

# Advanced Sea Kayak Club

AN INTERNATIONAL SEA CANOEING CLUB OPEN TO ALL INTERESTED IN THIS ASPECT OF CANOEING





AIMS Promotion of sea canoeing - Communication - Organisation of events and conferences - Safety and coaching.

THE ADVANCED SEA KAYAK CLUB

NEWSLETTER No 104

JULY 1994

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Editorial

Following the Lyme Bay tragedy the Tourist Board have just produced Guide Lines on safety and on standards for centres that they are prepared to approve. They have taken advice from the various governing bodies and, though I have yet to see my copy, I understand that they are not insisting on coaching qualifications but are saying something about necessary experience. I am waiting to take part in the first meeting of the local Safety Consultative Committee; what ever comes out of this will be passed on to you. Meanwhile I'd be grateful for any views you may have on the subject.

British Canoe Union are currently considering whether there is a need for a 'JOURNEY LEADER' qualification. Apparantly the push for this initially came from those who run clubs based on providing its members with sea kayaking trips. Such a qualification would allow those with the necessary experience and knowledge to lead groups of experienced on the sea. less

You will be interested in the legal responsibility position as it stands at this time. Kayakers who come together either through a club or through somebody prepared to organise an event (the word is 'organise' - not lead!), participate in a potentially hazardous activity and do so by mutual consent, under the principle in law of 'Volenti Non Fit Injuria' where consenting adults, who are aware of the inherent risks of the activity, are participating voluntarily, no-one can sue another member of the party, or the presumed leader(s) or club officials should they fall victim to one of the known hazards of the sport. In other words - everyone accepts their own risks.

Advertised tours open to the general public who are fee paying fall outside this principle and it is then up to the organiser and/or leader to show that they have taken every possible precaution and have set the right standard throughout. This could be a tall order. Your definition of the safe and correct standards and procedures may differ from that of the governing body of the sport or from the H & S Executive or, indeed, from any enquiry team set up to investigate any mishap.

There is no doubt that the British Canoe Union has one of the finest

coaching schemes in the world. If there is any as good then is has certainly been modelled on the BCU. I have often said that the growth, the safe growth, of sea kayaking is down to the fact it was able to jump quickly on to the back of the BCU coaching scheme that predated

this rapid growth by many years. I, like many of you, have led many sea kayaking expeditions - from the .day trip across the bay to extended expeditions along unknown coasts. Through a combination of learning from others and experience I have developed a sense that warns me when things may be going wrong and then I have a good idea of what to do about it. Of course I am not immune from having accidents or incidents, or even being responsible for them. I am prepared to say that I have been lucky on occasions but by and large there is an excellent chance that, should anything happen, I can stand and be counted.

Where is this leading us? I am interested in whether you believe there is a need for the introduction of a new award over and above the current BCA awards. Write and tell me. In fact I would appreciate your views about awards at all. What about this 'SPECIAL KIND OF FREEDOM' -how far should it extend?

### Some thoughts on improving the breed

#### A response to Peter Lyne's 'Horses for Courses'

#### Peter J. Carter

I think it was Jaques Yves Cousteau who said that one should not listen to the protagonists of opposing ideas, but to the judges who can understand the problems and present a balanced view. It was refreshing, therefore, to read Peter Lyne's 'Horses for Courses' in Newsletter 100.

The earlier discussion had often lost objectivity and rationality, but Peter has managed to draw the threads together by reminding us that there is no one right way to go to sea in a kayak, and that different designs all have their good points and their not so good. There is a wide variety of apparently successful craft, just as there was in the Arctic. Some are suited to long distance expeditions, others to playing about among the rocks. You choose a boat to suit your paddling, always bearing in mind the need for safe handling in awkward situations.

Over the years one gets to paddle a variety of boats and can begin to compare. Here in Australia we tend to get the more popular boats from both the US and the UK, along with local craft like Greenlander (a good expedition boat), Pittarak (competent, but not exciting) and Mirage (which I don't like at all). Of the overseas boats, the Puffin (a good choice for big people) Spectrum (yuk) Skerray<sup>RM</sup> (good, but...) and Nordkapp (I still have my 1979 built example). Once upon a time I had a Seahawk (the sooner forgotten the better). These days I normally paddle a Voyager. I think I'm right in claiming to have paddled both the first Puffin and the first Skerray<sup>RM</sup> to arrive in Australia. I haven't had the opportunity to paddle Sea Tiger or Vyneck.

#### What have we learned?

We need to look at general principles, and see what we have learned in the past couple of years. Not the effects of rocker versus straight keel, wide versus narrow beam, and the like: we all know about and agree on those. I want to look at two problems which face every designer and paddler of sea kayaks.

Let's start with directional stability. It now seems generally accepted, at least in the UK, that the retractable fin is the more efficient means of controlling a kayak. There's only one moving part, no tiller bar or pedals, and only one control cable. It works by curing the instability, not by masking the symptoms. As with everything else, it takes a little practice to be able to get the best out of it. The technique and 'feel' are different from a rudder craft. Of course, there is a down side: there is some loss of internal space and the possibility of crud jamming the thing.

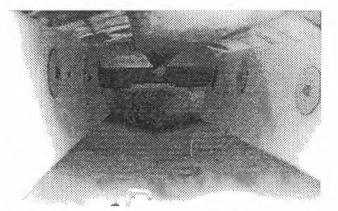
The fin in the Skerray<sup>RM</sup> is a good example of a fin system as well as being an excellent example of the state of the art in otomoulding). It works well, and is easy to maintain. There's only one thing I'd add, and that's about 30 cm of 4 mm shock ord between the end of the control cord and one of the deckine fittings. Then you always know where it is, and the fin vill hold its setting without needing to be cleated.

How a cockpit should be built is the area that has caused nost contention. I think most would agree that low volume is n advantage. The less water there is the easier it is to paddle if ne boat has been swamped, and the easier the boat is to rescue. Take that to its logical conclusion and you have the 'washdeck' kayak. Rescues become non-events. While that solves some problems, it creates others, like leaving the paddler somewhat exposed.

How that low volume is to be achieved is the question. After using and building both bulkhead and integrated cockpits, I think that the latter is the most satisfactory. Yes, it does require a different assembly technique, but it is no more difficult than other assembly tasks, and the total length of join is less than that of side bulkheads, which are not uncommon in Australia.

