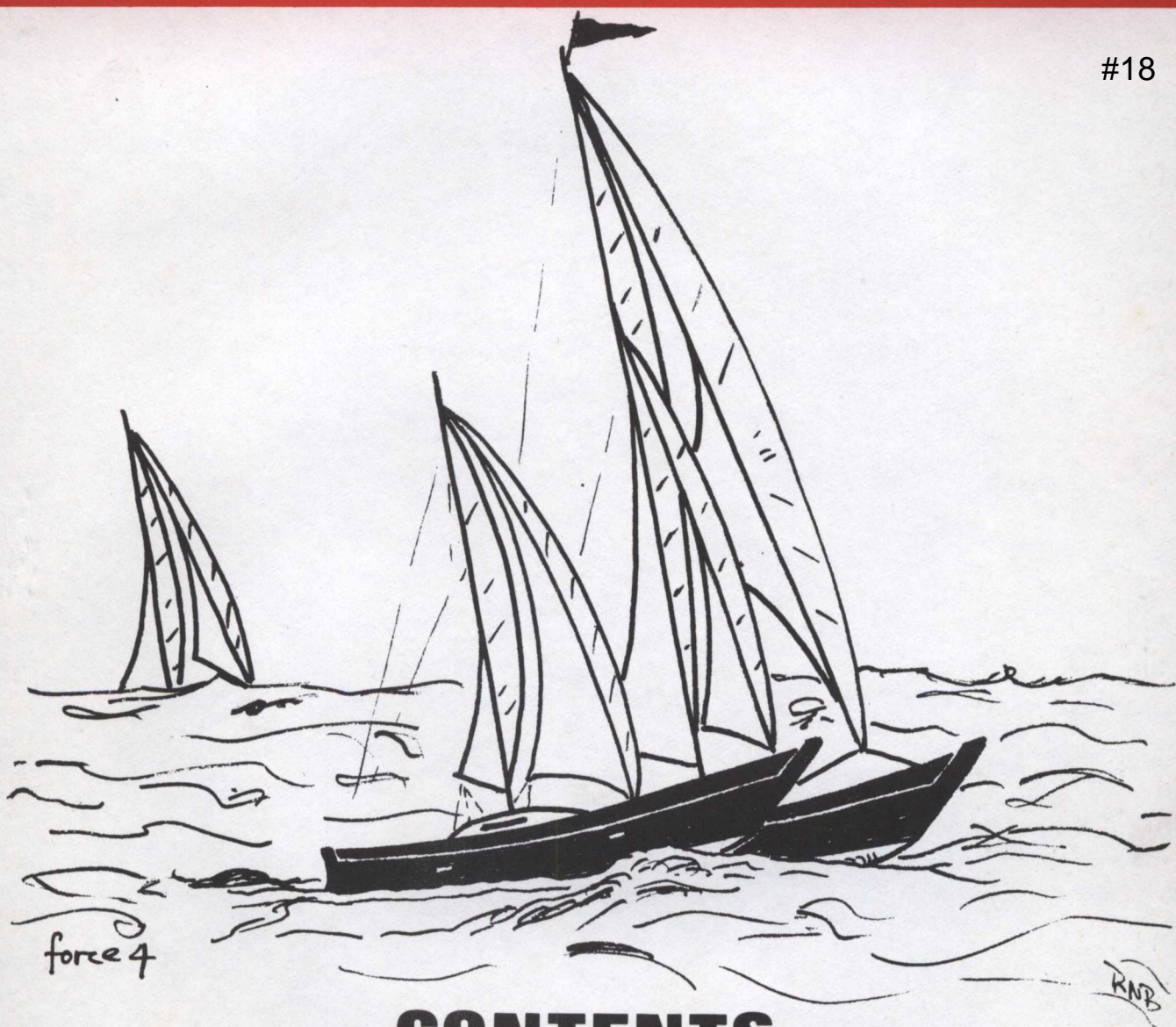


THE SAILORMAN

JUNE 1976

#18



CONTENTS

Waiting for a breeze	1	Having a spot of bother?	29
Jim's column	2 - 3	Storm Forum	30
Association news	3 - 7	Over which Horizon did you sail?	31 - 39
The Boat Yard	8 - 14	A Sea-Dogs Dinner	40
Rigs and Rigging	14 - 23	Buying or Selling?	41
The Model Maker	23 - 26		
Gone with the wind	27 - 28		

Volume 5 - 2

PUBLISHED BY THE
POLYNESIAN CATAMARAN ASSOCIATION



THE SAILOR

FOR APRIL

All articles published in this magazine are copyright
of the Sailor, unless authors specifically state
that they wish to retain their own copyright.

CONTENTS

WAITING FOR A BREEZE

Editor
Richard Bumpus

Secretary
Tony Meakin, 42 Park Hill,
CARSHALTON, Surrey, UK.

Assisant Sec.
Shiela Johnson

Treasurer
Robin Fautley

Sailing Secretary
Michael Briggs

Chairman
John Corke

published by:
THE POLYNESIAN CATAMARAN ASSOCIATION.

printed by:
OFFICE STATIONERY SERVICES LTD.,
26 Walter Road, Swansea.



I think it is time that we had a good photograph for the front cover of the Sailorman. Has anyone got a good action shot of a Polynesian catamaran under sail or at anchor in some idyllic spot. If you think you have some suitable material, it should be a print of 6" x 6" in measurement, which will be published in black and white. Someone, somewhere in the world must have some suitable pictures. Send along some details of the photo(s) as well. I confidently expect to be flooded out with good photos!

From its small beginnings about eight years ago, the PCA has grown from strenght to strength. I suppose that this is because the PCA had a lot to offer each of us, but what I think is more important is what each of us has to offer the PCA. As a group, we must be unique, since we are of a very practical nature and all concerned with the same type of craft on a world-wide basis. What makes editing the Sailorman a pleasure is the content and variety of articles that members send in for publication (this also causes a headache in deciding what to include in each issue of a limited size - shorter articles are better than long ones, though all get published in the end). I know that I and many others, besides contributing to the Sailorman, have also gained a lot from it. If you have anything to say or discuss, put your pen to paper. The Sailorman is after all a Forum and Chronicle of the Association. Public discussions could bring out all sorts of ideas.

I have received a number of articles on engines for Polycats. This has the makings of an interesting article. So, if you have any further ideas, write in.

Bon voyage,

Richard Bumpus

JIM'S COLUMN

In the last three or four months, there have been seven known Polynesian Catamaran ocean voyages in Tanes, Tangaroas, Narais and a Tehini; five having crossed the Atlantic and two having crossed the Tasman Sea from Australia to New Zealand.

Ruth Wharram's vivid day-to-day account of her recent voyage on a Tangaroa from Australia to New Zealand, is told in the chapter "Over which horizon did you sail".

It would be easy to put my pen down on a note of exhilaration, but the Sailorman exists to present the truth for mutual self-help.

Recently, I received an embittered letter from a Polynesian Catamaran owner, who had just completed his first arduous voyage, but far from being exhilarated, he complained about details that did not work out according to his "dreams". I have seen this embittered and disappointment before, when apparently a person was achieving a dream. Many years ago, I met a young man in Coruna, N. Spain, with a superbly built John Alden 25 ft. schooner, a boat that could go anywhere. Yet he delayed leaving port to continue sailing south to the West Indies and back to America.

One night when he was drunk, he began talking about the terrible high cliffs with great surging breakers beneath them, that he had passed while sailing from Bilbao to Coruna. The fear of those cliffs had shattered his inner confidence. He sold the boat at a "give away" price.

Years later, I met a man in Folkstone who had bought an early Prout "Snowgoose". He too, had intended to sail across the oceans, but got caught in a moderate gale off Dungeness. He put back into Folkstone. He found everything wrong with his "Snowgoose" and was going to sue Prouts, etc. In due course, he sold the boat, which has since done very well in offshore racing.

There was another man I met in Antigua, who had spent a fortune on a "Windcrete" concrete boat with a Hasler Junk Rig, in which he wanted to sail the world. The boat brought him safely across the Atlantic, but on reaching English Harbour, he moored the boat and started making efforts to sell her.

There is also the famous and tragic case of Donald Crowhurst. What then, is the factor which makes some people struggle for years towards a life's dream, and then recoil in loathing, using many petty excuses to abandon the project? The basic cause is shock. Shock resulting from an accident is known and recognised. Other shocks to the nervous system have also been postulated. "Cultural shock" - the disorientation on moving too rapidly to another country or way of life. "Future shock" - disorientation caused by rapidly changing events.

I am convinced there is another shock to the nervous system; "Sea shock". I know "Sea shock" exists because I have observed it, but as yet I have not given it close study. Perhaps correspondents to the Sailorman will help to analyse this problem more closely.

From my observations so far, the perfectionist in building and equipping his boat is the most likely one to suffer "sea Shock". It could be that such a man is, or wishes to be, in absolute control of his "tools" and life pattern. On land, he moulds life around him. He expects the same pattern at sea. But he has not experienced the elemental power of the sea, which is always greater than oneself. One has to yield, to "go with", and accomodate this power.

JIM'S COLUMN

These are only tentative theories. It is true that some of the "tattiest" boats seem to have some of the most relaxed skippers; though again, some tatty ocean going boats might, on closer examination, be better described as "sea-worn" - every essential piece of equipment being in good condition and easily accessible.

One can recover from "Sea shock". One can learn to adjust and control it. The first point to realise is that "Sea shock" exists, particularly for the first-time voyager faced with loneliness, the vastness of the sea, strong headwinds (above force 5), and continuous sea gales.

On reaching port, the first thing to do is to have rest and quietness and to reflect that one has survived on one's own small self-built boat. This is "something". Then, one must seek to recover one's confidence by sailing only in light to moderate winds i.e. normal weekend yachman's weather. With a store of pleasant sailing memories, one can venture into the deep ocean again, waiting if necessary, for two to three weeks for a period of good weather to get well clear of the land and settle into an "at sea" routine.

With luck, when the next gales come, the skipper will find himself saying to the rest of the crew, "The gales on this trip are not as bad as those of the last trip".

I have just read Bernard Moitessier's last book, "The Long Way", which is full of calmness and security. But remember, before he achieved the calmness and confidence in the deep ocean gales which shines through his writing, he too, had voyages when he experienced "Sea shock".

ASSOCIATION NEWS

Sailing week at Milford Haven and Proposed Cruise to Ireland, Sat. July 24th to Sat. July 31st.

Weather permitting, towards the end of the week, it is hoped that the assembled fleet of Polynesian Catamarans can sail over to Ireland, to Dunmore East, then up the River Barrow to James Wharram Associates "Irish Base" for the weekend.

For information on camping sites, Bed and Breakfast accommodation, hotels etc., in the Milford Haven/Sandy Haven area, and directions by sea to Sandy Haven, write to James Wharram Associates, The Longhouse, Milford Docks, Milford Haven, Pembrokeshire, Dyfed. (Please send a stamped addressed envelope).

Those coming by sea, bring your Irish Sea Charts with you!

A ray of sunshine in your life.....

Carol and Michael Green have written to us from the Caribbean to tell us some of their news..... "We have met Tehini TAOTOTOA, Tañe STORMALONG and Tangaroa NOU-MAS-DAI, out here in the W.I., all of whom crossed this year as we did in our Narai 136, IF DOGS RUN FREE". They go on to say that at the time of writing (January), they were about to leave Granada and proceed slowly back to Bequia.

"Grapefruit are 1p each here. We have caught crayfish and other sea life for free in Bequia. Oysters are 20p a bucket if you can't be bothered to collect them

ASSOCIATION NEWS

yourself - the people are great - the sun is hot - what more can I say".

Don Dean who sails an Oro, has suggested compiling PCA Sailing Directions. The idea is that people in various areas with local knowledge should amass all their information concerning good anchorage, water and fuel stages, good beaches and places of special interest and accessibility to multihulls, for the benefit of other PCA members.

Polynesian Catamaran Summer Sail-in (1975) in the Pacaific Northwest.

by Paul Thompson

Many months ago, Cheryl and I thought it would be pleasant to get together during the summer, with other people who were interested in the type of boat we were building, a catamaran designed by James Wharram (often referred to by the faithful as a Polycat).

So Cheryl did the organising, while I carried on building in the back yard wondering if there would ever be an end to the gluing, glassing and spending. We knew the local people would be interested and we thought a few others might venture out to our rainforest in the Woodlands, a bit north east of Deep Cove on Indian Arm.

But little did we count on the Polycat charisma; not only were the clouds, cold and rain of the previous fortnight dispelled on the appointed days of July 19 & 20 (1975), but more than 40 people and their families turned up! They came from various parts of the lower mainland and also from Nevada, California, Oregon and Washington. We had good boat talk well into the night - ideas, enthusiasms and dreams shared over lashings of good food and drink, and best of all, we had some sailing.

Both days, Harold and Wendy Goddard took everybody out for a sail on the Arm in KISKADEE, probably the best known Polynesian Catamaran in these parts and surely one of the finest of her kind afloat. For many people, this was their first experience of being on a catamaran, and indeed there could be no better introduction to multihulls than this: the sun sparkled on the blue water with a fair breeze, while a fine ship and lots of happy people got off on a whole new scene. On one sail KIDKADEE was making 6 knots with 38 people and our dog aboard!

Indulais and Ruth Vanags motored their TIAN 1V to Woodlands, a boat that also aroused a lot of interest, since they and their two children, Sandy and Tony live aboard most comfortably. The Vanags rigged their sails for the time following the weekend sail-in and we had the pleasure of going out with them on their first sail. Both boats looked impressive moored at the relatively small government float in Woodlands.

Saturday evening was Polycat night at the movies. Don Hembroff, recently returned to the city from New Zealand, showed us his film on the voyage that he and his brother Tom made over a year ago in PIGGY. The boat was built in Vancouver and was then sailed across the Pacific to New Zealand making a fast passage all the way. Don was quite modest about his impresssive achievement, and he is still full of enthusiasm for long distance cruising. (The latest we hear from the BC Multihull Society is that Tom set a record from New Zealand to Lord Howe Island - 770 miles in under 3 days with a crew of five and a new sailing dinghy on the deck!! What a great sail. Editor).

continued.....

ASSOCIATION NEWS

Several other films were shown, including two narrated by Wharram himself, about how he built and sailed his own boats.

All in all, the weekend sail-in and picnic was great fun for us and everybody else seemed to have enjoyed themselves as well; there was some great learning going on and new friendships made as well as stirring up the energies to get those boats built and sailing.

Some statistics: of the people at the sail-in, 6 now have Polynesian catamarans sailing, and five others are building. Several other people are considering buying. In addition there are at least 6 or 7 other Polycats sailing around this area and probably numerous others hidden in rainforests, plastic sheds or on beaches, being hatched into seaworthy craft.

It seems that the Polycat spirit is alive and well in the Pacific Northwest.

You may be interested in the following, if you live afloat on your cat.

The Residential Boat Owners Association represents all those who live afloat in permanent residence on the watereays of the UK, and was formed as a result of people who were faced with the need to unite to protect their interests as residential boat owners. In order to speak with a stronger voice, the RBOA became affiliated to the Royal Yatching Association, the Inland Waterways Association and the River Thames Society, among others. The aim is to establish the residential boat owners rights in a fair and just manner with landlords, local and regional government and other official bodies. If you think that this association can assist you, contact:-

Tim Deacon, "Black Swan", 216 Priory Road, St. Denys, Southampton, SO2 1JW.

By the time you read this, probably the Norfolk and Queenborough summer meetings will have taken place. The dates were mentioned in the March issue. You are reminded that there is a meeting at Milford Haven which was described two pages ago.

Portland is available again to us over the August Bank Holiday 27-30 August. As some of you will already know, the Portland base belongs to the Royal Naval Sailing Association. The Navy will also want to use the facilities over the holiday. Therefore members of the PCA attending this meeting are strongly urged to exercise discretion in their use of the Club Room and showers and also the securing of catamarans alongside the pontoon overnight which is forbidden. Your co-operation would be greatly appreciated. Our thanks to James Briggs for organising this venue.

For those of you on the East coast, especially around the Thames Estuary, Ted Johnson proposes to hold a cruise from Queenborough up to Brightlingsea over August Bank Holiday. This is not a mass rally, but rather a cruise in company (or even a race!). It is to be hoped that the Kent, Essex and Suffolk catamarans can all meet up.

Pete Jezard writes from Teeside.....

"Last October Helmut Lauder came over from Hanover with a set of Tane plans. We rented the house next door as ours is full of building junk, so that we could accommodate him and any other visitors. We then aquired an ex-scout hut to build in,

ASSOCIATION NEWS

which will ultimately become the property of the PCA should we want it. As it is a sectional building, we are looking at the possibility of moving it nearer the river for use as a maintenance and recreational base. At the moment it houses one almost complete Tane, plus an Oro hull and kitchen and toilet facilities. After building three monohulls outside, Oh! the luxury of building away from the elements.

Though I appreciate PCA members are 'slightly mad' individualistic people, could I suggest a couple of ideas which may prove useful? Before starting to build, I contacted other builders (both mono- and multihulls) each with different skills and experience. We have obtained generous discounts with the local chandlers and suppliers. As we are a group, we can pass on information as to what is going where, at the cheapest price.

