Luncheon meat	3 x 650 ml cans
Minced beef	28 x 5 oz cans
Salmon	3 x 650 ml cans
Herring in tom. sauce	3 x 1 lb cans
Kipper fillets	14 x 7 oz cans
Pilchards	14 x 5 oz cans
Sardines	14 x 4 oz cans
Beef spread	200 x 2 oz cans
Vegetables	
Potato mash powder	9 x 650 ml cans
	9 x 450 ml cans
Tomatoes, canned	7 x 650 ml cans
	7 x 1 lb cans
Mixed veg., canned	6 x 650 ml cans
Carrots, canned	9 x 650 ml cans
Vegetable salad, canned	15 x 15 oz cans
Corn cream-style, canned	9 x 15 oz cans
Beans in tom. sauce, canned	21 x 650 ml cans
Dehydrated peas	16 x 4 serving sachets
Dehydrated green beans	12 x 4 serving sachets
Potato salad	3 x 15 oz cans
Fruit	
Apple pudding	4 x 650 ml cans
Canned fruit	20 x380 ml cans
Canned fruit salad	8 x 650 ml cans
Apple solid pack	6 x 380 ml cans

ITEM	QUANTITY
Dairy products	
Butter concentrate	14 x 1 lb cans
Cheese, processed	84 x 1½ oz portions
Milk, instant	56 x 650 ml cans
Milk, evaporated	14 x 16 oz cans
Rice pudding	4 x 650 ml cans
Egg powder	5 x 16 oz sachet
Preserves	
Jam	3 x 2 lb cans
Marmalade	4 x 2 lb cans
Honey	2 x 1 lb cans
Beverages	
Coffee, instant	42 x 1¾ oz sachets
Tea bags	224 x ¾ oz bags
Chocolate drink, complete mix	56 x 1 pint sachets
Bovril granules	1 x 1 lb tin
Fruit drink	56 x 1 pt sachets
Lemon/orange powder	6 x 2 lb cans
Cup 'o Soup	196 x 6 fl oz sachets
Cereals	
Muesli	56 x 1½ oz sachets
Rolled oats	14 x 4 oz sachets
Breakfast cereals	70 x indiv. packets
Quaker natural cereal	2 x 20 oz packets
Pre-cooked rice	12 x 650 ml cans
Spaghetti	3 lb
Culinary adjuncts	
Salt	20 x 4 oz dispensers
Pepper	1 x 4 oz tin
Mustard	1 x 4 oz tin
Pickles	4 x 1 lb bottles
Sauce	196 sachets
Vinegar	1 x 1 pt bottle

ITEM	QUANTITY
Curry powder	1 x 1 lb tin
Custard mix	6 x 1 pt sachets
Chocolate	196 x 1½ oz bars
Sweets, boiled	5 lb
Coffeemate	420 sachets
Miscellaneous	
Biscuits, sweet	60 packets
Biscuits, GS	59 lbs
Breadmix	6 x 2¼ lb bags
Cake and pastry mix (sweet)	4 x 1 lb bags
(plain)	4 x 1 lb bags
Reclosure lids	12
Sugar	54 x 650 ml cans
Currants	1 x 1 lb
Raisins & Sultanas	1 x 1 lb
CHRISTMAS PACK	
Chicken, tinned	3 x 3¼ lb cans
Ham, tinned	2 x 1 lb cans
Frankfurters	3 x 8 oz cans
Potatoes, canned	4 x 380 ml cans
Peas, canned	3 x 650 ml cans
Christmas pudding	3 x 1 lb cans
Full cream, canned	4 x 14½ oz cans
SKIPPER'S PACK	
Ham, canned	4 x 1 lb cans
Salmon, canned	7 x 1 lb cans
Instant whip (Butterscotch)	33 packets
(Raspberry)	33 packets
Dried apricots	30 packets
Turkish delight	72 packets