The integrated cockpit idea is gaining acceptance, with the Caribou being the latest design to appear. Its cockpit is advertised as having a volume of 80 litres, about the same as in Voyager. (In contrast, I was able to pour 150 litres of water into the cockpit of one recent UK boat. That's not encouraging.)

If you have an older boat you can modify it by adding buoyancy material (I use expanded polyethylene) along the sides of the cockpit. At the aft end it can be held in place by the seat, along the rest, use a couple of studs or long bolts with plates on the inside surface, as you can see in the photo below. Wedge another piece under the seat. Reduce the cockpit volume as much as you can.



The real contention arose over what happens to loose water in hull compartments. We know what happens to a bulkhead kayak: it sinks by one end, losing directional, then lateral stability. An integrated cockpit kayak remains substantially level. That's not a wild assertion. It has been shown both by experiment and experience.

Before someone mentions 'free surface' let me suggest an experiment. Take a bowl, about 3 litre capacity, the plastic kind with a sealing lid. Put about a litre of water in it and slosh it about. See if you can set up a regular wave. That's free surface.

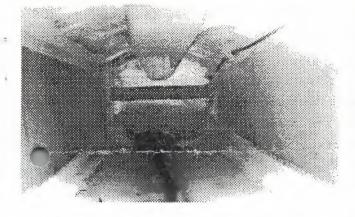
Now stuff the bowl full of bits of polystyrene. Fill with water to the same level, put the lid back on and try sloshing it again. What happens? Can you set up a regular wave? This is what happens inside an integrated cockpit kayak. (If you want the technical term for this, it's 'surface permeability.')

Better still, borrow a Sea Tiger, Puffin or Caribou, pack it full of gear and/or buoyancy, add 20 or so litres of water and

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see how it behaves. Repeat the experiment with your own boat.

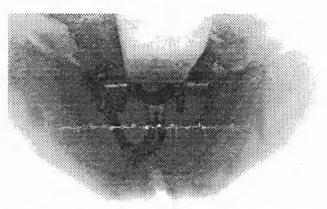
Again, there is a modification for those with bulkhead boats. Connect the bow and stern compartments at keel and gunwale level with a pair of tubes. Twelve millimetre pipe seems to work well enough. Any water that comes in will be evenly distributed and the boat will stay level. The boat shown below has side bulkheads, as well as a mast step and box for bits and pieces in the deck. The gunwale level tube is the thin line at top right.



#### Who do you believe?

There's an old motto that goes 'Nullius addictus iuare in verba magistri.' Roughly translated: 'Don't take anyone's word for it.' What I've tried to give you here is a couple of repeatable experiments so that you can judge for yourself.

Far from 'bashing' Peter Lyne, I would commend him. I don't know whether he will succeed in uniting we protagonists (I met Frank Goodman when he was here in 1979, the others I've corresponded with and they all seem reasonable people), but we are all sea paddlers. In our own ways, we want you all to enjoy sea kayaking as safely and as comfortably as possible.



Foot pump (Whale 'Baby Gusher') in a Voyager cockpit. Don't rely on electrics, or being able to paddle with one hand in choppy seas while pumping with the other.

Advanced Sea Kayak Club

Thoughts on pumps, storage and other worrying things.

Over the past 2-3 years you have run many articles written by members on technical aspects of seacanoeing, equipment, storage and rescue techniques amongst others. I personally found these one of the more interesting aspects of your magazine and an alternative to the expedition reports and dialogue from or about the rescue services. The number of these appears to have dwindled in recent months so to start to rectify this I have included a few ideas and problems I have had that may be of interest.

I own an Islander I bought 2 years ago and I immediately upgraded it by incorporating ideas from ASKC newsletters. It came with 2 deck hatches and a blocked off opening and recess for a rear-deck hand pump. I installed a new bulkhead made of plywood behind the seat to allow the original pump opening to be the access point to a small, easily accessible personal compartment. A tenplate made of cardboard was taken to a joiner and the finished bulkhead sanded down and glassed into position. After a couple of trial and errors I managed to find a 6 inch diameter round screw lid hatch from a chandlers. This was bolted in place and edged with silicone sealant. I tried some hatches that were the correct size but had fewer turns, these proved to be a problem opening with one hand behind me as they needed a reasonable amount of force to make them watertight. I considered a proven hatch, the Henderson TCL 3, but rejected the idea as it is an oval hatch and I already had my neat round recess and hole and did not want to cut bigger holes in the back deck than I needed to.

I came to the conclusion after reading many reports that the best option for a main pump would be an electric pump mounted behind the seat with a deck mounted on/off switch. I chose the Waterbuster pump from Atwood obtained at a reduced cost through a yachting mail order catalogue. It is a relatively cheap, easy to install pump with a maximum output of 200 gallons per hour. One advantage is that the 3 x 1.5 volt batteries are contained within the body of the pump and are easily accessible. I adapted the pump in several ways. Firstly I removed the heavy base to reduce weight and filed down the walls around the base so that the suction impellor was as close to the bottom of the canoe as possible to allow maximum expulsion of water. The water intake has to be where the water is unlike a manual pump which has an inlet hose. I suggest putting the pump behind the seat and sitting in the seat before installing either bulkhead or pump as I made the mistake of putting the bulkhead in first and finding the pump does fit directly behind the seat but digs into my back a little. I have relocated the pump slightly to one side to remedy this and must therefore lean the boat a little to get the last of the water out. An alternative may be between the legs although there is a carrying handle on the pump which makes it stand a little high. The outlet hose has been taken to a hole drilled in the deck where it is fastened to an outlet adapter (obtained from Lendal). I have made a bung as there is no non return valve. This is tied to a deck elastic. The biggest adaption was to the on/off switch. On the original, the plastic push button on/off switch is located on the side of the pump - O.K. but better sited on the deck. I ran wires from the connectors inside the pump, through the hole where the original switch had been located, sealing this hole with silicone sealant, and up to a switch I installed on the deck. Dave Gardner outlined a very good and thorough method for installation along these lines in an earlier newsletter. He used a splashproof switch from an autodealer encased in araldite; I obtained a toggle switch with a rubber shroud incorporated from an electrical store. The advantage of a toggle switch is that you can see easily if the pump is on or off as the motor is very quiet. Rocker switches are lower in relief and can be felt if they are on or off under a waterproof cover. The back of the switch has to be made watertight. The electrician gave me some putty like stuff that looks suspiciously like plastic explosive which is used to waterproof all manner of connections etc. This I packed around the switch and taped it all up so it can be removed later if need be. I incorporated a connector half way down the wire so I can remove the pump without removing the switch. This has also been waterproofed and taped. Decent waterproof connectors can be obtained however I used whatever was to hand. So far the switch appears to be watertight and work well. The pump is held down by elastics tied to two glassed in loops on the floor of the canoe, these hold the pump firmly in place even when the boat is upside down.

