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INTERNATIONAL SEA KAYAKING ASSOCIATION and NORKAPP TRUST NEWSLETTER

MAY 1999

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An international sea canoeing association open to all interested in this aspect of canoeing

Aims: Promotion of sea canoeing + Communications Promotion of events and conferences Safety and Coaching







editorial

You should have received your ISKA Members Directory. Let me know if it has failed to arrive.

On April 1st last year the former Maritime Safety and the Coastguard Agencies joined forces to become the *Maritime & Coastguard Agency* (MCA). Under this agency there are four operational regions, viz: Scotland & N.Ireland; Western Region; Eastern Region; and the Southern Region. Tied in with this restructuring is the closure and colocation of several Coastguard stations. Long gone are the manned H.M.Coastguard look out stations dotted along our coastline, - though I have heard that at one or two popular areas are manned by volunteers during busy periods.

One area of concern is the wash created by high speed craft (HSC) at their critical speed which is liable to cause a sudden rise in wave height on shore sufficient to overwhelm a small child and to cause steep waves sufficient to pose a risk to small craft.

The M.C.A. has involvement in finalising a CODE OF CONDUCT FOR NON-REGULATED PLEASURE VESSELS (NRPV). The R.N.L.I. (Royal National Lifeboat Institution) have set up a Sea Safety Working Group. There are three strands to their work:

1. Safety education; 2 Code of Conduct for NRPV: 3 Modernising coastal bye-laws. I guess our particular interest lies with the proposals for the Code of Conduct. My immediate concern is that the British Canoe Union Sea Touring Committee and the Scottish Canoe Association are being given insufficient opportunity to study and contribute to this Code.

I understand that the consultation process ends on 29th March, 1999, in a few days time as I write this. I know the Sea Touring Committee are considering this issue this coming weekend.

Whatever, I shall let you know what this Voluntary Code of Best Practice for Leisure Craft Users says and whether you and I are likely to be included in this Code.

Meanwhile I can tell you that this Code will provide generic advice to all water users and specific advice to users of powered craft, sailing vessels, divers and their craft, etc. I suspect that we as kayakers fall under the 'etc' bit!

THE NORKAPP TRUST

I have agreed with the Trust that our ISKA newsletter will carry Nordkapp Trust articles and information in a dedicated section. This arrangement will keep you all informed about the plans and activities of the Trust which is set to have a global wide influence on several aspects of sea kayaking, particularly coaching. As part of this connection I am hoping to continue improvements to the quality of presentation and production of this newsletter whilst increasing the membership base.

My address is, for copy for this magazine:

5, Osprey Ave., Westhoughton, Bolton, Lancs, BL5 2SL and I can be reached on 01942 842204.

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business Chris Pearce

Cheerio to Geoff Good bv John Ramwell

or quite some time I have been wondering how Geoff Good was doing. I last spoke, albeit it briefly, with him at last years International Canoe Exhibition when it was clear he was recovering from a protracted illness.

I first met Geoff Good when he was the Chief Canoeing Instructor at Calshot Activities Centre down on the south coast. I was quick to admire and respect the calm and collected way he strove to ensure everyone of his students got the most from his instructional sessions. His ability to remain stoic in the face of adversity was surely exemplified when we shared a canadian canoe journey down a river which was in spate in the Lake District which went 'bottom up'. We were both on a British Canoe Union coaching weekend, one of the many I attended over the years when I was privileged to experience at first hand Geoff's competent ability to chair meetings often consisting of a bunch of paddlers only too ready to challenge the British Canoe Union at every opportunity. We paddlers can be like that!

Sorely missed

I recently read about Geoff in the current (March 99 issue of Focus) where Paul Owen writes, "Geoff will be sorely missed by all, having dedicated himself to the development of the Coaching Service since joining the British Canoe Union staff in 1979" So Geoff became Director of Coaching for the B.C.U. in 1979. He had previously been a long term member of the B.C.U. Geoff and I with others competed for the post and there is absolutely no doubt in my mind that the right person took over one of the best sports coaching schemes in the country. The fact that this was the case was largely down to the previous Director of Coaching Oliver Cock, MBE - and we all knew he was going to be a hard act to follow.

Rapid change

I think it is fair to say that Oliver reigned over a lengthy period of stability and slow but constructive change. This was the nature of our world post war and up to the '60s and '70s. Then came the start of the present age of rapid change, of trimming down, of doing a lot more with a lot less, of greater accountability with the commensurate increase in demands.

Geoff will be sorely missed by all, baving dedicated bimself to the development of the Coaching Service

The B.C.U. Coaching Scheme was certainly not excused these changes and demands. It became a real hot seat. Paddlers are , by nature, a fairly aggressive group who demand a sound service.

The B.C.U. Coaching Committee, to which I belonged for some time, was no exception. I often felt that Geoff was welcome to the task of answering to this 'motley crew'. But he never wavered and we respected him for it.



Geoff Good

Geoff himself goes on to write abo his time with the B.C.U. in the current issue of 'Canoe Focus'. In usual style he totally underplays the part he took in keeping a disparate group of paddlers working together at committee and regional level to give us the present scheme. I know this scheme is complex - I defy anyone but Geoff to fully understand it in detail but then, if the scheme is to be relevant to a sport which is as diverse as ours then this is understandable. What ever we say of the current coaching scheme, it is certainly the envy of the rest of the canoeing world. British Canoe Union coaches are recognised where ever they travel and the B.C.U. scheme could even be thought to be in danger of being 'hijacked' which is why I am present in dialogue with the International Canoe Federation about an international scheme - but this is another matter.

All the best

So, Geoff, a long and contented retirement.Like the rest of us out here in 'canoeing country' we wish you a return to full health and look forward to you occasionally emerging from your arm chair so that together we can continue to add to your memories.

Meanwhile just to say how much I personally value my recollections of our friendship over the years.

Take Care and Good Luck go with you.

3,000 mile paddle into the unknown . . .





Peter Bray to kayak across the Atlantic in the year



he Atlantic has been flown over by balloon, rowed across single handedly but it has yet to be crossed by kayak." So reads the introduction to this proposed venture scheduled for next year.

Peter, 41, has quite a kayaking record being ten times veteran of the Devizes/Westminster canoe race, five times as a solo entrant. He has completed the 700 K Arctic Canoe Race and as an ex SAS man should know what he is letting himself in for. So this former Plymouth school boy has begun mapping his ultimate challenge - the first one man unsupported kayak Atlantic crossing from Newfoundland to Southern Ireland. He will be using the Gulf Stream which flows across the top of the Atlantic from west to east. (Ed. he had better hurry as I've heard this stream is weakening!!) The distance matches what Peter did with partially sighted Steve Macdonald when they paddled around Britain in 1996.

