

# CoDe

The Magazine of the  
British Canoe Union  
Coaching Scheme

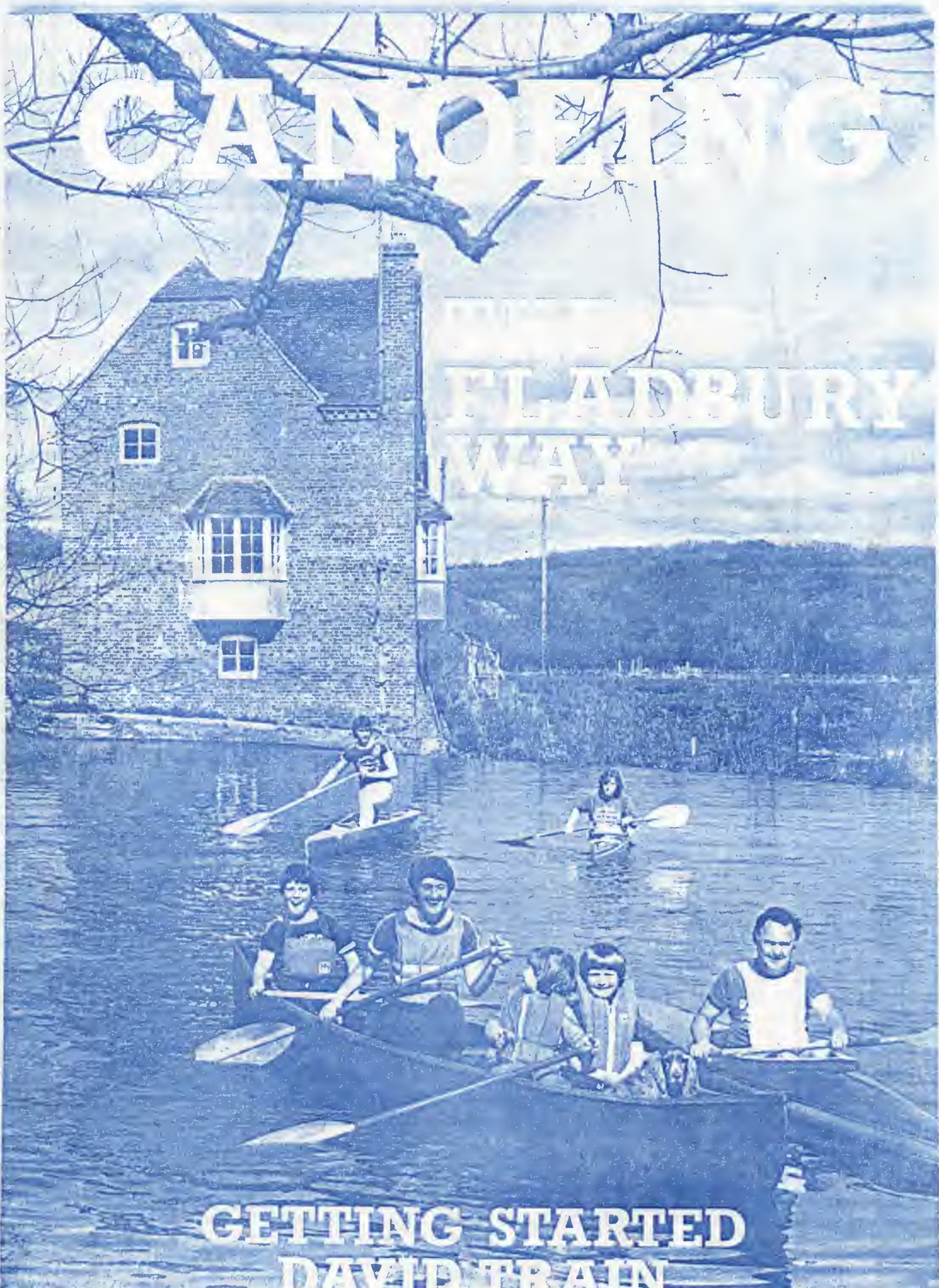
Number 16

Summer 1983.

# CANOEING

## FLADBURY WAY

GETTING STARTED  
DAVID TRAIN





CoDe is the official organ of the BCU Coaching Scheme. Members are free to express their views within it. Articles and comments therefore reflect the authors' thoughts and do not necessarily state the policy of the National Coaching Committee.

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## Chairman's Chat

It is with considerable regret that we have had to accept the resignation of Chris Hare as Editor of CoDe. Unfortunately Chris has found the part that he plays in the running of a successful business has reduced the amount of spare time he has available.

I should like to thank Chris on behalf of the Coaching Scheme for the hard work that he has put into CoDe during his time as Editor and also for the loyal service that he has given Coaching over more years than perhaps he would like to remember. I have always regarded Chris as one of the 'fathers' of the Coaching Scheme and shall very much miss his contribution to debates at Coaching Committee meetings although I am sure we shall meet him from time to time on the water or on some muddy river bank.

The response to the appeal for a Treasurer made in the last issue of CoDe was not over-whelming although rumour has it that somebody nearly rang me up. (0952 882135). On reflection what I asked Geoff to put in CoDe was misleading. What is really required is not somebody to keep books, sign cheques and handle money because all this is done at the office, but someone to offer us advice. Our tests and awards should make a profit to help balance some of our other expenditure which is not grant aided. Because our money is held centrally and tied in with the general BCU funds it is difficult to ascertain the costing of various operations in the Coaching Scheme. Here we need the help of somebody with a business or accounting background who will be able to ask the right questions and understand the implications that the budgeting and financing of the BCU will have upon the Coaching Scheme. This would not be a terribly time consuming job but certainly an interesting one.

This year's Conference as you know is at Crystal Palace and within the next few weeks we shall need to sort out the programme. Gordon Ray and the London panel will be masterminding the event but the more ideas that we have, the more likely we are to put on a lively and stimulating conference. Have you got any ideas? What would you like to do? Would you like to have a spot to show or tell us about something that you have done? Rush your ideas to Geoff Good at HQ today and he will hire a truck, paid for out of the savings that our new Hon. Treasurer has made and convey them to Gordon.



# HYPOTHERMIA

## the current situation by DONALD S THOMSON

Hypothermia is a subject which nearly everyone involved in outdoor pursuits is now aware of to some extent, through increased literature and coverage of rescues and accidents by the media. Much research has and is being carried out on this area, mainly by the Navy and those involved in the recent offshore oil industry, but so far very little of the results have percolated through to those involved in sporting activities and in particular to their governing bodies.

My own interest in Hypothermia originated from an involvement in water sports and a requirement to give talks on the subject at Canoe Life Saving Award Courses in Scotland. The amount of literature available, mainly in the form of papers presented at conferences is surprisingly large, but difficult to obtain by the layman. Most are very involved medically, and in my research I have tried to extract the information of interest to sportsmen without becoming bogged down in physiology.

### Definition

One of the problems with the treatment of hypothermia is that there are now 3 distinct types recognised, with different treatments. The basic definition is still the same viz: "a severe cooling of the body resulting in a core temperature below 35°C" (normal core temperature is 36.9°C).

The types are distinguished by conditions in which they originate as follows:-

- 1) Acute : Brought on quickly by immersion in water colder than 25°C and sometimes called immersion hypothermia.
- 2) Sub-Acute : Sometimes called 'Mountain or exhaustion hypothermia'. This is caused by exposure to a cold wet environment and is insidious in its onset developing gradually.
- 3) Chronic : Not often met by sportsmen, this is the form encountered in old people, addicts and malnourished youngsters and may take days or weeks to manifest itself.

In water based activities we are mainly concerned with Acute hypothermia, but mention will also be made of Sub-Acute hypothermia which may also occur during water based activities.

### Physiology

To understand the treatment involved, and be able to judge casualties conditions better, a basic knowledge of the physiology involved is useful, particularly concerning the distinction between the types of hypothermia.

The body has certain mechanisms which it uses to try to keep the core temperature within specified limits. These are shivering, sweating and vasomotor reactions, all of which are controlled by the hypothalamus, a specific area of the brain which deals with the body temperature. The first two are self explanatory reactions to decrease or increase core temperature respectively. The third is also a sub-conscious reaction but involves changes in the blood volume, its chemical makeup, and the areas and rate of circulation. All are induced by an imbalance in what is called the "heat balance equation", mainly:-

$$\text{Metabolic heat} \pm \text{radiation} \pm \text{conduction} \pm \text{evaporation} \pm \text{work} \pm \text{stored heat} = 0$$

If the results of this equation is positive, sweating and vasodilation (a widening of the arteries, increase in blood flow and decrease in viscosity) will occur, and if the result is negative shivering and vasoconstriction (a narrowing of peripheral arteries, decrease in blood flow and increase in blood viscosity) are two results. In hypothermia we are mainly concerned with the latter. The bodies sub-conscious reactions to changes in temperature will only work within fairly tight limits, and if the external factors causing the imbalance in the equation become too great, the body cannot redress the imbalance itself, and external help is required.

If the casualty is introduced suddenly to a cold environment, the hypothalamus senses this immediately, and if no change occurs in the circumstances, will react by the mechanism of increasing vasoconstriction and shivering, i.e. the heat production of the body and concentrating it in the core where the important organs are. This is normally the case in acute hypothermia.

In sub-acute hypothermia where the cooling is gradual over a long period and maybe complicated by exhaustion, lack of food or poor initial health the hypothalamus does not react in such a pronounced manner because the temperature gradient involved is not as steep. Again the circulation is restricted in peripheral areas, but because the condition lasts for longer the body also has time to make chemical changes as a secondary reaction to the initial vasoconstriction. These are not fully understood, but include a decrease in the fluid content of the blood as a reaction to the decreased flow, and a build-up of acid in the tissues because there is not enough oxygen and nutrients to carry these away from some parts of the body.

### Prevention

Man is a tropical animal and lives in other areas of the world at risk, which he minimises by wearing clothes to insulate him from the environment. There are three divisions to this insulation, the surface area of the body, clothing, and air trapped on the surface or between clothing, all of which can be altered to adjust the body temperature, the first subconsciously, and the latter two consciously. To minimise the likelihood of hypothermia in an individual, maximum use must be made of the latter two by wearing thin layers preferably of wool which will trap air, and a windproof top to protect this from the environment. A hat is vital because up to 30% of heat is lost from the head. In extreme circumstances every effort should be made to keep the result of the "heat balance equation" positive.

### Group Precautions

There are many other factors which should be considered by leaders and instructors, on say a hill walk or a canoe trip, the main items of which are:-



- 1) The physical ability of the party to tackle the project concerned.  
Children and slightly built adults are less likely to cope under strain or cold than fit and well built adults. In general males are more at risk than females to hypothermia because females benefit from their thicker subcutaneous fat layer which gives better protection to the body core.
- 2) The medical condition of individuals:- Do any of them have heart conditions? Have any been ill recently? Are any on drugs? As much information as possible should be found out so that the leader or instructor can make a better assessment of the parties capabilities.
- 3) Ensure that all are well fed beforehand, as this can considerably reduce an individuals performance and capability to deal with difficult situations.
- 4) Psychological factors should also be considered eg are the people used to the conditions? If not this may cause anxiety and fear. Do they have confidence in themselves (say to handle a canoe), and do they have confidence in the leader?

All of these factors should be considered, and every possible effort should be made to reduce their effect by the use of proper equipment, methods, training and preparation.

#### Personal Action

It is important that everyone involved in water based activities is familiar with rescue procedures, and how to look after themselves in the water. This is one situation where familiarity is unlikely to breed contempt. There is no substitute for work in cold water so that instructors and pupils can realise their own limitations. This is particularly so if those concerned have only swum in heated pools previously. Someone who can swim a kilometer in a pool may only manage 50m in cold choppy water, and the sooner he realises this the greater his chances of survival.

All members of groups should be made aware of the following basic personal survival principles:-

- 1) If you are immersed in cold water yourself and rescue is unlikely to occur in the immediate period, every effort should be made to conserve heat by:-
  - a) Keeping as much clothing on as possible consistent with floating comfortably.
  - b) Do not swim or exercise to keep warm, as this increases the water flow over the body and thus heat loss.

If a lifejacket or Buoyancy Aid is being worn the casualty should try to float with his arms by his side, legs together and knees pulled up as close to the chest as practical. This will minimise the body area exposed to the cold water. If no personal buoyancy is being worn, he should try to hold onto some sort of floating object and use the minimum of effort to stay afloat.