On the subject of knee tubes - I glassed in 4 small loops on the underside of the top deck forward of my knee rests. 2 thin elastics have been stretched across them and these can easily be shortened or lengthened. I put a large or medium BDH under these loops and it is held firm. I can remove it and

replace it very easily and it is scaled by a length of bike inner tube. The loops are short lengths of hosepipe glassed in with GRP tape. The BDH is strong, reliable, watertight and can be removed easily. It does not hinder entering or exiting especially if exiting underwater, however I tend to enter the boat first and then fix in the knee tube.

I now have the extra storage space I need behind me for everything that has to be easily accessible such as pack lunch, thermos, spare clothes, flares etc. and the knee tube which necessitates removal of the spray deck. Personally I carry 3 large BDHs - a first aid kit, a survival kit and a repair kit; I also carry a medium size BDH behind my seat with all basic things I may need - a small first aid kit, plumbers tape, lightstick, sweets etc.

#### Survival ideas:

I am always experimenting with different ideas concerning positioning of safety equipment and its uses. Using paddles as outriggers, putting splits under deck elastics joined with bits of rubber tube or pivoting them out from the deck all seem to be feasible ideas I have seen in the newsletter. In my opinion it is better to keep the splits easily accessible and easily removable for the genuine purpose. It is an idea to have one on the front deck should you have to retrieve one to roll up. I have seen a suggestion to incorporate a tee piece in order to make it easier to orientate the blade. In my opinion the skill of being able to roll in different conditions with an empty, loaded or flooded boat is the most important single survival technique anyone can learn. Practise with half a split in the swimming pool and also in the sea. Try and learn to hand roll it could save you a lot of problems and I have used the technique more than once in surf.

Once again the new year is here and the dark days can be spent planning the summer schedule of paddling, however if anybody out there would like to paddle on the Scottish coastline this spring I would be only to pleased to join you or have you as company. My first attempt this year answered a few questions about the watertightness of my hatches as launching through a 3 metre swell and high onshore winds in Nigg Bay is liable to do.

My phone number is 03398 81076 - just west of Aberdeen.

**Richard Bryant** 

#### GLOBAL POSITIONING SYSTEMS OF GPS

GPS receivers have been around for a while but their cost, bulk, weight and lack of resistance to wear kayakers are likely to inflict on them has made them of little practical value to kayakers.

Until now. They are small. light weight and cost half of what they did.

I would have liked this article to include a review of what GPS receivers are available in terms of durability, size and price. If a member can undertake this review I would be very grateful, as I know our readers would be. Nothing too detailed is necessary.

Meanwhile a brief description of GPS or Global Positioning Systems. Simply put, it is a navigational system that enables you to determine your position on the worlds' surface anywhere you happen to be, land or sea. It is hand held, reliable and, of course, very useful in terms of navigation and safety.

They are micro-computers that rely on a network of 24 space sarellites circling six different orbits at about 20,000 Km above the earth. These satellites send out signals which are picked up by the GPS receiver which calculates its position from the range and direction of the satellites. In order to achieve a fairly exact (a contradiction in terms - but you know what I mean!)position, the GPS receiver requires signals from three satellites that are above the receiver; that is, not on the other side of the globe.

Of less interest to the kayaker is the GPS receiver that can, with the signal from a fourth satellite, determine your altitude .... useful for hill walking.

GPS receivers are available as Multichannel receivers or Multiplex receivers. The multichannel collects signals from several satellites at the same time, hence multichannel as each satellite transmits on its' own individual channel. For example, the Magellan Nav 5000 works with five channels, four of which allow for position to be deduced in three dimensions, that is, position on the globe as well as height above the globe. The fifth channel observes signals from other satellites and will bring any of these into use if they are stronger than any of the four being used.

On the other hand, Multiplex receivers use only one channel at a time, switching from one satellite to another in a fraction of a second in order to calculate position. These are losing ground against the multichannel receivers which are that bit quicker and efficient.

It was the military that developed GPS and the whole business has grown into a huge industry. Until recently I received a bi-monthly magazine that specialised in GPS and it has been interesting to see the rapid development of this particular aspect of technology. It was GPS that allowed such pin-point accuracy when certain installations were targeted during the Gulf War. Unfortunately this pin-point accuracy is denied other that the military for obvious reasons by a deliberate modification to the satellite signals meaning a maximum error in the reading of up to 100 metres or so. Certainly I am not going to worry about such accuracy when in the past I have been pleased to know where I am within a few miles!!

If you do have a fetish for wanting to know your precise position you could acquire receivers that will provide it by virtue of working with a ground station. These stations collect the satellite signals which, aware of the built in error of signal deviation, computes the right position to within a few metres and sends this information to the GPS

receiver. The GPS receiver has to be able to receive this data from the ground station and to achieve this it has to be a differential GPS or DGPS. You will need to check as not everywhere is served by such ground stations

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## Wales' First Statutory Marine Nature Reserve

When, on 6th July 1990, the Secretary of State for Wales published the order for a marine nature reserve in the seas around the island of Skomer and part of the adjoining mainland, it was not only the beginning of a new era, it was also the ending of a story which had begun in 1976. At that time, and well in advance of any legislation, a voluntary reserve was set up by a group of determined and far-sighted people. They included representatives of the British Sub-Aqua Club, Field Studies Council, Nature Conservancy Council, Pembrokeshire Coast National Park, Welsh Association of Sub-Aqua Clubs, and the West Wales Naturalists' Trust. The South Wales Sea Fisheries Committee was resented by an observer.

The voluntary reserve enjoyed a considerable degree of success, largely as a result of the ready co-operation of all concerned. However, like any such arrangement, a voluntary reserve is ultimately very vulnerable, relying as it does upon good will and persuasion. Thus, when the legislation was passed in 1981 which enabled statutory reserves to be set up. It seemed like an opportunity to give Skomer marine reserve the protection of law. In the event, things were not quite so straight forward as everyone had hoped, and it has in fact taken the best part of nine years to achieve what was wanted.