Using this group as a springboard, I contacted the local council, who offered us part of an old school to build in at the nominal rent of £1 per week. I feel that shopping around for an indoor building site will ultimately save months of actual building time.

Over twenty people arrived for our first north-east area meeting. After inspecting the hut and its contents, we adjourned to my front room and a lively discussion ensued, with the following conclusions:-

- a) We will meet on the first Sunday of every other month (the next is May 2nd, venue to be decided).
- b) To look into the possibility of centralizing PCA activities in the North-east. To this end we are looking for a suitable mooring on the Tees estuary.
- c) We also discussed the feasibility of building a trailer as we will soon have enough craft to make this a viable proposition.

Finally, may I add that I think PCA groups around the world should look into the idea of creating a chain of bases for the use of both the weekend sailor and the sea gypsy alike".

Pete Jezard.

Crewing positions wanted:

In the north east, Pete Jezard wants a crew. Contact Pete at 77 West Street, Normandy, Teeside.

Chal Chute, 116 Fishbourne Road, Chichester, Sussex, would like to work his passage to New Zealand as crew. Any of you ocean wanderers want another hand? Why not drop him a line.

Crawford Owen sent us a newspaper cutting, dated November 18th 1975, from the News and Courier, Charleston, South Carolina, entitled 'Three year project ends in Shem Creek'. It describes the building of Crawford's Narai VALHALLA VISITOR and contains a photo of the cat being lifted into the water by crane. Maybe later this year, VAHALLA VISITOR will set sail for the Virgin Islands. Crawford pays tribute to his wife for her part in this project.

ASSOCIATION NEWS

Anthony Barton of Bournemouth sent us a bit of news concerning the Tehini TAOTOTOA. As mentioned earlier, this catamaran crossed the Atlantic to the West Indies. They made their way up the Islands to Antigua after staying in Bequia for Christmas. Unfortunately, they have not been able to find work or been able to charter, and money is getting short. So the boat is up for sale. It must have been a terrible amount of work for eight months sailing!

INSURANCE FOR YATCHS (UK only)

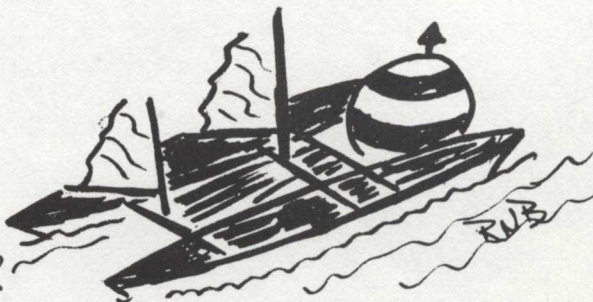
Towry Law (General Insurance) Ltd., Towry Law House, High Street, Windsor, Berkshire SL4 1LX, wrote to Jim Wharram explaining that their Underwriters are offering a scheme to cover boats while under construction. The cost to the individual would be based on a rate of .88% per annum on the finished value. Thus, if the finished value of a cat was to be £2500, then the premium per annum would be £22.00. The person insuring the cat would have to pay the first £25 of each and every claim excluding total loss.

Wishbones..... Nico Boon mentioned that he was making a wishbone for the trysail of the Narai. Ian Reid of Barbados, and Roland Huebsch of Toronto, are both interested in the wishbone rig and the construction of the wishbone. I'm sure a short article would be much appreciated on the construction of the wishbone, Nico!

On April 4th 1976, David and Joan Lewis had a hull turning ceremony, to which over fifty people arrived to lend a hand. Both hulls are now aligned in the front garden, one of which requires the final touches while the other requires decking and the interior fitting out. RANI is a Narai Mk.1V and is built in foam sandwich. Eventually she will be launched at Chichester in Sussex.

At the London Boat Show in January, I acquired a copy of 'Design for fast sailing', which is published by the Amateur Yatch Research Society, Hermitage, Newbury, Berkshire, UK, from the AYRS stand. I found this of great interest, although I could not always follow the mathematical formulae (a deficiency on my part!), but it is clearly written with lots of graphs to explain results. It describes the quest for the ultimate yatch with speed in mind. There are some very interesting facts on centreboards. Some tank testing is described. The book generally deals with the facts and figures required for a fast sailing boat. It is definately for those of you with an enquiring and experimental mind.

DECISIONS! DECISIONS!
WHICH SIDE DO WE PASS
THE MIDDLE GROUND BUOY?



THE BOAT YARD

John and Dorothy Parton pass on a few hints about their TEHINI, from sunny Australia.

We are finishing the interiors, as far as paint and that sort of thing goes, as it is easier while everything is open and without windows, only the opening for them. We will leave the final coat of paint until the very last, so she will have a new just painted look for her big day. We have painted everything possible as we went along. Like starting with the bilges. Felt if they were painted while they were still accessible, it wouldn't be too bad a task, and one certainly feels more like cleaning out a bilge that is neatly painted. Since I as first mate did the painting, I'm very glad it was done early in the piece, otherwise it just would not have gotten done. And now everytime we have a housecleaning and vacuum out the bilges, we say "thank God", we did them." Also all little hard to reach with a paintbrush cubby holes were painted as we went along, and again I can say that now I'm pleased they were.

Our interior was designed by a method of my own, which I can highly recommend to anyone who looks at the hulk of a hull and wonders what to put where. I spent days inside each compartment, with an assortment of sticks, boxes, fold up chairs etc. I used this assortment to build, or I should say to simulate, lounges, bench tops etc., then went through the motions of whatever task was to be accomplished in that compartment, to make sure everything was in it's proper place. We have received many compliments on our arrangement, and the workability of it. I even took a fold up lounge chair into the main salon and sat in it to get the right angle for comfort, whereby John then took the angle, height of seat etc., and built the lounge seats to match. May sound silly, but it worked for us. Even our shower is built to accommodate bending over space for picking up the soap in case you drop it, ha ha. As you may have guessed, we like our comforts.

We have used demolition timber for so many things it would be impossible to name them all. In fact it would be easier to list the items we have used new timber for. It is dry and well seasoned, and is better timber than anything you can buy today. We have it milled for a small cost, that's after the first mate pulls all the nails out of it. We have four laminations of demolition hardwood on our keel and stems, and it's all most too pretty to cover with paint and antifouling. Our main beams are from the demolition yard for one third the cost of new timber. All pine framing is from the demolition yard.

Being Bower birds from way back, we collect everything and most of it is finding a spot to be used somewhere along the way. We had a nice compliment from a chap on Sunday about the beautiful timber covering, the inner edges of the decking, inside the compartments and he said it must have cost a packet. Not from these scroungers. It is veneer which was given to us about five years ago and we have been storing. John applied it with contact cement, also cut some to go over the demolition beams of the cabin, glued them on, and the first mate sanded them and gave them six coats of varnish and they do look pretty good even if we do say so ourselves.

We have also made our own sails, even though everyone insisted it was impossible to do so. But we figure no one was born a sailmaker, they had to learn. So we picked brains, read books, bought material and began. This was also a chance to get away from the actual boat building itself for awhile, which was good for our moral. We hired the local hall, to loft them out in.

THE BOAT YARD

We set up two large tables from two sheets of plywood, in between our hulls and this is where we did our sewing. We used a portable Singer sewing machine, which everyone again said we couldn't do and the job was accomplished. Now they are all eating crow and asking where they can get material, and how you go about it. But we are quite happy to pass on our little hints which we learned by trial and error. In fact our first sail must have been made at least five times, and we became very adept at ripping out the stitching and having another go. We started with the storm sail first, and by the time we reached the main, we felt like old hands. We also bought some light weight tent material, and the first mate made sail bags from it, also wet weather gear, (we have since been offered forty dollars from boaties to make them a set). It was also used to make an awning which covers the entire platform area between the masts and out over the cabin tops. Even has a fancy scallop (37 feet of it) which runs around the outside edge, and has provision for side curtains to be attached if needed. Also batten pockets in it. All of this was made at a very low cost, as we received quite a discount for buying such a large quantity, and since the Singer did the stitching, labour was nil. That first mate is a darned good worker and she works cheap, ha ha. We still have enough material to cover cushions for outside and to make sail covers. We went to a place that makes foam mattresses etc., and bought large cut off pieces of foam, and these will be used for cushions, lounge seats etc. They can be glued together with milk glue and cut with a bread knife to the proper shape. During a cold spell the first mate also made all the curtains for the entire boat and has them stored and ready to pop in when the time comes. May sound a bit premature, but the cabin tops were on, the windows were cut and it was nothing to take the measurements and get that job out of the way, also kept me inside by the heater.

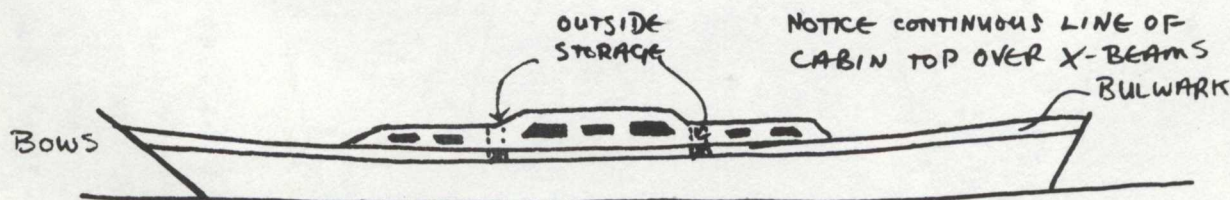
Dorothy says that she has probably only given a woman's point of view, but feels that since "we ladies" are going to have to live on these boats, perhaps other women maybe interested in the beauty side of things.

John goes on to describe some plastic stools that he bought and which he has found very useful for seating in the galley, besides the following other uses.

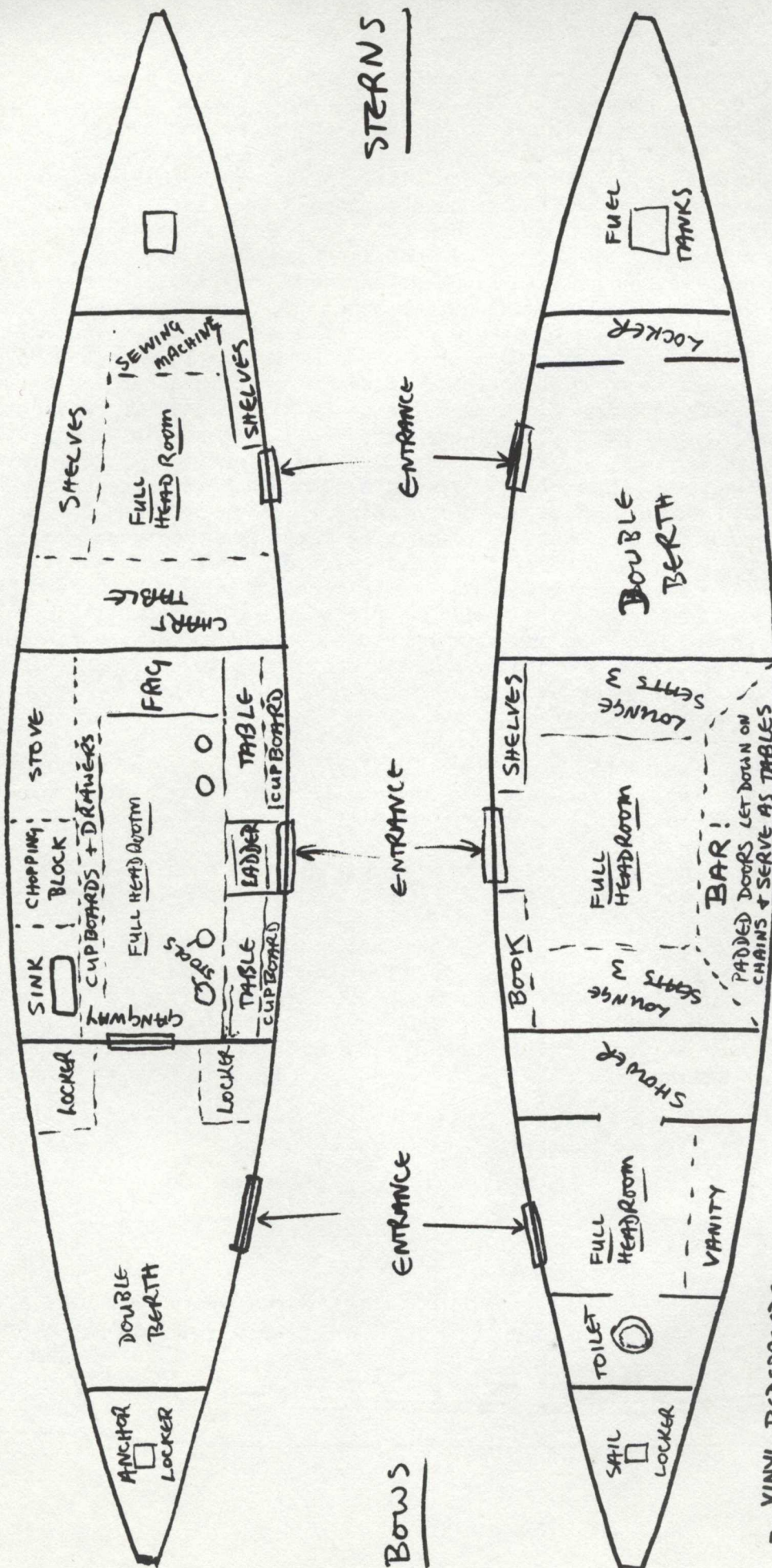


They come apart easily and store readily like stacking a nest of tables. You can hide your Brandy in the top half, and store small items in the bottom half. They could be used for bongo drums! And even loud hailer since they come apart so easily. You could put sand in both halves and use them for weight lifting! Put a lid on each half and use them as buoyancy aids.

The following diagrams gives some idea of the layout of their Tehini:-



JOHN + DOROTHY PARTON'S TEHINI



- VINYL BEDSPREADS
- CRIMOLENE CURTAINS
- ACRYLIC CARPET IN LOUNGE
- ACRYLIC SEAT COVERS IN LOUNGE
- EVERYTHING WASH & WEAR FROM CURTAINS TO CLOTHING.

75 gals. WATER UNDER GAILEY FLOORS,
ALSO 75 gals UNDER LOUNGE FLOOR TO
FEED TOILET/SHOWER AREA.

STERNS

BOWS

THE BOAT YARD

My introduction to a Polynesian Catamaran by Kathleen Moore, Glenfield, Leicester.

After reading Sheila Johnson's interesting article in the last copy of the SAILORMAN, I was persuaded by my husband John to make a contribution.

I knew of course, that he had been planning to build a boat for some considerable time, but I did not know it was to be a Wharram catamaran. The realisation came when unknown to me he had sent for the plans of an ORO. I did venture to ask the size of the boat, and I had some difficulty in visualizing a 46' hull (twice). I soon found out after seeing the bulkheads and stringers of the first hull in position.

Of course as the building of the catamaran progressed, it was inevitable that I should be roped in to help. Now I must confess I do find working on the boat a happy diversion from housework.

We spent the first week of our holiday sheathing the second hull with nylon, having already completed the first hull some time ago. We found this job much easier than anticipated. We find as we work in the open that our main obstacle is the weather. Some members of our family were recruited to help with the painting last summer and this proved a great help.

This year we are hoping to have the ORO completed after five years of building. As we are in the Midlands we hope to have it transported to the East Coast. I would like to say in conclusion how I enjoyed sailing on the TANGAROA with the ladies crew at last year's Portland summer meeting. Maggie, Hannake, Nuala and Lesley looked after us very well and allowed us to participate in the sailing, so we had a very pleasant time.

The Building of KAUAMEA by George Snyder, Seattle,
(34' Tangaroa) Washington, USA.

I never built anything worth a damn in my life, but I wanted a seaworthy vessel capable of hauling my carcass safely across oceans. Having built a model to prove that I could construct such a vessel and studied books on boat building, designs, methods, glues, fastenings, sheathings, sailing, navigation and weather, I started building.

Selling my motorcycle gave me enough cash to buy 46 sheets of plywood at one shot. I took a lease on a beat-up house which had a large empty basement with an outside entrance. In here I stored all the wood, away from the moist atmosphere of Seattle. The boat itself would not be so lucky. It would be built outside. The plastic sheeting and A-frames I made were more trouble than the protection that they offered the hulls.

I started building in June 1974. KAUAMEA is built with Douglas fir, 3/8 5 ply A-B marine plywood. All fastenings are silicon bronze ring nails. All glue is epoxy. Galvanised nails would have worked fine, but I could not have used any other kind of glue but epoxy. Yes, it is very expensive, and a better boatbuilder could have used something else. I have to use it.