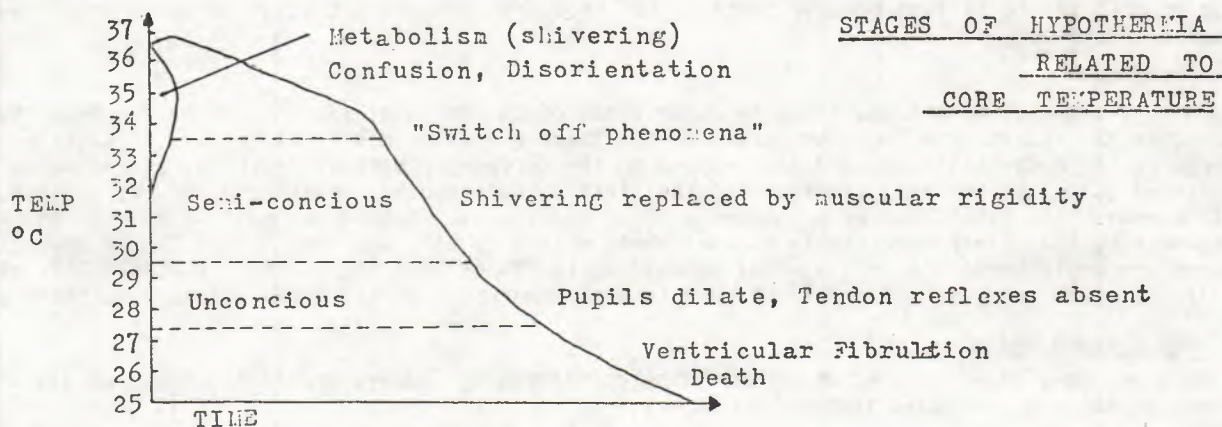
Note: Unless circumstances are exceptional, if one person becomes hypothermic, it is likely that others in the group will be nearing this stage, and every effort should be made to minimise the possibility of subsequent casualties by taking all possible precautions in the circumstances.

#### Recognition

Because of the "switch off phenomena" which occurs with hypothermia, only in the early stages will the casualty be conscious of the deterioration in his/her condition and be able to do anything to rectify it. For this reason it is vital that all members of a party should know the symptoms, and are alert for them. If necessary this can be done by pairing people off and asking them to watch each other for symptoms. N.B. "BELIEVE THE SYMPTOMS: NOT THE CASUALTY". Unfortunately unlike most medical conditions there are no specific symptoms from which hypothermia can be diagnosed, although the following may be helpful indicators in the early stages. The best indication of the likelihood of hypothermia are often environment, and the present situation. It should be noted that some, all, or none of these symptoms may occur.

Symptoms : Abnormal behaviour  
Violent shivering  
Slurred speech  
Vacant eyes  
Reluctance to answer questions  
Very cold skin - blotchy or discoloured  
Complaints of "feeling cold"  
Lagging behind or stumbling.

In later stages : Collapse  
Progressive impairment of breathing and heart function, leading to eventual stoppage of one or both, and thus death (within four minutes) unless treated immediately.





## Treatment

The first stage is to remove the casualty from the offending environment, or if this is not possible, at least decrease its effect. In its simplest form this could be turning with ones back to the wind, or sheltering behind a rock. Secondly attempts should be made to improve the casualties environment by putting up a tent, putting on further dry clothing, or providing increased insulation from the ground. In immersion cases, remove the patient from the water and get him/her to shore as quickly as possible. After this the treatment varies depending on whether acute or sub-acute hypothermia is involved.

## Acute

Acute hypothermia is by far the easiest to diagnose and treat, if only because of the circumstances causing the condition, normally immersion in cold water. Treatment should if possible take the same form as the method of cooling ie rapid rewarming, by means of placing the patient in a hot bath at 45°C-approximately the maximum temperature an immersed elbow can withstand. The patient should be kept in the bath until signs of sweating are shown and thereafter treatment should continue as detailed below for sub-acute hypothermia.

Much research had been done on this aspect of rewarming, and an explanation of the mechanisms involved is useful at this juncture. Previous theories recommended keeping the limbs out of the bath, to stop vasodilation of their blood vessels and a rush of cold blood to the heart. Recent research by Keatinge and Golden has now shown that it is better to keep the limbs in the bath as the hydrostatic pressure of the water will slow the bloodflow to the heart, and any blood returning will have been warmed by the water.

One of the major problems with the treatment of all types of hypothermia and particularly acute is a phenomena called 'after drop'. This is best explained by modeling the body as a series of shells as shown in dia. 2. Even after the subject is removed from the offending environment his/her temperature will continue to fall until the heat being applied had penetrated the shell layers and reversed the trend.

The effect of 'after drop' is to give the impression that the rescuers treatment is not working, and this can be demoralising. Rescuers must therefore be aware of the 'after drop' and be sufficiently certain of their treatment not to despair in the initial stages.

Note 1: If the situation precludes the use of a hot bath the treatment should be as for sub-acute hypothermia detailed below.

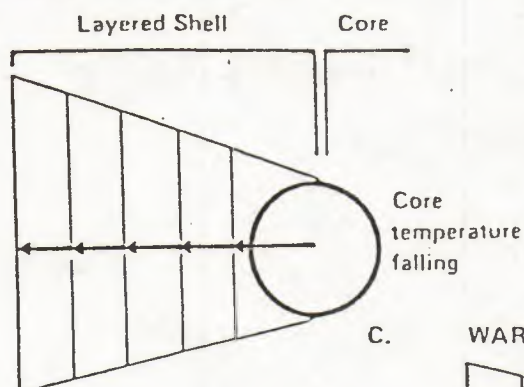
Note 2: Acute hypothermia is the only form which should be treated by direct external heat and only in the form of a hot bath for reasons explained above. Further explanation of this is given in the treatment for sub-acute hypothermia.

## Sub-Acute

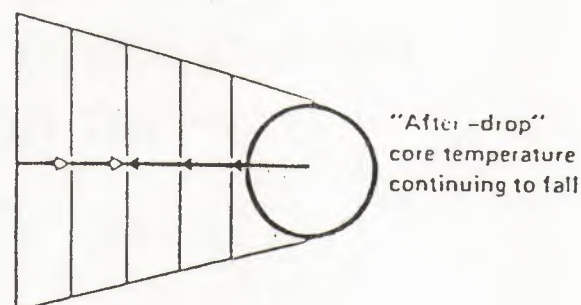
Because of the metabolic changes involved in sub-acute hypothermia, this is a much more difficult problem to deal with both in diagnosis and treatment. Much research is being done in this field especially by the Navy, and the treatments recommended vary somewhat. What is given here is the most recommended treatment at the present time.

The casualty should be immobilised and insulated from the environment. Dry clothes should be put on with the minimum of fuss and handling, and the casualty should be kept as warm as possible. If the casualty is conscious warm drinks may be given in limited amounts. There are two schools of thought on the method of rewarming. One is the classic method of getting the casualty into a warm environment, putting someone in the sleeping bag with the casualty, preferably skin to skin contact. Opponents of this say it will cause an increase in blood flow from the peripheral areas to the core, because that is where the heat is being applied. They recommend that instead the casualty should be placed in a neutral environment ie kept there where the body can warm up through its own mechanisms. The treatment to use is up to the individuals, and may be influenced by the prevailing situation and equipment available. In a group situation where there is the possibility of further cases developing the former is probably better psychologically.

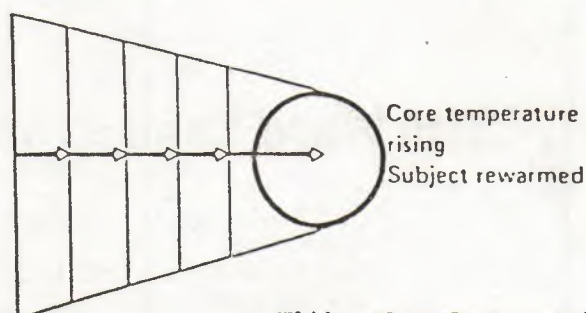
### A. COLD WATER (< 33°C)



### B. WARM WATER (40 - 44°C)



### C. WARM WATER



DIAGRAMMATIC REPRESENTATION  
OF "AFTER-DROP"



It must be stressed that rapid rewarming must not be used in the case of sub-acute hypothermia, because this will open up the peripheral blood vessels and cause a rapid decrease in blood pressure, due to the decreased fluid volume, which will normally be fatal, without special medical equipment and assistance.

#### General

Handling of the patient is very important, as even the smallest extra demand on the heart maybe too much for it. The patient should therefore be handled as little as possible, and if absolutely necessary very gently. If it is required to carry the patient this should be done with the head slightly lower than the body. Pressure to the abdomen should be avoided as this may cause heart failure. This is a major problem in helicopter rescues where a harness is the only practical method of rescue.

In all cases there is no substitute for proper medical attention, and this should be obtained at the soonest possibility. Until such time the help rendered, and discussed above, is of necessity, First Aid, and should be viewed as such.

A further complication in extreme cases, or those involving drowning, is the possibility of a failure of the respiratory or circulatory systems. If failure does occur treatment in the form of Expired Air Resuscitation (EAR) and External Cardiac Massage (ECM) should be applied in the normal manner until such time as medical help arrives, either to take over or pronounce the casualty dead. Remember in these situations DEATH = FAILURE TO REVIVE, and no matter how hopeless the situation may seem, every effort should be made to revive the subject. This is particularly the case in hypothermia where the casualty may appear dead, or very near to it, because of the much decreased metabolic rate.

There are many other aspects of hypothermia too numerous and involved to mention in this context, mainly concerned with deaths in immersion incidents not directly attributable to either hypothermia or drowning. Most are unavoidable, but present research suggests they may be decreased by familiarity with cold situations, and practice of rescue incidents.

#### Conclusion

Hypothermia is a condition which can strike anyone involved in outdoor activities at any time of the year in Britain, and can only be avoided by educating everyone involved of the dangers, how to prevent it, and in the last resort, the best treatment in the circumstances.

Ongoing research has produced a wealth of papers on the subject, and continuing changes to the recommended treatments for various types of hypothermia. Those whose responsibility it is to look after the safety of people on activities should try to keep up with current research, and it is hoped the information contained in the previous pages will help in this respect.

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#### DEFINITIONS OF A STRONG PADDLER - gleaned from a Portsmouth Canoe Club Newsletter.

1. Goes from A to B with remarkable speed (but unfortunately has no energy to get back.
  2. Wonders why he is so far out to sea. (This shows how much he checks on others)
  3. When he hears shouting from behind. (Thinks everyone is catching up, goes faster, gets swamped by passing ferry.)
  4. Sets off first and fast for Fishbourne. (He gets to Chichester first, others get to the Isle of Wight first)
- 

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# PADDLE SIZES

**- more variety for juniors** says JOHN STURGESS

The more coaching I do, the more I become irritated by the refusal of paddle manufacturers to produce paddles suitable for the children I coach. I run a small school canoe club - currently 16 members, ranging in age from 11 to 17, and in height from 1.44m to 1.78m. We paddle mainly slalom - 10 of them, all those who have paddled for more than a season, being in Div 4 or Div 3. They train in winter on Grade 3 water; last summer 6 of them paddled Swiss Wild Water Week, touring rivers up to Grade 5, and paddled Augsburg.

As the table below indicates, they are no different in size/age relationship to the normal boy of their age; yet hardly any use paddles that come within the normal range marketed by manufacturers of canoe paddles; 203 cm is the smallest I have ever seen on normal scale; at Castlefields this week I did not see a paddle for sale below 206 cm. Both there and at Glasshouses the previous week I would estimate that three-quarters of the paddlers need paddles of less than those lengths.

I spoke at Glasshouses to the father of a boy about 1.50m tall. He had ordered a pair of 190 cm Freeblades from a major canoe manufacturer. The Managing Director of the firm had given him a pair of 196 cm, saying that he would grow into them. That is, of course, appalling: but I wonder how many shops, or those selling equipment at events, would ever tell a fond but inexperienced parent not to buy overlong paddles, but to order special lengths from the makers?

Even for those lucky enough to be able to paddle in relatively deep water rivers the effect on style is damaging. Children do not develop an effective paddling style: every forward stroke is made with the paddles held low across the boat, and the arms bend: neither power strokes nor sweep strokes are made properly. That affects all moving-water canoeing adversely, and is much more serious on the shallow rocky rivers where many novices paddle in the North and West of England.

The effect on novice slalom paddlers is even more serious: they often find that they can only get through gates by laying their paddles along the side of the boat as if practising for a joust: thus they get into the habit of drifting through gates, especially reverse gates.

And perhaps if manufacturers were to start producing for the market where paddle length is concerned, they might also give some thought to the question of the size of paddle blades. This is obviously a more difficult one, especially for those using laid-up or moulded blades: but it ought at least to be possible to get two blade sizes.

I am not by any means saying that it is all the manufacturers fault: in the last few years several good junior canoes have come onto the market, yet one still sees too many tiny children in huge canoes.

Members of the coaching scheme are likely to be involved with the introduction of many of these children to canoeing, either as Senior Instructors, or as Slalom Coaches or Trainers. Yet this question of suitable equipment for youngsters is, I feel, not sufficiently stressed in the syllabus for SI Training and Assessment. Trainees should at least be shown how to match children and equipment. The old fingertip rule, suggests Frank Goodman in the Handbook, should be replaced by 'fingers curled over the top of the blade': I am not sure how he derives 210 cms as an average from that: perhaps he knows a lot of tall people? In any case, that brings in leg length: why?