HAPPY DAY MENUS

MENU 1	MENU 2	MENU 3	MENU 4	MENU 5	MENU 6
Morning					
Grapefruit	Muesli with peaches	Grapefruit	Muesli	Grapefruit	Muesli with peaches or porridge
Frankfurters with chipped potatoes and egg	Kippers	Frankfurters with eggs	Kippers	Frankfurters and scrambled eggs	Kippers
Toast and coffee	Toast and coffee	Toast and coffee	Toast and coffee	Various drinks	Toast and coffee
Lunch					
Mushroom soup	Vegetable soup	Tomato soup	Chicken soup	Mushroom soup	Vegetable soup
Ham with pineapple and grated cheese and Tropical salad	Salmon with lemon Asparagus tips	Pork shoulder and Tropical salad	Plumrose Freshfoil Meat with salad	Ham with pineapple Coleslaw, currants and raisins	Salmon with lemon Asparagus tips
		Biscuits and selected cheese	Peaches and cream	Biscuits and coffee	Soft drinks
			Soft drinks		
Dinner					
Prawns in Seafood cocktail sauce	Tomato soup	Pate de Fois	Smoked oysters with lemon	Prawns in Seafood cocktail sauce	Pate de Fois
	Crab on biscuits				
Wine	Sherry	Wine			
Turkey with mushrooms and almonds in condensed chicken soup, new potatoes	Steak and kidney pie served with green beans and new potatoes	Roast goose and applesauce, petit pois and potatoes	Coq au Vin Celery hearts and potatoes	Steak and kidney pie with peas, carrots and potatoes	Roast chicken with spinach and peas, mashed potatoes
Raspberries and cream	Cherries and cream	Blackberries and apple with cream	Gooseberries and evaporated milk†	Cherries and evaporated milk†	Plums and apples with custard
Cheese and filtered coffee	Cheese and filtered coffee	Filtered coffee	Coffee and cheese	Wine and cheese	Coffee and cheese

† As noted earlier, it was our experience that evaporated milk (Tongala) has a tendency to congeal in the can in cold weather and 'goes off' rapidly once opened in the tropics.

STOREAGE AND DURABILITY OF FOODSTUFFS

Fresh stores	Durability Cold climate	Hot climate
Mushrooms	8 days	4 days
Peppers	8 days	4 days
Tomatoes	8 days	4 days
Lettuce	8 days	4 days
Radishes	8 days	4 days
Cucumbers	8 days	4 days
White onions	80 days	40 days
White cabbage	30 days	15 days
Carrots	30 days	8 days
Apples	30 days	10 days
Oranges	30 days	20 days
Lemons	70 days	50 days
Grapefruit	50 days	30 days
Bread, whole wheat	20 days	20 days
Milk, long life†	70 days	40 days
Eggs, varnished	40 days	20 days

†Long-life milk is recommended. In the opinion of the author, evapourated milk (Tongala) is unsuitable as it tends to congeal in the can in cold weather, and when opened in the tropics, it goes off quickly.

Red wine tends to last for a much longer time than white wine, the latter which lost its flavour after 20 days at sea. (We purchased wine casks; age at purchase was not known, but the red wine did not appear to deteriorate in storeage as rapidly as did white.) No doubt Sir Jim will take note and donate a larger percentage of red to each competitor.

The bacon supplied was found to be too salty and required a lot of soaking in freshwater, so it is most unwise to use bulk bacon when bacon in tins is available. Water rationing of 1.99 litres per person per day is only just enough if a lot of dehydrated foodstuffs are used.

Conclusion

In concluding this now ponderous paper, I would like to say that I believe I was very lucky to be able to sail and compete in such an inter-ocean race. I would be the first to point out that there is no such thing as an 'expert' in sailing in the Southern Ocean. I have not, I hope, given the impression that I am attempting to be one.

On our boat, I don't think that there was a man who didn't benefit from the experience and who wouldn't do it again; in fact, several have done so. If I don't get the offer of a berth to Rio this time, I will certainly be envious of those who do.

To all you aspiring Cape Horners — good sailing! □

Additional rations, 'Great Britain II' Leg 2, Financial Times Clipper Race 1976

Australian Army 10-man combat rations — A, C, D.