Why on earth should this be so? Was everyone hibernating, or twiddling their thumbs? The answer is that the legislation has proved extremely complicated to put into operation, partly as a result of the way in which it has been framed and partly because of the procedures we have been required (by the Department of the Environment and the Welsh Office) to go through so as to ensure that absolutely everyone who may be interested is consulted. To describe all the processes here would take far too long: suffice it to say that my shelves include ten fat volumes of correspondence, papers and minutes. The expenditure of time has been considerable (about six man-years' worth by the Nature Conservancy Council alone, with, in addition, the equivalent of many months of unpaid overtime). No less than three Secretaries of State for Wales were involved. (Nicholas

Edwards, Peter Walker and David Hunt) before success was finally achieved.

The role of the Marine Conservation Society in all this has been very positive and supportive. They have long since been represented on the voluntary reserve committee. which is to become the advisory committee of the new statutory In the reserve. Nature Conservancy Council, we look forward with eagerness to long and fruitful co-operation with the Society and all the other bodies on the committee.

#### The riches of Skomer

So what is there to get so excited about? The new reserve includes 27km of shoreline and 1.500 hectares of seabed surrounding Skomer, Middleholm, Gateholm and the Marloes Peninsula, off South-west Wales. It includes littoral and under-water cliffs, overhangs, caves, surge gullies, natural arches and passages, boulders, sediments and bare bedrock. Parts of it are sheltered, others are exposed to but extremes of wave and current action. Of special interest are extensive areas of deep, currentswept bedrock, and unusual sediments derived from siltstones and shell gravels in some north-facing bays. Occupying all this is a spectacularly rich array of invertebrates and marine plantlife. The latter includes two species of algae new to science which were first described in the Skomer area.

A number of the marine communities are of special interest. For example, those on the extremely exposed shores of Skomer Head and The Wick, or on bedrock and boulders subject to extreme wage-surge, and especially some of those occupying the areas of sediment, are particularly unusual. In addition, many of the communities are remarkably free from human interference and are therefore in pristine condition. Fragile sea-fans and Ross corals, some probably of considerable age, can be found.

Skomer island itself supports one of the biggest and most intensively studied colonies of sea birds in England and Wales, some 250,000 strong. The colony of breeding Atlantic Seals which make use of the caves and some beaches is the second largest in SW Wales.

#### Looking after the reserve

One of the chief objectives of the reserve must, of course, be to maintain the features of interest and to prevent, as far as possible, wanton damage. To this end, a series of bylaws has been prepared by the Nature Conservancy Council. The South Wales Sea Fisheries Committee has also made a bylaw to prevent the use of shell-fishing gear which would have had a damaging effect on the sea floor and marine life which lives there. The collection of scallops by any means has also been prohibited. However, the vast majority of visitors, including divers, will not have their activities curtailed in any serious degree. At the same time, an information centre will be set up, and a series of helpful and informative leaflets will be produced.

It will take time to get everything in place. The first batch of leaflets will, however, be available towards the end of the year, and it is hoped to start work on the centre this winter. In addition, two full-time staff appointments will be made to help look

after the reserve. One will be a scientist, responsible (amongst other things) for maintaining a series of observations on the flora, fauna and physical conditions, as well as for writing leaflets, reports and so on. The other will be responsible for looking after equipment, the fabric of the centre and other duties. It is likely that both will need to have proper diving qualifications.

Above all, however, it is important to emphasise that the success of the reserve will depend upon goodwill and co-operation almost as much as did the voluntary reserve. The Marine Conservation Society, for example, still has a vital role to play at Skomer, in terms of advice, liaison, the promotion of information, etc. A proportion of the visitors to Skomer (which include, incidentally, more than 3,000 divers each year) will, one hopes, be members of the Marine Conservation Society. (Those that aren't, should be!). Enjoy the reserve to the full; congratulate yourselves on the central role that has been played by the Marine Conservation Society; and help us to crown with success the 14 years' worth of effort already put in by the creators and mentors of the voluntary reserve.

Mike Gash - Nature Conservancy Council.

21 Sallynoggin Road Lower, Sallynoggin, Co. Dublin, Ireland.

9 / 1 / 1994.

Dear John,

Thanks for the note and the mention in the newsletter. I have enclosed a brief report on the symposium we held this year. I also enclosed my subscription for the coming year which I can never remember if I have paid already.

#### 2nd Annual Irish Sea Kayaking Symposium.

The symposium was held on the 12th to the 14th of November at Little Killary Adventure Centre in the west of Ireland. Our Special Guest was B.C.U. Coach Nigel Foster. We designed the programme with a balance of entertainment, challenge and coaching in mind. This progressed from last year's event where the emphasis was mostly on coaching.

The weekend's programme was kicked off with a slide show on the Lofoten Islands in Norway by David Walsh. This was an excellent slide show and the achievement was all the more remarkable by the fact that, as he explained, David is relatively new to Sea Kayaking. Saturday's programme was opened with a talk by Captain Peter Brown of the Urish Marine Emergency Services explaining how this service has been restructured. The service is co-ordinated from Dublin and is made up of a network of Maritime Coast Radio Stations. Further details, for those wishing to paddle the coast of Ireland, can be obtained from the Dept. of the Marine at Leeson Lane, Dublin 2.

This talk was followed by three different levels of Day-Trip ;Beginners, Intermediate and Advanced Trip. The Connemara coastline is ideal for sea kayaking, with three inhabited islands and a huge selection of uninhabited islands to chose from. After evening Supper "The Paddlers Guide to the Islands of Ireland" was Launched by Dave Walsh. It is a comprehensive and invaluable document. This talk was followed by Colin Craig's slide show on his sea kayaking trip to Northern Russia. This slide show had people buzzing, enthused by the possibility of organising their own expeditions. The days activities were topped off by a night of Cajun music and dancing, lots of dancing. The music carried on very, very late into the night.

The Sunday morning's programme began with Nigel Foster's brilliantly practical talk on the the steps necessary to undertake one's own expedition. There were three choices of activity for the afternoon. Sea Kayak Orienteering, Workshops on Navigation and Workshops on strokes and rescues. There was a great thirst for knowledge apparant in the workshops which were given by Migel Foster and Colin Craig.