Bill Endicott in 'To win the Worlds' recommends that when the paddle is held on top of the head with the elbows bent at right angles, there should be a gap of about 7 inches between the little finger and the top of the blade: obviously this would reduce proportionately with height, to say 4 inches for a 1.50m 10-year old. This is the sizing system I use: it seems to work.

If we were to use this system, or something like it, with all the children we deal with; and tell their parents how important it is; then I am sure that the pressure on manufacturers would become irresistible.

Tables of heights/paddle sizes:

|                                                   | Paddler          | Age | Height (ft/ins) | Paddle (cms) |
|---------------------------------------------------|------------------|-----|-----------------|--------------|
| (a) US Team (from Endicott) & other top paddlers. | Chris McCormick  | -   | 5'11"           | 206          |
|                                                   | Cathy Hearn      | -   | 5'7"            | 203          |
|                                                   | Linda Harrison   | -   | 5'11"           | 207          |
|                                                   | Richard Fox      | -   | 5'9"            | 206          |
|                                                   | Edi Wolffhardt   | -   | 6'1"            | 207          |
|                                                   | Norbert Sattler  | -   | 5'7"            | 206-208      |
|                                                   | Albert Kerr      | -   | 5'8"            | 208          |
| (b) Giggleswick School Canoe Club.                | Paul Oxtoby      | 17  | 5'9"            | 204          |
|                                                   | Michael Lord     | 16  | 5'7"            | 200          |
|                                                   | David Miller     | 17  | 5'6"            | 200          |
|                                                   | Alistair Law     | 16  | 5'7"            | 200          |
|                                                   | Nick Fleet       | 16  | 5'11"           | 200          |
|                                                   | Richard Hirst    | 16  | 5'7"            | 192          |
|                                                   | Robert Jeffrey   | 16  | 5'8"            | 200          |
|                                                   | Andrew Varrall   | 16  | 5'11"           | 202          |
|                                                   | John Westgarth   | 15  | 5'5"            | 190          |
|                                                   | Richard Galloway | 15  | 5'7"            | 200          |
|                                                   | Andrew Hatfield  | 15  | 5'9"            | 200          |
|                                                   | Tom Rigby        | 14  | 5'5"            | 190          |
|                                                   | Philip White     | 14  | 5'2"            | 180          |
|                                                   | Andrew Kay       | 13  | 5'2"            | 180          |
|                                                   | Jonathan Travers | 12  | 4'10"           | 170          |
|                                                   | Justin Wardell   | 11  | 5'0"            | 180          |



# DRAW STROKE ON THE MOVE

Richard Scullard of Bristol has pointed out that no mention is made in the Handbook of the transition from the passive form of the drawstroke, to its use whilst on the move.

The following is not intended as the last word on the subject, but rather as the starting point. Your comments are welcome.

Once the drawstroke has been learned as described, it needs to be applied to a moving kayak.

The first simple exercise to try is to start on the left and paddle normally on that side, but use a draw stroke, instead of a power stroke, for each time you paddle on the right hand side. Paddle along until about twelve drawstrokes have been applied. Then repeat the exercise with power strokes on the right, and the drawstrokes on the left.

We can then move on a stage. Paddle towards a fixed obstacle and attempt to draw the boat sideways in order to miss the mark, by applying a 'hanging draw'.

In order to achieve this it will be necessary to allow the bow to point slightly in the opposite direction during the final stroke before the draw is applied (fig 1).

Otherwise, the bow will be drawn before the stern, and a correcting stroke at the back will be necessary.

When planting the paddle for the hanging draw, the loom should be as upright as possible, reached well out from the side, with the leading edge of the blade opened about 20° from the true line of travel.

After achieving some success on both sides, using this technique, move on to the next exercise.

Approach the obstacle as before. This time do not allow the bow to swing away. Plant the paddle as before. First the bow will draw towards the paddle. As it does so, slice the blade backwards and outwards through the water, and then draw it in towards the kayak further back, in order to correct the stern.

You should endeavour to miss the obstacle in all cases!

Finally a question: It is invariably taught that the wrists are rotated outwards during the recovery phase of the drawstroke, as the blade is positioned for the next draw. This turns the back of the blade towards the bow (see illustration).

I would venture to suggest that in reality - that is when drawing on moving water - the blade is turned the other way should a recovery phase be necessary in order to repeat the draw. That is, the wrists are pushed forward, keeping the drive face open to the water.

The next time you are paddling in earnest, give it a try, and really think about what is happening. I will be interested in what you come up with.

Also, no mention has been made of the lower body involvement in the draw stroke. Can you suggest a form of words to improve on the advice given both in the Handbook and the notes above?

Bow allowed to swing slightly in opposite direction

Line of travel

FIG 1

Resulting direction of draw

Angle of paddle blade



Figure 5:6b The blade has been feathered through 90° and is being returned to the starting position.

This illustration from the Handbook shows Jim Hargreaves returning the blade with the wrists rotated outwards. The base of the blade is thus presented to the (moving) water.



# FUN and GAMES



Keith Harrison of Hillingdon Sailing Base, has produced a concise guide to help his instructors train and test to a level standard for their Star Test courses.  
The appendix on Fun and Games reads as follows:

\* Star Rating \*

## GAMES

### 1. COWBOYS AND INDIANS \*\*\*\*\*

Each person sits on the rear deck of his/her kayak and attempts to push the opposition off their kayaks.

- Rules:
- i) No pushing with paddles
  - ii) Define an area outside which they must not go.
  - iii) Once in the water they must not leave their kayaks.

### 2. TAG or BALL TAG Tag \*\*\*\* Ball Tag \*\*\*\*\*

One person is appointed 'it', each person touched joins the 'it' side until the last person is hounded to death by flailing paddles and screamed commands.

- Rules
- i) Touches must be to the body for Tag, by hand only. For ball Tag any part of the kayak or body. Anyone using a paddle is to be beaten about the knees with a limp lettuce.
  - ii) Define an area.
  - iii) Instructors may opt not to play as safety and group ability dictates.

### 3. ADAMS GAME Who's Adam ? \*\*\*\*\*

Two teams, each defending a buoy. The referee throws in a football, both teams race to get possession. A goal is scored when a team hits the opposition's goal. Worth five points.

Suggestion: With inexperienced paddles the two buoys should be no more than 10 yards apart and play takes place around them.

- Rules
- i) No smacking the ball with the paddle you may remove an otherwise perfect set of dentures in the process.
  - ii) Define an area.
  - iii) Broken ribs from ramming - deduct 20 points and remove to hospital - PLAY ON.

### 4. TREASURE HUNT \*\*\*

Identify various land marks or unusual features plus a piece of litter. Split the group into smaller groups for the search. A Le Mans start is recommended especially if each person has to inflate and burst a balloon before starting. Warning: substituting the odd balloon for a hot water bottle or rubber glove can under-mine your authority!

- Rules
- i) Each group must stay together and an instructor can follow each group, but not help.

### 5. ORIENTEERING \*\*\*

Two teams or several teams of three. Each team is given a map of a defined area of water and surrounding banks divided into grids. At specific points, given on a separate sheet of instructions, various letters are hung on trees or whatever. The first team back with a full set of letters, arranged to spell a word, wins.

e.g. C A N O E

Suggestion: Keep the rear ends of the kayaks slightly apart, and bows together. This ensures the effort expended by the seated partner stays below the pain threshold.

### 6. CHARIOT RACE \*\*\*

Two kayaks make a chariot. One person sits on a paddle shaft behind the cockpits with a foot in each kayak to keep them together, the other person stands with a foot in each kayak and paddles. Winner is the first chariot to cross the finish line.

### 7. FOLLOW ME LEADER \*\*

'Nuff' said.

### 8. TUG OF WAR Untried

The bows or sterns of two kayaks are tied together a few feet apart - need I say more.

### 9. WATER FIGHT \*\*\*\*\*

'Nuff' said again.

### 10. DUNK THE INSTRUCTOR. Or developing antisocial behaviour in the under sixteens. \*\*\*\*\*

They have to catch him/her first.



# Is Specialisation a Key?

asks the DIRECTOR OF COACHING

In about 1972 the Marathon Racing committee sounded the death knoll on the old class 3 and 4 boats. These classes were for 'touring singles' and 'touring doubles'. A fierce rear-guard action was fought by those who paddled the craft, but the decision was taken to make the national championships open, thus allowing the predominance of K1's and K2's.

Marathon racing failed to attract significantly larger numbers to its ranks, until David Train came along three years ago with his 'divisional' system, which allows virtually any kind of boat to be raced at the lower levels. The result has been a 65% increase in participation, and an injection of funds through a valuable sponsorship with Cape Industries.

Sprint racing has always been the most specialist section of our sport, and also the smallest. We are dealing with 'numbers involved' only, of course. Insofar as prestige is concerned, Racing has had Olympic status since 1936, and in consequence is a very important part of our structure.

Wild Water Racing separated from Slalom in 1979, with the idea that the sport would advance more when run by those with a single purpose. It was felt by many that in a combined committee it would only ever be an 'afterthought' to Slalom. One of the principles on which development has been based is that of promoting racing in purpose-built racers, and discouraging the use of slalom and general purpose boats. Again, there has not been a dramatic improvement in the numbers taking up wild water racing.

Competitive Surfing has pursued a specialist path. General purpose and slalom boats have been actively discouraged, while the trend now is to the pure ski. Even the surf kayak is in decline. Ten years after the 'specialists' took the sport over, there are about 443 competitive surfers in the Union, as opposed to 3,390 who surf recreationally.

Slalom has always enjoyed the reputation of having the largest following among BCU members. In the past few years the boats have become more and more 'extreme'. The Slalom Committee is currently 'disappointed' at the level of growth. It is still encouragingly on the increase, but not at the high rates that had been anticipated.

It may look as though I am blaming the increasing specialisation of boats as being the sole reason for lack of dramatic growth. This is not the case. I am well aware of a great number of contributing factors which no doubt - and hopefully - correspondents will point out, for the purpose of this article is to provoke helpful debate through correspondence. Further, specialisation is an integral part of modern sport. To compete with distinction at world level involves giving a great deal of attention and resources to elitism. And success at the top matters, because it affects the whole of the rest of the sport.

It does seem to me, however, that 'specialisation' is a common theme, which needs to be taken into account. The Marathon Racing Committee, for instance, has now introduced three extra divisions. The reason for this was that divisions 8 and 9 were becoming filled with paddlers using specialist craft. There has therefore been a further provision made to enable any paddler in any craft, to enter, with a fighting chance of fair and enjoyable competition at the bottom end.

The Coaching Scheme usually gets the blame for any failure of a discipline to achieve its desired rate of numerical increase. This I would strongly contest. Following are figures showing the number of members of the coaching scheme currently involved in our various forms of competition. From surveys we know the average number of paddlers handled by instructors, and it is fairly obvious that a great number of youngsters are encouraged into, and assisted in their ongoing participation, by Coaching Scheme personnel. The availability of specialist coaching, once a paddler has started to develop, is an acknowledged weak area, in which efforts to remedy the situation are being made. It has not proved possible, in the last three years of trying, however, to find a coach from within racing or wild water racing, to begin to make the system work in the way that Hugh Mantle has achieved for slalom.

|          | No. of<br>Coaching<br>Scheme members<br>Involved | No. of<br>Members<br>Involved | Percentage of<br>Participants who<br>Are members of<br>Coaching Scheme | Percentage of<br>Total Coaching<br>Scheme<br>Participating | Percentage<br>Of total<br>Membership<br>Participating |
|----------|--------------------------------------------------|-------------------------------|------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------|
| Slalom   | 997                                              | 3649                          | 27                                                                     | 35                                                         | 46                                                    |
| Racing   | 176                                              | 889                           | 20                                                                     | 6                                                          | 11                                                    |
| Marathon | 528                                              | 1886                          | 30                                                                     | 19                                                         | 24                                                    |
| WWR      | 559                                              | 1730                          | 32                                                                     | 20                                                         | 22                                                    |
| Surf     | 195                                              | 502                           | 39                                                                     | 7                                                          | 5                                                     |
| Polo     | 321                                              | 1042                          | 30                                                                     | 11                                                         | 13                                                    |
| Sailing  | 15                                               | 90                            | 17                                                                     | 5                                                          | 1                                                     |

Now consider slalom participation - 46% of BCU Members being involved. Multiply the number of events (115 this year) by the average number of competitors - 200? and double it (2 days per event). 46,000 slalomists/canoeing days is a generous figure. Compare this to the 'recreational' 3.5 million.

There are 1,500 Coaching Scheme members who are not involved in any form of competition. That is, as many again instructors, working on average with 25 persons annually, as there are individual registered racing paddlers in the country.