The kayak, to be 7.3m long and

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910mm wide, is to be built by Mega from carbon/kevlar honeycomb and will feature a deep weighted keel like a yacht, and a drogue. To sleep he will lie back in the raised stem of the kayak after sealing himself in. The keel should then automatically right him in the event of a capsize. This high stern should not be a problem as the keel will be fitted where it balances out the effect of the wind. An open sided hood will cover the cockpit.

To allow communication with base and to allow the use of an interactive web site powered by solar panes and to provide a radar target, there will be an aerial fitted.

The crossing is planned to take 90 days but there will be food on board to last 110 days.

The project hopes to raise a million pounds for two charities, the Rainbow/Cope Centre for ill children and the Taste For Adventure Centre outside Hereford.

Crossing the Atlantic has been undertaken twice by *Hannes Lindemann* in the mid 1950s but his power came from sails rather than paddles.

Freaking out about Rudders. frank goodman

When I was first persuaded by John to write for Ocean paddler I agreed to do it only as a "I'll answer your Questions" feature, for the cunning reason that I wouldn't have to think up articles to write, and I'd only have to answer the questions that tempted me! Of course, I blew it writing for the first issue, when I hadn't any questions to answer. I thought I'd write a mildly humourous piece poking some gentle fun at the dogmatic style of writing that is often embedded in articles about kayaking - especially when talking about equipment. In the event, my article was mis-interpreted and inflamed passions to the point where I appear to have lost at least one New Zealand friend of twenty year's standing! Bill Bryson's book about his walk along the Appalachian Trail has some delightful bits in it about "Equipment Freaks" who always retreated hurt and confused if you didn't agree that their particular favourite rucksack wasn't yours as well.

Since I'm without a question to answer in this new start to John's endeavours with Ocean Paddler, I'm risking my neck again by writing about an article entitled "Do real boats have rudders?" in the March edition of the new Ocean Paddler, by Glynn Dickson, another New Zealander! I tremble at my own temerity!

A perfectly reasonable article about rudders, but it seemed a bit tetchy to me, though I've probably misinterpreted the style... it does happen.

What I thought was a shame, was

that he seems to have polarised his thoughts about rudders based on his encounter with one chap from the northern hemisphere.

I didn't know that there was a strong anti-rudder lobby in this neck of the woods, I don't keep careful note, but I would have thought that most of the manufacturers in the U.K. (and Europe for that matter) have many different rudder designs available for fitting to their kayaks, just as they do down under.

I know from my personal experience that when the Nordkapp was designed in 1974, the first version was used for the Nordkapp Expedition in the summer of '75. I was keen to learn how the expedition members felt about the boat and the general opinion was that it weather-cocked slightly in a cross wind.

Two things happened: firstly, I designed a Nordkapp with a modified hull which had a built-in skeg. This, finalised after a lot of experiment, seemed to hold the boat on course in almost all but the strongest cross-wind. I remember a gruelling day in Scotland in a force seven which hammered us all the way down Loch Linnhe and the Firth of Lorn when I was pleased to find that I didn't have to make a single correcting stroke until I turned for shore at the end of a long day. Secondly, I put a rudder onto the Nordkapp. This was an understern blade similar to many sprint-racing rudders, but placed in a notch in the hull. The Norwegians, who had a strong sprint-racing tradition, liked it, so we added a large sprint-racing cockpit. In those early days the customer could perm. any combination from two deck and three hull shapes.

When Paul Caffyn chose the Nordkapp to paddle around N.Z. he only had the original design to choose from, as the modified "M" hull was never built under licence in Aussy. Before he started out on his 'Dreamtime Voyage' in 1981 he added a rudder to this original version.

We thought it was a great design and used the idea to develop a production version made from injection-moulded ABS. I cannot say just how many we put onto boats, but it certainly ran into thousands during the following decade.

The only problem that we had was reliability... especially if the kayak was hashed over rocks, was poorly maintained or worse, was left outside in the garden during the winter recess taken by some paddlers who felt that civilised paddling started in April and finished at the end of September.

We'd fitted some general purpose kayaks with drop-down skegs in the early seventies, but we didn't persevere. Looking back, I think it was because the basic design was crap! However, we felt that the adjustable skeg was a nice compromise between the simplicity of the built-in skeg that never went wrong, and the rudder with all its advantages, but its built-in reliability problem. So we looked again, and noticed too that other manufacturers were developing various skegs as well.

Now, the majority of our sea kayaks have adjustable skegs and the number of boats with fixed skegs or rudders has declined, but in no way disappeared.

I never remember hearing of

ocean kayaker, may

"debates raging" about rudders. The people who came to us for boats talked over the options, often went away with a demo. boat to try, and then made a decision which seemed reasonably compatible with their style of paddling. There was one fellow who insisted on having an "M" hull fitted with both rudder and adjustable skeg! It caused a few raised eyebrows in the workshop, but we made it for him... dammit, we had to eat!

I was in N.Z. in '78, '87, and '90. But never heard that 'rudder/nonrudder' was an issue, but maybe they were being polite when I was there and things have changed now.

If a sea kayak doesn't perform well without a rudder, there is a problem with the design of that particular boat, or perhaps in the paddling style of that particular paddler. If you like the simplicity of a rudderless boat and consequently need to come off the water a little early before tiredness creeps in, then so be it. Alternatively, get fit.

There are genuine pros and cons with regard to rudders and it doesn't mean that one view is 'opposed' to every other view. What would anyone gain by joining an 'antirudder lobby'? It sounds like a myth

to me, and I personally, have no axe to grind about rudders, or met anyone else who had... until I picked up my copy of Ocean Paddler, that is!

I forgive paddlers who don't paddle my boats, so why should I not forgive people who paddle without my rudders?

What in my book is quite unforgiv-

able, is to design a boat which turns out to have positively dangerous characteristics, and then stick a rudder on it to disguise the fact that it is a dog, and make it paddlable.

Any subsequent malfunction of the rudder leaves the paddler in potentially a very nasty situation. Well, it has happened, but mercifully, only one or two instances have ever come to my notice in thirty-odd years.

Generally I've found most paddlers pretty sensible folk, and though they may differ about their favourite designs they usually have sound reasons for their opinion. If a paddler prefers to paddle rudderless it doesn't mean, always, that he's 'agin' rudders as such. If he likes paddling with his bare hands then he may be up a creek without a paddle, but at least he's paddling his own canoe, and that's what counts.

All at Sea

Ian Harris writes:

I thought that for this issue I would take the opportunity to highlight two areas of possible concern on the legislative side for those operating in coastal waters.

The MCA (Maritime and Coastguard Agency) are currently consulting about a new Code of Practice hoped to be introduced during 1999.

The title of the code is the Nominated Departure Point Code of Practice.