Commodity	Quantity	Comments
Fruit, dried		
Dates, lbs	4	
Prunes, lbs	4	
Currants, lbs	7	Reserve fruit
Raisins, lbs	7	ration.
Sultantas, lbs	7	
Fruit, solid pack		
Apples, 380 ml	4	
Fruit, canned		
Blackberries, 380 ml	3	
Cherries, 380 ml	3	
Loganberries, 380 ml	3	
Raspberries, 380 ml	3	
Strawberries, 380 ml	6	Happy Day
Plums, 380 ml	3	menus.
Rhubarb, 380 ml	3	
Grapefruit, 380 ml	24	
Black currants, 380 ml	6	
Potatoes, canned, 380 ml	50	
Tomatoes, canned, 380 ml	6	
Veg., dehydrated		
Mixed veg., lbs	3	
Onions, lbs	3	
Veg., canned		
Broad beans, 380 ml	15	To boost basic
Green beans, 380 ml	36	supply to save
Beetroot, 380 ml	20	water and to
Peas, green, 380 ml	42	mix with dehydrated supply.
Oats, lbs	12	
Golen syrup, kilo	1	
Salmon, grade II, 380 ml	6	
Soup, 8 oz tins	144	
Campbells chicken, mushroom, tomato oxtail, mixed veg.		
Vinegar, pints	10	

Letters *(continued from page 30)*

which was founded in 1911 and which now sails mainly Enterprises and a variety of dinghies. Any CYCA Member who fancies himself as a dinghy sailor can skipper my Enterprise and show me how to beat some of the very good locals.

On non-race days it's good fun to rent a bunda boat (type of dhow) and go out crab fishing. The crabs almost beg to be pulled into the boat. For those Members who don't recognise the name below, they may well recall 'Speedie', eleven years in 'Zilvergeest I, II and III'.

Yours faithfully,
Brian Johnson

Dear Sir,

I would like to pass on through this magazine my thanks to all those Members of the CYCA who visited me, or who sent cards, while I was in hospital recently. It certainly made me feel proud to belong to such a Club.

Sincerely yours,
Knocker White

P.S. Now I know where all the ex-Navy cooks get jobs.

Who says you cant do celestial?

(continued from page 23)

The CYCA Navigator's Pack for the Hewlett-Packard 41C and 41CV calculators is available from Gordon Marshall, C/CYCA. Gordon will program your H-P calculator and give you a set of 'private' cards with the program and almanac data (10 cards in all) for $50. This then entitles you to any new developments in the program, which are arising all the time as more and more navigators use it and make suggestions on modifying it. Marshall also has a number of other programs for navigators (e.g. a wind program).

The HP-41CV sells for $431 (pre-budget) including tax. When you're not using it for your celestial program, it can be put to work solving just about any of your other problems — scientific, engineering, physics, mathematics, statistics, surveying, etc. It will even remind you to say "Happy anniversary" to your wife (that is, if you remind it to remind you).

There are a number of programmable calculators now available, the next best thing to the HP-41CV w/CYCA Navpak probably being the new Sharp PC 1211 with a program written specially for the Chart Room (Frank Underdown, Crows Nest) by George Bennett. Being something of a mathematical whiz, George Bennett has crammed into the Sharp PC 1211, which has much less memory capacity than the Hewlett-Packard, a very tidy program which is also capable of doing a six-body fix. It requires more operator inputs and almanac entries and is not quite as 'streamlined' as the CYCA program, but it also has some flourishes that one might have expected from the Head of Dept. in the NSW University faculty of surveying.

The Sharp PC 1211 computer with Chart Room celestial program is available from Frank Underdown at the Chart Room in Crows Nest for about $290.

Calculators not only lie in the same shadow as do all electronic devices aboard ship; they are also subject to rumours that they make you sterile, mentally (if it doesn't hurt, it can't be doing you any good).