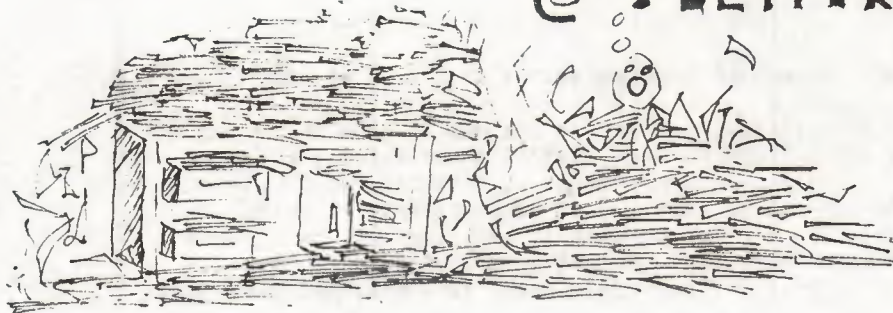
However, we are not seeing the anticipated proportions joining the Union through this considerable participation. There is obviously room for improvement. It is how to achieve that improvement which is the question. Unless we identify the problem accurately, we will not be in a position to make the right moves. There is no purpose in pursuing policies based on false assumptions.

This treatise is not a criticism of those who run the various competitive sections of the BCU. Far from it. I believe that those few volunteers who give their time, trouble and talents to organising and promoting our activities, serve the membership exceedingly well, and have achieved great things for their sport.

What is important however, is to consider the facts of the situation as we try to determine the measures we should take to further improve continuing participation in our activities - and in consequence, membership of the Union.

Enough of this waffle. What do you think needs to be done to increase participation in competition?





Dear Code

In the last issue of CoDe, Brian Biffen asked the question 'Why is there a purist attitude of so many canoeists over rudders on sea kayaks?' For many years I resisted the fitting of a rudder, my reasons were:

1. I did not know any better
2. The 'experts' claimed they were un-necessary
3. A rudder on a sea kayak is vulnerable

It took six years experience before I realised that the first two points were complete junk. This period ended in three of us fighting for control in a particularly viscous sea, and ending up exhausted while the fourth member of the party - with a rudder - paddled serenely on as if he was canoeing a lake in the park. The three of us fitted rudders in our boats directly we got home and have been wondering ever since why it was we spent so many years doing it the hard way.

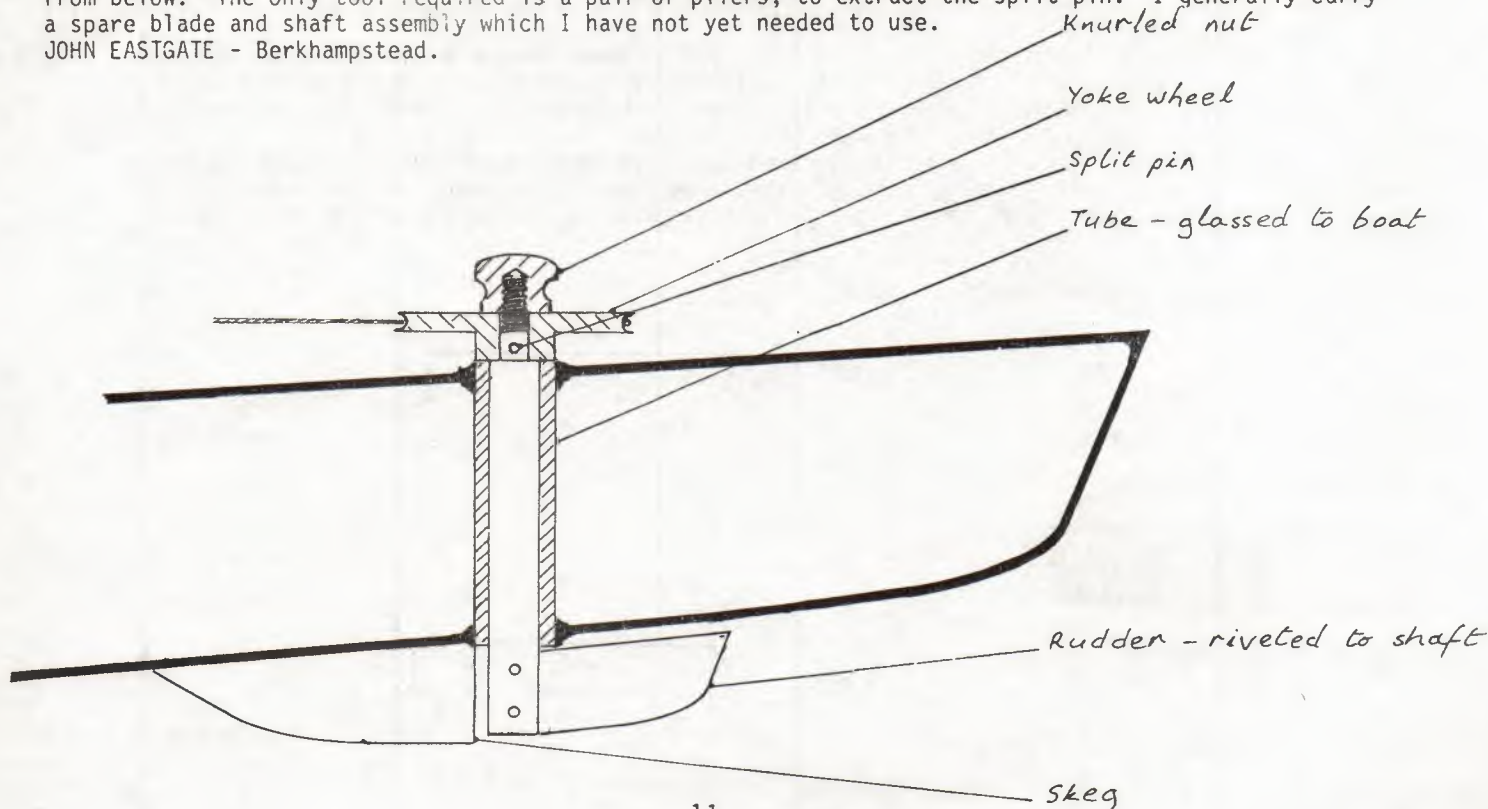
The third point is however valid. The standard overstern rudder used on marathon boats hinges back when it strikes something in front of it. Its blade will be bent if it receives a knock from behind or from the side - as frequently happens when launching or landing on a beach. The inboard rudder used on sprint boats is even more vulnerable. A sea kayak rudder design is therefore needed in which the rudder is stronger and better protected than the usual designs. We designed such a rudder and fitted them initially to four Nanuks and a Biadarka.

Over the past six years these boats have been in constant use and the rudders have been completely trouble free. On our first trip - in a wild sea off the North Coast of Scotland - all three of us were dumped on a beach, sideways, in heavy surf, with the boats loaded with camping gear. No damage was detected in any of the rudder assemblies. The only time my rudder mechanism has needed attention was a month ago when a cable snapped. This was a result of unforgivable neglect which itself arose through there being almost no need for maintenance.

The rudder we use is shown in the enclosed sketch. An aluminium alloy tube is fitted right through the boat and glassed in. The tube has a bore  $\frac{1}{2}$ " diameter and its outside is about  $\frac{3}{4}$ " diameter. In front of this a small skeg is fixed to the hull. The skeg must be not project below the lowest part of the hull but it must project below the rudder blade. Two inches or more of rocker on the hull is sufficient to satisfy these conditions - if there is less rocker the boat design is suspect. The brass rudder-shaft  $\frac{1}{2}$ " diameter is shouldered at the top and a thread is out on its end. At the shoulder a hole is drilled through the shaft to take a split pin which locates in a slot in the bottom of the yoke. A knurled nut clamps yoke to shaft.

This is a strong and well protected design which can easily be dismantled, even at sea, by unscrewing the nut and taking off the yoke, then extracting the split pin and withdrawing the rudder from below. The only tool required is a pair of pliers, to extract the split pin. I generally carry a spare blade and shaft assembly which I have not yet needed to use.

JOHN EASTGATE - Berkhamstead.





When I read my CoDe - Spring '83, there were several interesting points that made me want to write this letter.

Firstly, I was red-faced to see that the diagram I'd drawn for the new edition of the Canoeing Handbook was in fact wrong! Again! Well, only slightly wrong! Still, after talking at length with Geoff about waves in general and surf in particular, we ought to get it spot-on. What is wrong with the diagram is that the ellipse showing the surface movement should have its axis tilted at an angle higher at the shoreward end and lower at the sea-ward end. I drew it with the axis horizontal! Sorry. The rest of the diagram is correct - the main point is that under every crest the water is moving shoreward and under every trough the water is moving out to sea. This movement is greatest on the surface and decreases with depth.

Secondly, I was very interested in the two letters on 'push versus pull' in the paddle stroke.

I was reminded of a point that was brought home to me many years ago by a cabinet maker using the old fashioned type of cramp shown in the diagram below.

Diagram A He used to hold his two pieces of wood slightly together at C. by tightening the screw B. Screw A was acting as the fulcrum. Thus we have:-

Diagram B When we had checked everything was properly positioned, he then tightened screw A. Screw B now becomes the fulcrum, and we have:-

Diagram C In the first instance, if he twisted the screw with a force of 10 lbs he only exerted a force of 5 lbs. onto the timber. In the second instance he applied the same force (10 lbs) and got 10 lbs. compressing the timber. He doubled the effective force simply by turning screw A instead of B.

Where has this extra power come from? The answer is that in diagram B the effort only moves half the distance it must move in diagram C.

How does this apply to the paddle stroke? It all depends on which bit is taken to be moving. A. could be the top and B. the lower in both diagrams, or C. could be the top hand. In fact the order of lever theory doesn't work at all - all three points are moving. You cannot say the paddle blade is the fulcrum, because if you don't move the paddle through the water, you don't move! It is this fact that leads to the confusion about pushing and pulling. I would guess that what one hand does is reflected exactly in the other - action equals reaction, as Keith Robinson says, and that the real solution lies in the DISTANCE travelled by the two hands. My schoolboy memories about Mechanical Advantage and Velocity Ratio are too cloudy to help me here.

What is clear, is that the paddling action is extremely complex. I offer the following as a new starting point for controversy!!

We know that it takes more force to start a mass moving than to keep it moving .... proved by:

- i) Experiments on the nature of friction in the physics lab.
- ii) Pushing a broken-down car along a flat road!

Watching weight-lifters reinforces this point; they can hold a huge weight steady, but the crunch comes when they are called on to MOVE it. (Of course they use techniques to get round this, like dropping their body below the weight).

I suspect that the best paddlers do a similar thing to the weight-lifters; they momentarily 'lock' their arms to their upper torso (neither hand is moving in relation to each other, the paddle blade, or the torso), thus the arm muscles are making minimum effort. The remaining strain is then taken by the back muscles that rotate the upper torso to create movement of the paddle.

I've often read about a good paddling stroke depending on 'the powerful play of the back muscles' I doubt they are that powerful, but their indispensable role is to move the upper torso so that the arm muscles can snatch that moment of respite by not moving at all in the middle of the stroke.

Finally, to Brian Biffin - thanks for the note about the electric bilge-pump. I don't think sea canoeists are against rudders as such, just that there have been so many failures in the past that they are wary of them.

But hopefully, that's all changing ..... I'm busy with a rudder design based on the one used by Paul Caffyn on his Australian epic, (based on the Tasmanian one, I think). It is very robust and turns up onto the back deck when not needed or when coming ashore through rocks. It will fit most makes of kayak, including those with up-turned sterns like the Nordkapp.

Apart from the design work and the pattern-making that I've done myself, it's a £2,000 job to get the metal moulds made to start producing a satisfactory aluminium alloy pivot. As the demand for the very strong sea-going rudders is necessarily on a smallish scale.... please buy one of these rudders, please .....

FRANK GOODMAN, VALLEY CANOE PRODUCTS

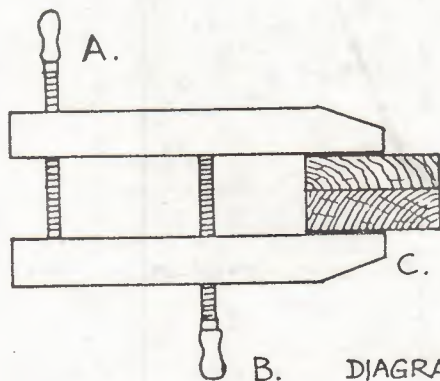


DIAGRAM A.

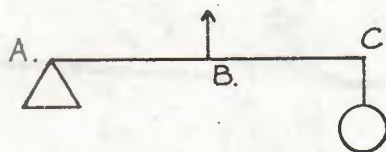


DIAGRAM B.

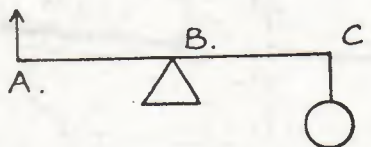


DIAGRAM C.