This code will fill the gap between the shore and 3 mile offshore and up to 15 miles from point of departure currently covered by other codes already in place. The aim of the code is to improve safety and it will also create a level playing field, taking much of the responsibility away from local authorities who have to date interpreted their responsibility in different ways. The effect of the code will be to introduce statutory standards regarding the condition of craft, the equipment to be carried and also the level and competency of the crew. Copies of the draft document can be obtained from the MCA on 01703-329100.

The second area covers a recent report by the DETR (Department of the Environment, Transport and Regions) titled 'A review of byelaw powers for the coast'. This document considers the importance of both local authority powers and also port and harbour authorities. Some of the recommendations include making it easier and quicker for byelaws to be introduced by local authorities, creating model texts for adoption off the shelf, a national framework defining offences and penalties including fixed penalty fines and increasing awareness of the need for and nature of byelaws. A copy of the document can be obtained from DETR on 0117-987-8006.

lan Harris, Southampton Institute. Tel:01703-319750. E-mail ian.harris@solent.ac.uk

ocean kayaker, may

BOOK REVIEW

Sea Kayak Navigation

By Franco Ferrero

Review by Gordon Brown

This latest offering from Franco Ferrero, head of canoeing and kayaking at Plas y Brenin, is a long awaited manual for the sea paddler. Whether you are a novice starting out on

your first attempt to cross your local water or a more accomplished paddler looking for an easier way to work out your passage planning then this book is well worth the buying.

The layout of the book is good with an index that lets accomplished navigators find the relevant section that they require. There is also a good contents list which the novice will find very useful. Topics such as tidal theory, buoyage and the compass are covered in enough detail to introduce these aspects of navigation to the beginner while still refreshing memories of a distant past for others. However, Franco has understandably placed more emphasis on the actual nitty gritty of navigating your kayak.

I think that Franco is gradually becoming less of a Jerseyman and more of a Welshman with some of the spellings. However this is not a criticism, more an observation. There is enough humour within the text and accompanying good illustrations to amuse even the saltiest of old sea dogs! Filled with "top tips and handy hints" this book is a must, not only for sea kayakers, but also for anyone who ventures onto the ocean whatever their craft and level of navigational ability.

Sea Kayak Navigation is a book on what can, at best, be described as a "dry" subject. Franco has succeeded in turning it into an interesting and user-friendly resource.

The black art demystified? It is indeed!

About the Author

In 1978, Franco Ferrero was one of a team of three Jerseymen who completed the first circumnavigation of Ireland by sea kayak.

In 1989 with Kevin Danforth he made a record breaking unsupported crossing of the North Sea; ninety nautical miles as the crow flies, over a hundred after allowing for the tidal streams, in twenty seven hours and ten minutes

He was brought up in the Channel Islands. The small scattered islands, fast tidal streams and summer fogs meant that navigation was a key skill learnt at an early age. He currently works at Plas y Brenin, the UK National Mountain Centre where he is the head of the Canoe and Kayak Department.

Eds note - This book is available from the ISKA shop

FOR SALE

WINDSURFER (FANATIC 335) SAIL (51/2 METER FOR FANATIC) FULL RIG PRO MESH WETSUIT - LARGE DUNGAREES WETSUIT - LARGE 2 SHORTIES WETSUIT - LARGE 2 PAIR SIZE 8 BOOTS GULL WET VEST - LARGE LIFE JACKET HOLDALL THE LOT £650 O.N.O TEL WAYNE ON 01204 573149

Training and Safety Officer Malta Canoe Club - YMCA c/o 7E Victory Alley Birkirkara Malta

Dear John

Nice to hear from you again. Just a short note to give our club a plug. Malta is often a second destination on the tourist map so anyone coing to Malta is more likely to have done so as a way of placating the better half.

Well just in case you left your nice pointy sea kayak at home, the nice people in the Malta Canoe Club -YMCA may have the answer to your boat needs, in the shape of a couple of GRP doubles due out of the moulds in April-May.

So if you find yourself boatless in Malta don't dispair, contact the only canoe club on the island; we would be happy to help and me fellow paddlers.

Kind Regards, J Craig Wightman (TSO)

The I.S.K.A. Buyer's Directory 1999: Sea Kayaks* (Single)

by U.Beier (Germany), Chr.Gabard (France), J.Ramwell (United Kingdom) and S.Cadoni (Italy) Many thanks for the informations we got from: D.De'Angelli, (1), K.Gjessing (N), Th.Küppers (D) and J.Strickland (S)

Remarks. * In this survey there are only single sea kayaks, which you can buy in Europe, which have a length over 435 cm and at least two bulkheads (c: similar: e.g. pod). With few exceptions the hull is made out of fibreglass or Diolen/Kevlar or Polyethylene (PE) or Polyethylene-Sandwich (PES) : Plastic-Sandwich (PS) (e.g. "Royalex"). The technical data are based on informations given by the manufacturer or local dealer. When the data are written in *"italics*", then threy are approximated. The autores or other persons have found them out.

I Circa weight of the sea kayak with minimal equipment. The weight of a full equiped kayak will be higher, expecially when the weight given lies under 25 kg. When the weight of a kayak is written in *"italics"*, it is the rough weight of a sea kayak with all its equipment (e.g.: bulkheads, hatchest toggles, deck fittings, deck lines, compass, pump, rudder or retractable skeg).

2 Dimensions of the cockpit: L (=Length-inside), W (=Width-inside), Hfi (=Height-front-inside), Hro (=Height-rear-outside); TB (=Thigh brace).
3 The sea kayaks specified in this survey are assorted by volume, because for the "normal" sea kayak (longer than 460 cm and not wider than 6° cm) the volume is more important than the length! If you want to know, which volume is acceptable for you, use the following "rule of thumb": Take volume of a sea kayak is okay, when the weight (figure) of the kayak (inclusive weight of body, equipment and luggage) lies rough between 30° and 60% of the total volume (figure) of the kayak. – By the way, the data of volume, written in *"italics*", is not always identical with the data you can find sometimes in the leaflets of the manufacturers or local dealers because sometimes there are problems to specify the volume. The data above the volume written in *"italics*" are obtained by determining the amount of water (in litres) that swamps in the hull (fore/mid/aft).
4 The volume of fore/mid/aft depends on the position of the bulkheads. Some producers accept the wishs of the kayaker.

Dimensions of the hatches (inside edge): R (= round hatches), 0 (= oval hatches), otherwise (= rectangulare hatches).

