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Used by Dave Mitchell and John Woodhouse when competing in the C2 event at Llangollen. Photo by courtesy of Aqua-Photo.

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Sea Canoeing Conference

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London, S.E.19

Sunday, 4th December, 1966
10.30 a.m. - 5.00 p.m.

LECTURES

SEA CANOEING ESSENTIALS AND TRAINING
THE SCOPE OF SEA CANOEING HOLIDAYS IN BRITAIN AND ABROAD

STUDY GROUPS

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DEMONSTRATION

METHODS OF RESCUE AND RECOVERY

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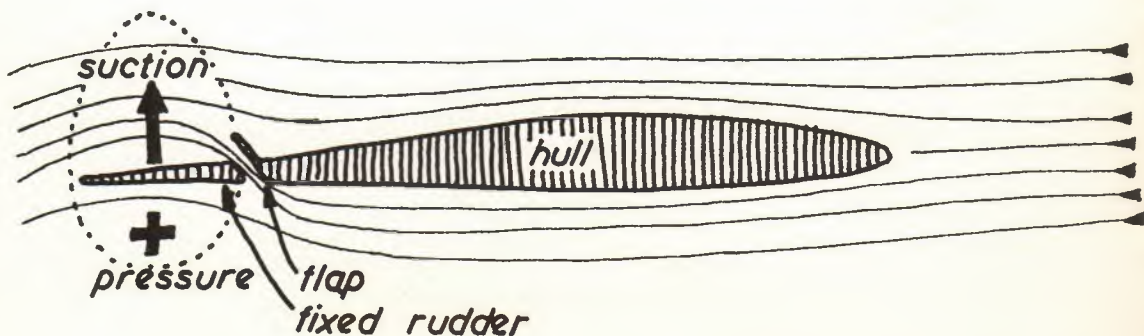
A B Sees

RUDDERS, AGAIN. (Ref. book Sailing Theory & Practise. A.J. Marchaj Adland Coles Ltd. - 5 guineas).

Since writing the last item on rudders, I have delved again into the works of A.J. Marchaj, and found a reference in the section 'Yacht Performance', page 303, fig. 186, concerning laminar flow, and a method of distorting this flow in order to create a suction on one side of the hull so that turning movements may be accomplished. J. Szabo, the designer of the catamaran 'Yarro', raced this craft in Australian waters at speeds above 20 knots.

Experiments were made with the underwater shape, in that the hulls are assymetric, do not have protruding keels or rudders, and rely on the 'dig' of the thin hulls to give the resistance to leeward movement. The rudders were effectively a part of each hull, and were fixed at the rear of the twin hulls. In one set of experiments each rudder was hinged, in the other, it was fixed so that it was in line with the rest of the hull, and had a slot wide enough to allow water to pass quite freely from one side of the hull to the other, should this be required. A small extensible flap was arranged in the slot, so that it preceded the slot in the travel through the water. If extended slightly, say to the left, water would be deflected from the right side of the hull to the left. This water is that which is contained in the thin skin of water which is closest to the hull, and which is sticking to the hull and travelling at the same speed as the hull at the actual surface of the hull, and which, within a few centimetres, (measured perpendicularly to the hull,) is moving at the same speed as the ocean. This belt of water moving at different speeds is the boundary layer.

The flap being extended to the left will cause a mass of water to move away to the left. This mass of water is composed partly of water deflected away from the left side of the hull, and partly of water sucked through the slot by the depression caused behind the rear edge of the flap. This moving mass of water, as it is subject to deflection, must be accelerated. Acceleration requires work to be done. (This work comes of course, in the case of a sailing ship from the interaction of wind, sails, hull, and water. In a canoe it would come entirely from the paddler's actions).



Oddly, it seems at first, the part of the hull just behind the slot, would be moved to the left. This would move the bows to the right. Why? Because the depression caused by the interference of the flap with the laminar flow would cause a depression on the left side of the hull (In this example), and the pressure of the water on the other side of the hull would force that part of the hull across to the left. So extending the flap to the left causes the bows to move to the right. This is a reversal of the usual effect of a rudder.

Is this any good for canoes? Let us examine what Szabo says about the effect of this arrangement on the 'Yarro'.

'The rudder does not move at all. It is a fixed part of the hull, and steering is accomplished partly by boundary layer control, partly by a small flap which controls the flow through the slot, a practice well known to aircraft designers, but never before used in the design of sailing boats. The arrangement shown develops turning moments that force the reluctant catamaran to turn on a sixpence like a lively dinghy'.

Concerning the rudder which is part of the hull:

'This arrangement proved a great improvement where resistance at different helm angles was concerned, the increased resistance due to rudders being less than a fifth of that of the conventional type hung on the stern. The faired in version was more effective at 1 degree angle than the hung-on-stern version at five degrees'.



"Him?"

All blow an' no go — 't'll never work, y'know"

Fine, you may say. So what? I'm blowed if I know. However, perhaps this is the way in which we may start to move towards more efficient ways of turning a canoe, so that drag, which must be paid for in paddling effort, may be reduced. The canoe is not perfect. Nothing is.

It is perhaps relevant to remember that racing rules fix a limit to the width of the rudder which can be fitted. It must not exceed one inch at its widest part. This obviously puts limits on the design of the hull. But how would this rule affect a small slot cut through the hull, complete with flap?