Pete Culler is a salty boat builder who believes in sprit rigs. In his book, 'Skiffs and Schooners', (International Marine Publishing Co., Camden, Marine 04843 \$15), he says he only uses Weldwood glue, the kind you mix with water. The fact that it might come apart with boiling should only concern

THE BOAT YARD

those who intend to build their boat! Trimaran designer Jim Brown recommends Weldwood, whereas Jim Wharram recommends Aerolite resorcinal glue. Everyone knows that plywood is put together with resorcinal glue, and there is no difference in glue between marine and exterior rated plywood. But when the laminates cure they are under tremendous pressure. A US Plywood engineer told me that resorcinal glue must have at least one hundred pounds of equal pressure to get a good bond. Without the pressure you have weakness. With a gap of any kind you have brown icicles.

When epoxy cures it is stronger than the wood it bonds. More important it remains somewhat flexible, not brittle. But most epoxy has a mickeymouse mixing procedure with little weights and cute measuring cups to get just the right mix. Then the wood has to be perfectly dry and the temperature around 70°. With all this nonsense it is truly more trouble than it is worth. A chemist named Jerry Schindler, once president of the now de-funct "Amateur Boatbuilding Association of America", figured there had to be a more sensible way to get epoxy to work. He found a way, and then formed a company called "Chem Tech", 4481 Greenwold Road, Cleveland, Ohio 44121. This epoxy comes in various thickness to be used as a glue, a fibreglass resin, or a putty. It is a straight 50-50 mix, will cure as low as 35 degrees, and will bond damp wood. This is the stuff I have used. It is messy and unpleasant, but less so than anything else I've heard of.

If I ever build another boat, I would not fibreglass. To me the time consuming trouble is not worth the cosmetic sheath. I would glass below the waterline and tape all seams, but not with a polyester resin. Every boat I've ever seen using polyester resin to bond fibreglass to wood has started to delaminate after about four years. I think polyester resin is fine for laminating an all fibreglass boat, but unless I were building in Las Vegas or Phoenix or the Sahara Desert, I'd stay away from polyesters. I've been told the reason for delamination is moisture. If you build where moisture content of the air is high, some will always remain in the wood, and you can bet as sure as God made little green apples that someday that moisture is going to keep the resin from sticking any longer. Besides, polyester resin is not a glue, it shrinks, and it continues to cure forever getting more and more brittle.

I used Chem Tech's epoxy for sheathing KAUAMEA. The hulls are sheathed with three layers of 4 oz. glass below the waterline. Over each seam, there is a double layer of 7 oz. tape. I laid the hulls over on their sides to sheath the bottom. The glass cloth was rolled on dry and stapled in place with bronze staples. The resin was laid on with a roller. You just put it on as fast as you can. You don't need to worry about being too neat, because when the resin has dried, you sand it over lightly. Then the putty (acts like warm butter) is put on with a squeegee. It is poured on then spread out to fill the little fibreglass craters. When this is cured, the final sanding takes place, using 80 grade grit to shape any imperfections, and 100 grade grit to give an excellent base for paint. And that was it!

Some fellow members of the Northwest Multihull Association have a passion for the WEST system, meaning Wood Epoxy Saturation Technique (Gougen Bros., 706 Martin Street, Bay City, MI 48706, Booklet #2). This makes a wood sandwich between multiple layers of epoxy resin, four on the outside and two or three layers on the inside, with sanding between each layer. Friends, that's a lot of resin. And that's really a lot of sanding. Nobody is going to tell me that a thin veneer of epoxy film over a plywood seam is going to be stronger than fibreglass tape.

Defender Industries, 255 Main Street, New Rochdale, New York 10801,

THE BOAT YARD

catalogue \$2 published a chart on the flexing strength of sheaths, as well as the adhesion strength to wood. Polypropylene and epoxy was best for abrasive resistance and adhesion to wood, but nothing beat fibreglass and epoxy for flexing strength. Flexing is what your boat does constantly when it sits on water. Flexing forces are what waves try to do to open seams and separate glue joints.

I understand that Jim's North American Representatives, Candaian Multihull Services (Hanger 2, Toronto Island Airport, Toronto M5V1A1, Dept. R. Canada) also have something similar to the WEST system. Although I've purchased books from them, my requests for more information on the system were ignored. So friends, as long as these systems have nothing solid to support their liquid, and until the system has been proven by the test of time, I refuse to jump on the WEST system bandwagon.

For KAUAMEA, it has been fibreglass and epoxy on the outside, then paint. On the inside, it has been green Cuprinol, using an oil squirt can for hard to reach places, and paint. Those areas not fibreglassed (masts, bulwarks and hatch covers) will be rubbed with what Pete Culler calls "deck stuff", which is a mixture of boiled linseed oil, pine tar and turpentine. Would you believe that Pete, that salty 70 year old builder and designer, uses nothing but enamel based house paint on his vessels?

KAUAMEA will have a garden sprayer shower aboard. (Fill with warm water pump up pressure and take a warm pressure fed shower. For actual plans on how to make your own deadeyes, cleats rope fenders, rope ladders, and many things more, get hold of a fascinating book called "The Marlinspike Sailor", by Harvey Garrett Smith (John de Graff, Inc., 34 Oak Avenue, Tuckahoe, New York, 10707, about \$8).

Another source of information wealth (such as where to buy ready made the above listed items, plus other things you can't get absolutely anywhere else) there is THE MARINERS CATALOG (International Marine Publishing Co., Camden, Maine 04843 \$5). This is so much more than a catalogue. It calls itself "a book of information for those concerned with boats and the sea". It is that, and more. It is put together by the same type of people who brought out "Whole Earth Catalog". It is every bit as meaty, and I can't say enough good things about it.

When I first decided to build KAUAMEA, the reason was to have a habit-at I could call home; some kind of structure which was all mine and offered me the kind of mobility I enjoy. Nobody owns homes these days, except the very rich and banks. And few people spend their waking hours doing what they enjoy. As Jim says there's no such thing as total independence anymore. But there are degrees of independence, and I feel a Polynesian catamaran offers a higher degree of the total than is possible in any other life style.

The thought of circumnavigating with my vessel began as a germ while I built. The germ grew to a point where all my plans now are aimed toward the voyage. I feel KAUAMEA is the perfect size for singlehanding. A TANE may have been easier to build and handle, but not as comfortable for living aboard. Anything bigger would have been too much to handle. I will have enough money to last about two years. I'm in my mid thirties and there's very little in the way of work I haven't done at one time or another, so that's exactly what I'll do when money runs low. I've been wandering most of my life and for me it's an enjoyable way to live. The way there, is not always as interesting as the getting there. Those in a hurry can always buy a plane ticket, but the speed of adventure is about 4 miles an hour.

May fair winds escort you all.

George Snyder.

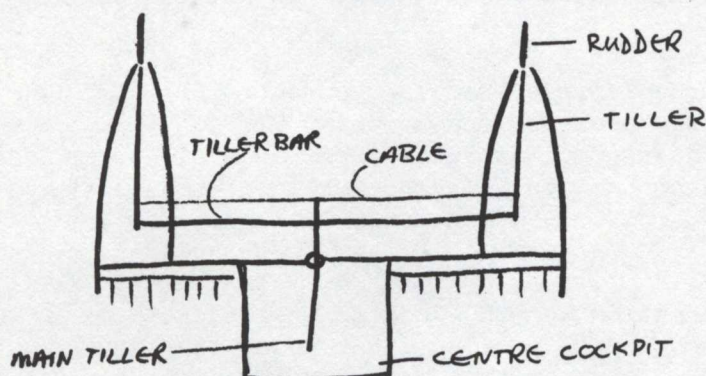
THE BOAT YARD

Some thoughts on the West System by Arne Baartz.

The following is reprinted from the B.C. Multihull Society Newsletter from Canada, 1975. Arne Baartz takes a different point of view to George Snyder.

The West (Wood Epoxy Saturation Method) is described in great practical and theoretical detail in the WEST handbook available from Gougeon Bros., 706 Martin Street, Bay City, Mich. 48706 for a dollar. We are using this method in building our 46' cat and, so far, are very satisfied with the result. The basic idea is to lock moisture out of the wood with the resin and thereby preserve its strength and buoyancy. Incidentally, a smooth, non-porous surface results ready for painting. We are using fibreglass only from keel to just above the WL. This was applied with ordinary, locally obtained epoxy resin. Topsides and decks are WEST saturated and painted. In this way the cost is certainly no more than a straight fibreglass job with polyester resin, as say, Harold's Kiskadee. And this is true even though all the glue and the extra resin needed for laminating skin and deck from two layers of $\frac{1}{4}$ " is calculated in. We found the Gougeon brothers manual very helpful, and in fact indispensable for getting started. Even so we made a good many mistakes before we finally got the neck of it.

NARAI



STEERING SYSTEM

for

"VALHALLA VISITOR"

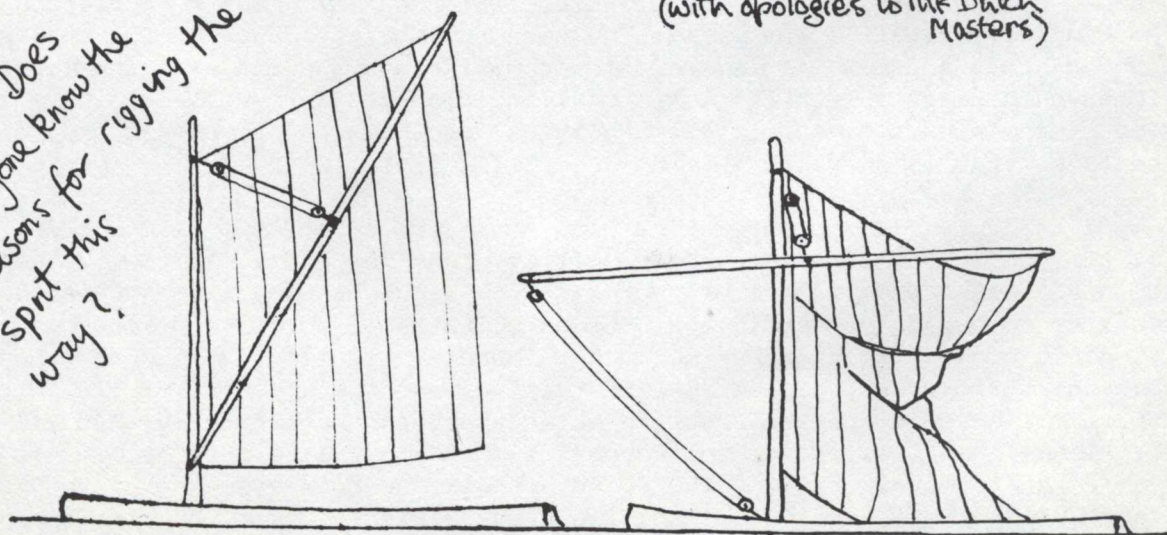
by Crawford Owen.

RIGS AND RIGGING

Roland Huebsch sent this idea along, the origins of which go way back.

sprit arrangement shown in 18th century dutch paintings (with apologies to the Dutch Masters)

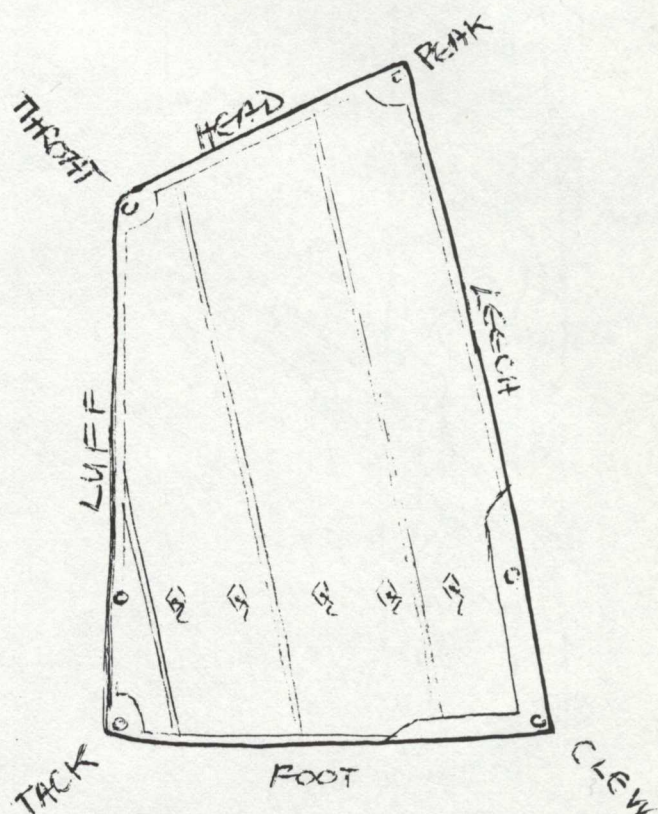
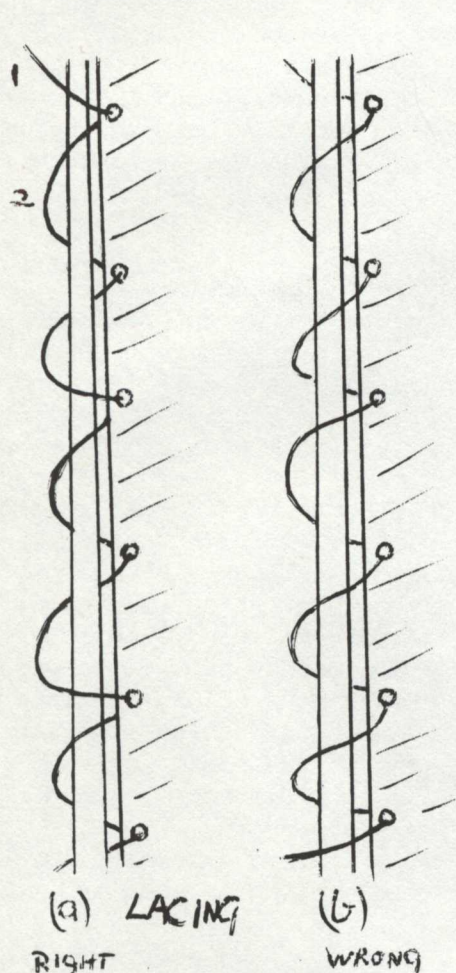
Does anyone know the reasons for rigging the sprit this way?



RIGS AND RIGGINGHANDLING THE SPRIT-RIG

by Richard Bumpus.

The Sprit-Rig, I'm sure, is a new rig to most people from a practical point of view. I chose to rig SURF SONG (Hinemoa) with this rig because it was something different to the ubiquitous bermudan rig with which I had been shipmates in dinghies and keelboats. The Sprit-rig required a bit of thought to start with though, because there was no-one around to explain or demonstrate what to do. The sprit sail is a very adjustable sail, but you must not adjust to many variables at once. I have learned a lot (doubtless there is more to learn), but I hope that I can pass on a few tips to those of you who might be starting out with this rig.



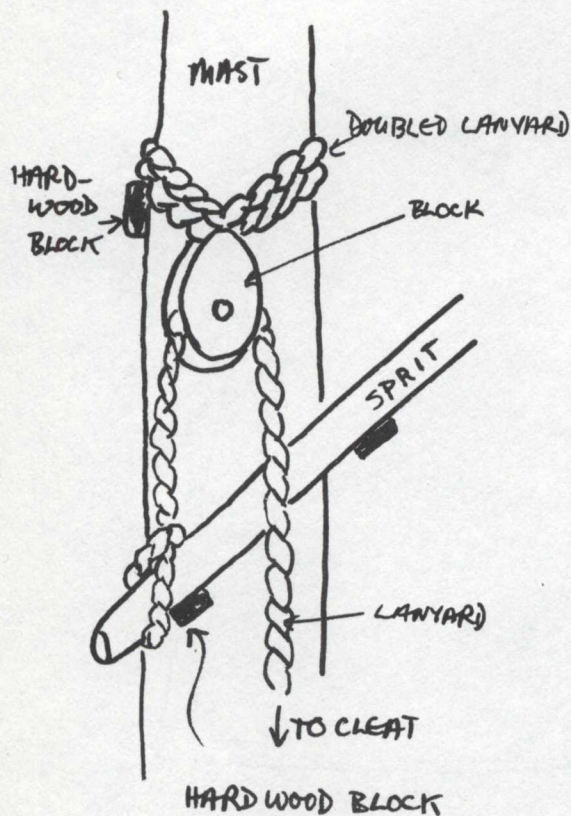
VERTICAL-CUT SPRIT-SAIL
note: straight leech + no battens

Setting the sail up

The first thing is to lace the sail to the mast. As it is laced on, it is hauled up. Observe diagrams (a) and (b). There is a right way and a wrong way to lace the sail to the mast - (a) is the proper way it is done. I have a tapered mast. The reason for lacing the sail as shown in (a) is that the sail will lower away easily and the lace line will fall away in big loops. Where the lacing line is spiralled as in (b), the line won't slacken of its own accord on a tapered mast unless it is first loosened from the tack upwards, by you. You will see that the lacing in (a) goes around one side of the mast (1) through the eye on the sail and then back around the same side of the mast as it came down to the eye (2). Carry on in this fashion. Gaff sails are laced to the mast this way, unless they use hoops or a mast track. Charles Birch uses a mast track for his Hina HOA LILI (310).