Paddling Levers

With reference to the article 'paddling levers' by Keith Robinson in CoDe 15, I am afraid his model over simplifies the situation, and the statement ' $\dots$  net forward force =  $F_2 - F_1 \dots$ ' is incorrect.

If we apply zero force  $F_2$  (pull) with the bottom hand and just push, then experience tells us that we may not move quickly, but we definitely move forward, whilst his equation would have us moving backwards.

The mistake lies in the fact that the blade in the water is not fixed but moving and there is another force acting on the blade from the reaction of the water. Thus we do not have a simple lever as suggested. In fact his analysis corresponds to the situation where the canoeist comes along a fixed post and grips it with both hands.

A correct analysis is not straightforward and I canoe comfortably rather than quickly, so I will leave further development for those whose interests lie in that direction.

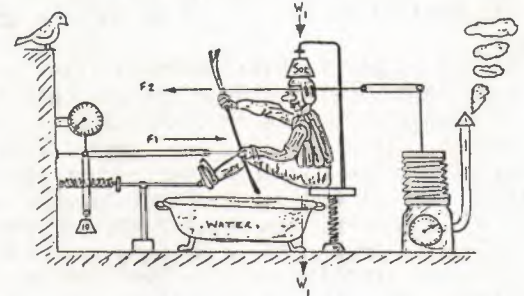
J R FLETCHER, United World College of the Atlantic

Footnote: George Cooper carried out a detailed analysis of the paddling stroke. He has established that in fact the blade can achieve a fixed position in the water once it is upright. That is, the blade grips the water, and the boat is levered past it.

BCU PATENT "LEVEROMETER"

May be hired from BCU Supplies.

A free plastic garden gnome sent on confirmation of booking.



Dear CoDe,

Forward Paddling

I was interested to read the article by Keith Robinson and the reply by George Cooper on 'Forward Paddling' with a lever.

I, like so many other paddlers, was originally taught that paddling was a question of levering the boat past the paddle by the pulling action of the lower arm and the pushing action of the upper arm. Indeed I know kayak instructors now who teach that paddling is the same sort of action as a 'shot putter' - winding the body up and then a great thrust with the top arm.

Two events changed my indoctrination on paddling. The first was when we at Fladbury became interested in Canadian Sprint Racing. The second was a talk by Roland Lawler.

Until a few years ago little was known in Britain about Canadian Sprint paddling and the British paddlers including ourselves learnt the technique from the leading World paddlers and coaches in Hungary.

I have described Canoe technique in Chapter 14 of the Coaching Handbook but the essential elements are:-

1. The pulling arm is kept completely straight.
2. The effort is applied by the rotation of the body and the use of the trunk and back muscles
3. The top hand guides and does not push.

Having been taught that kayak and canoe paddling were different I used to teach that until I heard Roland Lawler speak about kayak paddling technique. Then I realised that what he said was similar to what the Hungarians said about canoe technique. I also realised why it was that Richmond and Royal paddlers tended to paddle differently from my own kayak paddlers. Paddlers who are taught to push always appear to be doing a lot more work and getting nowhere. Because of the lower body position the kayak shaft does pivot more than in canadian canoeing but that does not provide the major effort.

The main point to realise and one I try to implant into my paddlers is that we could canoe in a straight line without a paddle if instead we had a series of stakes set upright from the river bed and we simply pulled ourselves past them. The paddle is simply a convenient way of carrying a stake along with the paddler. With this concept the idea is to firmly implant the blade and by a combination of forces turn it into the fixed stake so that we can pull ourselves past it. In canadian paddling there is very little turning or pivoting of the shaft - it remains a verticle stake in the pulling phase and the action of the top hand is to provide some downward pressure and to guide the blade.

The confusion in British opinion about kayak technique probably stems from the fact that almost without exception paddlers are first taught in slalom type boats where correct forward technique cannot be taught, because a sweep stroke is the only way of making the kayak go in a straight line.

It is unfortunate that in kayak technique there is such an array of opinion and of course almost all the initial textbooks talk about push and pull. In canoe we are fortunate. In the absence of any British opinion we turned to the best in the world, and learnt.

In kayak technique I believe that the Lawlers are the leading instructors on forward paddling technique and have demonstrated it with their paddlers. Their advice is the same as for canoe - the top hand does not push but guides

With my paddlers the advice is simple whether for canoe or kayak. Relax, rotate and remember the stake. To kayak instructors taught elsewhere my plea is relax, rotate (forget the lever) and remember the stake.

DAVID TRAIN, Fladbury

(See 251-254 Coaching Handbook and in particular figure 14.3a and b)



## Fatality on the Tyne

This letter was unfortunately omitted from the last Focus by the Editor, due to pressure on space. It is included now with apologies to Mr Bumstead.

Dear CoDe

I am writing with respect to the report in the Christmas 1982 Coaching Scheme Bulletin on the death of Mr. Andrew Lovatt.

Whilst in essence the report is correct there are a few details which I feel need to be clarified.

Firstly, the report states the river was in flood, this is however only a relative term, since whilst the water was high for early October, it was not near the levels which the river is capable in normal winter conditions, and was at the time probably the lowest the river has been on the occasions which I have canoed this stretch. This point is emphasised by the fact that even up to mid-December the water level had not dropped to a level allowing identification of the said obstacle, indeed I am still not aware of the exact nature of the obstacle, but still think it to be an iron spike embedded in concrete.

The second point that I wish to clarify is that whilst Mr. Lovatt was not wearing a spray deck, and I certainly do not advocate that spray decks should not be worn, the report tends to suggest that the fact that a spray deck not being worn was the cause of the death of Mr. Lovatt. This is something which I feel should be categorically dismissed. The spray deck not being worn was in no way a contributory factor in causing Mr. Lovatt to hit the obstacle, since it would not affect his manoeuvrability. It would also have been of no benefit for Mr. Lovatt had he been wearing the spraydeck, since from my own experience on the obstacle, the first thing which had to be done was release of the spray deck, which simply helped to prevent escape from the craft. Even before releasing my spray deck I felt my canoe beginning to collapse under the force of the river. The fact I had a large volume, professionally made boat, an Olympia S, is the only thing which saved me from the same fate as Mr. Lovatt, and I feel I would have been better off on this occasion not wearing a spray deck (analogous with wearing a seat belt - more often advantageous, but sometimes, as in this case, a hindrance).

M. BUMSTEAD - Newcastle on Tyne.

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Dear CoDe

Instructor Award: - is receiving a bad name from saying that it can be given to failures on SI assessment weekends. I think that there should be plenty of Instructor award weekends with emphasis being placed on the flat water aspect. No instructor award given on failed SI weekends. If you want the Instructor award, you do a separate weekend for it. You are supposed to be fully prepared for an assessment weekend. A failure means that you were not adequately prepared and therefore why should you be able to look forward to the possibility of another (lower) award.

Developing this idea, I think that after one T.I. weekend you should be allowed to try for assessment for the Instructor award, but must have done two TI weekends for the SI award. I would advertise them as TI(1) and TI(2). On TI one, you would be put through the Canoe Safety test (practise and assessment) and on TI two, you would do your practise for the lifesaving test. Assessment for the lifesaving test to follow a month later.

To check the feasibility of this I recently included the Canoe Safety test into a TI weekend which I ran for my RCO. I assessed them at the end of the weekend and all were successful ie they could all now do an instructor weekend but not SI. The lifesaving test is more demanding and requires greater expertise; hence needs a period of practise before assessment.

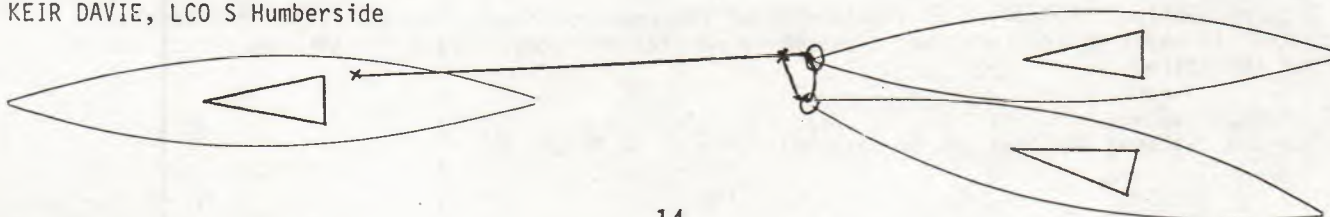
MIKE WOOD - Sandbach

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Dear CoDe

Whilst Coaching our senior members we played at 'towing', and whilst they had solutions for flat water, moving water proved quite a different problem. The most effective way proved to be to tow TWO, which gives more stability and company for the person being towed. The tower does, however, have a harder tow, but it's more manoeuvrable.

KEIR DAVIE, LCO S Humberside





Dear CoDe,

Modern Canoeing - Rolling ??

I am sure that you would expect me to write about Sandy Buttle's comments in the last edition of CoDe. To quote:

'Within the modern Sport of Canoeing, teaching the roll is paramount to beginners confidence and safety. The exception being of course sprint racing in which the boats preempt a roll. The coaching scheme has always been firmly based on Slalom and deviated into the other disciplines afterwards. This seems a good concept since we train for the worst situation to be a meaningful scheme'.

Nothing more surely sums up the problem that we have in British Canoeing than that statement and I am extremely glad that the current Coaching Committee is no longer taking that narrow view point.

'The Modern Sport of Canoeing in Slalom type boats' is purely British deviation started fifteen to twenty years ago which was against the British tradition of canoeing and without regard for the water resources we have. It has been highly successful and the results at World level in slalom show what can happen when 3,000 instructors at the base of the sport introduce youngsters into a rough water type kayak. That must be maintained, but it cannot be the major growth area for future development because of the lack of suitable water for recreation or competition.

Many of the people reading this letter will know that I think the Coaching Scheme took a very narrow view those fifteen years ago and has now restricted the sport and the BCU membership to a tenth of the size it should be, but nevertheless I have always accepted that it was highly successful in what is a very narrow restricted area, and from that we should learn and not take the sport into even narrower fields.

The future for the sport lies in greater participation of people of all ages and at all levels. One of the major areas is the recreational and competitive use of Placid Water simply because it is the water we have in this country. For this canoes and kayaks are used (not only sprint racing boats) which have open cockpits. This if anything is the 'Modern Concept' of canoeing and for it rolling and indeed capsizing become irrelevant.

At the present time a large proportion of the BCU membership are never in the situation where rolling is needed and that proportion will increase.

The arguments about whether a SI should roll or not will perhaps be a little easier to sort out when we have a separate instruction system for placid, rough water and the sea.

Even then I think the need for an SI rough water to roll is unnecessary. I teach Canadian racing canoeing at the top level. It is an extreme skill that few master. I would not presume to be other than mildly competent but I am competent to teach and I am competent to teach say Sandy Buttle how to teach it, without him being able to canoe in the high kneeling position. It is true of course that neither myself or Sandy Buttle would be able to compete with our pupils. I learnt long ago that I was past that.

As you mention in the same edition of CoDe I am running courses for Placid Water Instructor and Senior Instructor with the approval of the Coaching Committee. I have written to most CoDe readers about these courses and invited them to take part in this 'ancient and modern' form of our sport.

DAVID TRAIN, SPOCRACC (Society for the Preservation of Open Cockpits for RECREATION AND COMPETITIVE CANOEING)

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Dear CoDe

I would like to make a suggestion for as I believe to improve the coaching log book.

I fill mine in religiously after each canoeing session and therefore fill them up quite quickly, when you consider I run 2 pool and 1 outdoor session each week throughout the year apart from competition training for the Regimental team.

I recently gained my SI award and am now keen to get my E gradings and pursue the Sea SI award. I have therefore decided to run two log books, one for each. This will make for easier reading by a future assessor.

As you're probably aware, there are parts of the log books which don't get very much use, it's these parts which get used up quickly I'm concerned about as you eventually end up with a number of books with vast great empty spaces, unless you transfer everything every time you buy a new book.

I therefore suggest a loose leaf (as the handbook) log book in its present format which fits nicely into the handbook binder. New pages of the type required could then be inserted as needed. I've started the system and find it very good for the following reasons:

- Pages can be easily extracted and inserted as required.
- The book can be segregated for different awards or separate books.
- Future assessors won't have to read through vast amounts of writing to pick out that which is relevant to the award being taken.
- The need to keep transferring from old book to new will cease.
- The log book will grow as ones own complete history of your canoeing exploits - something perhaps to treasure.

COLIN WARD, 55 Training Squadron, RE.



# RESUSCITATION UPDATE

A very useful update on resuscitation was given to the Corps of Canoe Lifeguards Conference in April by Doctor Crocker of Ambu International (UK) Ltd.

He stressed the importance of re-training and continual practise for resuscitation to be proficient. A survey (1,000) showed that in three weeks of learning the techniques, a significant number of trainees had forgotten important factors.