This flap, how would it be fitted so that it would react correctly to the action of the rudder control?

How should the flap control be effected?

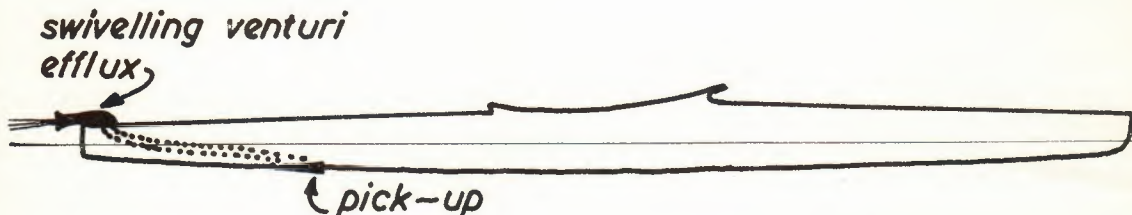
Where exactly should the slot be placed for maximum effect?

How wide, how deep, how thick, what shape should the flap be? How far, and at what angle should it protrude into the boundary layer?

Who has 'N' spare hours of time and 'M' spare pounds of cash and 'X' ability to experiment with these ideas, and thus produce a British K1 which will go ten metres further in a 1,000 metre sprint race for the same expenditure of effort?

Who, indeed. It is said that to find the solution to a problem, one must first start by asking the right questions.

Are these the right questions? I would not be at all surprised to hear that someone has already tried these ideas, and failed to prove them, or has proved them unworkable. Please write in and let us know!



*probably impracticable unless efflux can
be pressurised*

Another idea, based on the Dowty Turbo-jet boat occurs to me. Is it possible to pick up water at some suitably placed scoop under the hull, and take it by a pipe to the stern of the boat, with a venturi type nozzle above the water, thus accelerating the speed of efflux, so that the open end of the nozzle might be turned to right or left, to make the turn. (on a tactical note, it might be arranged to squirt up the "hooters" of would-be wash hangers!) The pick up scoop to be made retractable so as to lie out of the way, when not required. This would present hull sealing problems. (Remember, simplicate, and add lightness).

This column is becoming quite useful. Two years ago John Lawrence was an Instructor at Eskdale Outward Bound School, and he then went to Hawkesbury River Outward Bound School in Australia. Several months ago, he applied to be examined as Hon. Coach in the B.C.U. Coaching scheme. He was accepted, and is now 'Our Man' in South East Asia.

In October '65, a man living at Lane Cove, a suburb of Sidney, Australia wrote to this magazine asking for technical information and help for a beginner. He reckoned that he would have to find out the hard way, not having help nearby. Surprise! I put him in touch with John Lawrence, who lives 25 miles away. I'm waiting for the results of this. Pure chance, but how hopeful. It pays to advertise!

Deep Water Rescue Drills: Canoe to Canoe

A REPORT BY THE B.C.U. CORPS OF CANOE LIFE GUARDS

A number of rescue drills have been presented to us for test. All these have now been examined and tested, and a report is submitted below.

Six different tests were submitted.

- 1) "T" Rescue, the rescuer doing all the lifting.
- 2) "TX" Rescue, the patient lifting his canoe onto the bow of the rescuer's canoe.
- 3) Standard "H" Rescue, two rescuers lifting, one at each end of the patient's canoe.
- 4) Raft Rescue, submitted by Mr. Hughie Stevenson, recent president of the Scottish Canoe Association.
- 5) Raft Rescue, submitted by J.S. Young of Prestwick, Ayr.
- 6) Smith's Rescue; four rescuers and one to be rescued.

1) "T" Rescue. The rescuer here lifts one end of the upturned canoe over his cockpit, and gradually works the canoe across until he has its cockpit resting on his own cockpit. This leaves one end of the canoe in the water and the other in the air. The patient swims to the upper ("airborne") end of his canoe, and gently pulls it downwards, assisted by the rescuer's leaning over towards him. The water empties out of the other end until the canoe swings over. The rescuer then rights the canoe and rafts it up with his own. The patient gets into his own canoe, either by a press-up on the decks, or by cocking one leg over the paddlers which are placed across both canoes and the fore-peak of his own cockpit. The other, nearer foot is placed in his own canoe and he swings in.

2) "TX" Rescue. The patient rests one side of his cockpit on the bow of the rescuer's canoe who then paddles gently forward to prevent its slipping off again. Holding the bow of the rescuer's canoe, the patient gradually lifts his own canoe in the crook of his elbows until he can get both sides of his cockpit onto the rescuer's canoe. He then pushes his canoe up the other until the rescuer can reach it and pull it right onto his cockpit. Operations hereafter are as after the same position at (1) above.

3) The "H" Rescue. The two rescuers create a letter "H" with the patient's canoe, each being one leg while the capsized canoe is the cross bar. Station is maintained by the rescuers each holding the patient's canoe as in the finishing position of the "Put-across" roll. They can also thus use the canoe to right themselves, should they fall inwards. The patient goes outside one of the rescuers, and holds his cockpit, thus further helping to maintain his balance. Both rescuers then start to lift, being careful to keep the up-turned canoe exactly horizontal as they do so, and slightly turning it so that the air lock is broken. When they have been able to get it over their cockpits, they can raise each end to complete the emptying, raft all three canoes together and help the patient in.