RIGS AND RIGGING

Having got the luff of the sail up the mast, the next thing is to put the sprit up. Attach the sprit vang with a clove hitch to the top end of the sprit. Bend the peak of the sail on also. Having pushed the sprit up, attach the standing lift to the lower end of the sprit and onto the mast. The standing lift consists of an arrangement of block and tackle (on the Sailing Barges of the Thames Estuary and East Coast, I believe this arrangement is called a 'stanliff'). Roland Huebsch has an excellent drawing of this in the Sailorman of April 1974. The following diagram is the basis of what I use. More pulley blocks could be used if required.



'STANLIFF' on SURF SONG

To make the sprit-sail set properly

Assuming that you are now under way, having attended to all the other necessary things, there are three things that I consider necessary to make the sail set well: 1. mainsheet 2. vang 3. main downhaul.

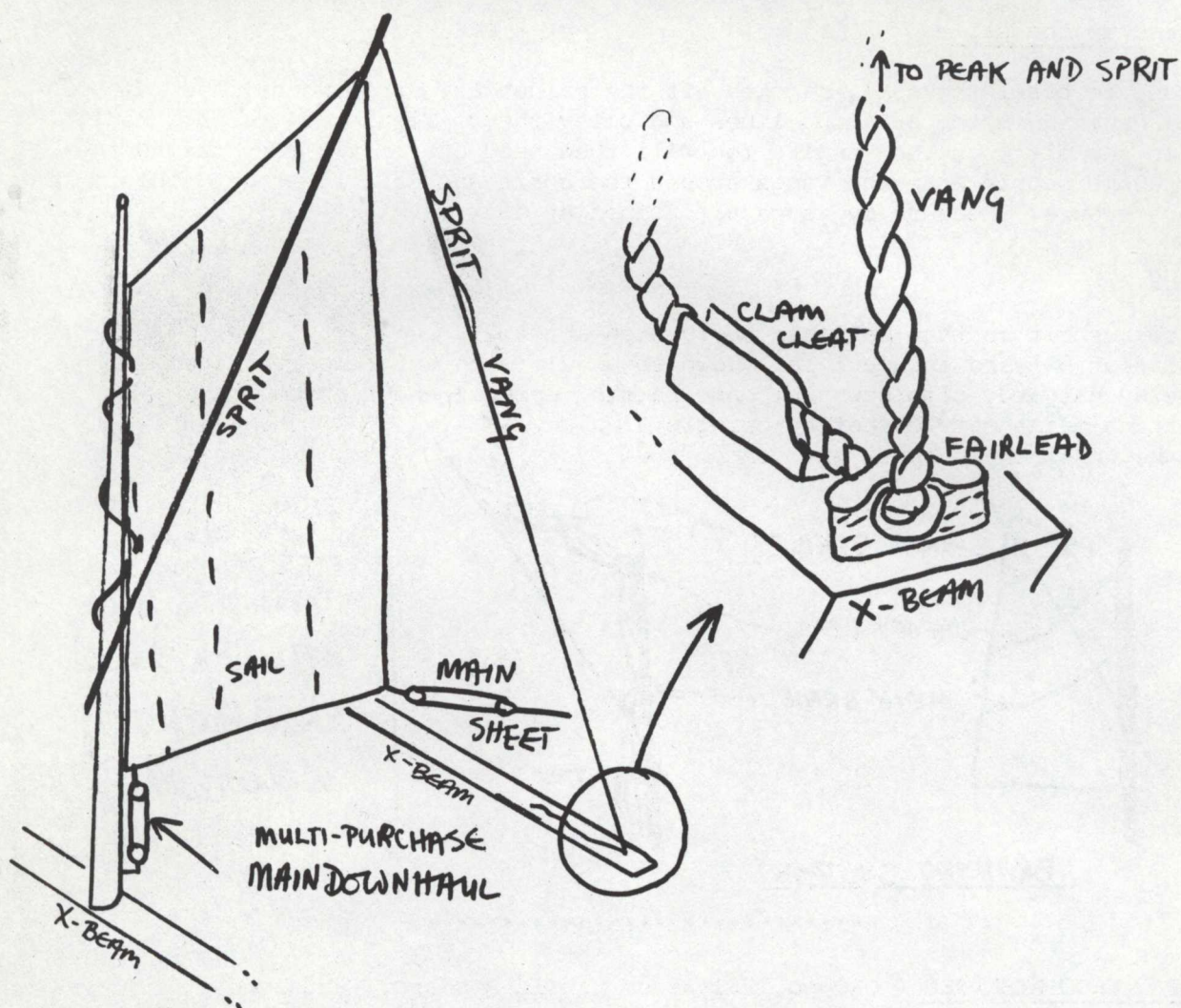
The mainsheet consists of a purchase of a double and single sheave. The sprit vang comes from the peak of the sail down to the after cross beam where they pass through a fair lead and onto a clam cleat. I find it convenient to attach the two loose ends of the vang together. It makes for easier handling. They don't trail overboard or get knotted up with the sheets! For windward sailing the sprit should be brought in towards the centre of the boat using the vang. The more I sail off the wind, the more I slacken the windward vang (the leeward vang should always have plenty of slack in it) When running before the wind, the windward vang holds the sprit just off the after shroud. I find the leeward vang greatly assists gybing in stiff winds. You should avoid excessive twist in the sail when sailing to windward.

The maindownhaul is clipped onto the tack of the sail and onto the lower end of the mast. This consists of a lanyard reeved through a double and a single sheave. Downwind, this purchase can be slackened a bit to give more belly in the sail. To windward, the maindownhaul must be hardened up, otherwise a large crease develops across the sail from throat to clew. You will notice that as the downhaul is hardened in, that the luff of the sail stretches as the whole sail is flattened which makes for a more efficient shape for windward sailing. If however, you have hardened in the downhaul a lot and there is still a crease in the sail as described, then the sprit needs raising a bit, but first slacken off the downhaul. A single lanyard onto a cleat is not good enough. Only with a multipart purchase can you get enough power to trim the sail. I know - I've tried both.

It doesn't matter what sort of sail you set, you cannot expect to sail efficiently to windward with creases across your sails.

While requiring various control lines tightened up for windward purposes, you must not overdo it and have the sail pinned in too tight, otherwise all you will do is make a hell of a lot of leeway.

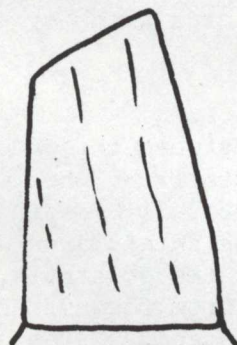
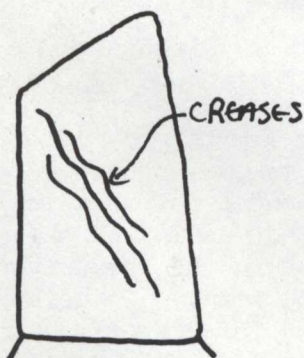
RIGS AND RIGGING



CONTROL POINTS OF A SPRIT-SAIL (AS USED ON A HINEMOA)

TO WINNARD

DOWNWIND



SLACKEN VANGS

SLACKEN SHEET

SLACKEN DOWNHAUL A LITTLE

TOO MUCH
SLACK
DOWNHAUL
BAD SETTING

TIGHT
MAIN
SHEET

TIGHT
DOWNHAUL
TIGHT
SHEET

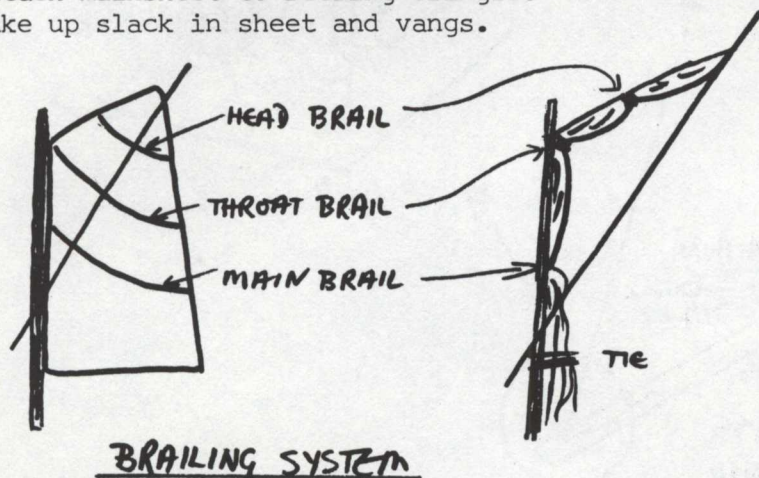
GOOD SETTING

RIGS AND RIGGINGBrailing up the sail

In order to brail the sail, slacken off the mainsheet, sprit vang, and maindown-haul. Haul in on the brailing lines and belay them. Tighten in the downhaul, take in the slack on the vang. You will then need one or two ties around the sail. Some people wrap the vang around the sprit and sail together. This makes it very secure. Because my vang are joined at deck level, I can't do this.

Reefing

1. Lower sprit so that sail can be lowered about 2'.
2. Slacken halyard and pull sail down about 2' (with reference to Hinemoa)
3. Belay halyard, clip downhaul onto reefing cringle and tighten.
4. Attach mainsheet to reefing cringle.
5. Take up slack in sheet and vang.



P.S. any
comments from
other hardened
shellbacks is
welcomed!

REPORT 2 FROM KISKADEE (ORO no.12) from Harold Goddard, Vancouver.

Harold tells us of KISKADEE'S performance and of improvements to her rig that were made for 1975. Keep us posted Harold!

Some background facts

1. Kiskadee was rigged (before the changes described) with Jim's standard spritsail ketch rig. This being in fact a wishbone ketch, with the sprit substituted for the wishbone boom.
2. Her sails were made by Jeckells.
3. She sits about 2" below her designed W.L.
4. All sheets are led to the port hull (between the 3rd and 4th beams) where the "cockpit" area is, and where we will install the wheel to make it possible to singlehand more easily. (I can in fact sail her singlehanded now, but it requires a bit of jumping around.) The sheets are laid out as in the sketch.
5. The area in which we sail is a semi-protected strait, and in the summer very light winds prevail (seemingly always from forward of the beam!) In gales the seas are very short and extremely steep. Gales occur infrequently during the summer (usually S.E.) and more regularly in the winter (usually S.) The straits are littered with islands, and with tides up to 16', currents of 6 to 8 knots in places are not uncommon.

RIGS AND RIGGINGKISKADEE continuedSummary of sailing performanceTacking

Under working sail, as long as her speed is above 2-2½ knots, Kiskadee will tack slowly - the ease of tacking increases with her speed. We always bring her close on the wind first and then tack. She normally tacks through 95° - 100°. We estimate our leeway at between 5° and 8°, so from tack to tack we go through 100° to 116°. In other words she will sail between 50° and 58° to the true wind. In terms of contemporary racing monohull sloops this is rather poor, but when compared to monohull cruising ketches, it is probably not too bad especially if there is a good wind blowing when we will be sailing a fair bit faster than our single hulled sisters. The angles mentioned are only a guide, and I might mention that I always err on the 'free' side and let her foot more. Thus, for someone who may prefer to sacrifice some speed and point higher, these angles could be smaller (but would the increased leeway due to extra 'pinching' cancel this benefit out?) (Yes, I think it would. I agree with what you say - that its better to let her foot more than to pinch her - you have to strike a happy medium. Editor). It should be noted though, that we are still tuning and improving the rig so we are definately going to improve on this present performance, quite substantially we hope.

Reaching

At present it is reaching at which KISKADEE really excels. One memorable occasion immediately springs to mind, when after a long hard beat to round the southern tip of Hornby Island, we were rewarded by a really exhilarating close reach into Deep Bay on Vancouver Island. We were under working sail, and not once for the next 7 miles did the electralog drop below 9 knots, and in fact spent most of the time between 10 10½ knots. We estimated the wind speed at 15-18 knots. We have no complaints about her reaching performance.

Running

For anyone planning trade-wind passages, this is an important point of sail. It was apparent from the start that the spritsail ketch rig was going to need help when running dea before the wind. We have tried every combination of 'wing and win g' with our four sails. It is just no use - dead downwind it is plainly 'piss poor!!!' We have therefore recently acquired a 1½oz. 1100 sq. ft. radial head 'cruising' spinnaker to help her out. What a wonderful sail! It is cut with rather narrow shoulders to make it more stable, and we carry it from a dead run right up to what is virtually a close (yes, close!) reach. It was a choice between this and twin genoas, and we are really glad that we took a trimaran friend's advice and went for the spinnaker. It has enabled us to retain the sprit sail ketch rig which we like for its many sails, and yet have good downward performance as well. Many say a spinnaker is not a good cruising sail - so far we think this is probably not true in the case of multihulls, with the very wide sheeting base and lack of heel. (I think a spinnaker is a great asset if you know how to handle it. Ed.)

Rough weather performance

Our only real test has been beating about 20 miles dead into the teeth of the top end of a measured force seven wind. We were under our three lower sails (jib, mizzen and mizzen staysail). Our speed was 4½-6 knots and I was constantly pinching her excessively, particularly in the gusts. The seas were very short, very steep and breaking - in fact typical Gulf of Georgia gale conditions.

RIGS AND RIGGING

KISKADEE pitched a great deal in these conditions, and this affected her speed radically. At the end of a series of two or three sharp seas, she would have pitched herself from 6 knots to 2 knots. In spite of this, we never had any worries about her looking after us, and she showed no tendency toward a "light" windward hull. I believe that even beam on to that sea and with that sail combination, she would have been in no danger of capsizing. Our confidence in her has soared following that first testing. She would not tack under the lowers in these sea conditions, because we tried many times. The drive from the sails appeared to be too little to overcome the windage and breaking seas.

IMPROVEMENTS (hopefully!) MADE TO THE RIGStanding rig

1. Replace deadeye on forestays with turnbuckles (bottlescrews) for tighter luffs.
2. Remove forward lower shrouds on mainmast - stops chafe on leech of jib, and allows spinnaker afterguys to be attached to outboard ends of main cross beams.
3. Reattach forward lower shrouds near to aft lower shrouds - allows use of ratlines for reef pilotage.
4. Attach triatic stay from mainmast to mizzen and twin standing backstays from the mizzen mast to the sterns. (see 5).
5. Remove main mast running backstays - made redundant by (4) above.

Running rig

Changes are described as they apply in the case of each sail - working aft.

Jib

1. Use halyard winch (Barlow 15) instead of downhaul - there is no room for a downhaul and the luff must be tight.

Trysail

1. We have found this sail the hardest to control in practice, both regarding the shape of the sail and in trying to make it easy to handle when tacking. So it is very important that the clew outhaul lead be exactly dead on. Ours still leads too high on the sprit, causing excessive tension on the foot of the sail resulting in considerable curling-in.

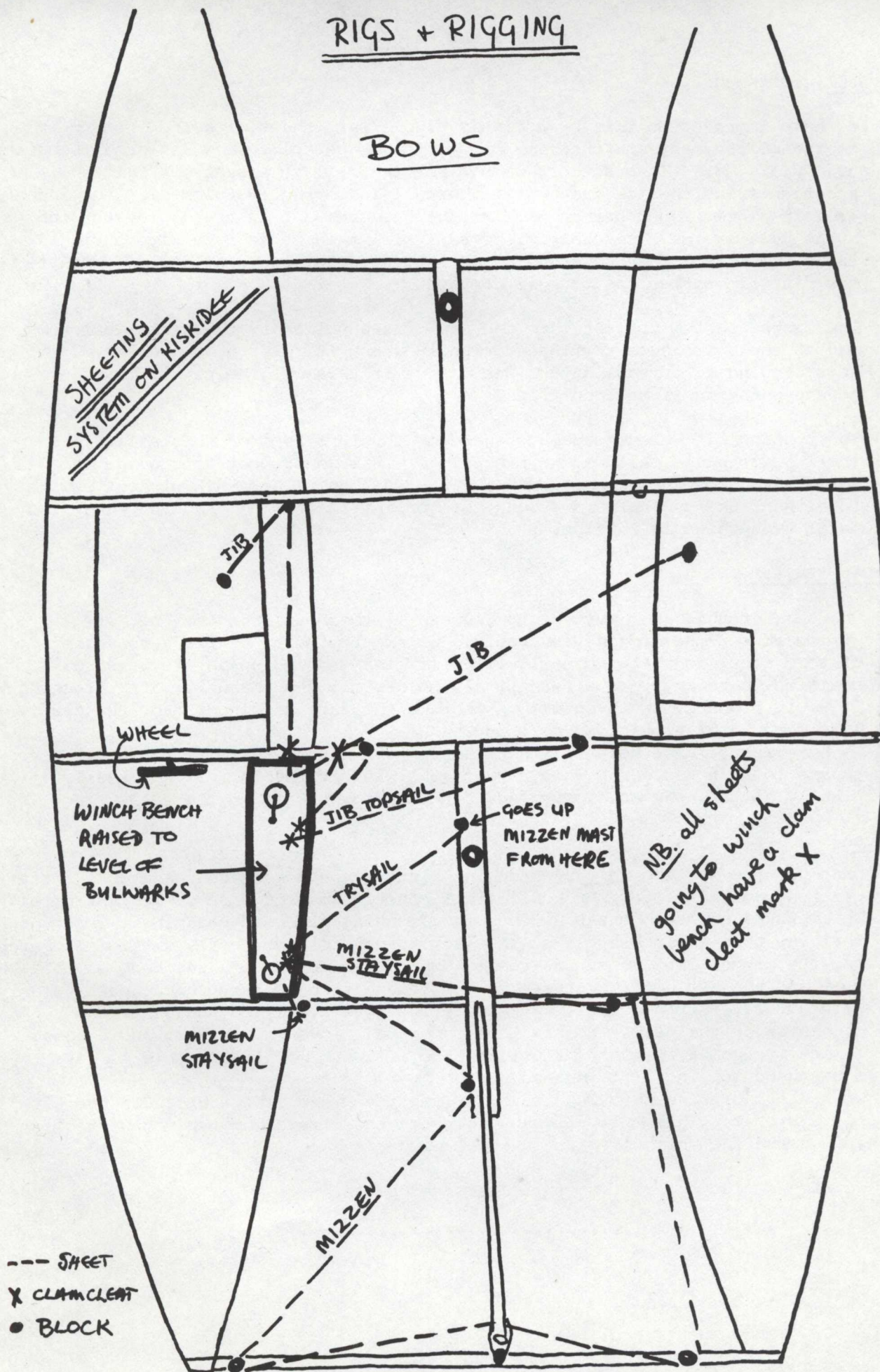
A leech or foot which curls to windward causes:-

- (a) poor airflow on the sail in question.
 - (b) turbulence in the airflow from the affected sail lessens the efficiency of sails set anywhere in that airflow.
 - (c) An aft component in the drive from the sail causes two bad effects, namely, the heeling moment from the sail is increased and the sail causes leeway.
2. In Jim's original sailplan, 2 vangs are used to control the position of the sprit, and together with the clew outhaul to give the sail its required shape. In practice we found that in anything but a closehaunched position, the windward vang chafed badly on the luff of the mizzen staysail. When tacking, the sprit and trysail had to be left aback to windward until the tack was completed and everything settled away on a new course, before it could be dealt with, i.e. releasing the vang and then resheeting the other one. This is definitely not very efficient for short tacking for a man and wife crew.

continued.....