Equipment (Standard or optional)..... 1: with integrated retractable rudder; 18: with hatches à la Valley or similar; 2: with sea-trim-rudder à la Valley; 19: with hatches secured by straps or similar; 3: with traditional river-rudder; 20: with hatches secured by an inner tube of a bicycle; 4: with skeg-rudder; 21: with hatches secured by a central screw-mechanism; 5: with retractable skeg-rudder; 22: with screw hatches; 6: with retractable skeg; 23: with fitted compass; 7: with retractable centreboard-skeg; 24: with spare paddle recess; 8: with hinged rear rudder; 25: with recessed water bottle; 9: without skeg/rudder; 26: with three bulkheads: 10: with pod; 27: bulkheads, deck fittings, toggles and pump are not standard; 11: with half a pod (seat bulkhead); 28: with recessed place for a small container (e.g. for flares, tow line); 29: with deck made in plywood; 12: with fitted electric pump; 13: with fitted hand or foot pump; 30: with elastic bulkheads (e.g. foam, thermoplast); 14: with different fitted pumps to choose from; 31: hull with chines; 32: divisible in two sections (a) or three sections (b) 15: with foam in the top of the bow and stern; 16: with special rear bulkhead to minimize cockpit-volume;

17: with special watertight containers built in alongside the cockpit;

Modell	Dimensions	Cockpit	Volume	/Displacement	Hatches	Manufacturer
	LxW;Weight	LxW;Hfi/Hro	Total	Fore/Mid/Aft	Fore/Aft (LxW)	(Equipment)
	cm;kg	cm ²	Litres ³	Litres ⁴	cm ⁵	/ = or
Folding-(Sea)-	Kayaks:		******		******	*******
Greenlander	500x67;25	ca.78x?;?/?	?	with air tubes and w	rithout bulkheads	F: Nautiraid (3;31)
Pouch-Eski	520x58;25	66x44;30-25/25	ca.400	without bulkheads		D: Pouch (2;31)
Khatsalano S	532x60;22	79x39;30/27	ca.313	with air tubes and with sea sock		CDN: Feathercraft (2;9;31)
Klepper	450x72;27	112x41;38/35	ca.370+70T	with air tubes (T) an	nd without bulkheads	D: Klepper (3;31)

Volume Class "Small" (S): till 300 Litres

→ typical attributes: smaller windage / wetter ride / thighter cockpit

→ fitness: sma	aller storage and	d weight carrying capa	acity / good for	a weekend-tour / ide	al for a smaller/lighter k	ayaker
Endurance	468x65:18	73x41;29/26,5	233	041/129/063	e.g: R:18 / R:18	I: Qajaq (7;14;18/19;23)
Kaylhoa	474x55;?	69x38;29/24,5	245	038/140/067	R:18/0:41x23	I: Qajaq (9;14;18;23)
Txingudi	547x52;23	63x41;25/21	253	055/130/068	R:18 / 0:41x23	F: Patrice (18+22)
Godthab	522x52:20	55x41;30/23	268	050/140/078	each: 41,5x23-25	D: Lettmann (9;13;21;30)
Scimitar (PE)	462x58:23	81x44;29/26;TB	269/350 (?)	036/160/073	34x22-11/45x31-15	UK: Perception (3;19;30)
Shore Line Jun.	485x54:19	62x37:26/23	270	045/160/065	R:23/R:18+0:41x23	F:Poly(2/6/9;13;15;18/19;26:4
Rumour	490x51;23	57x38;27,5/?	270	090/120/020/040	41x23/R:18+41x23	NL: Water (6/9;13;18;23;26,3
Anas Acuta	523x55;24	57x38;29/21	275	060/135/080	R:18 / 0:41x23	UK:VCP (2/6/9;14;18;23;26;4
Fuego	485x55;24	67,5x40;26/23	275/250	050/145/080	R:?/50x28	UK: NSh (2/6/9;14;19;23)
(1/00) For correct	tions contact:	I Romwell 5 Osprey	Avenue Westh	oughton Bolton La	nes BL5 2SL (United K	ingdom) - Tel. 01942-842204

orrections contact: J.Ramwell, 5 Osprey Avenue, Westhoughton, Bolton, Lancs, BL5 2SL (United Kingdom) – 1et. 01942-84220-U.Beier, Stresemannallee 19a, D-22529 Hamburg (Germany) Tel.: 040/563727

Chr.Gabard, 20 rue Simon Létoile, F-92260 Fontenay aux Roses (France) Tel. 33(01)46607212

S.Cadoni, Viale Colombo 118, I-09045 Quartu S. Elena / Cagliari (Italy) Tel. 070/884336