I was one of those people who managed to bluff their way through school without really understanding what a simple fraction was. I memorised my fractions, but it wasn't until several years later, when I had a job where I used a calculator, that I began to really see the philosophy of simple number relationships. Somehow, having an answer spit back immediately — dispassionately, right or wrong, having keys that could be played first one way and then the other, comparing this with that — helped to drum into my unwilling mind something that the many willing and unwilling teachers failed to do by either cajolery or derision for some 18 years.

I'm glad I learned that lesson about calculators — that they are, in fact, teaching machines as well as just work savers.

In all of our lives we have become dependent upon machines which, almost always, are labour saving, human nature being as it is. At sea, complete dependency on anything that is either complicated, or has lots of moving parts, or anything electrical, is not a good idea, for we all know too well the sea's instinct for the jugular of such devices. Certainly a navigator should be capable of, and should maintain his proficiency in, hand-working sights — to cope with that one-in-fifty or one-in-a-hundred chance that the calculator will 'pack up'. Modern calculators of the type described use little battery power; they maintain what is in memory when the machine is switched off, and in the case of the Hewlett Packard HP41CV, it will maintain its memory for thirty seconds or so while you're changing batteries (the alphanumeric display also warns you when it's time to change batteries). So my advice to anyone would firstly be to take a course in celestial, read a bit about it, and get a calculator to help you get your feet wet and to give you confidence while you're developing your skills. It will also help you through your handworked sites, giving you instant feedback when you go wrong (that's when it does the most good). Relative to what it can do for you in terms of safety and saved misery below decks with the books, the price is nothing.□

Willi Willi's last ride

From 'Ace' Mowtell

Skipper Joe Goddard had at least something to be pleased about when he left Port Moresby, Papua New Guinea, heading home to Sydney. His yacht had improved at each start in a series of races along Australia's east coast. He said that the subsequent loss of his 54 ft ocean racer was 'unbelievable'.

Goddard had just taken line honours in the Cairns to Port Moresby race with 'Willi Willi', which was number two of the famous 'Ragamuffin's built by Syd Fischer. Goddard had renamed and refitted the boat.

With a crew of nine, including his wife Friedl, and children Joe, Peter and Wendy, he was sailing against strong southeasterly winds heading for the port of Samarai in the tip of the PNG mainland when 'Willi Willi' struck mud about two miles offshore.

Accompanied by 'Cygnus' and 'Akarana' 'Willi Willi' was just sailing 'merrily along', according to Goddard, when she grounded. The boats ahead of him had no difficulty, but the deeper keel of 'Willi Willi' (8 ft 3 in) found the mud bank.

All efforts to free the boat failed, including using the motor. Goddard said he 'tried every trick in the book' to get her off the mud, but she was sinking as if in quicksand. A tug was called out from Port Moresby, but it was soon apparent that if it pulled hard enough the hull would separate from the keel.

The yacht was worth $165,000 and had just been refitted with a taller mast and new rigging. Initially it was thought that the mast might be salvaged, but the mud continued to suck the yacht down. Later, when insurance assessors had flown from Australia to inspect the wreck, heavy seas had dashed any hope of saving the boat.

"That mud is unbelievable," Joe said. "I've been sailing for 30 years and I've never seen anything like that mud. Inside two or three days she'll have disappeared. The yacht is not in deep water, but even at low tide you can only see the top of the mast sticking out of the water. It just swallowed her up."

Goddard blamed local charts for his running aground on the mud bank. The charts, he said, showed safe depths as close as half a mile offshore, and 'Willi Willi' was almost two miles clear.

'Willi Willi' had been unsuccessful in the Hitachi Sydney-Hobart Race in December, but she had a new taller mast fitted and had started north in the Sydney-Mooloolaba race when she was fifth over the line. She improved to second over the line in the following Brisbane to Gladstone race.

In the Gladstone to Cairnes race, she took line honours in the monohull division and was placed second on handicap. In what was to be 'Willi Willi's final race, the Cairns to Moresby, she took line honours again.

CYCA BOARD OF DIRECTORS

For the first time in a number of years, the election of Officers and Directors was a formality, with Officers unopposed and only six Directors nominated to fill the six vacancies.