RIGS + RIGGING

BOWS



RIGS AND RIGGINGTrysail continued

2. We have improved on this by adding a single part sheet, leading from the mast to the mizzen mast and then via blocks to our cockpit. (See Sailorman December 1974 p.18. Ed.) In practice, we now set the sail by easing out this sheet and tightening the lee vang until the sail is correctly trimmed. The windward is left slack. Just before tacking the leeward vang is freed, leaving the sprit held by the sheet only. The sail will then be self tending during the tack and all that remains is to tighten up the leeward vang to complete the fine trim after the tack is complete.
3. The weight on the top brail in the sail (as supplied by the sailmaker) causes the upperleech to flop over badly where it runs through the eye. We are going to try a lighter line to see if this will help. It is of course worse in light conditions.
4. The topping lift block seems to chafe on the luff rope of this sail. We shall switch to a masthead topping lift. This would seem to provide the added advantage that one could hoist the sail on either tack without having to either take the halyard around the topping lift or go dead into the wind until everything is luffing.

Mizzen staysail

The tack of this sail must be to leeward of the boat's centreline, or it will backwind the mizzen very badly. We are trying to devise a traveller of some sort, so that the sail will self tend and end up in its leeward position on tacking, or alternatively be repositioned manually after tacking. It would probably be advantageous to take the tack to windward of the centre line when running or broad reaching.

We have installed a halyard winch (Barlow 15) for this sail also, as it starts to luff too early when hard on the wind if the luff is not really tightly set up. We are very fond of this hard working little sail.

Mizzen

When you are setting up your standing rigging, make sure you have anti chafe gear on your aft lower shrouds (either plastic covered wire or baggywrinkle). The mizzen chafes on these shrouds when running or broad reaching. We found that the double block for the lazy jack interferes very badly with, and chafes on, the mizzen luff rope. We really don't think that with the beam of the boat and the aft netting, there is any reason to have lazy jacks, particularly with a fully battened sail. We simply let go the halyard and bang! the mizzen is on the deck. We are thus going to remove this block, and because I made my boom a little on the long side, I think we will be able to have a masthead topping lift instead.

We shall install a shortish traveller for the mizzen sheet block on the aft netting beam. This will allow us to sheet the mizzen boom to windward of the centreline which is nice in light winds.

We are completely sold on fully battened sails.

RIGS AND RIGGINGTOPSAILS for sprit-rigged Hinas/Hinemoa

Last summer, TWO RABBITS, Tom Jones' Hinemoa, which is sprit rigged, sported for the first time a jib-headed topsail. It sets on an unstayed standing topmast $1\frac{1}{2}$ " in diameter tapering to $\frac{3}{4}$ ", bowsed well forward. The truck is 23' off the deck. The halyard fall passes through a fairlead at sprithead height on the topmast, and below it two plastic jib hanks keep the luff close to the mast. The sail is very useful in twelve knots or less of wind, and makes tacking downwind feasible, which is better than bug spray. Wind or sheet pressure bends the topmast aft and flattens the sail. The sail adds 30 sq. ft. to the sail plan, and almost doubles the leading edge of the main. Tom says it sets or strikes from the deck in seconds, and having the topsail, he uses the squaresail less.

Charles Birch, who sails his Hina HOA LII from Aberystwyth on the west coast of Wales writes to say that he felt she was short of sail and didn't like the way the sprit bent in moderate winds. A solution to both points presented itself when he was offered an 18' 6" spruce mast with a stainless steel track. Having rigged up the new mast, which seemed fine, the old mast became the sprit, having transferred the fittings. A GP 14 jib laced upside down to the old sprit made a topsail. Charles feels the new sprit is stiff enough. The topsail is a great asset in narrow Aberystwyth harbour where the mainsail cannot catch the wind.

In light winds, when HOA LII is running before, the jib is tacked to the bottom of the mast, so that there is a continuous spread of sail across the boat. The jib clew is held out with a spinnaker pole. Charles says he also uses a large plastic spinnaker. (maybe you'd tell us more about this. What did you stick it together with? Ed.)

THE MODEL MAKER

I was fortunate enough to see several of Peter's catamaran and proa models at his home, which were beautifully constructed and a real treat for the eye. He brought two of them to the AGM in January. One was a model of LAA MAO MAO, a well known Tane that sails the south coast of England, and previously owned by Capt. James Briggs. I only saw it briefly but it seemed the real thing in miniature. So maybe you have got yourself a full time job Peter!

FOR THE LONG WINTER EVENINGS (or nasty summers!) by Peter Green.

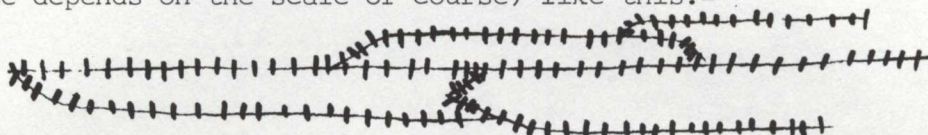
Building a boat in wood is rather a wasteful process because you end up with a lot of odd shaped bits of ply and timber and no immediate use for them. Assuming that you have already made or bought your cleats, fairleads and bollards, what do you do with all the spare wood? Throw it away or burn it? NO! Try making some models from it.

The obvious choice is a Polynesian Catamaran or some other yatch that takes your eye. I have gone right back to the basics and made some models of polynesian voyaging canoes. There is an enormous range of types to choose from, and they all make extremely attractive models. I got my plans from Captain Cook and Admiral Paris via an excellent book entitled "Polynesian Seafaring" by Edward Dodd. (get the library to order it for you). I have no doubt that there are other books on this subject, some of which will also

THE MODEL MAKER

contain the superb plans and line drawings that I have used. Your local model shop will supply dowel from $\frac{1}{4}$ " down to $\frac{1}{16}$ " thick and you will have hours of fun with salesgirls finding a cloth that is just coarse enough to look like platted rushes (you will probably have to dye it brown as I did). Some dark brown cotton or thread will complete your needs in the 'chandlery' department, and then you are ready to go.

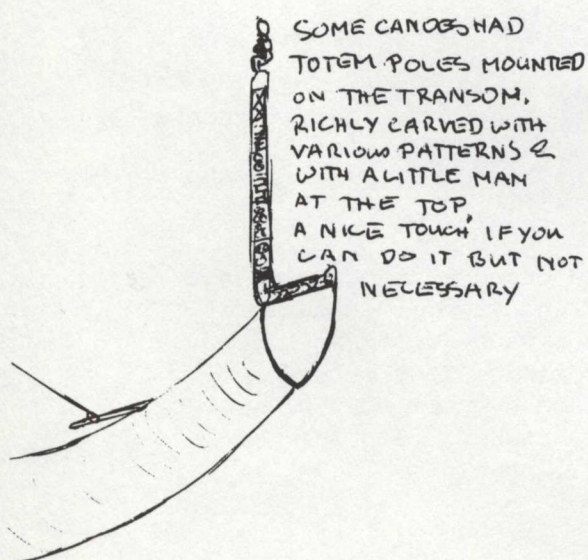
As you already know, Polynesian canoes are sewn together and this sewing can be represented by first drawing a light pencil line on the unvarnished hull and then making a series of short strokes at right angles to the pencil line in black biro (size depends on the scale of course) like this:-



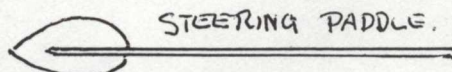
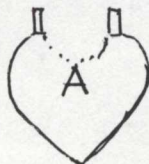
As you can see, the planks are very far from symmetrical. Most of the islands had a serious shortage of boat building timber so any useful piece of timber was fitted in somewhere.

You will have to bend some of the dowel into curves of varying radii, but this is not as difficult as it sounds. The length of dowel in question is immersed in boiling water for about 15 minutes by which time it should be pliable enough to respond to gentle finger and thumb pressure. By the way, if you intend to stain the strips of dowel or any other part of it, it must be stained before fitting and gluing, otherwise you will get a pale patch where the glue has been. I messed up one of my first efforts that way.

The following plan is of a medium sized Tahitian canoe of between 30-40 feet in length. Such canoes were a sort of 'maid of all work', and were used for lagoon pottering and inter island trips. They always attempted to use a relatively large tree for the keel and if necessary built up the sides with planks. Knots and other blemishes were cut out and filled with a plug. I have put two of these in the plan just to give the impression. The planking is of course entirely up to the builder as no two canoes were exactly alike.



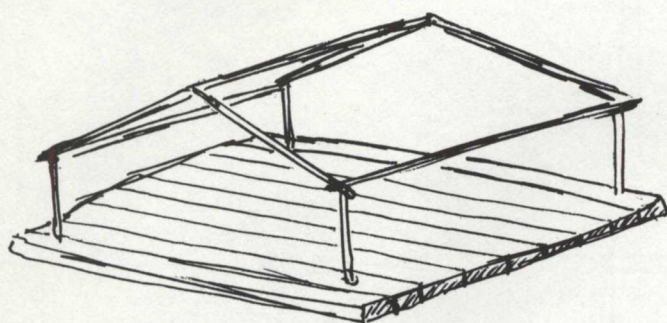
NOT ALL THE CANOES HAD THE BULGING MIDSHIP SECTION I HAVE SHOWN ON THIS PLAN AS IN (A). THERE WERE MANY WITH A MUCH SIMPLER SECTION AS IN (B).



RIG + ACCOMMODATION OF A POLYNESIAN VOYAGING CANOE

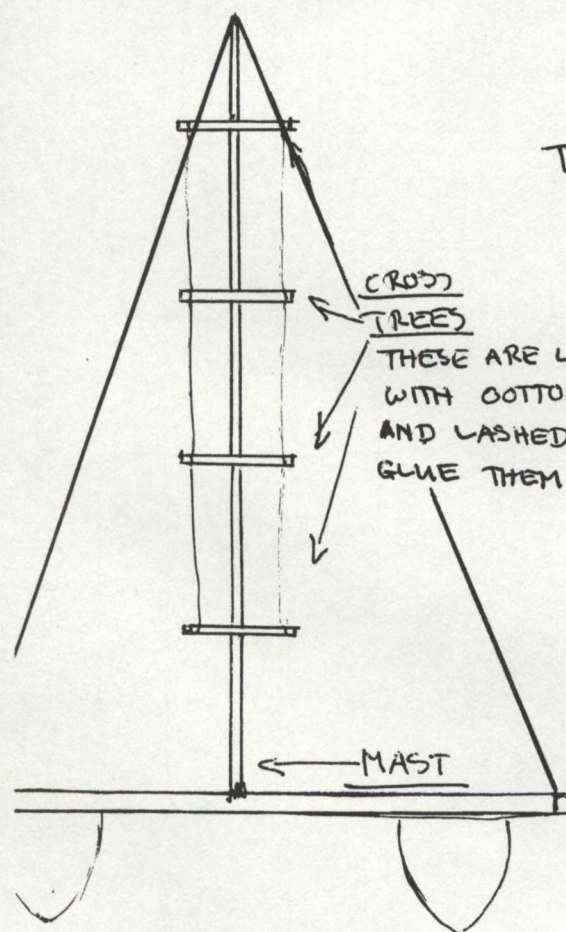
THERE IS A STAY FROM THE TOP OF THE SAIL DOWN TO ONE OF THE AFT BEAMS.

STREAMER FROM TOP OF SAIL
LENGTH OF RED WOOL.



DECK HOUSE & PLATFORM MINUS ROOF COVERING
WHICH IS THE SAME AS THE SAILS.

PLANKS OF PLATFORM MOUNTED TRANSVERSLY.