4) Mr. Stevenson's Method. Two rescuers raft up with the patient's canoe, while he holds onto the stern of it. The rescuers must face in opposite directions. They place a paddle across their outside shoulders, to make a bridge upon which they can lean with their outside arms, holding it in position with the same hand. They then lean down and, each grasping one side of the coaming of the patient's canoe, start to lift. The patient can at this time start a see-saw action at his end of his canoe, alternately raising and dropping it to help break the air lock and empty it. Afterwards they can right it and proceed as at (3)

5) Mr. Young's Method. This is not much different from Mr. Stevenson's method. Mr. Young suggests that all three paddles should be placed across the shoulders. He also suggests that the patient should get into the air-lock of his own canoe, place a hand or arm on each of the rescuers' canoes, and thus assist in the lift. Both point out that, since the patient is at one end of the raft, he acts as a sea anchor and keeps the whole pointed up into wind.

6) Smith's Rescue. This is a complicated rescue, involving the presence of four rescuers, each knowing what to do. Two rescuers hold one end of the patient's canoe which is held across the bow of one by the other. At the other end are two further canoeists, facing the first two and rather less than a paddle length apart. The patient, holding the bow of one of these, places his paddle underneath the end of his canoe which is not already located, and onto the bow of the second of these. This gives him a mechanical advantage in lifting his end of his canoe.

In order to give the tests a fair trial, it was agreed that they should be tried under the worst possible conditions, with the worst possible type of canoe. Therefore tests were carried out with waterlogged canoes with small cockpits (i.e. white-water type canoes) under two conditions: swimming bath (initial trial, to get the drill correct) and choppy water.

- 1) "T" Rescue. The advantage claimed is that there is only one rescuer needed. A suggested disadvantage is that, in the "T" position and a swell, one canoe might be carried into the other, thus holing it. The advantage is agreed. The disadvantage does not arise if care is used. However, under our conditions, by no means whatever could we break the air-lock. With the canoe only slightly filled, the rescue is possible, and is much assisted by a spring flap at the down end (stern) of the canoe (? cover over rudder gear?), which much simplified the see-saw.
- 2) "TX" Rescue. Advantage and disadvantage claimed as at (1), with the same comments by us. We would add one other disadvantage in that the patient must also be an experienced canoeist, practiced in the rescue. Thus this rescue may not be successful if the patient is an inexperienced person. However, under our conditions it was very successful every time.
- 3) "H" Rescue. The disadvantages here are that one must have two rescuing canoes, and that in this position canoes could be holed at at (1). The advantage is that the patient has a minimum of work and therefore can be inexperienced. We have found in fact that so long as there is one person available who knows the drill (he need not participate other than by instructions) and NOBODY HURRIES, this rescue is also 100% successful. In the case of our fully waterlogged canoe we found that it paid to right it first and then to pour the water out over the side as the lift was started.
- 4) Mr. Stevenson's Method. The advantage here claimed is that, being rafted up, there is less likelihood of damage to canoes. We think this probably is so. However, with regret, we found we could by no means whatsoever break the air lock and so start the lift.
- 5) Mr. Young's Method. We agree that the holding of all three paddles has the advantage of making sure they do not float away but otherwise, again with regret, we could not make this rescue work.
- 6) Smith's Rescue. Quite frankly, we got lost in this. The two pairs of canoes, being at right angles to each other, kept getting out of place in the chop. The moment the first end was lifted the second end sank so far that the levering paddle refused to stay in its place in the slippery glass-fibre hulls. We feel that, if we had four rescuing canoes, we would prefer to use the "H" method, having two pairs of canoes rafted up to stabilise each other.

We are, therefore, of the opinion that No.3, the "H" Rescue, is still the most certain rescue. No.2, the "TX" Rescue, has the advantage that it requires only one rescuer but both parties must be practiced in the drill. The remainder must, we fear, be considered uncertain, at least until more work has been done on them.

We still feel that NONE of these drills is practical in surf, and the safest thing here is to get ashore as quickly as possible.

As to speed, there is not much difference between No.2 and 3.

P.S. Since writing the above report further trials have been carried out, and the following additional comments can be made.

1. In both Mr. Stevenson's method and Mr. Young's method, the difficulties mentioned have been overcome by putting the paddles across the inside shoulders of the rescuers, who then put their inside arms over the paddles and hold hands. This creates a very strong bridge indeed, and the rescuers use their outside hands to grasp the cockpit coaming.

In the case of the foundered canoe, it is tilted onto its side, and the canoeist, towards whom the cockpit now faces, lifts the coaming gently, letting the water pour out towards him. It helps the lifter if he rests his elbow on his own coaming as he lifts. When he has lifted as far as he can, the patient's canoe is returned quickly to the upside down position and the rest of the rescue is carried out as before.

2. Where the rescuers are faced with a canoe that has buoyancy at one end only, with the other end sunk (thereby strongly resembling Cleopatra's Needle), the only rescue that appears to be successful is the "H" method. Here the floating end is taken by one rescuer, and the patient has gradually to work the sunken end up and into the hands of the other rescuer. When the canoe is on an even keel, fore and aft, the normal procedure can be carried out.

By no other means could we break the air-lock; and the more sunken the canoe the worse the situation became.