We were particularly excited by how well the first Sea Kayak Orienteering event we had ever organised went. As it turned out it was a particularly competitative event in which seven teams of two battled it out. For the competition we used a 1:25,000 sea chart of the area. We used premarked photocopies of a section of this chart and organised the event as a score event...i.e. you have to try and locate as many of the points as possible in a limited time. More difficult or distant points are given a higher score and you are deducted points if you are overtime.

At the close of last years symposium we had group discussion on how to develop the interest in Sea Kayaking. As a result the Sea Kayaking Association was formed. ( The association is now based at 21 Sallynoggin Road Lower, Co. Dublin, Ireland). This year we gave out suggestion questionaires. There was a great interest in having a newsletter for the Sea Kayaking association and none in the orgainisation of a Sea Kayaking race.

I would like to say a special word of thanks to our Guest Speaker, Nigel Foster whose entusiasm for the sport is infectious and conveyed with great professionalism.

The 3rd Annual Irish Sea Kayaking Symposium will take place on November 11th - 13th at little Killary Adventure Centre Phone 353-1-95-43411 R 1994 353-1-95-43591. Fax

Yours Sencerely, Stephen Harnon.

Rod Slaughter. Newbiggin by the sea. Northumberland.

#### Rescue and Safety with Helicopters.

In answer to recent articles in newsletters 94 and 95 reguarding what should be done in helicopter rescue situations, I hope my experience may help clarify some points.

In June 1988 Mel Clarke, Glen Campbell and myself attended a Rescue and Safety weekend at Achnamarra near Loch Sweene in Scotland.

The programme for the weekend was to try out rescue methods and equipment with paddlers of all levels. The organisers had arranged for a member of the Clyde based Coastguards to attend and the participation of a Royal Navy Sea King helicopter from H.M.S. Gannet to take part in various rescue exercises.

Jim Breene the main organiser of the weekend had spent months in delicate negotiations with the Royal Navy and H. M. Coastguard and the arrival of the helicopter was all depending on it not being needed elsewhere on the day.

Saturday morning, it was a nice calm day, a little sunshine and plenty of midges about. We all travelled the short distance from the centre to the loch side where we moved a small herd of cattle out of the field and well away from the proposed landing site, collecting up all loose debris we were ready for its planned arrival at 11.00 a.m. The next hour was spent doing various rescues, towing and rolling. The appearance of the helicopter was the signal for everyone to get off the water for the lunch break, while the crew finalised details of the afternoons programme the rest of us had a closer look at the Sea King. Lunch break over the crew boarded and took off, giving everyone their first

taste of the powerfull downdraft which we would soon experience on the water. There were two rescue boats on the water, a coastguard semi inflatable, and the centre's inflatable, both were in radio contact with the helicopter.

The Exercises:

High then Low passes over the group paddling down wind in close formation: <u>High Pass</u> Causeing no problem to the canoeists <u>Low Pass</u> With the approaching helicopter at 50 feet the downdraft hit you with such force, unless you were paddling hard, you would loose all stability and a few were

capsized. The changing forces as it past over were trying to take your paddles in 11 directions, keeping the paddles low seemed to be the best way to hang onto them.

#### Winching.

All these exercises were given phonetic titles for simple radio communication to the Helicopter. Most of the paddlers took part in these exercise. <u>Alpha.</u>

Uplift from a 5 kayak raft beam to the wind:

Worked quite well, the raft stayed together

Bravo.

Uplift from a raft of 5 with drogues streamed upwind:

The streamed drouges didnt work and were overran by the raft, the raft stayed together.

Charlie.

Uplift from the seated position from a 3 man raft:

The chances of injury to the patient i.e. broken legs are very high, they must be out of the cockpit area. Uplift of a solo paddler from his kayak: In this instence the helicopter was unable to get a position above the casualty, the canoeists was caught beam on to the downdraught, pushed him along at a fast rate all he could do was use a low brace and hang on. <u>Foxtrot.</u>

As Charlie but only 2 man raft:

I was the patient in this so I can give you a more graphic account of this one. Mel and I were chosen to take part in this exercise, we paddled out into the middle of the Loch away from the rest of the group who were rafted up well outside the lifting area.

Positioned ready the helicopter approached downwind of us dropping to about 50 feet. As he closed to about 100 yards the winchman started to decend to sea level, stopping with only his feet in the water approaching very slowly, at 40 yards we were hit by driving spray coming horizontally towards us. The downdraft forms an inverted mushroom shape so once we were directly under the rotors the air was coming straight down making things a little easier to hang onto. My paddles were secured under the deck elastics Mel was still trying to hold on to his as well as keeping the raft together, with the noise of the rotors and wind any verbal contact was now impossible.

By now the winch operator was making small adjustments to bring the winchman onto the bows of the kayaks, once in contact with the raft he was given some slack cable allowing him to clamber along the decks until he was straddling the front deck of my boat. Loosening my spraydeck I eased out of the cockpit and sat on the rear deck with my feet on the seat, the Nato Strop, a simple loop with tightening ring, was placed over my shoulders and adjusted, a quick nod to me and hand signal to the winch operator and we were off. Looking straight down I could see Mel lying across the cockpit of my boat trying to stop it from blowing away.

In less than a minute we were at the door and being pulled into the helicopter, no words were spoken but as the winchman unclipped us off the cable I was given clear signals to move well into, the back and away from the door. Flying off down the loch we were heading to rendezvous with the coastguard boat. Before I had time to get comfortable things were starting to happen again, I was being clipped back onto the cable this time alone with only the earthing cable. Signaling me towards the door the cable was tightened till I was in a seated position with my legs out the door, another fine tug and I was in mid air facing the helicopter, a thumbs down signal and I was on my way. Looking down the Coastguard rescue boat was 20 yards behind us slowly manouvering into position, 8 feet above the water and I stopped decending the bows of the rescue boat we placed below me and with perfect timing I was lowered onto the deck. Looseing the strop and watching it moving up towards the helicopter I was a bit dissapointed that it was all over so quickly.

Returned back to the rest of the group Mel told me how once we had left the decks of the kayaks my boat had nearly flown over his head as he tried to hang onto it.