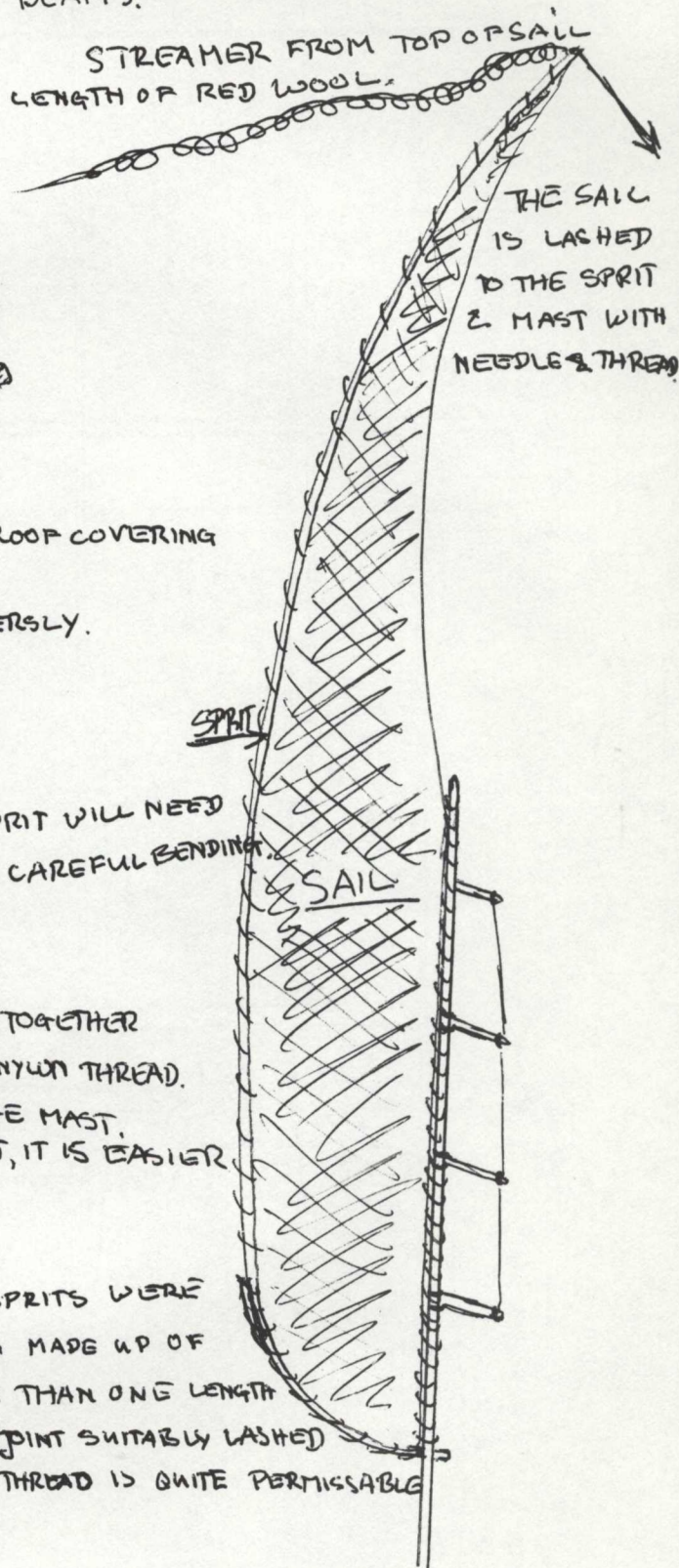
CROSS
TREES

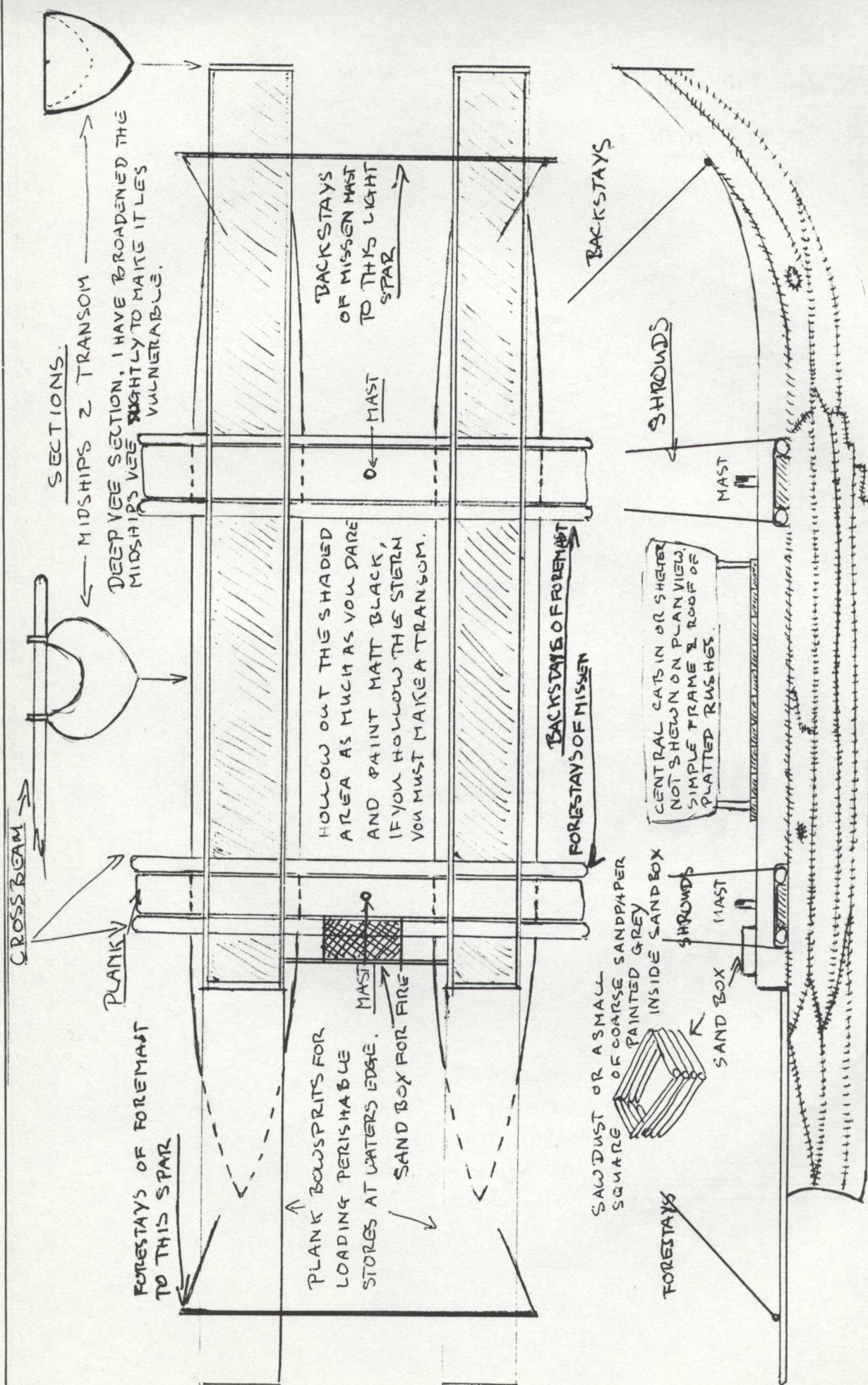
THESE ARE LASHED TOGETHER
WITH COTTON OR NYLON THREAD.
AND LASHED TO THE MAST.
GLUE THEM FIRST, IT IS EASIER.

MAST

THE SPRIT WILL NEED
VERY CAREFUL BENDING.

THE SPRITS WERE
OFTEN MADE UP OF
MORE THAN ONE LENGTH
SO A JOINT SUITABLY LASHED
WITH THREAD IS QUITE PERMISSABLE





SUGGESTED PLAN FOR A TAHITIAN DOUBLE CANOE. IT MUST BE UNDERSTOOD THAT THIS IS NOT A REPLICA AND THAT THERE ARE INACCURACIES OF DETAIL AND DIMENSION. NEVERTHELESS IT GIVES A GOOD IMPRESSION OF WHAT THEY WERE LIKE AND MAKES AN ATTRACTIVE MODEL.

GONE WITH THE WINDby the Sailing Secretary,
Michael Briggs.

On being approached to stand for the post of Sailing Secretary, my objection that I was a poor hard working (!) student about to take Finals was brushed aside by George Payne's reassuring comment: "Oh, that's all right, the Sailing Secretary doesn't really have any fixed duties, he's a sort of one man PCA think tank....." Well, think tanks need filling, and your new one earnestly hopes that someone will write to him and give him some nautical fodder to start chewing over. Two topics have been presented to me as my "part of ship": they are: racing among ourselves and with other multihulls and secondly: sailing instruction, ashore and afloat. I hope many readers will regard the following remarks as merely the first broadside in what I hope will develop into an energetic discourse, conducted in the Sailorman, by correspondence and at meetings, out of which results, in the form of races, rating ideas and sound tuition will emerge.

Racing

I was among six or seven PCA members who attended this year's MOCRA (Multihull Offshore Cruising and Racing Association) AGM. From it, three points of relevance to our racing emerge.

1. Racing seriously with monohulls is out. The RYA have (rightly, I think) decided that the differences in performance and handling between mono- and multihulls makes result sheets too dependent on varying weather and tidal conditions and have clearly stated that the mono- and multihull yardsticks are not compatible. The main consequence is this:

that because of the relative scarcity of multihulls vis-a-vis monos, the assembly of enough multi's to constitute a worthwhile and exciting race is a job requiring lots of organisation of rallies, dates, host yacht clubs, etc., etc. Therefore, if we are seriously determined to start racing, we must either ourselves become a bigger organisation geared to that type of administrative work, or give our support to any group which tries to fulfill such a role. MOCRA does that (and did organise a splendid race to the Azores last year), but is hampered from real success because not ENOUGH MULTIHULL OWNERS SUPPORT MOCRA. How about twenty PCA members at the next year's MOCRA AGM. We might then even get a PCA man onto their committee (today PCA, tomorrow MOCRA, next day the world!)

2. Rating Rules: Precisely because MOCRA is not well attended, there is an even balance among members between supporters of various rating rules. The result is that because each group is so frightened of the adoption of someone else's rule, at every AGM they merely vote to extend the "trial period" of the present, totally inadequate American rule. It is a common enough political deadlock, and they're as worried about it as everyone else, but, because they won't throw out the only rule they've got, no-one gets a chance to try out his rating ideas on an experimental race series (such as the Azores race, Crystal Trophy race, and the "Whisky series" - the three main MOCRA events. Only when more Multihulls (including Polynesian catamarans) meet often to race will there be a chance for a scientific comparison of different performance levels.

3. Our racing: So far, there has been little or no serious Polynesian catamaran racing (or even much fun racing), because of the small number of boats at rallies, and the very real importance owners attach at these rallies to making sure that all the shore based supporters get a sail. Rallies, as they are, are not suitable times for Polycat racing.

HOWEVER..... a modest start, perhaps of one passage race a year, either to or from a rally could provide PCA members with a real choice to find out whether coastal and offshore racing (with all the risks, comprises between speed and

seamanship, and expensive gear failures that they involve) is really to their liking. Jim is planning some kind of cruise/race from Milford Haven to his new base at Waterford.....that might well be the basis of a series. It will take place at the end of July.

Cruising (tuition)

Someone at the Portland meeting last summer asked "What do we builders do about learning to sail, to make us competent to take our brand new treasures to sea without wrecking them?"

Learning to sail a cruising yacht requires four types of application; to books, to shore based training in navigation, passage planning and signals, to seaborne practical instruction from a competent instructor, and last but not most important, to experience at sea, by day and night, in varying weather conditions, starting as someone else's crew.

Books are easy; there are plenty of them, good and not so good, but perhaps a good start can be made by reading Eric Hiscock's "Cruising under Sail", a relatively old fashioned approach in which wooden boats do-it-yourself rigging, size versus seaworthiness and clear comprehensible sail and rig theory are the main topics. When compared to more modern books appealing to the buyer of a plastic "off the shelf" bathtub, Hiscocks work stands head and shoulders above them in its value to the Polynesian catamaran builder/owner.

Tuition, at the moment is best supplied by the RYA. Nation Coastal and Yachmaster schemes, under which RYA recognised sailing schools train prospective yacht owners from scratch (or from basic dinghy experience.) in three stages;

a) Nation Coastal 1, enabling a student to take charge of a small yacht by day in tidal waters of which he has local knowledge.

b) National Coastal 11, enabling him to skipper small yachts on SHORT COASTAL passages by day and night.

c) Yachmaster course, involving 48 hours of shore based training, six days of afloat training (or three weekends), 500 miles cruising experience and a tough examination ashore and afloat at the end of it.

Needless to say, this all costs money, but the savings gained (e.g. lower insurance premium for Yachmasters and less accidents all round) makes the expense more than worthwhile. After all, the whole series would cost little more than that AVON liferaft which the wife is being so insistent about..... Finally, precisely because courses take place in yachts (and some are multihulls) owned by the instructors or schools, they provide the builder with an ideal annual sailing holiday to wet his appetite and give extra force to his hammer arm. What's more, sea experience early on during building, might save major alterations later. Those interested in this approach to learning to sail should write to "Royal Yachting Association, Victoria Way, Woking, Surrey, GU21 1EQ." for details of recommended schools, and state whether you want the tuition in your boat or a school owned one. I hope that the SAILORMAN may soon run its own column in which schools and instructors with experience may advertise their services.

The RYA sailing instruction side is one aspect of their activities in which they are by no means out of touch with reality.

HAVING A SPOT OF BOTHER?

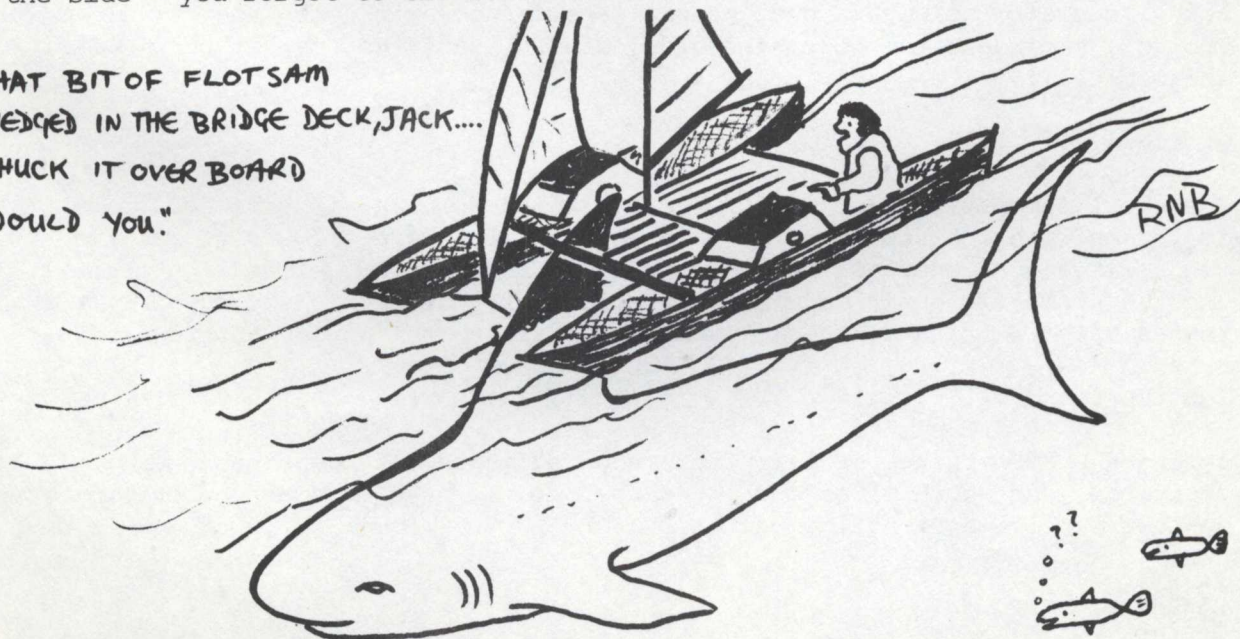
by Wee D. Hulls.

(His further misadventures)

You might laugh at someone else's misfortunes, but it could happen to you. Have you ever been unlucky enough to have the following happen, or was it mismanagement on your part?

1. Getting the jib halyard stuck up the mast.
2. Clumsily letting go the main halyard, whereupon the boom smacks the helmsman on the head.
3. Letting go the spinnaker halyard in a breeze and then sailing over the spinnaker. Or maybe wrapping the forestay up in the spinnaker.
4. Assuming the crew to have made fast to a mooring buoy, but only to find the cat drifting astern onto the anchor warp of another boat. The warp promptly gets itself firmly wedged in between the skeg and rudder. All efforts to dislodge the warp fail. In the meantime, the untended sails fill with wind. The cat charges off uncontrolled around the harbour with a boat and its anchor in tow!
5. Dragging one's anchor because of lack of warp, and consequently getting it fouled on a trot of moorings. Not only that, but a large plastic mooring buoy wedges itself irretrievably underneath the bridgedeck. As if this is not enough, a nearby fishing boat's dinghy gets stuck between the sterns.
6. Whenever there is a crisis and a panic, the crew always remain calm, whereas the owner or skipper always gets excited and upset.
7. Suddenly the jib starts flapping wildly. The bowline on the jib sheet has come undone - or was it a Granny Knot?
8. While opening up the throttle, the outboard engine leaps off the stern of the dinghy and into the sea with you still holding onto it. While trying to retrieve it, one's jersey becomes attached to it and the motor does its best to drag you over the side with it.
9. While laying out all your anchor warp, you see the bitter and disappear over the side - you forgot to tie it to the boat.

'THAT BIT OF FLOTSAM
WEDGED IN THE BRIDGE DECK, JACK....
....CHUCK IT OVER BOARD
WOULD YOU.'



STORM FORUM

Last December, you may recall the story of how Tom and Carol Jones sailed into history when they made a classic voyage in their Hinemoa TWO RABBITS, through a hurricane. While fitting out my Hinemoa, SURF SONG, for the summer of '76, I sometimes shudder to think of the conditions through which they had to sail. Tom wrote to tell me more about the hurricane and especially about the other boats in the area at the time.

Tom relates part of his story.....

"Four boats left Bermuda at various times, but all arrived at the hurricane together. IONA was a 35' Dutch built sloop that weathered the navigable sector, but later turned back for Bermuda. A 26' Atlanta with three young Englishmen aboard managed to weather the storm, but the round bilged hull lept around so much that every electronic and navigational instrument was smashed, and a great deal of water was shipped. Afterwards, the crew motored her to a nearer mainland destination than the one originally intended.

BANJO, a heavily built GRP 31' monohull, sighted us the evening that the hurricane closed in. We were in the danger sector. An hour later she fell off a wave, bending her skeg and rudder and splitting her hull!!! The crew tried to save her, but eventually had to abandon her. BANJO had a tall modern burmudan rig, and was unable to carry sail after 7 p.m., because of the incredible vibration caused by the high winds in the rigging. We were able, however, to carry sail for four hours more, staying ahead of the frothing crests while BANJO lay ahull."

Tom then goes on to say.....

"We were pooped once, and water came in around our hatches and washboards with the force of water from a fire hose. We were fearful of the hinged hatches, and would not use them again. However, our aft companionways, which Jim Wharram fears and does not use, were in every way drier, safer and more comfortable than the sideays companionways."

For a storm canvas TWO RABBITS wore the following suit in one or other combination...

"Our storm jib and main are 5 oz American (note UK and American cloth weights are not the same) cloth, the area's of which respectively are 20 sq. ft. and 40 sq. ft. They are quite heavy enough, but too large. The jib is of high aspect ratio. It looks a joke on the livingroom floor, but above force 9, it looks like a genoa! The high aspect helps it catch some wind when the cat is in the troughs, and keeps the boat headed downwind. But of course, it only works spasmodically in 30-40 ft. seas.

Of rigs.....

"As displacement increases only with the third power of length, and stability increases with the fourth power, a small cat must have a low rig, and the sprit rig seems a good one. On a Tane, I'd like to use a gaff sloop with topsail. I'd use the sprit rig again on a Hinemoa size boat, but when changing down from reefed main to trisail, the 16'9" sprit is all that I would want to handle."