COMMODORE
K.C.D. Roxburgh
VICE COMMODORE
G.S. Girdis
REAR COMMODORE (SAILING)
P. Rysdyk
REAR COMMODORE
A. Brown
TREASURER
D.L. Don
DIRECTORS
A.L. Cable, A. Cooley, G. Marshall, J.K. Morris, A. Pearson, K.H. Storey.

The maxis are coming

From Peter Rysdyk

December 1981 and January 1982 will be our greatest ever yachting feast, seldom equalled in the world, and it is all by our Cruising Yacht Club of Australia.

We have recently been given the O.K. by the ICAYA (International Class A Yachting Association), better known as 'the maxis', to go ahead with the Pacific Maxi Championships. As this event will be sponsored by our old friends with the highly respected name of Burns Philp, it will be called the Burns Philp Pacific Maxi Championship. The winner will receive the covetted Cock o' the World Trophy and the 10 metre Gold Pennant.

So far the following yachts are expected to participate:

Kialoa
Ondine II
Windward Passage
Condor II
Jager IV
Bumblebee 4
(the new) Apollo
Gretel
Helsal II (Newcastle chartered)
Siska
Anaconda II
Bucaneer
Cesne Branco (Brazilian Navy)

In addition, some ten other yachts, maxis and/or Rio racers, have yet to confirm their plans.

The Burns Philp Pacific Maxi Championship will be sailed over a series of three races:
Monday, 14 December, a 30 mile triangular course off Sydney Heads;
Wednesday, 16 December, a 15 mile Sydney Harbour race;
Sunday, 20 December, a 40 mile triangular course off Sydney Heads.

Each race will be sailed for its own trophies, 1st, 2nd, 3rd IOR, and Line Honours. The overall line honours pointscore will be for the Cock o' The World Trophy, while the total series will also be counted on a pointscore, 1st, 2nd and 3rd IOR.

As we have seen in the 1979 Burns Philp Maxi Race, we can expect the racing to be spectacular. Television and photographers will have a field day.

This year the Hitachi Southern Cross Cup series is promising to give us one of the largest-ever fleets for this series, and this year for the first time the Southern Cross Cup is part of the World Cup of Yachting.

Then, the world reknowned 37th Hitachi Sydney-Hobart Yacht Race is expected to have some 180-200 participants crossing the starting line in Sydney Harbour.

And last but not least will be our Club's inaugural Xerox Cape Horn Yacht Race, from Sydney to Rio de Janeiro via Cape Horn, 8,370 icy nautical miles, testing men and yachts to the extreme limits but achieving the 'summit' for every yachtsman who has rounded 'the Horn'.

Our organisational resources will be strained to the absolute limit, and so will be our facilities. It will be a spectacular two months.

Trivia

Last issue's Trivia competition was hotly contested by David Kellett, Jenny and Lindsay May. The former was in just a little sooner and a bit better than the latter pair. The winner deserves to be marked off at least one third point for bad spelling ('Blade', heave a sigh of relief, you've been relieved of the 'Speller-of-the-Year award). Yawn, two bottles of the magnificent Jarman's Brut champers, that deceptively frenchish drop, from J. Jarman Liquor Supplies, New South Head Road, Edgecliffe, to 'Twelves' and his little lady (who loves Jarman's Brut). The answers were:

1. Polaris, Pilgrim, Ragamuffin.
2. Prospect of Whitby, Morning Cloud, Crusade.
3. Knud Reimers.
4. Norman Wright.
5. Corroboree, Kevin Gray.
6. Billy King-Harmin.
7. David Pedrick.
8. Trade Winds.
9. Imp.
10. Mark Twain.
11. Finisterre.
12. Peter De Savary.

This month's twizzlers.