Modell	Dimensions	Cockpit	Volume	/Displacement	Hatches	Manufacturer
	LxW;Weight	LxW;Hfi/Hro	Total	Fore/Mid/Aft	Fore/Aft (LxW)	(Equipment)
	cm;kg	cm ²	Litres ³	Litres ⁴	cm ⁵	/ = or
Volume Class,	Small" (S)	. (continued)				
Sirius S	518x52;27,5	56-66x39;28/24;TB	ca.275	070/115/090	R:24/R:19+0:44x25	UK: PH (2/6/9;14;16;18;23-26)
Kitiwec (l)	537x56;25	69x40;26/23,5	280	055/136/21+68	R:18/R:18+0:41x23	I: Qajaq (6/7;14;18;23;26)
Pintail	523x56;22	55-80x40;29/22	285	055/150/080	R:18/R:18+0:41x23	UK: VCP (2/6/9;14;18;23;26)
Ligue de Bret.	520x58;23	61x37,5;26,5/26	289	046/164/079	R:18 / R:18	F: Plasmor (14,18)
Natsuk	480x62;25	63x42;28/25	295	050/170/075	R:18 / R:18	F: Plasmor (18)
Langeoog	554x54;21	49x38;30/27	295	060/150/085	R:18 / R:18	D: Weiterer (9;14;18;23)
Isl. of Sardinia	522x53;28	69x37;29/24	299/282	055/160/024/060	R:18/R:18+0:41x23	I: Qajaq (2/6/7;13;18;23;26)
Godthab XL	530x54;23	71x42;30/25	ca.300	050/160/085	0:41x23 / 0:42x30	D: Lettmann (1;13;18/21;30)
Iroise	485x58;18	67x41;26/24	300	050/175/075	R:18 / 0:41x23	F: Contre Courant (18;29)
Shore Line Sen.	483x58;20	67x40;27/22	300	050/175/075	R:23/R:18+0:41x23	F:Poly(2/6/9;13;15;18/19;26;28)
Volume Class,	Medium" (M): 301-350 Litres	********	******		*****
Avel Dro	516x58;23	72x42;30/28	304	050/164/090	R:18 / 0:41x23	F: Plasmor (13;18;23)
Kentzal	499x58;22	69x37;28/27	304	072/174/058	R.18/0:41x23	F: Cayak (18)
Kitiwec (F)	537x56;25	63x42;25/23	305	050/170/085	R:18/R:18+0:41x23	F:Plasmor (2/6/7;14;18;23;26)
Ponant	516x58;18	65-84x39;28/20	305	051/164/090	R:18/0:41x23	F: JF-Kmer (1;13;15;18;23;26)
Surius M	518x52;23	56-71x38;31/26;TB	305	055/150/100	R:24/R:19+0:44x25	UK: PH (2/6/9;14;16;18;23-26)
with rudder	514x52;30	56-71x38;31/26;TB	305	070/130/100	R:24 /R:19+0:44x25	UK: PH (2;14;16;18;23-26)
Esquimau	513x54;22	60x40;33/29	305	060/155/090	K:18 / K:18	F: Feuillette (2;14;18;23)
Ulysee	504x62;20	//x42;7?	305	060/165/080	1// D.10/041.00	F: Plasmor (?)
Detroit	550x50;25	52x42;30/21	ca.305	070/135(?)/100	R:18/0:41x23	UK/P:Kirton(2/3/9;14;18,
Crea (DC)	300X32;23	58X38;30/20	305	090/140/075	0:41x23 / 0:41x23	F: Karbone (18)
Maridian (LIV)	4/3X5/;24	84X40;29/20	ca.310/258	036/121/101(7)	R:18/0:41x22	UK: Pyraona (3;9;19)
Asiak	512X30;22	73x30;27/20	ca.310	050/150/110	R:18 / R:18	D: L attmann (1:12:21:20)
Phylleos	160×60:20	60x41,23/20	310	056/106/058	D-19/D-19	E. Cavac (18)
Rahia 1014	460×60-20	60v44.29/20	310	056/196/058	R-18 / R-18	F: Cochois (18)
Nordkenn	545x52.24	57-76x2.30/26	310	070/140/100	R.18 / 0.41v23	1K. VCP (2/6/9·14·18·23·26)
Greenlander	537×53.24	Bound: 44.92	310	080/140/90	$\mathbf{R} \cdot 2 / \mathbf{R} \cdot 2 + \mathbf{R} \cdot 2$	GB: Denni (6/9·14·18·26·31.37)
Ysak (PE)	509x60.24	73x39.74/25	312	272	R·23/R·18+0·42x29	UK: Outdoor (18:26)
Capella (PE)	504x56:27	73x43·31/25·TB	315	055/170/090	22x20/34x33	1 K: PH (2/6:14:18:23:30)
Capella (GFK)	518x56:?	70x40:33.5/26:TB	315	055/170/090	R:24/R:19+0:44x25	UK: PH (2/6/9;14;16;18;23-26)
Meridian (USA)	488x56:22	80x42:33/19	ca.315	061/152/102	R:18/0:41x23	USA: Dagger (2;18;23)
Seeker (PE)	488x60;27	86x46;33/19	315	038/144/133	??	USA: Dagger (2;19;30)
Apostle (PE)	518x60;32	81x43;26/25;TB	315	064/171/080	R:25/R:18+0:41x27	USA: Dagger (2;19;26;30)
Marathon S.S.	547x52;16	64x41;29/17	317	072/135/110	R:18 / R:18	F: Patrice (22)
Viking (I)	530x52;28	77x42;??	318	051/165/34+68	R:18/R:18+0:41x23	I: Qajaq (2/6/7;13;18,23;26)
Baikal	510x60;21	67x40;27/21	320	055/170/095	R:23/R:18+0:41x23	F: Poly(2/6/9;13,15,18/19;26;2)
Viking (FIN)	498x56;19	58-75x39;30/26	320	060/d160/100	R:24 / 0:42x30	FIN: Kajak-Sport (2/6;14;18)
Appel-Eski	500x64;21	83x45;33/24	320	060/160/100	R:18 / R:18	D: Diez (2/3;13;18+22)
Neptune	498x58;22	69x39;28/26	320	070/140/110	R:18 / 0:41x23	F: Feuillette (2;14;18;23)
Sealution (PE)	502x56;26	74x39;32/33	ca.325	???	34x18-10/34x24-18	USA: Wilderness (2/9;1)
Eskimo Côtier	513x60;23	63x41;28/22	325	060/165/100	R:18 / 55x35-28	F: Patrice (19/22)
Polar	500x55;?	68x40;27/23;TB	ca.325	075/145/025+080	0:39x19-13/R:19,5	UK: NSh (2/6/9;14;19;26;31)
Oland	520-55.00	75 40 07/05	225	070/155/200	+ 0:49x28-21	
Albetree	530X55;23	/3X40;27/25	ca. 525	0/0/155/100	K:18/0:41x23	D: Pietsch (1;12;18;23)
Sallia	502x60;25	57 76.0.20/27	323	050/130/093	K:18/0:41x23	r: KarDone-14 (18)
Orion	503X00;24	3/-/0X(;30/2/	330	050/180/100	R:18/U:41x23	UK: VCP (2/6/9;14;18;23;25)
Iceflee	508-61-24	73X40,30/20,1D	330	055/150/125	R:24/R:19+0:44x25	UK: PH (2/6/9;14;10;18;23-20)
Horizon	500×60-22	30-/3X40;32/20 77-20-22/21	330	055/150/125	R:24/R:19+0:44x23	UK: PH (2/0/9;14;10;18;25-24)
Skerray (PE)	514-59-25	55 70-40-32/24	330	060/170/100	D.19/D.19+0.41.22	INZ. QUALKAY. (2,11,13,10 ⁺¹
Skerray (GEK)	518-58-24 5	55-80-40-31/27	330	060/170/100	D-19/D-19-0-41x23	UK. VCP (2/6/0-14-18-23-26)
Solistice GTS	535x55:24	75x40:31/23	330	060/170/100	0:35x19/45x31_20	CDN: Current (2:10:23)
Silhouette	540x54:24	60x38:26/?	330	100/135/045/050	41x23/R·18+41x23	NL: Water (6/9-13-18-23-26-21
VKN Svalbard	535x55:22	50-73x38:31/25	333	060/160/38+75	R:18/R:18+0.41x23	NL: KCB(2/6/9:11-15:18:23:20,
Outlander	488x59;?	73x39;30/25:TB	335	060/145/130	R:18/0:41x23	UK: PH (2/6/9:14:16:18:23-7
Calypso	515x55;29	68x40;26/24	ca.335	060/175/100	40x19/50x28	UK: NSh (2/6/9:14:19:23:26)
Ocean	513x60;25	63x40;29/23	336	062/171/103	R:22 / 54x34-26	F: Patrice (6;14;19+22;25,27
KSU Noctiluca	505x55;22	50-83x38;30/24	337	060/160/47+70	R:18/R:18+0:41x23	NL: KCB (2/6/9;11-15;18;23
Catchiky C.H.	535x54;25	63x41;27/25	338	054/280/104	0:41x23 / 0:41x23	F: Plasmor (14;18)
Narval	515x55;22	67x40;27/25	340	055/180/105	R:23/R:18+0:41x23	F:Poly(2/6/9;13;15;18/19;26.2
(4/99)	For corrections	contact: J.Ramwell (U	K), U.Beier (Germany), Chr.Gabar	d (France) or S.Cadoni	(Italy)