For the future.....

A larger boat with better fair weather performance for ocean passages would be preferred, and which gives more space below. We have no doubts about the rough weather qualities of a Hinemoa.

OVER WHICH HORIZON DID YOU SAIL"WHEN THE CAT'S AWAY"

by Michael Briggs.

The "Cat" in this case was my father Captain Briggs, away at sea on Queen's business, while the "mice" included myself, sister Sarah and friend Alec, all on a certain south coast Tane LAA MAO MAO. The plan was two weeks cruising around the Channel Islands (August/September '74), and perhaps have a shot at sailing to Mont St. Michel on the spring tides. As the crew of Morning Cloud found out that week, plans at sea have a habit of getting upset (you may remember that Morning Cloud 111 was a crack racing monohull that was lost with two of its crew during a fierce gale with freak seas in the English Channel) Despite the most unusual weather conditions, the fortnight turned out to be well worthwhile, and taught us many lessons about safe, properly planned cruising in waters notorious for fierce tides, hidden rocks, and inhospitable coasts.

The first night at sea taught us lesson one, namely, don't wire up your compass for illumination at night and assume that it will still point north! A rapid change to a spare compass after sighting an unexpected lighthouse soon put us back on course. Midnight on Friday to midday on Saturday saw us from St. Catherines, Isle of Wight to Alderney, to anchor off the Old Harbout breakwater for what we thought was to be lightning visit, before moving south to Guernsey.

The thunderous flapping of our deck tent and spray past the cabin scuttles at dawn the next morning encouraged us to think otherwise, as did the storm signal on H.M.'s flagstaff and the shipping forecast. Down came the tent, fortunately not of its own accord, and then began a whole week's enforced idleness during which, rather against our will, we learned what a very friendly, fascinating and expensive place Alderney is. For those thinking of a visit there, you can't beat a hot bath at the Seaview Hotel for morale value, the new Sailing Club for hospitality, or the sandy beaches and rocky cliffs for undisturbed relaxation. Alderney is still, surprisingly, undiscovered by tourists. For your navigator's notebooks, the Old Harbour's ideally sloping sandy beach may only be grounded on for purposes of repairs, so don't call in without a (real or fictitious) barnacly bottom as the ship to shore ferry is exorbitant, the moorings scarce, and the holding ground unreliable.

During the week, the loss of Morning Cloud 111 off Selsey, Morning Cloud 1 at Gorey (Jersey) and two yachts without trace after leaving Alderney during a brief lull taught us the wisdom of never risking a "moderating later" type of shipping forecast for the sake of an over-rigid timetable. Even with half our holiday ruined, we did at least retain our boat, and more important (especially to anxious parents at home) our lives. A couple of hair-raising incidents (caused by a parted warp and a stretched kedging line), the details of which are better left untold, reminded us further that even the smallest yachts need very long, very strong cables and warps, even if they are only used once in a boat's lifetime. It's all too tempting to economise on stowage space on a "do I use it often enough" basis, as we did.

Enough of the gales and moral tales. 0130 on the next Sunday morning, notebook full of compass courses and clearing bearings clutched in a sweaty hand, I took LAA MAO MAO out of harbour, bound south (about 65 miles) to the Isles Chausey, off the Breton coast near St. Malo. 0130 sounds a bit un-cruise like, but with 8 knot tides and a prevailing SW wind, there are only 4 hours out of 24 when a boat can pass south around Alderney. (see K. Adlard Coles, "Channel Harbours and Anchorages" for details).

First light revealed the Isle of Sark on the starboard beam, Jersey fine on

OVER WHICH HORIZON DID YOU SAIL

the port bow, and the Paternoster reef (hopefully) clear to port. After a morning of reaching and running round Jersey, leaving the Minquiers well to starboard, the light tower on Grand Ile Chausey finally poked its head above the confusing litter of unidentifiable posts and buoys that mark the innumerable shallows between Jersey and the French coast.

After tearing through Chausey's tortuous North Channel at well over 8 knots, we picked up a buoy in the anchorage and sat down to watch the tide falling visibly, just like an emptying bath. It revealed a whole range of rocks, sandy spits and little rythes rising from what a few hours earlier had been open sea studded with a few islands. With a tide range of more than 40 ft. at springs, the contrasts have to be seen to be believed. For your notebooks, don't worry about the warnings given in Coles' book and elsewhere about being forbidden to land on Chausey without customs clearance (at St. Malo Coniale); you're as likely to meet a gendarme there as on the moon.

After a look around Grande Ile, a good night's sleep and a row round some of the little channels through the rocks, we set off again (the wind having obligingly come round astern again) and ran back towards Jersey, passing through the Violet Channel at high tide (see K.A. Coles for details). We stopped for tea and provisions at the very picturesque town of Gorey, with its castle perched high on the hilly promontary half encircling the harbour. It was here that we heard the details of the wrecking of Morning Cloud 1, smashed literally to matchwood at her moorings just off the harbour wall. Nearby we saw a nearly completed Tane, rigged largely (so said the owner) from auctioned off wreckage of the casualties of earlier gales.

Its beauty apart, Gorey looked a bit too much like civilisation, so we set off again for Les Ecrehou, a miniscule version of Illes Chausey lying 8 miles NE of Jersey. Despite a smaller tide range, the streams reach 9 knots at times, so the excitement of arriving at this wild and lonely group of rocks just as the sun set was tinged with more than a little relief at having made it in time. Large and/or single masted Polycats are strongly advised to avoid the place in all weathers as the deep water is narrow, un-buoyed or marked beyond a single makeshift transit, and there is very little room to turn around. The only inhabited island is at high tide no bigger than a suburban garden, with a cluster of tiny fishermen's cottages perched on top. On going ashore, we met an old fisherman who had lived there for 12 years and who, believe it or not, was actually conducting a dispute with the International Court at the Hague over his claims to sovereignty over his lonely acre of rock.

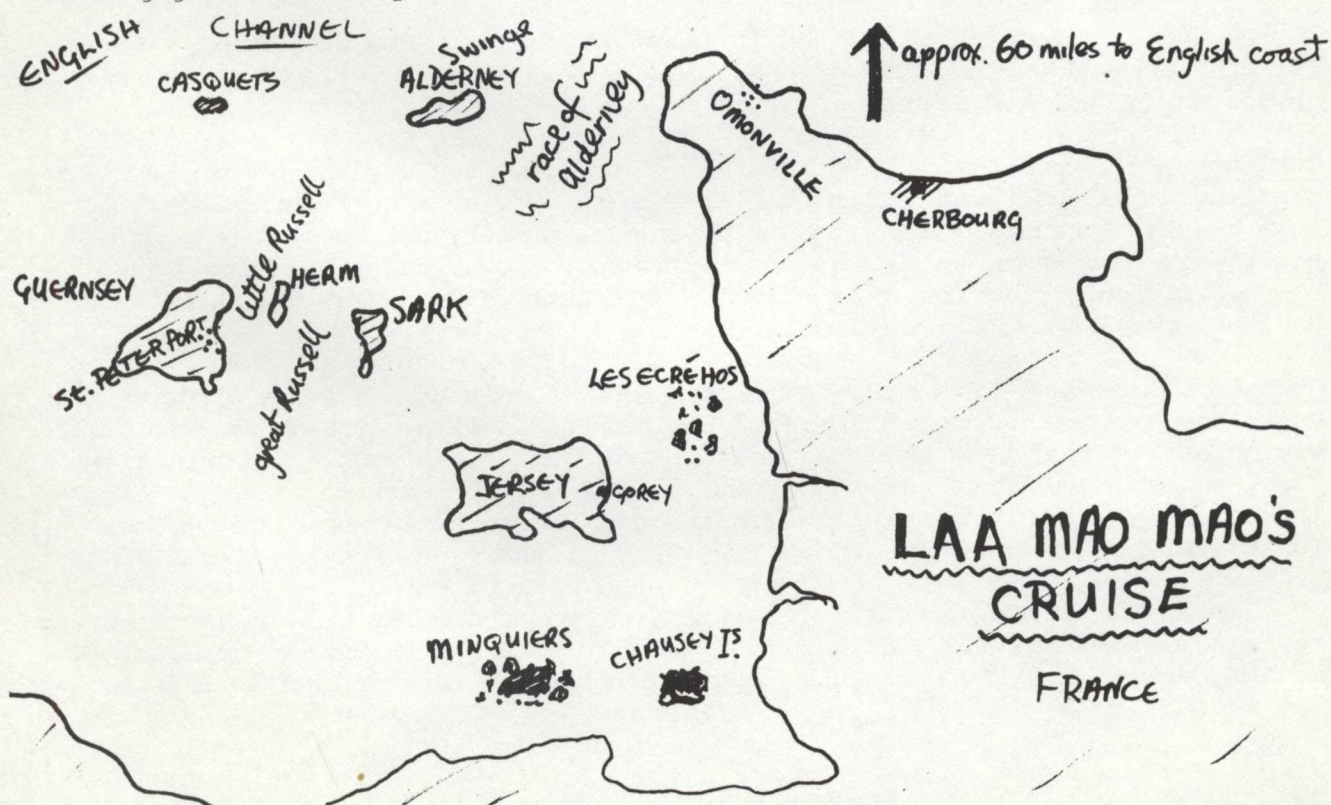
After an uncomfortable night on the only mooring there (the place is quite open to the sea at HW.), we moved on to Sark, mooring in Havre Grosselin on the west side, sheltered by Brechou, while we went ashore for a look around. Contrary to expectations, we all found Sark a disappointment. The shops and houses are scruffy without being either old or picturesque. The island is totally in the grip of the tourist trade. The geography is certainly unique, with its harbour approached through tunnels cut into the cliffs, and its precipitous "coupee", the road between the two halves of Sark, hundreds of feet up and 10ft. wide with sheer drops on both sides. Our mixed feelings about Sark were soon dispelled though, first by the exciting passage through the "Goulet", a 50 yard gap between the sheer cliffs of Sark and Brechou, and then by our arrival at Herm, the small island between Sark and Guernsey. This is the complete opposite of Sark. The island is overrun by tourists between 10 a.m. and 5 p.m. but in no way spoilt thanks to the care and taste which its tenant, Major Wood, has put into its development. As it is vacated by tourists every evening, it is the perfect yachman's paradise (once permission to land has been obtained), having

OVER WHICH HORIZON DID YOU SAIL

a delightful pub, hotel and restaurant, walks over the dunes, beaches (including the famous shell beach) and wooded fields all in an area of less than 4 square miles. The best anchorage is off the Rosière steps at the SW corner of the island, where a small deep water area is protected from the SSW by Jethou, but open to the south. As neither Herm nor Sark have any safe harbour of refuge, great care has to be taken to move to the lee of the island in any wind above force 3, and to clear off to St. Peter Port on Guernsey if a blow threatens. Escape to Alderney in gale conditions is blocked by the Swinge and the Race, and even to Guernsey by vicious tides in the Little Russel (the channel off St. Peter Port). A 70 ft. schooner was nearly wrecked for just this reason the week before.

After the best day and a half of the whole trip, which consisted of swimming, walking and drinking, we set off early on Thursday morning for Alderney, arriving off the Swinge just too late to catch the last of the fair tide northwards. Rashly, we decided to push through in a wind-against-tide conditions. With two of us on the helm, full sail, and the boat occasionally pointed downwards at a good 35-40 degrees, LAA MAO MAO stayed on a perfect dead run right through the shortest, steepest seas I ever hope to see. These were conditions where most monohulls under 50ft. would have been very hard put not to broach, lose control and end up on the rocks either side of the $\frac{1}{4}$ mile wide channel. The long keel, high speed and great directional stability of these Polynesian Catamarans made safe a passage that would in most other small boats have been a dangerous undertaking to the point of impossibility.

Lunch in Alderney, supper in the ideal departure and arrival port of Omonville (between Cherbourg and Cap La Hague) was followed by an overnight broad reach home that left us becalmed off St. Catherine's at 0700 the next morning, leaving us a hot windless morning in which to clear up, and a gentle afternoon sail home to Emsworth, with two spinnakers, three sleeping bags and a Q flag wotting us up to our mooring after two weeks in which we never needed the engine, never paid any harbour dues, and covered over 260 miles with no more than 30 of them closehailed. Who needs to sail to the Polynesian Islands to find the ideal cruising ground for Polycats?



OVER WHICH HORIZON DID YOU SAILTales from the Tasman

by Ruth Wharram.

This is an account taken from various letters of Ruth's crossing of the Tasman Sea (from Australia to New Zealand) on "KM", a Tangaroa built by Kevin and Marianne Halpin. It illustrates some of the discomforts the three of them had to put up with, and some of the thrills they had.

17 Dec. 1975. As I write, we're in the middle of the Tasman Sea in bright sunshine riding out a yatchmans gale (force 6-7) beam on, with a lot of breaking crests around, listening to a Beethoven Symphony for contrast. It is relatively quiet in the chartroom, compared to the wild outside where you have to shout to be heard. When we set out, the weather was dull, but soon changed. The wind strengthened to force 7 gusting 8 - a terrible beginning. During the first day I was very sick, but am better now.

As Km lies beam on, travelling at about $1\frac{1}{2}$ knots, there is a high pressure area over New Zealand. This reminds me of our first Rongo trip when there was a high that wouldn't move for weeks producing sunshine, blue sky and constant winds.

There are quite a few sea mounts in the Tasman. They rise from about 2800 fathoms up to about 70 odd fathoms or less and consequently produce very violent seas. There is one which we estimate about 20 miles away, so we hope to pass well south of it.

I have been navigating using the Haversine method, which is new to me. It seems quite straight forward as long as one doesn't make a small arithmetical error.

23 Dec. For five out of the six of the last days, we have had nothing but rain and gales. All our clothes are wet. As we have lived in this state for the last day or two, you can imagine our discomfort when we go on watch again. I've never been so wet in all my life, and for the first time I've got salt water pimples on my bottom!

How we worshipped the sun when it appeared briefly. How wonderful it was to feel the air and warmth all over ones body again. It is Yuletide and the sun is now making her north again.

Christmas Eve. For the second time in four days, we are running before a gale trailing warps and tyres. I think I'll take up cycling when I get ashore! it is a beautiful starry night, the first for over a week, but to sing "Silent Night" with the waves roaring astern trying to board us and the wind howling in the rigging, is a bit out of place to say the least. Anyway the herb tea and Christmas cake were delicious.

Christmas Day. How lonely and homesick I felt on this day as I sat alone on the early morning watch, in the middle of the Tasman, 11 days out and not even half way across. We seem to have done nothing but beat to windward. Eight of those days, the wind has been force 7 or more, with 6 days of continuous rain. It took four days to get around Lord Howe Island. We have even been driven back towards Australia. I think we have had our fair share of dirty weather.

During the first gale we stayed under bare poles and lay beam on to the seas. Kevin feared a capsized. I felt that we were in no danger in force 7 gusting 8. Running before the gale would have meant being driven too far south. All was well.

OVER WHICH HORIZON DID YOU SAIL

The next time we lay beam on with a rising wind, I felt a strain on the boat. I prayed for guidance for the moment that we should turn and run. I had a sudden urge to get out of my bunk, knowing that it was time. The wind was easterly so we would lose ground again, since we couldn't go south. As I emerged on deck I was conscious of a change in the note of the wind. Kevin, already on watch had not sensed the change. Suddenly a tremendous beam sea heeled us over. We slid down it with a crash. Books and many other things were flung from their shelves. Kevin exclaimed "We run", and for two days we did so under bare poles while trailing warps.

28 Dec. For the first time in 10 days, the sun is out. We are 600 miles from Australia and this distance has taken us about two weeks. Of that time we've been under full sail for two days, under jib alone for three days, under reefed jib for one day and trailed tyres and warps for two and a half.

I wondered why the Ocean Passages of the World says, "Go to 170° E, 30° or 31° S, then turn south. This is about 240 miles north of New Zealand. Why should one be so far north? Now I know, since we are at latitude $31^{\circ} 20'$ south. One hasn't got a choice with these prevailing winds which are not shown as being so persistent in the Pilot Chart. KM sails herself to windward, but it is wet.

In place of the main spritsail, we have rigged the little trysail. The reason is that the main seems too difficult to reef in a sudden squall. May be a block at the top of the sprit (Rongo style) might help. Kevin fancies a rig consisting of jibs only.

The steering position is very unprotected, being open to wind and spray. Maybe a Tangaroa is better suited to a couple than for three, for long distance cruising, since it would give more room to live, sleep and dry out. The bunks are lovely, but after the last ten days even they are damp.

There have been no stars to study. The Christmas visit of porpoises came on Boxing Day this time, and a school of whales passed by yesterday. An albatross gracefully glides around us now and again. They are beautifully majestic birds - the funny little ones that I saw around Sydney were a disappointment to me, but here they are so different.

At the moment I'm too tired to think of much, other than dream of New Zealand, think of you all and plan food for the next day. We saw the first ship for fourteen days and heard New Zealand news and weather forecasts just now. There is still hope!