1. How many yachts have won both the Montagu Island race and the Sydney-Hobart race in the same year, and which are they?
2. How many yachts have won both the Sydney-Hobart race and the Montagu Island race, and which are they?
3. Name the provisionla winner of the 1966 Montagu race?
4. Name the yacht that represented New Zealand in the 1981 Quarter Ton Cup series in Marseilles?
5. Who was the builder of the 1981 British Admiral's Cup team member, Yeoman XXXIII?
6. Name the designers of the 1981 German Admiral's Cup team member, Dusselboot?
7. Name the Irish Southern Cross Cup team of 1979?
8. Who won the 1968 Single-handed Transatlantic race?
9. Name the Dutch representative in the 1975-76 Financial Times Clipper Race?
10. Who was the 1975 Australian Admiral's Cup team captain?
11. What was the first long ocean race for the original Ragamuffin?
12. Who broke the west-east Transatlantic record in 1981?

Two bottles of the beautiful Brut from Jarmans Liquor Supplies, Edgecliffe, to the winner (first entry signed with time and date by a member of the CYCA office staff or, in the case of entries mailed, that bearing the earliest postmark).

CLOTHING SALE

We have the following for sale at BELOW COST price.

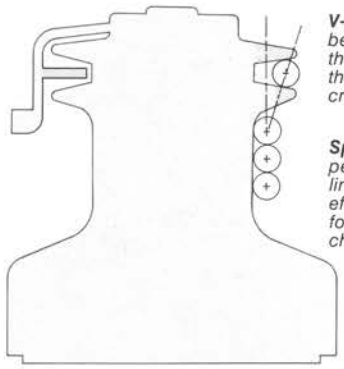
1980 Hobart Race T-shirts (sizes 0,2,4,10,12,14 and 22) @$3.00
1981 Noumea T-shirts (all adult sizes) @ $3.00
1976, 1978, 1979, 1980 Hobart Race cloth badges @$1.00

All items on sale at the office during weekdays.

JAWS

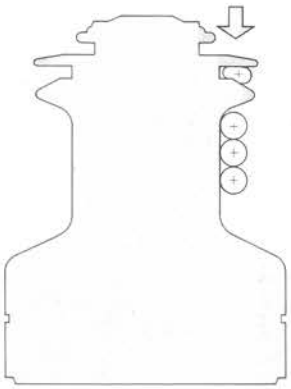
COMING TO GRIPS WITH THE PROBLEM

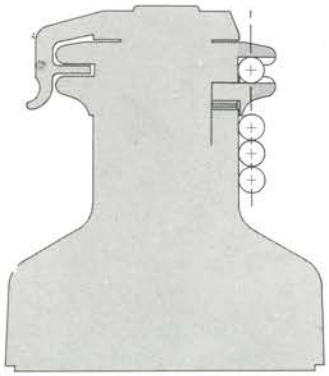
Until now, all self tailing winches have shared a common problem. The jaw design. For a self tailer to work perfectly the center of the sheet in the jaw must be vertically aligned with the sheet on the drum, ensuring an equal drum and jaw feed rate. V-shaped and spring-loaded jaw designs have had to compromise this principle in order to accommodate a variety of line sizes. The result is a dramatic loss of efficiency due to friction in all but optimal situations.



V-shaped jaws. *As the angle between the center of the line on the drum and in the jaws increases the feed rate varies. Friction is created and efficiency is lost.*

Spring-loaded jaws *create a force perpendicular to the direction of the line being loaded into them. Extra effort is required to overcome this force, efficiency is lost and line chafe is excessive.*





Barlow's new self tailers *with spacers and parallel jaw design assure a vertical alignment of the line's center on the drum and in the jaws. The feed rate is always equal and peak efficiency is maintained.*

Barlow's new range of self tailers work at peak efficiency all the time. We've done it by making design improvements that maintain equal drum and jaw feed rates. This means friction is virtually eliminated for smooth, easy self tailing. A combination of spacers allows you to customize your winch to the optimum linesize-setting within the model range. And the new parallel jaw design with radial ridges improves cleating action without the undue line wear of ordinary self tailers.

Barlow's new self tailers are better by design. Write or call us for all the facts.

Barlow Marine Ltd
52 Wentworth St,
Granville,
NSW, 2142
Ph: (02) 637 9333

BARLOW WINCHES