GRANTA AT COLOGNE

Mr. A.S. Cavender, Chairman of Granta Canoes, recently attended the SPOGA Fair at Cologne where one of their canoes formed part of the Rural Industries Bureau stand.



Mike Clark Reports on Competitive Canoeing

Due to lack of copy space recently it has been impossible to report many of the closing competitive events of the 1966 season. However here in flash-back are notes on some of the outstanding meets in the last two months.

Royal Canoe Club's Centenary L-D race, held 17th September over a 37 mile course on the Thames, attracted a really fine entry of 67 crews paddling doubles of almost every description including eight mixed C2s. Conditions for the race were ideal with little wind, brilliant sunshine from start to finish, and being a Saturday there was no river traffic to hinder the canoeists. Although Royal had organised drinks for all who wanted them at many places down the course, crews were also allowed to have support teams on the bank to carry spare blades, repair kits, food and drink - no-one was going to be put out of this race with a broken paddle or damaged rudder if the organisers could help it. Vantage points for spectators along the course were numerous, and with a mass start it was easy, very interesting and exciting to watch the race develop. From the start Lawler/Sowman of Richmond CC set the pace and led for many miles but soon after passing through Windsor the pair burnt themselves out. The running was then taken up by the Riverside crew of Roberts/Gardener and as the mile past this pair increased their lead to finish first with a time of 4hrs.38min. Royal crews took second and third places also gaining the team prize.

Every one of the 67 starter finished the course and the race proved to be a tremendous success - maybe Royal Canoe Club will now stage this event every year instead of every hundred!

The following weekend, 25th September, Manchester Canoe Club organised the 1st/2nd division slalom held on the River Dee at Llangollen in North Wales. The river was quite low for this event and very disappointing, the only really interesting water being the actual Serpent's Tail. Conditions were just not tough enough for 1st division in which 25 clear runs were made, 17 of them gaining the paddler his place! As usual Dave Mitchell of Chester CC was well on top and gave two splendid performances, both clear rounds of course, of 233 and 223 pts to take first in div.1. Ken Langford and Brian Palmer followed in second and third places. In 2nd division Robin Lees of Cambridge Univ. CC gained a clear run of 253 pts to take first place, while Richard Prince of Manchester CC, although completing the course in a faster time, picked up 20 penalties and had to be content with second place his best score was 260 pts.

In the Ladies division Jean Battersby, of Manchester CC, who has been out of many slaloms this season through pressure of exams, made a very poor first run at Llangollen gaining 428 pts - 110 of these being penalties. However on her second run she really showed her skill on the water, making a clear round and winning the division with a score of 290 pts. Heather Goodman made a faster time than Jean on both her runs, but alas, Heather picked up 70 penalties on the first, 40 on the second and so with a best score of 314 pts could only take second place.

The last 1st/2nd division slalom of the season was run by Worcester and Leamington Canoe Clubs over a course on the River Teifi in South Wales and held on 23rd October. Certainly if there was a lack of water at Llangollen four weeks previously, conditions on the Teifi were the opposite. Days before the event there was heavy and continuous rain in the area so canoeists arriving at Llandyssul found the Teifi in a state of flood, five foot above normal with most of the falls and rapids flatten completely out! With something like a 10 to 14 knot current running on the river and the water level continually falling or rising, conditions, if not spectacular for my camera, were very "interesting" for the canoeists! The Teifi produced a number of capsizes and not a single clear run in 2nd or 1st division.

Needless to say, Dave Mitchell again stormed home to win 1st division with best score of 240 pts, 10 pts clear of Raymond Calverley from Manchester in second who was closely followed by John MacLoed also Manchester in third. Paul Mayhew won the 2nd division even though he capsized on one of his runs, while in Ladies division Heather Goodman gained top honours with a score of 381 pts followed surprisingly by Audrey Keerie of Sunderland CC who gained 532 pts.

Key to photos:-

1. J.Roberts/P.Gardener of Riverside, winners overall of the Royal Canoe Club's Centenary L-D. Here they are seen, well in the lead, making a fast portage at Chertsey Lock.
2. The Witter brothers competing in the C2 slalom event at Llangollen.
3. Racing down "The Tail" at Llangollen is Jean Battersby from Manchester CC, winner of the Ladies Division.
4. To many sprint paddlers this must be a familiar face but on unfamiliar water - yes it's Alan Edwards of Worcester Canoe Club competing in the 2nd division at Llangollen slalom. In a division of 31 paddlers Alan gained 9th place with a best score of 284 pts.

PHOTOS AS USUAL BY AQUA-PHOTO.



A New Sea Canoeing Centre

The Hamble sailing and canoeing centre is fortunate in its position near the mouth of the Hamble River, where, except in the severest weather, it is possible to find conditions suited to canoeists who are virtually beginners, up to the canoeist of considerable experience. These are the sheltered and very beautiful upper reaches of the Hamble River, and the more exciting area below Bursledon Bridge. The slightly stronger medium, but still sheltered, Southampton Water into which the Hamble River runs, and the Solent itself with its beautiful coast line and inlets, where more lessons on sea canoeing can be learnt than, perhaps, anywhere in the country.