29 Dec. This is really yatching! Beautiful blue skies and sunshine. I've just baked some bread. Kevin still doesn't want the mainsail up, because of the difficulty in brailing during a squall. KM also digs her bows into the short steep seas - of course we are still heavily laden which may aggravate this. We have an odd looking rig. It consists of jib, trysail, mizzenstays and mizzen. We are making 3 knots to windward in a force 3. We're enjoying the sailing. I wish I could take a photo of the cat from a distance - the boat looks like something out of the past.

31 Dec. New Years Eve and I wonder what is happening at home. The weather is still fine here and the wind is in the SE. In New Zealand they are having gales, so we should be thankful. I've just baked more bread, which was a great success after two weeks of Ryvita and cream crackers.

1st 1976. Storms and whirlwinds have played havoc on the New Zealand coast

OVER WHICH HORIZON DID YOU SAIL

around Auckland, but there we are enjoying the beautiful warm sun.

2 Jan. Another glorious day, but progress is slow. Kevin always wants to take the mainsail down at night because of the squalls. They don't come! So just to be perverse, if the main is set, a squall arrives.

Some of my watches have been really beautiful - sun; luminous sea and stars.

3 Jan. Just off a beautiful night watch, watching the luminescence between the hulls like a reflection of the starry sky and listening to Beethoven's 3rd Piano Concerto which is like adding another dimension to the scheme of the crystal clear pattern of the sea and sky. KM is sailing along smoothly at 4 knots and for the first time the sea is what it should be in a force 3. I had forgotten that the sea could be anything but big, lumpy and rough. My love of the sea was restored. (this was recorded at 2 a.m.)

4 Jan. The peaceful days are over. We are bashing into deep heavy seas against a SE wind force 5.

9 Jan. After 5 days struggling against force 6-7 ENE winds, heavy rain, big seas and worries about my latitude, we were becalmed in thick fog. It lifted for a while and then suddenly we were surrounded by hundreds of birds. Kevin suddenly called out, "There is the white cloud", a dome shaped cloud of the 'Land of the White Cloud' of Polynesian legends. Imagine our excitement and the thrill it was! The sun came out. Sun and moon fixes and photos were all taken at once. If I didn't believe my calculations, a mountain peak appeared under the white cloud to help me. A quick bearing and a distance off check. Then it disappeared. Then another peak, and a third! This must be 'Three Kings' off the northern tip of New Zealand. After I had taken all my bearings the chart table was littered with cameras, sextant, handbearing compass, binoculars, radio and charts, then the fog descended again. What a great experience this all was.

There are shipping lanes nearby. But now I'm tired, having missed two hours sleep out of the daily six. It will be 'Sustagen' for me tonight - 'The sportsmans energy food'.

PIGGY - Trans-Tasman Ariki

an extract from the BC Multihull Society newsletter, Canada.

Well, to fill you in on the Lord Howe run.....we cleared New Zealand from Opua on Friday morning Nov. 28. That incidently, was exactly one year to the day that PIGGY had been in New Zealand. We got visa extensions without any hassle, in order to fix up the boat.

Opua, being well down the east coast, necessitates a long sail north to clear the tip of North Island, so we had quite a leisurely sailup, sticking close to the land and weaving our way through many beautiful islands. The morning of the 29th saw us approaching North Cape (shudder). It was one year ago that we had run into grief up here on these treacherous shores. We rounded the cape and headed for Cape Reinga, which is the western north cape of New Zealand. A friend had driven up here in order to get a few pictures of us as we left, so we stayed fairly close to the land. That was a mistake, for the seas were incredibly rough, this being where the Tasman swells meet the Pacific. That was only for 20 miles though and then we were off on a course that would take us by Three Kings Islands (20 miles off the cape), and on to Lord Howe (740 miles away).

OVER WHICH HORIZON DID YOU SAIL

The wind had picked up considerably so we were flying our staysail and single reefed main only. We spent several hours setting up our self steering, which necessitated tying the jib sheet through several blocks onto one of the tillers. On the other tiller we had heavy shock cord to balance the pull from the sheet.

We were surfing along at quite a pace in the increasing wind by the time we passed Three Kings at 5 p.m. on the Saturday - our last glimpse of lovely New Zealand. The next day found the wind up to 40 knots from the SE, so we threw in the 2nd reef and never touched the steering or rig from there. As we were broad reaching, we were really moving. The steady surfing in the short steep seas (common to the Tasman) took its toll. Several waves broke directly under us and smashed a few of the deck slats. We were going so fast at times that we actually surfed down one wave and up and over the next one in front!! It was pretty wet though and very rough as we would get hit every now and then by a wave on the broadside.

I had a strange mix of a crew: three girls, one from Auckland, one from Australia and one from Vancouver. The only other guy was a pommie about my age. I really admired the way they hung together during our trip as they had no experience on sailboats before.

On Monday, Dec. 1 the rotator from the Walker log spun right off and as we did not notice when, we were without a prime function for our dead reckoning. Anyway, I took several bearings with our RDF on Norfolk Island, and determined that we would be in no danger during the night. Needless to say, I was up most of the night keeping an eye out, for I found we were strangely close to Lord Howe. I was asleep next morning, when Robert shouted that Balls Pyramid (a tiny islet sticking 1800 ft. up) was off the port bow. Wow, you cannot imagine how thrilled I was. I just hope that all our landfalls continue to be as easy. I did not unhook the self steering till we were a few miles off Lord Howe and then it was a simple matter to steer into the protected lagoon. It took me two days to calm down after that exhilarating ride and I could not imagine a better place. It is a sub-tropical coral reefed paradise with a population of 200. We became celebrities because they do not get many yachts as the lagoon only accommodated a 5ft. draft. We anchored at 1.30 p.m. Tuesday, 70 hours from abeam Cape Reinga (10.6 knots average) KIALOA 11 averaged 10.8 knots in the Sydney-Hobart race, but she was racing! Give me a Wharram cat any day. Best wishes for now.

Tom Hembroff,
Canadian Yatch Piggy,
c/o Labrador P.O.
Labrador, Queensland, Aust.

Single-handed Trans-Atlantic Tangaroa by Roger Knight.

NOUM-AS-DAI and myself left England for the sun last August, and have been having a great time ever since. We sailed directly from Salcombe to Gibraltar, taking 13 days. This was my first 'proper' singlehanded session and it seemed like bloody years!!! I was hoping to meet Charles Williamson there with his Oro TRANQUILITY, but just missed him. I gather he was wrecked 2 or 3 days later on the NW African coast, attempting to beach the boat after a cross beam broke. At the time he was on his way to Maderia. He survived though, but only with his passport and a handful off sodden clothes.

Gibraltar was like a Wharram shop window with six or seven Polycats in at one stage. They included IRIS, TRANQUILITY, TOATOTOA, NOUM-AS-DAI, another un-named Tangaroa, and a French Tane enroute to the Pacific via the Amazon!

OVER WHICH HORIZON DID YOU SAIL

They were going to dismantle it and haul it by lorry over the Andes - good luck!

I sailed from Gibraltar in a cloud of spray, doing in excess of 15 knots past Tarifa (my VDO sumlog only goes to 15 knots, and its never worked properly since!). The bow waves were tremendous - 5 to 6 ft. high and four of them! I made up my mind to beat that current into the Med.

After this, sailing to Las Palmas was very tame - it took eight days. I arrived at dusk, so I had to wait till dawn before entering. Las Palmas harbour is not the best I've been to, because of the oil. To describe the Yatch Club and their attitude without swearing is impossible! However, I had a great time there as the social life between the boats was fantastic. Food prices were also very reasonable. I met two other Polycats here - IF DOGS RUN FREE - a Narai, and a Tane STORMALONG. Both boats were later to make very fast crossings. My own crossing from Las Palmas to St. Vincent was a mixture to say the least.

After departure I scraped around for wind. The first three to four days, I covered 28, 40, 48 miles respectively. Then the N.Easterlies started, and they eventually rose to the extent that I was under bare poles for a time. I covered 90 miles in 24 hours without sails - definately not trade wind sailing. When I was exactly half way across the wind disappeared, and I covered 1.4 miles on the thirteenth day out, and then I only covered 160 miles for the next week! After this I ambled along at 40, 25, 65 miles etc. etc.

When I had wind, the Tangaroa went very well averaging about 165 miles a day down wind, e.g. I covered 490 miles in three days. More speed is possible if you are willing to steer - to me that sounds like work, so I match my speed to what the QME can manage. Meanwhile, I'd rather go below and read about Moittessier rounding the Horn.

The sighting of Barbados was a happy event to say the least, but by this time I had begun to enjoy singlehanded sailing and so carried on to Kingstown St. Vincent. I dropped the hook 33 days out from Las Palmas. I didn't go ashore for three days (arriving late on Friday, I would have had to pay overtime for the immigration men). I moved from here to Bequia the day before Christmas, which turned out to be a West Indian Polycat meeting. We rafted together. The cats included NOUM-AS-DAI, TOATOTOA, and IF DOGS RUN FREE - some dance floor! Christmas dinner was something again. This consisted of half a gallon bottle of rum in one hand, half a lobster in the other, and catching fish through a hole in the deck using chicken as bait, with a third hand!

Roger then goes on briefly to say that all the cats that crossed the Atlantic this year are all for sale for various reasons, such as.....

"I've done what I set out to do, now I want to do something else.".....or
"that ocean sailing is nothing like I expected, its just boring".....

From the West Indies Roger says that with the sun, palm trees and warm sea, "we're all smiling".

OVER WHICH HOSIZON DID YOU SAIL

Irish Sea Hina by Charles Birch, of Bryn Hafod, Tyn y Graig, Ystrad Meurig, Dyfed.

I sail most weekends throughout the year. If anyone would like to come for a sail, do drop me a line.

The little boat took myself and a friend across to Wexford last summer. We had visited this place the previous year in his 20' monohull and we had been made very welcome. Our intention on this occasion was to cruise around to Waterford from Wexford. Unfortunately, Dick was taken ill, and had to spend his holiday in Inniscorthy Hospital. This called for a change of plan. So I rented a bicycle and toured that part of Ireland, calling in at the hospital each day and returning to the boat each evening. The cat was left under the wing of the Yatch Club at Wexford. The members made me use the Club as home and could not be more helpful.

At the end of my leave, I set off for Wales on the 15th August. The tides were right for an early start, and the weather forecast was favourable. After breasting Rosslare, I saw a dark mass of cloud to the south. I considered turning back and sailing another day, but decided that there was time for the blow to pass over, before I needed to worry about my landfall. Travelling in the same direction as the storm meant that I spent most of the day under it. It was the biggest electrical storm that I have experienced and it seemed almost continuous. The hatches were closed all the way across, except when I reached for my flask and sandwiches.

During the worst spells, I could not use the wind to steer by, and had to watch the compass very closely. This continuous control kept me busy enough not to worry about anything else except sailing the boat. Some of the time the main was brailed up, and the jib was all she needed, but the mast required a backstay pulled up tight.

From loosing sight of Tusker to picking up the Welsh coast took five hours, during which time we passed the ferry going in the opposite direction. I exchanged waves with the passengers at about 200 yards. The ferry's wake was completely obliterated by the sea.

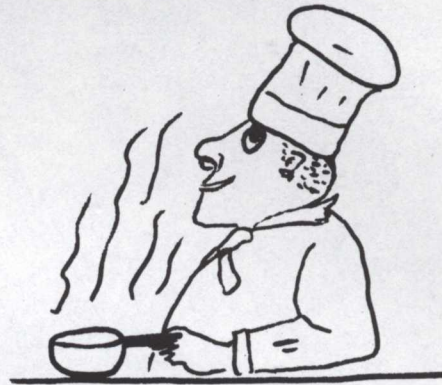
Although I crossed in good time, the last leg proved most time consuming. I saw a knuckle over the clouds that did not match my memory of Strumble Head. So I altered course more north east and after a while, Strumble came in view. The overfalls had to be crossed before reaching port.

I anchored off the jetty at Old Fishguard among several other visitors and phoned home. There was only poor shelter here, so I motored over to Goodwick. After making this change, I noticed the other boats follow one by one. The wind eased by morning and so I sailed for Aberystwyth.

Even though she was heavily laden (with tools and batteries etc.), she felt safe at all times. I must fit a lightening conductor before I sail under a thunder storm again! My Hina is a great hearted boat, but I am looking for a Tane, as I need more room. Cooking in a Hina with a primus jammed between ones knees is no joke. I have a tent, but sometimes conditions won't allow putting up!

A SEA-DOGS DINNERNORFOLK SAUSAGES

- 1 lb sausages
- 1 large onion
- 1 pint milk
- salt and pepper
- 1 tblsp. cornflour
- 1 tblsp. mustard



Prick sausages and peel and chop onion.

Put onion in pan with all but 2 tblsp. of the milk. Cook for 10 mins., add sausages, cook for further 10-15 mins. Meanwhile blend cornflour and mustard with the rest of the milk. Lift out sausages and stir in cornflour. Season and add sausages - simmer for 5 mins.

PEASANT MINCE

- 1 lb. mince
- 1 green pepper chopped
- 15 oz. can tomatoes
- 1 tblsp. tomato puree
- 2 medium carrots grated
- 1 bay leaf
- salt and pepper
- $\frac{1}{4}$ lb mushrooms

Fry mince for 15 minutes, push to one side and fry green pepper, onion and carrots for 5 mins. Stir in tomato puree, tomatoes, salt and pepper and bay leaf. Cover and simmer for 30-40 mins. Add chopped mushrooms 10 mins before end. Serve with boiled rice.

LOUISIANA TUNA RICE

- 6 oz rice
- 15 oz can tomatoes
- $7\frac{1}{2}$ oz can tuna
- 1 sliced onion
- 2 tblsp. butter
- 2 tblsp. flour
- seasoning

Cook rice and keep warm. Fry onions in butter till transparent, then add flour and blend in. Add tomatoes and seasoning, stir in flaked tuna. Serve over rice. This also eats well with Shell pasta, spaghetti, or creamed potatoes.

COUNTRY CHICKEN

- 1 oz flour seasoned
- 4 chicken joints
- 1 ox marg, 12 tblsp. oil
- 4 oz onions sliced
- 1 level teaspoon curry
- 8 oz can tomatoes
- $\frac{1}{2}$ oz halved almonds
- 1 oz sultanas, salt and pepper, mixed herbs.

Coat chicken in flour and fry in marg and oil till brown. Add onions, curry, salt and pepper and any flour that is left. Fry gently for 15 mins, take off heat and add tomatoes, herbs, sultanas and almonds. Cover and simmer till chicken is cooked.

HAM WITH SPICEY RICE

- 1 tin ham
- butter for frying
- 8 oz cold boiled rice
- 1 finely minced clove garlic
- 3 tblsp. french dressing
- 1 tblsp. tomato ketchup
- salt and pepper
- made mustard

Slice ham into 8 slices and fry or grill gently in butter till heated through. Keep warm. Mix in large bowl, the rice with salt, pepper and mustard to taste. Then add garlic, french dressing and ketchup. Toss well and serve with ham.

Chris Hodgson of Kettering, Northants. sent in these delicious recipes. Chris uses a pressure cooker to save fuel and water. Herbs and spices pep up plain dishes. He says "To me cooking in a tent or a boat is great fun, needs imagination, and a little daring in the face of the crew".

BUYING OR SELLING?

FOR SALE. J.K. Cook of 7 Kelsall Avenue, Sutton Manor, St. Helens, would like to sell a new set of nylon (terylene?) Tane sails, or would consider an exchange for a speed boat or dory with trailer.

WANTED. Dave Jennings of 143 Bell Hagg Road, Sheffield 6, wants an ORO or a Narai preferably mk.1V complete or part built. Tel: Sheffield 332604.

FOR SALE. a) 27' alloy mast with s/s wire and spreaders but no boom.
b) 5' x 15" x $\frac{1}{2}$ " 5 lb. cu.ft. density polyurethane rigid foam sheets at 20p. per square foot.
c) s/s wire plastic covered, not strong enough for rigging but OK for life lines. Contact Fred Kenyon, Waterside Works, Marple Road, Offerton, Stockport, Cheshire. SK2 5EV. Tel: 061-456-4477.

FOR SALE. Mk.11 Narai, junk schooner rigged, Jeckells sails incl. 480 sq.ft. squaresail. Hardly used. In yard at Jamestown, Rhode Island. Must sell as I have moved. \$10 000 or best offer. Contact Peter Lord, 16600 S 6 St. Apt B432 Minneapolis Mn 55454. Tel: (612) 338-8710.

FOR SALE. Hinemoa builders! Two professionally built fibreglass cabin tops white in colour, with perspex windows and rubber mountings. Tel: Hollingbourne 255 or write Richard Bumpus, Grove Mill House, Hollingbourne, Kent.

FOR SALE. Tane - bermudan ketch rigged, glass sheathed, outboard, deck tent, many sails, three berths - ready for this season. Phone: Emsworth 3440.

Charles Birch says that in harbour to save seting the Seagull, he sculls his Hina HOA L11 about with a sweep about 11' long. This goes through a rollock on the after beam. Charles feels the cat is much more manouvvable in confined spaces, but an even longer sweep would work better.