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Modell	Dimensions	Cockpit	Volume	/Displacement	Hatches	Manufacturer
	LxW;Weight	LxW;Hfi/Hro	Total	Fore/Mid/Aft	Fore/Aft (LxW)	(Equipment)
	cm;kg	cm ²	Litres ³	Litres ⁴	cm ⁵	/= or
Volume Class,	Medium" (M) (continued)				
Mariner	515x55;21	61x37;28/25	340	055/180/105	R:18 / R:18	UK: NSh (2/6/9:14:18:23)
Squale	580x50;18	64x40;25/23	340	070/160/110	R:12 / R:18	F: Polyform (2/6/9;13:15:18/22)
Baidarka	514x52;25	58x39;??	340	080/150/110	R:18/0:41x23	UK: PH (2/6/9;14;18;23;26)
Magellan (PE)	503x57;30	<i>82x41;29/23;</i> TB	340	064/196/080	R:24,5 / 0:41x27	USA: Dagger (2;19;23;30)
Atlantis (PE)	523x59;32	66x48;37/23	ca.340 (?)	064/196(?)/080	R:24,5/ 0:41x27	USA: Dagger (4;19;30)
Point 65°N	525x57;23	75x40;??	340	27?	R:18/R:18+0:41x23	S: Point (3/6/9;18;26)
Horizon 3	495x60;25	????	340	???	0:?/0:?/0:?	UK: AAD (2:19;26;32b)
Surviver	520x55;24	55x40;??	ca.340 (?)	???	R:18/R:18+0:41x23	NL: Bloem (1/6;14;18;23;26)
Looksha IV(PE)	518x57;28	79x45;28/29;TB	ca.342	???	0:29,5x20/0:37x26	CDN: Necky (2;19;30;31)
Sealion (PE)	500x57;28	<i>82x41;32/26;</i> TB	ca.345	057/169/080 (?)	R:23 / 0:44x26	USA: Perception (3;18)
Sirius L	518x52;24	72x41;35/29;TB	345	060/180/105	R:24/R:19+0:44x25	UK: PH (2/6/9;14;16;18;23-26)
Nordsee	543x53;26	70x42;34/28	345	080/165/100	R:18/0:41x23	D: Diez (9;13;18;31)
Anadyr	530x55;24	69x42;??	ca.346	???	??	I: Janautica (9;22)
Hanseat	525x58;20	71x43;31/27	347	057/195095	0:41x23 / 0:42x30	D: Lettmann (1;13;18;30)
Pengun (PE)	480x61;27	8/x44;?;TB	350	075/130/135	R:/8/0:38x26	NZ: Qual.Kay. (2;10;13;18+19)
Umiak	560x48;19	62x38;31/25	350	special design	special design	D: Meier (4;13;18;30)
Barzol	540x54;20	63x36;27/24	350	060/190/100	R:18/R:18+0:41x23	F: Plasmor (18)
Esploara	530x52;23	86x40;28/26	350	060/200/090	R:18/0:41x23	D: Francesconi (2;18;23)
ontiki Sen(PE)	515x59;24	83x42;31/26	350	064/180/098	R:24 / R:24	F: Rotomod (18;30)
Skyros	530x58;23	6/x40;27/22	350	065/175/110	R:23/R:18+0:41x23	F:Poly(2/6/9;13;15;18/19;26;28)
Nordkapp Yubi.	550x54;25	55-80x40;32/25	340	085/150/105	R:18/R:18+0:41x23	UK: VCP (2/6/9;14;18;23;26)
Volume Class "	Large" (L): 3	51-400 Litres	******	***********************		
Komany	489x54;24	82x39;32/23;TB	353	087/170/096	R:24 / R:18+R:24	UK: Dennis (2/6/9;14;18;23;26)
Klalivac	560x53;25	68x42;28/22	355	065/190/100	R:18/0:41x23	F: Plasmor (18)
Nordstern Develst MU	550x57;26	/8x41;29/25	ca.300	060/17//120	40x24-17/51x33-25	D: Lettmann (1;13;21;30)
Baigh Mill	560X57;24	02x40;28/24	360	065/180/115	39x20/R:18+41x23	F: Poly (6/9;15;18/19;20;28)
Super-Mank	520x58;22	98x40;33/28	360	0/5/165/120	0:35x21/0:35x21	S: Currord (3/0;14)
Alabel III	530X00;30	/5X40;29/27	<i>ca-300</i>	110/160/120	42x20-14/40x20-21	D: Pletscn (1;12;20;23;24)
V yneck	545X51;24	J/X83;77	360	110/140/050/060	41x23/K:18+41x23:	NL: Water (2/0;13;18;23;20;3)
KSU Unlighten	525,55,22	/0X41;30/20	301	072/194/115	40X24-1//31X33-23	D. Lettmann (1,15,21,50)
Chinack (DE)	199.41.25	03X43;29/22	267/205 (2)	0/3/100/45+05	D.14 / 4525	NL: ACB (2/0/9;11-13,18,23,20)
Caribon	400X01;25	78-42-32/28	30//493 (1)	047/140/100	D-12 / D-12	S: A guanova (2/0.12.15.12)
Caribou IC	533260.24	78+12.32/28	370	co 080/120/co 110	D.22 / D.22	S. Aguanova (8/0.10.12.15.13)
Tümmler	548×52.22	70×40:31/26	370	062/102/116	AAv15 / AAv25	D. Clauß (6.13.17.10)
Yukon E	505x55:22	83x45.31/26	370	065/190/115	30x21-17/38x32-26	D: Prijon $(2:13:19:31)$
Kyook (PE)	457x64:27	81x44:31/31	370	075/180/115	$0.27 \times 18 / 0.36 \times 26$	CDN: Necky (2:19:30)
Buccaneer	530x55:22	65x39:28/24:TB	ca.375	090/170/115	40x19/50x28	UK:NS-2/6/9:14:18/19:23:26:31
Legend	543x53:25	57x38:26/22	375	115/150/050/060	41x23/R:18+41x23	NL: Water (6/9:13:18:23:26.31)
Seavak (PE)	485x58.5:30	73x38:30/27:TB	380/355 (2)	042/228(?)/110	44x22-14/44x30	D: Priion (2:13:19:30:31)
Baïdii GH	560x57:24	73x41:30/27	380	070/190/120	39x20/R:18+41x23	F: Poly (6/9;13;15;18/19;26;28)
Kreta	550x64:23	82x45;31/30	380	080/180/120	R:18/0:41x23	D: Diez (2/3;13;18+21)
Puffin (PE)	495x60:29	85x45;29/28;TB	380	090/135/145	R:18 / 0:42x32	NZ: Qual.Kay. (2;10;13;18+1-)
Romany Expl.	538x55;24	82x39;??;TB	380	105/160/115	R:24 / R:18+R:24	UK: Dennis (2/6/9;14;18;23;26)
Fighter	500x59;22	73-87x41;??	385	085/170/130	R:18/0:41x23	S: Clifford (3;14;18)
Artisan 2000	559x56;23	55-75x41;32/29	390	070/205/115	R:24 / 0:42x30	FIN: Kajak-Sport (1/6;14;18)
Narpa (PE)	500x61;28	79x43;30/31;TB	390	080/200/110	0:27x16/0:37x26	CDN: Necky (2;19;30)
Amrum	550x55;24	75x40;33/32	390	100/165/125	39x18/36x26	D: Pietsch (1;12;20;23)
Looksha II	610x51;21	75x41;31/28,5;TB	ca.392	???	30x19-23/37x26-22	CDN: Necky (2;19;30;31)
Touring El	502x61;25	83x42;32/25	395	053/194/131	R:20 / 0:42x30	D: Helmi (2;18;23;25;30)
Storm (PE)	518x61;30	80x43;34/26	395	065/220/110	0:30x21/0:47x27	CDN: Current (2;19;30)
Belouga 1	509x68;28	83x44;26/21	395	075/200/120	R:18 / 0:41x23	F: Plasmor (14;18)
Skerray XL	538x61;25	69x41;??	395	075/200/120	0:41x23 / 0:41x23	UK: VCP (2/6/9;14;18;23)
Måsen	530x60;24	96x42;37/31	395	100/150/145	33x25 / 54x32	S: Clifford (3;19)
Seaguli	530x60;23	96x42;??	395	100/145/150	33x25 / 54x32	FIN: Kajak-Sport (2/6;14;18)
Avalon Vivian.	581x55;24	86x46;??	400	090/195/115	0:41x23 / 0:42x30	FIN: Kajak-Sport (2/6;14;18)
Volume Class: "	Extra-Large'	• (XL): over 400 L	iter	***********************************	*******************************	***************************************