Indeed, the Centre has the backing of the British Canoe Union as an official Sea Canoeing Centre, where Teachers, Youth Leaders, School and Youth groups can be given a controlled introduction to sea and estuary canoeing, according to their experience, something which is only possible under very experienced instruction. The coach in charge has been an official B.C.U. Coach for years, specialising in sea and estuary expedition canoeing as a full time job for ten years and in a voluntary capacity for many years before that.

Canoes

The Centre has a number of canoes available, of the not too heavy touring varieties, but applicants are encouraged to bring their own canoes since these are the canoes they would normally use, unless they are of the purely paddle racing type which might be too tender for sea work and landing on beaches etc.

Accommodation

Comfortable indoor accommodation is available for eight persons. This will shortly be increased to take twelve, which is considered to be adequate as it is undesirable to have greater numbers on this type of course.

Charges

Five day course - £10

One week's course - £14

A reduction of 10% will be made for recognised youth groups or schools of not less than eight in number.

A deposit of £2 per person is required on booking, the balance being payable on arrival.

Courses will normally commence on a Saturday and for those who wish, it should be possible to spend part of the time on a canoe camping expedition.

Safety

1. Life Jackets will be available for those who cannot bring their own and must be worn as directed.
2. Applicants must be able to swim at least 50 yards in light clothing.
3. All canoes must have adequate buoyancy, painters fore and aft, and spray sheets.

Clothing

Waterproof clothing adult size can be hired for the duration of the course from the Centre.

Applicants are advised to bring their own sleeping bags and/or sleeping sheets, several changes of warm clothing, and soft shoes suitable for paddling.

For any further details apply:- Chris Gardiner, The Moorings, Rope Walk, Hamble, Hants. Telephone: Hamble 3106.

CHELMER YOUTH RACE by J.E. Marriage

There was a record entry of 40 canoes taking part in the Chelmer Youth Race organised by the Chelmsford Boating Club on the River Chelmer, which was held on Sunday 23rd October, 1966. The competitors were all between 13 and 19 years of age. They came from a number of schools and canoe clubs throughout Essex and East Anglia.

Owing to the recent heavy rain, the river was in semi-flood and swift flowing, providing a real thrill for the competitors, but no real danger. An unfortunate incident occurred when, owing to misdirections by a spectator, a crew from Essex Home Schools paddled over Cuton Weir, causing the boat to capsize with the young paddlers having to swim for the shore.

The race started from below the new sluices in the Kings Head Meadow Car Park, at Chelmsford, and finished at Ulting Lock. The total distance being 8 miles. In that distance there was 7 locks all of which had to be portaged.

<u>RESULTS</u>		Time	
		hrs.	mins. secs.
Class I	Junior (under 16) Doubles	1	25 54
	1st Woods and Smart HMS Ganges	1	25 54
	2nd Madge and Smith "	1	31 48
	3rd Lewis and Francombe "	1	39 57
Class II	Youth Doubles (16-19)		
	1st Oakenfeld & Thursdon Eagle CC (Norwich)	1	14 49
	2nd Finn & Malcahy HMS Ganges	1	15 48
	3rd Malcolm & Irvine "	1	16 19
Class IV	Junior (under 16) Singles		
	1st Williams Waverney Valley CC	1	18 46
	2nd Furze Harlow CC	1	20 7
	3rd Jermy Waverney Valley CC	1	21 42
Class VI	Youth Singles (16-19)		
	1st Johnson Eagle CC (Norwich)	1	12 13
	2nd Last Eagle CC (Norwich)	1	15 50
	3rd Bew Waverney Valley CC	1	17 15
Class VIII	Girls (16-19)		
	1st W.Drysdale Eagle CC (Norwich)	1	31 6
Class II	Open for all under 14 years		
	1st Hannent Eagle CC (Norwich)	1	29 33
	2nd Ling Waverney Valley CC	1	31 12
	3rd Mann Newham CC	1	34 32

How Many are There?

How many canoeists are there in Britain today? No one knows, and estimates range from 5,000 to 55,000. In an effort to come a little closer to finding the answer we recently sought the co-operation of the major canoe manufacturers and asked them to disclose, in confidence, their sales figures for 1965. We were delighted to receive a two-thirds response and since those replying included, with one exception, the major manufacturers we have assumed that between them these firms supplied 75% of the canoes, canoe kits, and plans sold in 1965.

On the basis of the figures we have received we estimate that in 1965 the number of complete canoes sold was between 2,500 and 3,000, the number of kits sold was about the same number, and the number of plans sold was between 5,500 and 6,000. The figures which are most open to speculation are those concerning kits and plans since these are the ones where a large number of sales are made through non-specialist suppliers and in some cases the figure for kits may well include the sale of plans. In addition, the sale of a plan does not mean that a finished canoe took the water, but on the other hand in schools and youth clubs more than one canoe may be built from the same plan.

What does all this add up to? We would suggest that in 1965 somewhere between 8,000 and 10,000 new canoes took to the water, and on the assumption that the average life of a canoe is six to seven years and that sales are increasing annually, it would seem that in 1965 there were something like 50,000 canoes in Britain.

We realise that these figures cannot be regarded as absolutely accurate, and since they were given to your Editor in confidence we are not in a position to discuss them in detail. We believe, however, that the figure of 50,000 canoes is a reasonable one, and helps to show how desperate the need for canoeing water may become. Of course, not all these canoes are owned by canoeists in the trained sense of the word, but nevertheless they all need water, and for the majority this means inland water.