Air has a long and arduous passage to reach the alveoli of the lungs. Pressure and volume to achieve this, are important.

Where a victim is wearing loose clothing it is unlikely that the chest rising and falling will be a helpful sign to ascertain whether or not breathing has stopped. Further, males tend to breathe from the stomach area.

The tongue weighs about quarter pound, and falls back when a person is unconscious, blocking the air passage.

Tipping the head back opens the airway - tilting the chin also helps - and air is breathed in through the victims nose. Tight clothing around the neck, chest and waist must be loosened, but don't waste time checking the mouth for debris initially.

If immersion has been for less than one hour, it is unlikely that water will be in lungs, and time should not be spent on futile endeavours to 'drain' the victim.

Four quick breaths should be applied initially. If there is no response (watch for rising of chest etc) then check mouth for debris, looseness of clothing, tilting of head.

Blowing too hard or too long can inflate the stomach. This stimulates the vagus nerve and induces vomit. One litre of air per blow is required.

Previously it has been stated that the risk of a rib breaking was not too critical. However, a patient could literally drown in blood as a result of this, and so considerable care should be exercised, particularly when applying external cardiac compression. This must be fully trained for. An adult requires about one and a half inches of chest compression, with 1 breath being applied for every 5 compressions. The resuscitator should prepare to blow at the fourth compression, and as the compressor relaxes from his fifth the breath goes in.

All the above remarks were made on the assumption that the recipients were trained in resuscitation techniques to start with.

The up-to-date Resusci-ann (Ambu simulator) has a number of unique features which accurately represent the reaction of a non-breathing patient to resuscitation, besides incorporating simpler methods of operation in the class situation.

The Ambu resuscitator replaces the need for direct contact.

The address to write for full information is: Ambu International (UK) Ltd., Charlton Road, Midsomer Norton, Bath, BA3 4DR.

## NATIONAL COACHING CONFERENCE

Crystal Palace, London, is the venue for this year's conference from 8-9 October. Firm bookings are invited now, accompanied by the course fee of £17.00. This includes bed and breakfast Friday night, and full board and lodging for Saturday and Sunday. RCOs and LCOs will shortly be circulated separately.

The main pool is available for the practical sessions:

- Analysis of current rolling methods and development of teaching technique (including under water viewing and video).

- Full utilisation of the swimming pool in a training programme.

- The Canoe Safety and Lifesaving Tests - practical appraisal of their usefulness and application to general canoeing.

- Canoe Polo training methods

- Basic skills teaching update - analysis of results from the London Symposium

Open to debate will be a number of topics including:

- Revised syllabus for the advanced sea test

- The role of the organiser in the coaching scheme structure

- The Instructor award - its future application

- The examiner grading system and standards - room for improvement?

This year, the conference will be able to separate into small seminar groups to enable everyone to join in the discussions.

Another innovation is that on Saturday night a conference dinner - with the trimmings - will take place, complete with special after dinner speaker.

Book Now.

## COACHING SCHEME AGM

The AGM of the Coaching Scheme will take place in the Conference Room at Crystal Palace National Sports Centre commencing at 2.30 pm on Sunday 9 October 1983, following the Annual Coaching Conference.

Motions must be signed by two persons eligible to vote and sent to the DofC at least 28 days before the meeting.

Nominations for the following offices must have the nominee's consent and be signed and forwarded as above.

- Chairman: G. Lyon (eligible for re-election)

- Vice-Chairman: D. Hutchinson (eligible for re-election)

- Treasurer: Vacant



# PLACID WATER CANOEING

CANOEING THE FLADBURY WAY - Getting Started by David Train has an attractive colour cover, and plenty of photographs illustrating his ideas, and teaching techniques. It has 68 pages, costs £1.95 plus 50p p & p and is available from BCU Supplies.

The emphasis is on putting beginners into stable boats - both laterally and directionally stable. As confidence increases the novice can progress through a system of gradually increasing seat heights to the next level of stability. There is no pressure to achieve the 'ultimate end' of racing K1 or C1 however. Each person moves on until established in the boat which best suits his choice of canoeing.

David Train is convinced that the Coaching Scheme is responsible for deterring many times more people from canoeing, than it has recruited. This, his first book in a series devoted to the introduction of people to canoeing, and the formation of clubs, based entirely on flat water, sets out his theory. He has backed it up with the production of new boats and equipment, which, together with an existing touring boat, provide the necessary progression.

David has proved his system through the formation and overall success of the Fladbury Canoe Club. The membership is over 200 (10% of the village's population?) and caters for all ages from 3 - 73.

If David is right, the potential is tremendous. He claims that up to 20 times more people will get involved in the 'Fladbury' kind of canoeing, and says that Britain is unique in adopting the small cockpit slalom type boat as the basis for its teaching. This kind of craft, in his view, has limited the attraction of the sport to mainly teenage boys.

With over 2,000 miles of undisputed waterways available, the growth potential is not limited in the same way as it must be for what he refers to as 'alpine' canoeing. The necessary basic skills are described, and illustrated, and the Fladbury 'safety' philosophy spelled out. Progression tests for kayak and canoe are enumerated, and a requirement for a Placid Water Instructor listed.

The Coaching Committee has given David its blessing to run a series of pilot courses this season, for some instructors to be created. An evaluation will then take place to determine the way ahead.

## DATES:

### Two Day Courses:

Sat/Sun 23/24 July  
Sat/Sun 17/18 September  
Sat/Sun 1/2 October  
Sat/Sun 8/9 October  
Sat/Sun 15/16 October  
Sat/Sun 22/23 October  
Sat/Sun 29/30 October

### One Day Courses:

Sat 16 July  
Sat 20 August  
Sun 28 August  
Sun 3rd September

From then on any weekend by arrangement. Courses can be arranged mid-week - please enquire. Bed and breakfast is available in the village - camping is also available.

Course Fee £10 per person - two day course; £7.50 per person - one day course. Bookings to: Glen Villa, Paynes Lane, Fladbury, Pershore, Worcestershire. Telephone: Evesham (0386) 860663.

## Research Assistant sought

Graduates, preferably in Psychology or Education, are invited to apply for appointment as a Research Assistant to Dr. A.C. CROCKER of the Faculty of Education, Wolverhampton Polytechnic.

The appointment will be initially for two years with the expectation of extension for a third year.

The successful candidate will be encouraged to register for a higher degree.

Applicants must be qualified British Canoe Union Senior Instructors.

### Research Area

A psychological investigation into the effect that developing sport's motor skills in young and middle aged long term unemployed males has on their subsequent employment seeking behaviour.

Matched experimental and control groups will be monitored over a period of two to three years. The experimental groups will be taught the skills of white water canoeing with the experimental hypothesis that there will be positive transfer effects into other aspects of their lives, particularly job-seeking and securing behaviour.

## Instructors required

Chris Charters, X-Lersei, Staunton on Wye, Herefordshire, Moccas (09817) 308 require Instructors and Trainees for the first two weeks of August. £40 per week inclusive of Board (£30 for trainees). Instructing groups of 12 youngsters aged 14-15 on the River Wye.

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A part-time instructor (1 evening per week) is required for Fulham area. £8 per hour. Details from Director of Coaching

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A SEA AND INLAND QUALIFIED grade 2 examiner (E2) is needed for a week to train and qualify Army personnel in Gibraltar.

The catch is, that although board and lodging will be provided, no fees nor help with fare can be offered.

However, if you fancy a working holiday in the sun - accommodation found - please contact the Director of Coaching immediately.



# BCU COACH COURSES

The remaining opportunity for Coach candidates this year is at Plas y Brenin from 22-29 October.

Send to Director of Coaching for full details of course requirements, and booking form.

Following are details of 'module' days available in Eastern region for those wishing to obtain their Coach award by this system (see last CoDe - No. 15 - pp 13 and 14)

## THE ROAD TO COACH

### One Day Specialised Courses For Existing Senior Instructor

Three one day courses are being held in the Eastern Region for Canoeing (open Canadian), Slalom and Racing. These courses will form part of the module system for the Coach Award. Applications will also be welcome from any SI seeking to gain additional expertise in these disciplines. If you are already a Trainer/Coach for any of the disciplines then there is no need to take the relevant one day course. Please attend as many as you can. If there is sufficient demand we will run further courses in the first half of 1984. The course dates are:-

Canoeing: Saturday 1st October 1983. Start 10.00 am at Chelmsford Canoe Club  
Course Coach: Steve Lacey

#### Racing/Forward

Paddling: Sunday 9th October 1983. Start 10.00 am at Leighton Buzzard Canoe Club  
Course Coach: Doug Saxby

Slalom: Sunday 30th October 1983 at 10.00 am at Chelmsford Canoe Club  
Course Coach: Chris Davies

The cost for each day will not be more than £5.00 and this will include liquid refreshment, soup and a light lunch. If at all possible please provide your own kayaks for the slalom course. A limited number of low volume kayaks, canadian open, and racing kayaks will be available at each session.

For further details please contact Dave Coggins, 55 Ravensbourne Drive, Chelmsford, Essex or Telephone 0245 50578 (Evenings).

We must have bookings no later than two weeks before the course dates.

### Coach Training Courses

2-day Training courses are available as follows:-

Sea Whitby, North Yorks: 9-11 September 1983  
Calshot Activities Centre: 16-18 September 1983  
Inland Hexham, Northumberland: 14-16 October 1983  
Outdoor Adventure, Cornwall: November 1983

All applications to the Director of Coaching at BCU Office

The training courses are not compulsory for those attending the one-week course at Plas y Brenin. They are available to such candidates however, who may feel that some preparation would be of help for the specialist coaching section assessment part of the course.

## a question and an answer

Please would you clarify the position with regards to the level of canoeing ability required for the Instructor and Senior Instructor Awards.

On a recent SI training course candidates were told that their level of paddling competence should be above proficiency level and their white water skills would make them competent in grade III water.

Is the SI Award still based on the Proficiency Test level of skills, with breaking-in and out and ferry glide still tested on grade I water?

Is the SI Award still the appropriate award for a person who wants to teach canoeing at a club and lead expeditions with members on water up to and including grade II?

If a person holds the appropriate proficiency test and has been assessed at the required standard, should they have the necessary paddling skill to gain the Instructor Award and Senior Instructor Award, if they satisfy the other requirements of the awards?

Thank you for your letter concerning the requirements of a senior instructor award.

I can confirm that the senior instructor award is based on an ability to lead proficiency level groups up to and including grade two water. This implies that the instructor must be fully competent on grade two. Given that that is the case, he should certainly be able to negotiate grade three water under leadership, although this is merely a statement of fact, and it is not intended that this should be part of an assessment.

The answer is yes to your question 'is the SI award still the appropriate award for a person who wants to teach canoeing at a club and lead expeditions with members on water up to and including grade two?' The skill level necessary is that of a good proficiency level. The instructor obviously has to teach and train others to proficiency level, and therefore his skills must be adequate to that task. The minimum level of skill acceptable for proficiency should be sufficient for successful completion of a senior instructor training course, but the minimum level would not be sufficient for the instructor or senior instructor award. Advice concerning this should be given to a candidate on a senior instructor training course. The person should be informed that their skill level was minimum and would need to be improved upon before assessment.

I trust the above definitions are of help.

Director of Coaching



# WHITE WATER SAFETY

Recently a questionnaire was sent out with Canoe Focus, concerning white water safety. The percentage of returns was fair, but we are sure can be improved upon.

Peter Prendegast, a B.Ed (Hons) student (Outdoor Education) at Bangor Normal College, is conducting a study, to evaluate the problem of accidents involving paddlers stuck in kayaks, which have either folded around an obstruction, or where the deck has collapsed.

An analysis of the questionnaires is a major part of his study.

If you have not already submitted a questionnaire, please return the enclosed, as soon as possible.

## WW Safety Conference 14-15 January 1984

Following is the draft programme for this conference. Bookings should be made direct with the Bookings Department, National Centre for Mountain Activities, Plas y Brenin, Capel Curig, Betws-y-Coed, North Wales.

Friday Evening - Arrival Only. No supper.  
Please report by 23.00 latest.

### Saturday am Boat Construction

Practical Tests on GRP with strengthened mid section, GRP with Pod, Polyethylene, to observe comparative stress factors in wrap-around situations. Comparison experiments with full buoyancy/minimum buoyancy. Various experiments for releasing entrapped paddlers.

Session Convener: Ray Rowe

### pm Fixtures and Fittings

Central Braces. Foot rests. Cockpit size. Deck Lines. Trailing Lines. Towing Techniques. Deck fitting attachment points.

Session Convener: Peter Knowles

### Sunday am Riverside and Paddler to Paddler Rescues

Comparison of various rescue techniques. Comparisons with Ropes/Throw bags. Use of Harness. Knives-use of and types.

Session Convener: Nigel Timmins

### pm Open Forum

Cost: £ 42 fully inclusive.