The exercises with the helicopter took just over an hour to complete giving a lot of us a insight into what would be involved in a rescue situation. It was noted that in perfectly calm conditions how difficult it was for the winchman to drop onto the decks of the kayaks even on a 5 man raft. Rafting up and staying together in calm conditions is relativly easy the question of what would happen in a rough sea is a different matter. After attending this exercise and seeing the effects and power of the helicopter up close my opinion is it is safer and easier to be winched from the water rather than the decks of a raft. On the question of swimming clear of you boat I would say hang onto it, we found an inverted kayak with water in the cockpit was unlikely to cause problems in the downdraught.

Echo.

#### INTRODUCTORY QUOTATION

"Most people, other than those engaged in professional sport, look upon sport and recreation as leisure activities, but that does not mean that they should be treated lightly. Sport is as much a part of the national culture as picture galleries, symphony orchestras, pubs and pop music. Indeed sport has an added value in that it is good for the health - or most of the time anyway.

I believe that we need to make sure that sport and recreation are recognised as ssential elements in the education of young people. Not just because they help to develop fitness and good health, but because they provide some of the essential lessons in social behaviour.

Team games, in particular, teach some very important lessons. They teach the need for self-control and the value of co-operation. They emphasise the importance of respecting rules and they encourage the players, as Kipling put it, to '... meet with triumph and disaster and treat those two imposters just the same.'

Perhaps most important of all, it teaches those almost undefinable things sportsmanship and fair play; things which gained for Britain such an enviable reputation throughout international sport. Sport is much more than education for leisure, it is education for civilised living.

Everyone is agreed that academic education and occupational training are vital, but there is a general recognition that young people also need help and encouragement to ind worthwhile and valuable social and cultural occupations.

The combination of the industrial revolution – which has far from run its course yet – and the explosion of the world's population, has put quite new, and previously unknown, stresses and strains on young people during a vitally important stage in the development of their character and personality.

I believe that it falls to those of us, who are involved in the provision of extra-curricula and leisure activities, to make every effort to help young people to prepare themselves for urban/industrial life as it is developing today.

HRH The Duke of Edinburgh President of the Central Council of Physical Recreation (CCPR) Excerpt from his Address to the 1993 AGM

#### ERGONOMICS AND SEA CANOEING by Veronica Steane

taken, with thanks, from 'SEA CANOEING', the Journal of the Tasmanian Sea Canoeing Club.

Paddling round Jura with Jonathan Iles and my son, Chris some years ago I badly ricked my back whilst lifting my loaded sea kayak right at the start of our weeks trip. It rather took the edge off the week for me, though the 'up-side' was having my kayak carried for me and being gingerly lifted into my kayak at the start of each days' paddle!!

On balance, it aint worth it and so I was interested in the article by Veronica and reproduce it here for you now.

I see the need for a series of articles addressing the ergonomics of

- lifting and carrying sea canoes

- seating in the kayak

- paddling

- fitness.

Though I am starting on the first, I'm sure there are many club members with well thought out ideas on these topics that we could all benifit from.

1. BACK CARE ON THE LAND

I believe a serious risk to sea canoeists occurs on land, carrying and lifting our boats. An empty Greenlander weighs between 20 anmd 30 kg., depending on the lay-up, and a weekends' camping gear another 20 kg as canoeists tend not to travel light. For a fortnights' trip one could well be carrying 30 - 40 kg of camping gear and food per person, not counting fresh water. Multiply this by 1,5 for a double kayak and you've got double trouble!

SO Carry less -:

- by sharing the load when launching and retrieving boats. We are all willing to help, a hero who strains her/his back on land is no good on the water. (Ed. in fact this was, even with a badly strained back, when I was able to come into my own, though I can well imagine how it is possible to paddle with difficulty if you have a bad back)
- by loading and unloading your boat on the beach. It is worth taking a few minutes to empty out the sea water and a few of the heavier items at the waters' edge. Organise your stowage so that these can be got hold of easily. (Ed. when solo paddling on expeditions I use my poly survival bag to pile everything into for hauling up to my camp-site)
- by taking less would you bother carrying that item if you were bush walking with it on your back?

To compound the problem, when we come to lift we are often physically unprepared - rolling floppily out of a warm car after a long drive, or climbing, cold and stiff from the boat tired after a long paddle, our bodies are not in the best condition to cope with a sudden 50 to 100 kg wrench, nor even 20 kg - we are made of bone and soft tissue, soft and fragile stuff if not properly reinforced with muscle action.

SO limber up before lifting -:

- walk around to sus out your launch or camp site
- do some preliminary bending and straightening while dealing with other matters
- brain before brawn consciously think of your lifting technique, the physics involved, and organise your load, your helpers and your body.

RULES OF LIFTING

We are all familiar with the basic rules of lifting, but they still warrant some discussion.

KEEP YOUR BACK STRAIGHT - both in the frontal and lateral vertical planes and the horizontal rotational plane (sea diagram).

The spine best takes loads vertically. Stresses pulling the spine out of its' natural alignment put strain on the intervertebral discs, ligaments and muscles - any of these soft tissues are subject to stretch and rupture. Good spinal alignment needs to be reinforced by good muscle tone. Brace your back muscles, actively maintain the lumbar curve.

Keep the load as close to your midline as possible - your centre of gravity should be as close to that of your load as possible. Carrying something with arms held away from the tounk increases the torque on the spine enormously. Get your feet in close to the load.

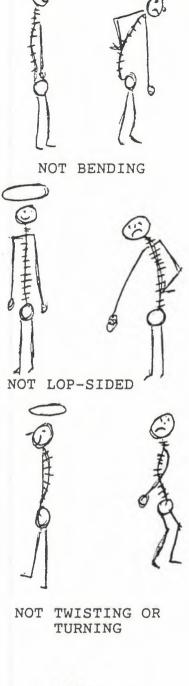
When lifting loads from the ground, bend your hips and kness to get in as low and close to the load as possible, while keeping your back straight.

SO: Do us a favour - organise handles on your boat so we can lift it and carry it with our arms close against our trunks and our backs straight, not leaning over into the middle of the boat. Consider holds for a two person carry, and for a three or four person carry for a heavy or heavily laden boat.

People of similar 'hand-above-the-ground' should work opposite each other. When a tall person partners me on the other side of the cance, not only do they end up taking all the off, but in lifting their side higher they tip the deck away from themselves, so they have to reach away from their trunk to hold the deck line, compromising the straightness of their spine.