It is a frightening thought that as this figure of 50,000 increases so canoeists may be less welcome on more and more rivers, and unless the B.C.U. wins its present battle for access then a growing number of canoeists will turn to tidal waters for their recreation. For the trained canoeist the sea offers a magnificent challenge, but for the casual paddler it may well become a death trap, and although an increase in regulations is abhorrent it may be that for safety's sake controls will have to be sought.

The Editor

Letters

Dear Sir,

Those Lifejackets

On Life Jackets, I am sorry you found it necessary to cut out the remarks of the Safety Committee on the misuse of jackets. It makes your journal appear to be biased against the B.C.U., rather than point out equally that there is another side to the story.

Yours faithfully,
Oliver Cock
(B.C.U. National Coach)

(We have no bias against the B.C.U., indeed over the past six years we have devoted a considerable amount of space to publicising its work, but this does not mean we are prepared to give uncritical support. The abuse of life jackets by retailers and canoeists is quite a separate matter from the B.C.U. approved life jacket scheme, and to have included it would have only clouded the main points of the issue which, as far as we are concerned, were as follows: 1. Approval was withdrawn from the 'Lifemaster' in June of this year, but not publicised until September. 2. No clear statement has been made as to the period covered by this withdrawal of approval. 3. The B.C.U. has apparently no machinery to check that its standards are being maintained. 4. Until recently, no clear statement had been made that the B.C.U. approved/non-B.S.I. life-jacket was not recommended for group use. 5. No comment was available from B.C.U. headquarters between the withdrawal of approval and the publication of 'Canoeing in Britain', a period of nearly three months.

We regret that Oliver Cock is so sensitive to criticism that he regards our presentation of the facts as biased, but we can only repeat that we regard the misuse of lifejackets when supplied as a separate issue from the matters outlined above).

Dear Sir,

Mini-Canoes

Having read of Dick Gays 'Water Flea' your readers may be interested in our mini-canoe.

It is 9ft. long, Beam $21\frac{1}{2}$ ins., Weight 15lbs. It can be constructed by anyone from our pre-cut kits which will retail at approx., £10.0.0d. Because it is a round hull, there is a jig which can be supplied complete for 50/-d, or copied from plans. The hull can be assembled in one hour and the craft finished in raw state, one day.

Its intentions! To be used in swimming pools for teaching basic strokes and rolling techniques. Note: Slalom cockpit. Or by moving the seat forward and having water in the bow section,

loop, although, I feel this is more of a prank than having any really useful contribution to canoeing. Lastly, filling in the need for the youngster in the 8 to 13 year age group who needs a canoe which is scaled down to his size and weight, so that he or she is capable of handling a canoe correctly.

I feel not only will this craft revolutionise teaching techniques, but open up the scope to a vast number of primary school children who until now, would have been unable to experience canoeing until older.

May I say at this point, that I was not the instigator of this idea but that it was initially born in an idea by Bert Keeble, of The National Sailing Centre, Isle of Wight and Dudley Courtman, B.Y. "Mamgu", Haybridge Basin. From this idea came several prototypes, from which much information has been gleaned. Finally a production craft was built and now we are sending out kits to those who are conversant with the Avoncraft technique of building.

However, within the next two weeks, we will be able to announce publically the very being of this craft, when the drawing prints are ready. We should also have some photographs by then.

Yours faithfully,
Bob Vardy,
Avoncraft, Herts.

Dear Sir,

Handicapping in Scotland

In Scotland we use the Davis system of handicapping on all L-D races (of 6 miles and over), based on LOA and girth over all which has been proved most successful over the years. It is rather biased in favour of canoes whose LOA and LWL are similar and which have high freeboard, and we are trying just now to introduce waterline measurements, which would be fairer, especially since Eskimo-type kayaks are being used more for sea touring and these have long overhangs. This form of direct handicap is better than classification, since we find that no two canoes from the one design are ever identical (see results) - NCK 1's are the worst offenders - so if races are to be between men, not boats, complete handicapping is necessary. By asking competitors for the dimensions, and checking only the first 3 boats home, a great deal of time is saved - indeed I handicapped the Lappock Rock race this year - 17 singles, 2 doubles, briefed and dispatched them in about an hour, assisted by a timekeeping secretary and starter/finisher. Who says L-D races are difficult to organize?

Yours faithfully,
A. Carnduff,
I.C.C.

News Flashes

NEW C.C.P.R. PUBLICITY OFFICER

Reginald Moore has just been appointed Publicity Officer of the C.C.P.R. and Editor of 'Sport and Recreation' in place of Robert McKinnon who is taking up a post with the British Institute of Management. Although not a canoeist, Reginald Moore has an intimate knowledge of at least two books on the subject for as Managing Editor of Nicholas Kaye, Ltd., he was responsible for the publication of both 'The canoeing manual' and 'Canoeing complete'.

BAT BOAT

The 'Bat' boat is not something from television in this case but a 10' sailing dinghy built on new principles by Pattern-Aides the firm started by John Pearton. John Pearton was the first to market kits for the Kayak canoes commercially, and rumour has it that this new method of round bilge plywood construction may soon be applied to canoes.

VARDY BOAT

In the next month or so, Bob Vardy of Avoncraft will be announcing 'a canoe which is the very first of its type ever built. It is so unique that patents have been applied for regarding its construction'. Sorry we can't tell you more, but this is all we know so far.