## snippets

### NEW SECRETARY FOR SCOTLAND

Archie Crawford has taken over as Coaching Secretary to the SCA Coaching Panel. His address is 12 Stephen Place, Lochgelly, Fife.

Our thanks go to John Hall, whose good work has kept the committee functioning for the past three years. John will undoubtedly put in even more paddling time following his handover.

A warm welcome to Archie.

### SUPPORT YOUR LOCAL ASSOCIATION

Please note that members of the coaching scheme should forward all star and proficiency test results and money, and all coaching course results and money, to their own Association.

Addresses are: CANI, 2a Upper Malone Road, Belfast, Northern Ireland. SCA: 18 Ainslie Place, Edinburgh. WCA: Pen-y-Bont, Corwen, Clwyd.

### AWARDS COURSES & ADVANCED PROFICIENCY TESTS

Please note that all courses LEADING TO BCU Coaching qualifications, or the advanced proficiency test, must be agreed in advance.

Course organisers please send to BCU office (in all cases) for the full information package concerning requirements. This includes an order form for the relevant information items and entry forms for candidates.

Prior approval must be obtained from the course organiser's RCO, who is responsible for the maintenance of standards.

The RCO of the region in which the course is to be staged (if different) must also be consulted in order to avoid clashes of interest locally.



# SLALOM COACHING CONFERENCE

Nottingham

4 and 5 February 1984

## STRENGTH IN BODY AND MIND

- the psychological and physical preparation for slalom

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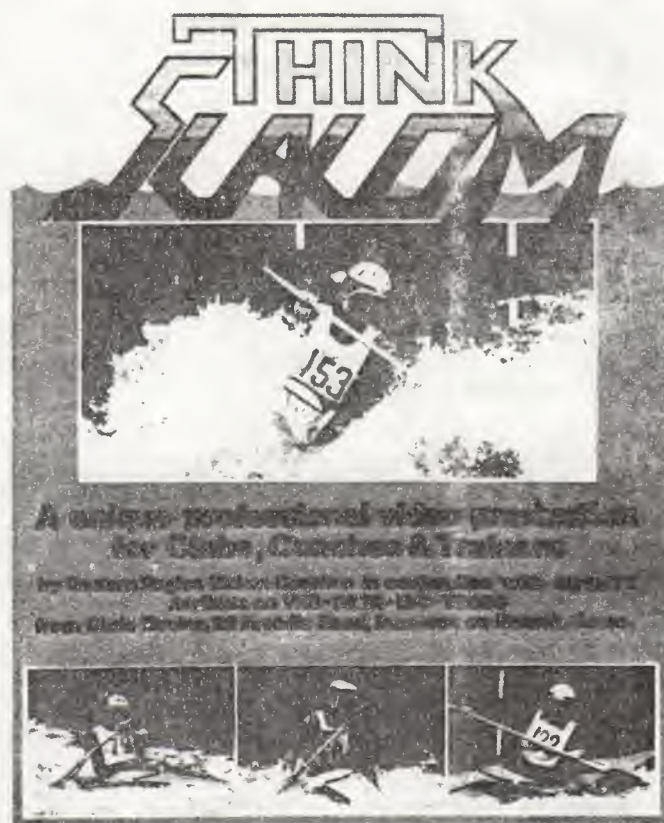
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CONTACT

B. JAMES

at the BCU

WEYBRIDGE 41341



**THINK  
SLALOM**

A unique professional video presentation  
by Glenn, Charles & Graham  
for Eastern District Slalom Club in conjunction with BCU  
Available on VHS - £12.95 - £14.95  
From Glenn, Charles & Graham, Slalom, Slalom, Slalom

The advertisement features a large, stylized title 'THINK SLALOM' at the top. Below the title is a large black and white photograph of a slalom racer in action, wearing a helmet and a bib with the number 153. At the bottom of the advertisement are three smaller black and white photographs showing different slalom racers in various stages of a race.



# Sports drinks as ergogenic aids

by Dr Craig Sharp, Lecturer in Physiology,  
University of Birmingham

**T**HERE is a variety of products available to the sportsman or woman which can be considered under the category of sports drinks. They are taken for three principal reasons: because of their fluid content, or as an energy source, or as a means of electrolyte replacement.

## FLUID

As approximately 70% of body weight is water, with a distribution of 50% intracellular, 15% interstitial and 5% in blood, a 12 stone man has about a gallon of plasma, three gallons of interstitial fluid and ten gallons intracellularly.

The three fluid compartments are relatively interchangeable, particularly blood and interstitial fluid, thus allowing compensation both for the student drinking six pints of beer and for the athlete losing six pints of sweat.

In either case the shock to water balance is cushioned by the bulkhead effect of successive fluid compartments, with urine formation and thirst forming the ultimate control.

An athlete can easily lose three pints of sweat an hour, yet absorption from gut under exercise conditions is probably not more than a pint an hour. Thus total rehydration during activity is not possible.

A dehydrative drop of 3% in body weight leads, for example, to a heart rate of 140 being required for a work load which would normally require a rate of 115; similarly a body temperature rise to 38.3°C may be incurred at a work load which would not otherwise raise it above 37.5°C after one hour.

There are, then, good reasons for minimising dehydration during exercise and in part this can be done by pre-hydration, ie by the ingestion of up to a pint of fluid not later than 30 minutes before the start of the strenuous exercise. This should be followed each 15 minutes by about  $\frac{1}{4}$  pint of fluid which is preferably cold (8 to 12°C), palatable (especially not too sweet) and hypotonic. Gastric emptying time is optimised if the glucose or other sugar concentration is below 3%.

Fifteen minutes after ingestion of a pint of water at rest, 60% has passed into the jejunum. Under the same conditions Costill has shown that only 5% of a 10% glucose solution has left the stomach.

The particular drink taken is a matter of taste. Tap water is completely effective, but other considerations (not the least of them logistical and psychological) might require one of the proprietary drinks. Pure juice products, and the various orange and lemon squashes and lemon barley water, all have the advantage that their concentration can be suited to taste.

Mineral-Plus-6 by Wander Ltd of Kings Langley is very palatable. Medisport's XL-1 (as used in the London Marathon) and Sportsystems' Best-1 are well formulated powders which are diluted to taste and can be very useful along with Staminade by Nicholas, Turbo by Surf City Products and Perrier by Great Waters of France – the latter is much used by continental cyclists and is a literal fluid replacement, being a mild and naturally carbonated water with no additives. For most exercises of up to two hours' duration, the main need is to replace water.

## ENERGY

Most of the ergogenic drinks contain sugar, usually in the form of glucose or fructose, or glucose syrup. Glucose syrup is a mixture of glucose, maltose, maltotriose and higher saccharides, having

only about one third of the sweetness of pure glucose.

At Marathon-type running speeds, serum glucose generally stays at 4.5 mM for the first 45 minutes, thereafter falling to 3.5 mM at two hours and levelling out at 3.1 mM around 3 hours.

Following this is a corresponding rise in serum free fatty acids, from a resting level of 0.66 mM to 0.76 at 45 minutes, 1.57 at two hours and 1.83 mM around three hours, its ceiling being limited by the availability of albumen as a carrier molecule.

Serum glucose is relatively little used by muscle during exercise, and this prevents what would otherwise be a massive drain of glucose from blood, to the considerable detriment of brain, retina, erythrocytes and renal medulla for which it is virtually the only fuel.

It is presumably for this reason that muscle functions on stored glycogen and on serum free fatty acids, but not on serum glucose. Nevertheless, many workers have shown beneficial effects in maintaining blood glucose levels near normal during exercise, probably for the effect on brain and retina – and erythrocytes.

Of the proprietary drinks, Beecham's Hycal is by far the highest in energy content, at 63% glucose syrup (W/W). This would not be used during exercise, but could have a place as a liquid meal in an elite athlete on three training sessions a day who may otherwise only eat one meal in late evening.

Beecham's well-known



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MEDICAL NEWS – Vol 14 No 43 November 11 1982



Dynamo containing 46% glucose syrup can also be a food substitute, but may need to be diluted for consumption during intervals in prolonged exercise.

Also in this category are the Wander Ltd products Aufbau-Trunk, Energie-Drink and Power Back.

Turbo contains glucose syrup and fructose, the latter because it is not an insulin stimulus. Best-1, XL-1 and Staminade are very suitable for energy replacement "on the run" as it were.

As muscle glycogen falls, from approximately 2gm/100gm to 1.0gm or lower, free fatty acid utilisation increases, and the problem here is the increased oxygen requirement. One litre of oxygen will produce 5.7 kcals from glycogen, but only 4.7 kcals from fat in the muscle cell.

Hence a working rate of 15 kcals/minute - typical of hard exercise such as Marathon or squash - will require 2.6 litres of oxygen for glycogen, and 3.2 litres for fat. This is met either by an in-

crease in the cardiac output, or a decrease in the pace - or the athlete goes anaerobic. This may be part of the explanation for the so-called wall of marathon runners. Caffeine taken 30-45 minutes before such exercise accelerates the rise in FFAs, and may slow down the rate of depletion of glycogen, thus flattening out the wall effect - and Marathon runners do drink coffee before the start, for this reason.

Although not in the category of "energy", mention should be made of Casilan (Farley Health Products) and Protein-Pur (Wander Ltd) which are 90% protein products, and which could have a use for those athletes wishing a protein supplement during their weeks of strength training with heavy weight sessions.

Evidence on protein requirements for such athletes is contradictory, but if 1gm protein/kg body weight is taken as a basic norm, and twice this as reasonable for the weight trainer, then Casilan and Protein-Pur may have a place.

## ELECTROLYTES

Serum levels of the appropriate electrolytes may be taken as Na 140 mEq/litre, Cl 100, K 4 and Mg 1.5. Corresponding levels in sweat are 60, 50, 5 and 5 mEq/l for the untrained and 40, 30, 4 and 1.5 for the trained. As a litre of sweat contains considerably less electrolyte than blood, serum concentrations do not show an immediate drop.

The total serum electrolyte pool is of the order of 2,600 mEq, and this is required to drop by around 8% before clinical signs appear, a drop corresponding to a loss of about 2 litres of sweat.

Ciba's Slow Sodium tablets have been popular for some years, and the Marathon 2000 mineral tablets from Bolton Health and Leisure contain a wider range of salts.

Salime (Gold Life Drinks, Birmingham) is marketed as an electrolyte drink, containing no glucose, and is a citrus concentrate which is diluted to taste.

Best-1, XL-1, Mineral-Plus-6, Staminade and Kling Chemicals Ltd's Super K are palatable products, and Turbo and Dynamo also contain electrolytes.

In conclusion, many athletes simply need water as their ergogenic drink.

COACHING EFFECTIVENESS PROGRAMME  
British Association of National Coaches  
18/19 October 1983, Lilleshall, Newport, Shropshire.  
Send to BCU for full details.

## courses

THE SPORTING BODYMIND. A new approach to sport (well received by several canoeists).  
10-11 Sep; 5-6 Nov; 28-29 Jan; 31 Mar-1 Apr; London  
Sporting Bodymind, The Broadway, Wimbledon, London SW19

## appointment of

## NATIONAL COACHES

Applications are invited for the following positions:

1. A NATIONAL COACH to develop the provision of coaches for Racing Competitors
2. A NATIONAL COACH to develop the provision of coaches for Slalom Competitors
3. A NATIONAL COACH to develop the provision of coaches for Wild Water Racing Competitors

The methods by which the National Coach carries out the policy will be left very much in his/her hands, although being responsible to the BCU Council through the Director of Coaching and the National Coaching Committee in co-operation with the Racing, Slalom and Wild Water Racing Committees respectively.

Such a National Coach would be expected to attend conferences held in conjunction with the work, particularly the National Coaching Conferences and meetings.

The successful candidate will be employed part-time at a remuneration of £500 per annum against which expenses may be placed from the point of view of Income Tax. Any further increments which may be earned as a result of the appointment will in no way affect the above arrangements.

### APPLICATIONS

No application forms are being issued. Letters of application, which should include a summary of relevant experience and qualifications, together with the names and addresses of two persons to whom reference may be made, should be sent to:

The Chairman, BCU National Coaching Committee, Flexel House, 45/47 High Street, Addlestone, Weybridge, Surrey, KT15 1JV, to reach him not later than 1st September, 1983.



# Anaerobic training ?

Dr CRAIG SHARP

discusses the implications of some recent research

S.J.Baker (Outdoor Education Dept., Normal College, Bangor) reported that high levels of blood lactic acid had been found in slalom paddlers in the pre-worlds at Bala in 1980. This indicated that a relatively high proportion of the energy must have come from anaerobic sources of energy in the muscles used.

The problem here is: does this mean that more attention should be paid to anaerobic training (relatively short intensive efforts with long rests) or did it mean that the event may only be anaerobic to those with poorer aerobic capacities and lower anaerobic thresholds?

He concludes that it is more likely that the top slalomists become super fit through constant anaerobic exposure. This would imply that he believes anaerobic training should form an important part of the training.