typical attributes: higher windage / drier ride / wider cockpit
 fitness: larger storage and weight carrying capacity / good for a tour lasting several weeks / ideal for a heavier/larger kayaker

Nordnes SK	525x58;?	(large) ????	ca.400 (?)	095/-?-/135	??	N: Nordnes (3;19)
Hasle Ex (PES)	520x60;24	79x40;30/28	401	069/221/111	R:26 / R:26	N: Hasle (4/9;13;22;30)
Sealion (PE)	523x57;27	83x43;30/26;TB	ca.405 (?)	057/169/080 (?)	34x21-10/44x30-20	UK: Perception (3;19;30)
(4/99) For corrections contact: J.Ramwell (UK), U.Beier (Germany), Chr.Gabard (France) or S.Cadoni (Italy)						

Modell	Dimensions	Cockpit	Volume	/Displacement	Hatches	Manufacturer
	LxW;Weight	LxW:Hfi/Hro	Total	Fore/Mid/Aft	ForeAft (LxW)	(Equipment)
	cm;kg	cm ²	Litres ³	Litres ⁴	cm ⁵	/ = or
Volume Class	Extra Large"	(XL) (continued	d)			5
Calypso Mono	475x61:24	68x41:29/26	405	075/200/130	40x28/R:18+50x30	F: Polyf. (2;13;15;18/19;26;28)
Seagull Offshor.	530x60:23	96x42:??	410	100/150/160	33x25 / 52x32	S: VKV (8:19)
Habel II	528x60;32	76x40:32/30	410	100/160/150	42x20-14/40x26-21	D: Pietsch (1;12;20;23;24)
Aquilla	\$75x57;25	76x42;33/26;TB	420	090/180/150	0:41x23 / 0:41x23	UK: VCP (2/6/9;14;18;23;26)
Express	500x56;21	75x40;34/31	ca.420	special design	special design	D: Meier (2;13;18/20;27;30)
Seagull Ocean	530x63;25	96x45;??	430	060/210/160	25x33 / 53x35	S: VKV (8:19)
Thema	550x57;26	83x42;??	430	ca.070/220/140	??	D: KSK (5;13;18)
Seelöwe	520x60;21	83x40;34/31	450	090/180/180	special design	D: Meier (2;13;18/20;30)
Garkast HK-1	580x55;25	58x39;??	ca.460 (?)	135(-?-/155	R:24 / R:15(?)+R:24	S: Svärdsklova (6;18+22;26)
Muktuk	520x60;21	75x40;30/28	469	special design	special design	D: Meier (2;13;18/20;27;30)
Sitka	538x55;25	79x41;34/27;TB	ca.475	121/195(?)/159	41x23/R:18+41x23	USA: Dagger (4;18;23;26)
C-Trek	566x59;29	81x42;28/25	490	130/190/60+110	41x23/R:18+41x23	UK: Kirton (2/6;14;18;23;26)
VKN Skarabe	560x59;24	59-77x42;31/26	568	146/207/65+150	R:24 / R:18+R:24	NL: KCB(2/6/9;11-15;18;23;26
Sea kayaks with	h incomplete o	lata .(The manufactu	irers are not ab	le or willing to give	more exakt informations	about the data of their kayaks!
Looksha S (PE)	437(!)x57;26	79x44;28/28;TB	?	???	0:28x20/0:35x25	CDN: Necky-2;19;30;31
Explorer	500x65;?	94x46:33/32	?	???	??	D: Lettmann (1;13;18;30)
Explorer (PE)	475x61;?	????	?	???	??	D: Lettmann (1;13;18;30)
Eski Robbe	525x62;17	77x41;34/27	?	???	R:18 / 0.41x23	D: Neumann (4;18)
Eskia	497x61:25	70x38;??	?	???	R:?/R:?	D: Bavaria (3/9;13;22)
Shark	446(!)x56;19	84x42;??	?	???	R:18 / 0:41x23	E: Omei (2/9;14;18)
Inuit	510x57;21	64x41;??	?	???	R:18 / 0:41x23	E: Omei (6/9;14;18)
Ysak (PE)	505x57;23	????	?	???	R:18/R:18+0:41x23	F: Cochois (1/9;18;26)
Kratouna 1007	523x60;22	80x45;??	?	???	R:18 / R:18	F: Cochois (22)
Manille 1015	535x59;22	69x42;??	?	???	R:18 / R:18	F: Cochois (22)
Ulysee (PE)	480x60;25	75x41;??	?	???	??	F: Plasmor
Alto	518x51;?	????	?	???	??	F: Polyform (3)
Skybou	502x58;20	66x45;??	?	???	R:18 / 0:41x23	F: Quest (13;18;23)
Spitzbergen	580x53;?	????	?	???	??	UK: PH
Huntsman	510x57;25	????	?	???	??	UK: McNulty
Kodiak	510x57;25	????	?	???	??	UK: McNulty
Svalbard	525x56;25	????	?	???	??	UK: McNulty
Alaskan	548x59;34	????	?	???	??	UK: McNulty
Seasure	532x56;22	????	?	???	?	UK: Mega
Avocet	488x56;?	80x40;??	?	???	41x23/R:18+41x23	UK: Valley (6/9;13;18;23;26;3)
Svalbard	525x56;35	????	?	???	R:18/?	N: Fritid (3;14;18+19)
Echo	488x54;26	????	?	???	0:?/R:?+0:?	NL: Watermark(6;13;18;23;20
Shadow	545x58;?	????	?	???	41x23/R:18+41x23	NL: Watermark (14;18;26)
Fire	530x54;23	????	?	???	R:18 / 0:41x23	NL: Nova (6/9;14;18;23)
Flame	575x54;?	????	?	???	R:18/R:18+0:41x23	NL: Nova (6/9;12;18;23;26)
Azores	490x58;?	97x43;30,5/25	?	???	37,5x23-14;?	P: Nelo (2;19)
Amassalik	500x58;?	42x67;30/25	?	???	R:24 / 0: 42x30	P: Nelo (2;18)
Baja (PE)	469x57;23	????	?	???	R:?/0:?	USA: Perception (4;18)
Viscaya (PE)	495x60;26	????	?	????	0:?/R:?+0:?	USA: Perception (2;18;26)
Eclipse (PE)	523x57;29	????;TB	?	???	0:?/0:?	USA: Perception (2;18)
SealutionXS/PE	442(!)x59;25	76x38;??;TB	?	???	0:39x23 / 0:48x33	USA: Wilderness (2/9;19;30)
Sealution (PE)	500x56;26	76x40;??;TB	?	???	0:36x19/42x25-21	USA: Wilderness (2/9;19;30)
SealutionXL/PE	520x60;27	78x45;??;TB	?	???	0:30x25 / 40x32-28	USA: Wilderness (2/9;19;30)