COALS TO NEWCASTLE

We cannot report the exporting of any coals to Newcastle, but we did hear that the Canoe Centre had to refuse a request to export their glass fibre kayaks to Germany! Apparently some German canoeists thought that the British production of Klepper designs was superior to the national product.

A SEASONAL PLUG

With Christmas just around the corner we can't resist a plug for two of our publications, 'Slalom and white water course' (price 3s.6d. post free) and 'Canoeing for schools and youth groups' (price 6s. post free). Both are obtainable from our Circulation Manager, Canoeing Publications, 6 The Mall, Brentford, Middlesex. Two further suggestions are 'Canoeing complete' (price 25s. from any bookseller) and '1,000 miles in the Rob Roy canoe' (price 10s.6d. from B.C.U. Headquarters).

WINTER TRAINING

Perhaps you would like to note that winter training sessions have started in the gym at Bisham Abbey (men only) on a Tuesday and Thursday evenings with a rowing club, if any canoeists are interested. Chris. Baker of Flat 3, 4 Chapel Street, Marlow - an up and coming canoeist - is organising this.

LEA & STORT I.L.D. RACE
2nd October, 1966

CAMBRIDGE UNIVERSITY CANOE CLUB
TREVOR ROCKS SLALOM, DIVISIONS 4, N & L.
16th October 1966

CLASS	1st RUN	2nd RUN	BEST	%	POS
CLASS 1A.	1. 157 Oliver	1.39.30			
	2. 152 P.Lawler	1.49.35			
CLASS 2A.	1. 151 Lees	1.50.20			
	2. 153 Cantle	2.03.05			
	3. 254 Honan	2.07.12			
CLASS 3A.	1. 253 Webb	2.30.10			
	2. 356 Parker	1.49.25			
	3. 350 Kitson	1.49.35			
CLASS 4A.	1. 354 Beere	2.01.05			
	2. 453 Pereira	2.05.55			
	3. 450 Pluthero	2.06.10			
CLASS 5A.	1. 554 Miller/Mean	1.30.15			
	2. 560 Jupp/Bosher	1.35.50			
CLASS 6A.	1. 657 Unstead/Who	1.41.00			
	2. 657 Benne tt/Brooks	1.42.35			
	3. 655 Grant/Holmes	1.43.05			
CLASS 7A.	1. 759 Orchard/Davies	1.47.51			
	2. 759 McCoil/Roney	1.51.36			
	3. 753 Brinkworth/Lancefield	1.54.35			
	3. 754 Dawson/Dawson	1.57.15			

4th DIVISION RESULTS.

NAME	1st RUN	2nd RUN	BEST	%	POS
David Burnhall	20 166 186	20 155 175	175	51.5	1
Brian Jupp	110 157 267	50 142 192	192	56.5	2
Tony Parnham	180 126 236	70 131 201	201	59.1	3
Richard Goodman	180 155 235	60 145 205	205	60.6	4
Phillip Brown	180 128 208	130 129 259	208	61.2	5
Christopher Gill	180 161 341	70 147 217	217	63.8	6
Robert Gibson	100 177 277	60 157 217	217	63.8	7
Mick Martin	70 181 251	70 153 223	223	65.6	8
Red Hill	370 172 542	60 184 244	244	71.8	9
Don Roscoe	260 169 429	90 162 252	252	74.1	10

LADIES RESULTS

Pauline Squires
Leslie Calverley
Sue Bucket

PEN TIM TOT

Coventry 110 136 246
Manchester 90 179 269
Southampton 310 233 743

CLASS 1B.	1. 171 Mackereth	1.24.40
	2. 173 Balfour	1.29.50
CLASS 2B.	1. 174 Coe	1.30.55
	3. 170 Leah	1.30.40
	3. 274 Lappack	1.38.26
	3. 271 Jones	1.42.26
CLASS 3B.	1. 373 Nicholson	1.32.15
	2. 375 East	1.32.30
	3. 370 North	1.45.30
CLASS 4B.	1. 470 Funn	1.47.25
	2. 471 Hunt	1.53.35
	3. 472 Blackburn	2.03.00
CLASS 5B.	1. 573 Greenway/Hewett	3:37 Sec. Air Cadets
	2. 575 McLaughlin/Milligan	1.22.30
	3. 577 Ashley/Boncher	1.23.20
CLASS 6B.	1. 670 Rogers/Beavis	1.23.40
	2. 671 Bell/Cridland	1.35.40
	3. 672 Rebone/Hanier	1.38.00
CLASS 7B.	1. 772 Caldecutt/Budderham	1.21.57
	2. 775 White/Willets	1.25.50
	3. 771 Avery/Whitby	1.28.57

CLASS 1C.	180 Miss Mean	1.28.15
CLASS 2C.	1. 281 Miss Richards	1.51.45
	2. 282 Miss Wyatt	1.56.45
	3. 280 Miss Turner	2.08.55
CLASS 3C.	1. 380 Miss Oliver	1.30.20
	2. 381 Miss Sheehan	1.45.50
CLASS 4C.	1. 480 Miss Emerson	1.39.05

NOVICE RESULTS

Robert Orchard
Kenneth Rudram
Spike Greenwood
Ben Lyon
Samon Brown
Nick Blackwell
John Davies
Geoff Maughan
Tony Ashton
Richard scalf