G.E. Cooper (Dept of Phys Ed., University of Birmingham) reported that top level paddlers he had measured have high levels of oxygen intake and very high levels of oxygen debt. Also, aerobic capacity gained or measured by using the legs (as in bicycle ergometers) was found not to be related significantly to canoe racing performance, whereas the relationship of aerobic capacity gained or measured by using the arms is highly significantly related.

This reinforces specificity of training and testing. The reaction to this should however not be to think that all the training should therefore be done in the boat. Arm strength and speed endurance may be very much developed through, for example, isokinetic land training. Also in younger paddlers it may be desirable to develop 'general' before 'specific' fitness.

Further maximum oxygen uptake on a canoe ergometer and maximum oxygen debt also measured on the canoe ergometer were both found to be significantly related to racing performance in the 500m and 1000m events. This result emphasises the need for a balance of the type of training in relation to the needs of the individual paddler.

Woolton and Williams (Dept of Phys Ed., University of Loughborough) have found that maximum efforts of even relatively very short duration cause considerable increases in blood lactic acid, with consequent fatigue effects. This could have implications for starting methods in that it may be relatively unwise to blast off the start for up to 50 strokes. Helm may not be such a bad starter after all!

J. Watkins (Dept of Phys Ed., Jordanhill College of Education, Glasgow) reported a method for monitoring technical efficiency in swimming which may be applicable to paddlers. A swimmer does 3 x 200 metre trials (2 minute efforts) successively at moderate, fast and flat-out speeds. A graph is then drawn relating elapsed time to finishing heart rate. The slope of the line can be examined and the predicted speed at a heart rate of 190 can then be used as a measure of efficiency.

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SPORTS DOCUMENTATION MONTHLY BULLETIN (formerly Sports Information Monthly Bulletin), lists relevant articles from periodicals and, since January 1980, conference papers. It has been published monthly since January 1971, and in 1979 included an average of over 300 references per month. From 1977 each issue contains a detailed subject index which is cumulated annually. The subscription rate for 1982 is £15 for UK subscribers (pro rata for mailing by air). For further information about the Sports Documentation Centre, its services and publications can be obtained from: The Librarian, The Sports Documentation Centre, Main Library, University of Birmingham, PL Box 363, Birmingham, BT15 2TT. Telephone 021.472.1301 Ext 2312.

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## UNIVERSITY OF BATH SCHOLARSHIP

Applications are invited for a Sports Scholarship to be sponsored by Office Cleaning Services Ltd. This is the eighth Scholarship to be sponsored by the company since 1976. A scholarship may be awarded to a student who is qualified for admission to the University of Bath in 1983, either at undergraduate or postgraduate level, or to a student who is already attending the University. The scholarship scheme will allow the holder to extend his or her academic course in the University by one year or the equivalent, so that he or she will be able to devote more time to achieving excellence in sport.

Applicants must be of high academic calibre; they must also be of international standard in their event, or able to produce evidence (e.g. from a national coach) that they are likely to achieve international standard if awarded a scholarship.

For further details and an application form apply immediately to Mr. C L S Henderson, Secretary of the Sports Committee, Room 4 West 3.16, University of Bath, Claverton Down, Bath BA2 7AY. Telephone Bath 61244 Ext. 527. Completed applications must be returned by 31st May, 1983.

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DUNFERMLINE COLLEGE OF PHYSICAL EDUCATION with support from the BANK OF SCOTLAND also offer a DIPLOMA IN SPORTS COACHING. The structure of the course is outlined in the prospectus. If you are interested in the course and require more details, write or phone to John Lyle, Course Director Mrs. A. Grant, Admissions Officer, Dunfermline College of Physical Education, Cramond Road North, Edinburgh EH4 6JD. Telephone 031.336.6001





Christine Dean (centre) and a team of her Norcat instructors, together with Wensum Canoe Club instructors, ran a weekend residential course for members of the Lynn Physically Handicapped and Able Bodied Club. Disabled members are pictured here on the River Wensum.

## courses

|            |                                                       |   |
|------------|-------------------------------------------------------|---|
| Aug 9 - 12 | Introduction to Sea Canoeing for Inland Canoeists     | 1 |
| 12 - 14    | Lundy Island Trawler ride out. Canoeing around island | 1 |
| 24         | Lundy Island as above                                 | 1 |
| 26 - 29    | Lundy Island As above                                 | 1 |
| 28 - 29    | Proficiency (Sea)                                     | 1 |
| Sep 4 - 9  | 50+ Activity Holiday (min age 45)                     | 1 |
| 4          | Whitbread National Water Pentathlon Holme Pierrepont  | 2 |
| Nov 26-27  | Canadian Senior Instructor Bulth Wells                | 3 |

- 1 Skern Lodge, Watertown, Appledore, Bideford, N. Devon
- 2 H.F. Cherbont, 271 Derby Road, Nottingham, NG7 2DP
3. G. Ray, Stilltime, 10 Papercourt Lane, Ripley, Surrey.

## BAHAMAS

Would any member knowing of paddlers resident in the Bahamas please send the information to Mr P Challis, Flat 1, 35 Upper Grosvenor Road, Tunbridge Wells, Kent, TN1 2DX. Mr. and Mrs. Challis are moving to Nassau in August.



## ADVANCED SEA TEST

The candidate will demonstrate an ability to manoeuvre on waves forwards, sideways and backwards, rolling under breaking waves.

Featured is a BCU APPROVED DUMPER for assessing the above requirement.



# 1984 MEMBERSHIP

For 1984 (starting on 1 August 1983 for new members) the following categories are available.

All members will receive Focus

**CADET** £3.00 only. Badge 50p. Renewable as Youth or Full member only  
(16 years and under)

Cadets Receive: Membership card; Focus; Third Party Insurance; Information.

Cadets Can Enter: BCU Courses; BCU Events; BCU Competitions.

Cadets Can Save On: BCU Publications; BCU Equipment; Canal Licences.

Cadets Can Obtain: Information on Canoeing; Youth Membership; Cadet Badge; BCU Tracksuit

**ADULT INTRODUCTORY** £6.50 Renewable as Full Member Only

Benefits as for Cadet \* The right to compete has been added \* This does not cover membership of the Coaching Scheme.

## FULL MEMBERSHIP CATEGORIES

**BASIC** £4 NEW \* NEW\* NEW\*

This category of membership is designed for adults who do not wish to compete or be members of the Coaching Scheme.

IT IS AIMED AT TOURISTS, POTTERERS, OR THOSE INVOLVED IN ORGANISATION ONLY.

Please promote this new category.

**FULL** £12.50 (Eighteen years and over)

Full membership rights including boat and personal insurance (as defined)

**YOUTH** £6.50 (Seventeen years and under)

As before.

**FAMILY** £5.50

As before

Membership renewal forms with full details of categories and benefits will be circulated to BCU members with August Focus.

WCA members please apply to the Association for details of 1984 fees.

SCA membership year does not commence until 1 January 1984.

## JUNIOR CLUB MEMBERSHIP

Remember, the junior club affiliation fee of £17 gives full individual membership rights to the named leader, which includes membership of the Coaching Scheme. A second leader can obtain full rights within the junior club affiliation fee by payment of an additional £8.00.

## Third Party Insurance

Coaching Scheme members still occasionally enquire as to whether or not the BCU Third Party Liability insurance would cover them if they were the subject of a claim for negligence as a result of being in charge in an instructional situation.

The answer is yes. The details are as spelled out in the insurance benefits and procedures leaflet which was distributed to every member. The following explanation will also be included as a standard item in future CoDes.

For a claim to be valid, the instructor would have had to be shown to be negligent in some way. Should personal accident insurance be required, which provides a payment to the injured party, where the accident is either his or her own fault, or is a pure accident where no-one else is to blame, then a personal accident insurance policy is required separately. BCU members are covered in this respect, in accordance with the terms set out in the standard leaflet.

The terms of the third party liability insurance are:

'The limit of cover provided in any one claim has been raised to £500,000. The insurance policy indemnifies the British Canoe Union and/or its officials, and/or members and/or affiliated clubs (insofar as concerns canoeing and social activities) against claims for legal liability (personal injury and property damage - but not property held in the custody or control of the insured) to third parties. Indemnity against third party risks required by many local authorities before canoe surfing is permitted, is covered by this policy. All canoeing and related activities are included and there is member to member liability. The policy also covers members of the Coaching Scheme for legal liability arising out of or caused by wrongful advice.'

Copies of the policy are available, if required, upon receipt of a stamped addressed envelope at the BCU office.

Please note that the third party liability applies throughout the BCU, CANI, SCA and WCA.



# COACHING SCHEME FEES AND PRICE LIST

## MEMBERSHIP FEES

SEE INSIDE BACK COVER

## ADDRESSES

BCU Flexel House, 45/47 High Street, Addlestone, Weybridge, Surrey. KT15 1JV.  
 CANI, House of Sport, 2a Upper Malone Road, Belfast, N. Ireland BT9 5LA  
 SCA, 18 Ainslie Place, Edinburgh  
 WCA, Pen-y-Bont, Corwen, Clwyd, LL21 0EL.

## STAR TESTS

There is NO charge for the test itself. Successful candidates can be given a form by the examiner, by which they may apply to purchase a Certificate and a Cloth Badge, and also for Membership if they so wish, all from BCU or Association Head Office.

PRICE FOR CERTIFICATE AND BADGE £1 whether BCU member or not.

Books of 16 test entry forms are issued free to Scheme Members. Instructor - 1+2 star; SI - 1,2,3 Star.

Certificates and badges may be purchased by Scheme members and by recognised Centres and Authorities at £7.50 per lot of 10 Certificates and Badges. Please state whether 1, 2 or 3 star. Lots may be mixed.

An extra 10% discount is offered on cash with orders of £35 or more.

## OTHER TESTS

### #Members

### Non-Members

|                      |       |         |                                      |
|----------------------|-------|---------|--------------------------------------|
| Proficiency          | £1.50 | £3.50 * | ) There is NO FEE payable for a FAIL |
| Life Saving          | £1.50 | £3.50 * |                                      |
| Advanced Proficiency | £3.00 | £5.00   |                                      |

## AWARDS (General)

## AWARDS (Competition - first course only)

|                                 |       |                     |       |
|---------------------------------|-------|---------------------|-------|
| SI Training (first course only) | £3.00 | Competition Trainer | £3.00 |
| Instructor                      | £2.00 | Competition Coach   | £3.00 |
| Senior Instructor               | £3.00 |                     |       |

## CANOE SAFETY TEST

Books of 10 test entry forms are issued free to Grade I (Proficiency) Examiners (E1) on application to BCU HQ. Certificate and Badge £1.25 available to successful candidates only on application to BCU HQ.

## BOOKS

|                   |                 |                                                                   |
|-------------------|-----------------|-------------------------------------------------------------------|
| Log Book          | 75p             | £1.00p + £1 p&p                                                   |
| Canoeing Handbook | £6.00p + £1 p&p | £9.95p + £1 p&p (state whether bound or loose leaf binder £1.75p) |

## BADGES

### Members

### Non-Members

|                                                                  |       |       |
|------------------------------------------------------------------|-------|-------|
| + Proficiency Cloth Badge (available at discount to Examiners)   | 80p   | £1.00 |
| BCU Lifesaving Test Cloth Badge                                  | 80p   | £1.00 |
| Metal Lapel Badge - Proficiency, Bronze, Advanced, Silver        | 80p   | £1.00 |
| Sew-on Badge (Instructor/Senior Instructor, logo, white on blue) | 1.00p |       |
| Competition Coaches (only)                                       | 1.00p |       |

COACHING SCHEME TIES (Award holders only - green) 3.00

COACHING SCHEME JUMPERS (Award holders only - green with 'BCU Coaching' in gold letters on left breast  
 Please state size: Medium, Large, X Large) £8.50

COACHING SCHEME ANORAKS Discontinued until further notice

All prices include VAT and postage & packing. (Except where stated). Please address all orders to the Coaching Office and allow 28 days delivery. Cheques and postal orders should be made payable to the British Canoe Union, and crossed.

## RECOMMENDED SCALE OF MINIMUM FEES

|                        |                                                           |
|------------------------|-----------------------------------------------------------|
| (a) Coach              | £15 per day for the first 2 days - £10 per day thereafter |
| (b) Senior Instructors | £10 and £6 as above                                       |
| (c) Instructor         | £7 and £4 as above                                        |
| (d) ALL                | £4 minimum for lectures, with or without slides           |

\* Includes Cadet Membership for 16 year olds and under - please show age on form

+ The Proficiency Cloth Badge is offered to qualified Examiners at £6.00 per 10

NB SCOUT ASSOCIATION Warranted Leaders are treated as members for Proficiency Tests and BCU supplies only (not Coaching Awards) if they quote Scout Association Affiliation Number 000263. This does NOT apply to other Scouts.