When you race up to help carry a boat, think of its' balance. If you grab it on one side and tip it off level, no-one can carry it close to their trunk. Not only are you straining your own back but you are also putting the other carriers at risk.

LIFT FROM A STABLE BASE - not always possible on wet boulders and sea-weed, but it is well worth taking the time to secure your footing. No matter how straight your back and close to your load you are, if your foot shoots out from under you the spine is instantly disadvantaged and at risk, not to mention the boat.





Do not twist or turn your body while carrying or lifting. Make your feet direct where the load is to go. Nose follows toes, straight back between them.

SO: wear sensible foot wear that has grip and protects your feet on barnacled rocks, syringe littered sand and knee deep kelp...and that does'nt hinder your swimming ability.

#### On unstable footing consider:

- moving the boat only a foot or two at a time. Have a foot secured where the boat will be on lifting, and the other foot secued where the load will be deposited. Move your trunk with the load from one foot to the other, keeping the spine in correct alignment. Take time to re-establish your footing before lifting the boat further. Often you can use the resting boat to stabilise yourself as you slither about establishing the next foothold.

- sliding the boat over the slippery surface. Let the ground take the weight. If working against gravity, pulling is easier than pushing, but remember - KEEP YOUR BACK STRAIGHT! - make your quads do the work. Establish a reliable foot hold and base for weight transfer every time you shift the boat.

And what about when we throw these monstrous weights 2 or 3 metres into the air in order to transport them on the roads? Same principles apply of course.

SO: the closer the roof is to the ground, the less risks to the lifters. It's certainly much easier to lift our canoes onto Mikes' trailer than onto the roof of his high car.

If the boat has to to be put up from the side of the car, perch it on the edge of the roof rack so that the car carries the weight as you slide the boat further over. Avoid supporting the weight of the boat when it is away from your own centre of gravity.

When lifting the boat on my own (which I try to avoid if at all possible) I start by putting the boat along side the car. I let the ground take the weight at one end while I prop the other end on the corner of the roof rack and car. Then let the car share the weight while I lift the other end up.

If you have to, lift the boat on and off by yourself, rollers on the roof racks make sliding easier. Some people who do not have help or strength at home to get the boat on or off the car devise pulley systems. The boat is stored under a car port roof, the car can be driven under it, and pulleys give a mechanical advantage so one person can do the work of several without strain.

Be assertive. When others are compromising your safe lifting or carrying, let them know how they can be of better use. Likewise, when you see someone about to put themselves at risk, get in there and save the situation!

Canoeists have strong backs, it's a spin off from paddling, if you do it ergonomically - we also need strong backs in order to get our boats to and from the water. It's worth being aware of how and when we can compromise our backs, and how to cope with these situations.

SAFE LIFTING IS PART OF SAFE PADDLING

## 1994 SEA KAYAK BUYER'S DIRECTORY

Model	Company	Materials	No of seats	Length (m) x beam (mm)	Weight (kg)	RRP (inc VAT)
Sea Kayaks						
Alaska	Euro Kavaks	LDPE	1	4.20 × 620	21	£418.43
Aleut II	Valley	GRP/Diclen	2	6.70 x 660	43	£1,445.00
Anas Acuta	Valley	GRP/Diolen	1	5.23 x 550	25	£795.00
Atlantic	Gaybo	GRP	1	5.15 x 600		£540.50 +
Calypso	North Shore	GRP	1	5.00 x 550	22 36 25	£770.76
	North Shore	GRP	2	6.00 x 650	36	£1,167 80
Calypso II	Perception	Polvethylene	1 1	4 88 x 610	25	2590.00
Chinook	North Shore	GRP		4.85 x 550	20	£740.68
Fuego	Rob Feloy	GRP/Diolen		5.50 x 500	15 - 25	£795.00
Inuk				5.70 x 480	13	£230.00
Kayel Angmagssalik	Granta	Wood		4 50 × 550	15	£195.00
Kayel Sea Rover 15	Granta	Wood				
Kayel Sea Rover 17	Granta	Wood		5.25 x 600	18	£205.00
Mariner	North Shore	GRP		5.15 x 550	22	2714.98
Njord	Rob Feloy	GRP/Diolen	2	6.85 x 640	37 - 45	£1,256.30
Nordkapp	Valley	GRP/Diolen		5.45 x 540	25	£795.00
Oce	Gaybo	GRP	2	5.59 x 800		£675.63 +
Otto h Touring Sea Kayak	Granta	GRP	1	5.00 × 620	22	£315.00
Pintan	Valley	GRP/Diolen	1	5.23 × 580	25	£795.00
Scimitar	Perception	Polyethylene		4.60 × 630	25 25 27	£650.00
Sealion	Perception	Polyethylene		5.23 × 570	27	£670.00
Seasure	Mega	GRP Composite	1	5.32 x 560	22 -	£499.00 +
Seayak Basic/Expedition/XS400	Avoncraft	Blow Moulded Polyethylene	1	4.90 x 600	22 - 24	£469.00 - £718.00
Selkie	Valley	GRP/Diolen	1	5.03 x 600	25	£795.00
Selkie Rescue	Valley	GRP/Diolen	1	5 03 × 600	26	£795.00
Shoreline	North Shore	GRP	1 1	4.85 × 550	20	£687.67
Skerray	Valley	GRP/Diolen	1	5.18 x 580	25	£795.00
Skerray Excel	Valley	GRP/Diolen	1	5.38 x 610	25 26 20 25 27 28 28 24	E822.00
Skerray RM	Valley	Linear Polyethylene	1	5.17 x 580	28	£629.00
Spectrum Standard/Expedition	Perception	Polyethylene	1	4.37 x 630	24	£310.00 - £425.00
Spectrum S Standard/Expedition	Perception	Polyethylene	1	4.09 x 630	23	£310.00 - £+25.00
Trek	North Shore	GRP	1	4.85 x 550	18	£650.52
Voyager	AC Cance Products	Linear Polyethylene	1	4.45 x 620	20	£279.99
Voyager Sea II	Rob Feloy	GRP/Dioten	2	6.70 x 630	30 - 35	
Weekender	Valley	GRP/Diolen		4,44 x 600	- 18	£473.00