Southampton 60 130 190
Towers 130 135 265
Manchester 70 101 171
Fram 120 113 233
Cambridge Univ 50 140 190
Stowe 70 123 193
Chester 410 113 523
Gulley 360 112 472
16 Para 120 120 240
Oxford Univ 120 97 217

OPEN DOUBLE CANADIAN RESULTS

1 Mitchell-Woodhouse 20 153 173
2 Witter-Witter 30 147 177
3 Fleischack-Swallow 40 236 276

OPEN TEAM RESULTS

1 Chester 20 128 148
2 Nuneaton 230 153 383
3 Manchester 420 148 668
4 Rock and Ice 380 207 587
5 Loughborough B 490 191 681
6 Newham 520 163 683

REEDS CANOE CLUB.

Appletreewicki - October 8 - 9.

THIRD DIVISION

	Modified Average	249
1. Richard Williamson	167	167
2. Melvin Swallow	30 179	209
3. Roderick Stott	Manchester	10 167
4. Tony Young	West Yorks.	70 185
5. Kevin Jenkinson	Leeds	30 175
6. Michael Gamber	Cambridge U.	30 161
7. Trevor Eastwood	Leeds	60 202
8. Stewart Pember	Windsor	20 182
9. Chris Hawkesworth	Leeds	80 172
10. Chris Whiteside	Lakeland	30 185

FOURTH DIVISION:

	Modified Average	353
1. David Fawcett	Manchester	110 166
2. Colorado Watts	Birmingham	209 209
3. Brian Horn	Manchester	60 166
4. Christopher Rae	Lakeland	70 190
5. Mike Robinson	Leeds Univ.	200 172
6. David Burnhall	Leeds	90 195
7. Roger Worsden	Lakeland	50 211
8. Roger Worsden	Membridge U.	30 235
9. Ian Matthews	Hewtown OAC	30 207
10. Brian Jupp	Royal	20 220

LADIES' EVENT

	Modified Average	249
1. Pauline Squires	Coventry	40 235
2. Audrey Keerie	Sunderland	60 163
3. Jane Rowse	Chalfont	160 21

WILD WATER RACE

	River Wharfe;	Hedden to Appletreewick
1. David Mitchell	Chester	24.6
2. John Woodhouse	"	26.27
3. Norman Jackson	Manchester	26.53
4. Robin Lees	Cambridge	27.21
5. Chris Hawkesworth	Leeds	27.46
6. Roger Marsden	Lakeland	28.88
7. Graham Goldsmith	Brighton	28.36
8. Colin Gregory	Royal	28.37
9. Bin say Williams	Cambridge	28.43
10. Paul Fletschack	Chester	29.19

NOVICES' EVENT:

1. John Liddell	Ellesmere Coll.	105
2. Simon Brown	Cambridge Univ.	122
3. Tony Harrall	All-umere Coll.	110
4. Tony Tinker	Manchester	133
5. Steve Morgan	"	175
6. Ian Yeh	Wigston	136
7. Mike Greenwood	Manchester	138
8. Trevor Johnson	Sunderland	130
9. Albert Woods	Nottingham	147
10. J. Wilkinson	"	100

OPEN EVENT:

1. Keith Wickham	Sunderland	135
2. Raymond Canerley	Manchester	139
3. John Woodhouse	Chester	141
4. David Mitchell	Forth	147
5. Brian Palmer	Leeds	157
6. Graham Goldsmith	Brighton	20
7. Peter Hazelton	Chester	145
8. Norman Jackson	Manchester	176
9. Stewart Hatton	"	30
10. Lindsay Williams	Cambridge U.	152

TEAM EVENT

	C2	EVEN.
1. Worcester	190	257
2. Lakeside	180	269
3. Shepperton	320	251
4. Manchester B	300	245
5. Riverside B	300	324
6. Birmingham	380	298
7. Soar Valley	460	267
8. Cambridge U.	550	256
9. Riverside A	570	244
10. Manchester A	630	278
11. Eekdale	730	294
12. Nottingham	1140	184

1. Mitchell/Woodhouse 100 210 310
 2. Lloyd/Sibley 230 253 203
 3. Swift/Slaver 460 104 644

We apologise for the fiasco concerned with the judging of Gates 12 - 15 in this event. Scores for these gates have been discarded when computing the results for C2 and Remas.

CHALFONT PARK CANOE CLUB

	Marsh Lock Slalom - 2nd October.
1. James Parker	150
2. Colin Gregory	220
3. Victor Binstead	195
4. Chris Hawkesworth	235
5. Randal Cousins	147
6. Richard Williamson	164
7. Brian Brown	252
8. Alexander Davidson	267
9. Graham Wydon	262
10. Anthony Blount	298

DIVISION FOUR

	1st Run	2nd Run
1. Kevin Jenkinson	181	150
2. Andy Stopp	196	160
3. Edgar Neale	247	162
4. John Kingsley	153	203
5. Russell Sharp	147	170
6. Rod Hill	168	180
7. Danny Ballynple	115	120
8. James Sunderland	127	110
9. Mike Newton	171	340
10. Nigel Wood	171	200

LADIES DIVISION

1. Margaret Bellord	283
2. Sue Buckett	263
3. Jane Rowse	175

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