ASSOCIAZIONE ITALIANA KAYAK DA MARE

#### CALENDAR OF EVENTS 1994.

	1/4th April G	olfo di Policastro, Calabria. M. Menichetti, Tel. 06/86213901-77205081 Office Daniela Marchianò, ore serali, 06/6625264					
	2011 1 11/1						
	29th April/1st May	High Lake of Como. C. Rustioni, Tel. 02/6420514					
15th May Lake of Bracciano. G. Carbonara, Tel. 06/6373312							
		ternational Sea Kayak Week in Sardinia (AIKM). S. Cadoni, Tel. 070/884336					
	During the month of	of August guided tours along differents coastal areas of Sardinia. S. Medde, Tel. 070/660489					
	a 7/11th Septembe	r Second Tour of the Isola d'Elba (AIKM). G. Coltelli, Tel. 0565/996826					
	1/2nd October To	our of the Isola di Ponza. M. Menichetti, Tel. 06/86213901-5010360					
	Please contact our Florence Office for detailed informations and program leaflets. Tel. 055/584135-319384.						
	Officials events are typed in bold letters. Safety equipment required as stated on official notice, medical certification of any Authority of the country of origin stating fitness for non agonistic sport activity. Subscription required for insurance against personal injury and death. Foreign paddlers will recieve present to apologize for theese expenses. May request a fare to partecipate to the events activities.						
	raccommended any	ganized by local subscribers on a voluntary basis. Safety equipment and medical certificate strongly way, the same stands for subscription against personal injury and death, but all this will not be event reports the telephone number of the subscriber in charge.					

#### SHETLAND SEA KAYAK MEET

Unite to the organiser. - Dave Gardner: Spindnift. Greland; Bigton, Shetland, ZE2 95A

#### 15th July 1994

#### INFORMATION SHEET

**Shetland** is a group of islands half way between Bergen and Aberdeen. The capital, Lerwick lies on the east side of the largest island, the Mainland of Shetland. The many islands in the group provide a fascinating area for canoeing with spectacular cliffs, beaches and wildlife. The island of Papa Stour which lies off the west coast of the mainland is particularly interesting to canoeists because of its many sea caves. The island is also popular for walking, bird watching and archaeology.

**The kayak meet** begins with a weekend in Papa Stour from Friday afternoon 15 July to Monday morning 18 July. People can then go on to do their own exploring or join some of the local canoeists who plan to spend the rest of the week paddling and camping in other areas of Shetland. The week will end with a social night in Lerwick on Thursday 21 July.

The Organiser is Dave Gardner and our guest this year will be Mr Duncan Winning. No formal qualifications are required to attend the meet but the trips really require canoeing of a standard at or above Sea Proficiency level and you will need to bring your own kayak.

#### HOW YOU GET THERE

The P&O ferries St Clair and St Sunniva travel regularly between Aberdeen, Lerwick and Bergen and on some days come via Orkney.

The ferry we suggest you catch leaves Aberdeen on Thursday 14 July at 18.00 hours and travels directly to Shetland arriving in Lerwick at 08.00 on Friday15th July. Members of Shetland Canoe Club will be there to meet you when the ferry docks at Lerwick.

There are no shops on Papa Stour and so you may want to spend some time in Lerwick or visit the supermarket near the ferry terminal to purchase supplies.

The next step is to drive 30 miles to Melby where we park the cars and paddle the short distance (about two and a half miles) to Housa Voe on Papa Stour. A fairly strong tide runs through between Melby and Papa and we will chose an appropriate time for an easy crossing.

If you are travelling to Shetland without a car there should be enough members of the local club available to offer you and your kayak a lift to Meby.

Any non canoeing partners should book a boat trip across with Mr Holt-Brook at the same time as booking accomodation.

#### ACCOMMODATION ON PAPA

A variety of arrangements can be made for accomodation on Papa from very basic to quite luxurious.

The camp site is right beside a sandy beach and very near the the house where Mr and Mrs Holt -Brook provide bed breakfast and evening meals. The number who can be supplied with beds, meals or packed lunches is limited so book early! It is important to book each meal you plan to have because it is difficult for the Holt-Brooks to buy extra food at short notice.

During the weekend those using the camp site can make use of the showers and tollets in the house and chalet. There is also a very large lounge where we can meet for lectures or for relaxing. The house is a non-smoking area I have a few requests for information which I hope readers may be able to help with.

- 1) I am looking for a very fast, low volume day / raceboat to take day kit only (I already have an exped boat). What are considered to be the fastest single sea boats, either professionally built or DIY?
- 2) Does anyone within reasonable travelling distance of the south coast have a Sea King mould that I could take a boat out of?
- 3) I am an experienced sea and white water paddler wishing to do some big open crossings. I can navigate, but would prefer to do my first couple out of sight of land in the company of someone more experienced, and would appreciate it if anyone doing such a trip would consider an extra paddler.
- 4) Does anyone know where there is a copy of 'Skin Boats of North America' for sale, new (preferred) or a good condition second hand copy (I will be at Crystal Palace).

I am going for Sea SI and Advanced Proficiency assessment, and wonder if anyone can give some ideas and guidance on paddle leashes. I use a long permanently leash attached to decklines (which allows me to paddle), and then only for fishing and assessments. Can anyone suggest any better ideas, or can any Examiners give any guidance as to what is required or preferred? In my opinion there are a few variations, each with disadvantages.

#### Long or short

- You cannot roll or paddle with a short leash attached.
- A long leash may wrap round the boat (or worse) during a roll, therefore becoming a short leash.
- A long leash attached to the center of the paddle while drifting in a wind can cause the can front blade to dive so that the paddle windmills and the rear blade hits you over the back of the head. This is hysterically funny the first time it happens but gets annoying.
- A long leash also makes a good sea anchor.

#### Boat or body attachment

- I personally don't like the idea of body attachment, but it seems to be popular (even without quick release) even amongst E graded S.I.s.
- With body attachment you are tied to your paddles if you swim.
- Boat attachment can cause you to be clubbed by the paddle on a capsize.
- Boat attachment is difficult or impossible on borrowed plastic boats with no deck fittings.

#### Attached permanently or only when needed

- Permanently attached risks tangles and snags during normal paddling, aspecially in waves.
- If not permanently attached there is the risk of losing the paddle, and must be removed before paddling.

David Miller 69 Rosehill Drive Bransgore (near Christchurch) Hampshire BH23 8NR Tel 0425 673119