Manufacturer/Importe	F
AAD (UK)	Andrew Ainsworth Designs Ltd 76 The Green, Twickenham, Middx TW2 5AG (United Kingdom)
Aquanova-Kajakers AB (S)	Torslanda (Sweden)
Bavaria - Boote (D)	H.Bösch - Gewerbegebiet 12, D-83093 Bad Endorf (Germany)
Bloem - Kanocentrum (NL)	Arend Bloem – Bowlvej 1; NL-1531 MD Wormer (The Netherlands)
Cayac (F)	La Centrale du Kayak - 2, rue Michelet, F-94700 Maisons Alfort (France)
Clauß GmbH (F)	Manfred Clauß – Marienstr. 10, D-67063 Ludwigshafen (Germany)
Clifford, Lars (S)	Kajaker & Kanadensare - Fornminnesvågen 7 B, S-26731 Jonstorp (Sweden)
Cochois (F)	Z.A. Les Plaines, F-26320 St. Marcel-Les-Valence (France)
Contre-Courant (F)	c/o Jean-Pascal Le Han - 76, Boulevard Jules Verne, F-44300 Nantes (France)
Current-Design (CDN)	→ Import: Helmi-Sport – Eilvese an der B6, D-31535 Neustadt a. Rübenberge (Germany)
Dagger (USA)	→ Import: Blue & White Sport GmbH – Josef-Henle-Str. 8, D-89257 Illertissen (Germany)
Dennis-Kayaks Ltd. (UK)	c/o ASSC - Porthdafarch Road, Holyhead, Gwynedd, N. Wales, LL65 2LP (United Kingdom)
Diez – Bootswerkstätte (D)	Koblenzer Str. 13, 65582 Diez/Lahn (Germany)
(4/99) For corrections	contact; J.Ramwell (UK), U.Beier (Germany), Chr.Gabard (France) or S.Cadoni (Italy)

Manufacturer/Importer (cont	tinued)
Feathercrafts-Products (CDN)	1244 Cartwright Street, Vancouver, British Columbia, V6H 3R8 (Canada)
Feuillette (F)	Base de Beaulieu - 1, rue Franche l'Etang, F-45630 Beaulieu sur Loire (France)
Francesconi-Canoe (D)	Kanu-Outdoor, Schöneberger Str.1, D-37085 Göttingen (Germany)
Fritid, E. (N)	Mjöndalen (Norway)
Hasle, Arne AS (N)	Vestre Ringvej 1, N-1800 Askim (Norway)
Helmi-Sport (D)	Eilvese an der B6, D-31535 Neustadt a. Rübenberge (Germany)
Inuit - Kanusport (NL)	Suidwal 9, NL-4341 CG Arnemuiden (The Netherlands)
Janautica-Tekno-Sport (I)	21, via del Commercio, I-20040 Belusco (Italy)
JF-Kayak-Mer (F)	JF.Jehl - 2, rue du Château, F-30420 Calvisson (France)
Kajak-Sport OY (FIN)	Matti Valonen – Tohkantie 6, FIN-27100 Eurajoki (Finnlandia)
Karbone 14 (F)	31, Impasse du IV septembre, F-33130 Bègles (France)
KCB - Kanocentrum (NL)	de Biesbosch / J.v.Fluis - Calandstraat 26, NL-4251 NZ Werkendam (The Netherlands)
Kirton-Kayaks Ltd. (UK)	Marsh Lane, Crediton, Devon, EX17 1ES (United Kingdom)
Klepper - Faltbootwerft (D)	H.S.Walther GmbH - Klepperstr. 18, D-83026 Rosenheim (Germany)
KSK - kanu-sport (D)	Klein-Impelmann – Weseler str. 12, D-46519 Alpen (Germany)
Lettmann-Sport GmbH (D)	Franz-Haniel-Str. 53, D-47443 Moers (Germany)
M.A.R. Kayaks / Nelo (P)	Travessa da Arribel, Pavilhao 5, Mosterior, P-4480 Vila do Conde (Portugal)
McNulty (UK)	Corstorphine Town, Commercial Road, South Shields, Tyne & Wear, NE33 1RZ (United Kingdom)
Mega (UK)	(United Kingdom)
Meier (D)	Paddel-Meier – Heinrich-Osterath-Str. 256, D-21037 Hamburg (Germany)
Nautiraid (F)	Z.I., F-53480 Vaiges (France)
ky-Kayaks (CDN)	→ Import: KAGO-Sportartikelhandel Uwe Goetz – Postfach 701124, D-22039 Hamburg (Germany)
Neamann, Willy (D)	Kelsterbacher Str. 76, D-65479 Raunheim (Germany)
Nordnes - Batsport (N)	N-5000 Bergen (Norway)
NSh (UK)	North Shore - Tanton Hall Farm, Stokesley, Middlesbrough, Cleveland TS9 5JT (United Kingdom)
Nova - Werft (NL)	Factory 10B, NL-16589 AL Zwaag (The Netherlands)
Omei – Canoas & Kayaks (E)	C/Sagasti, 30 – E-20100 Lezo / Guipúzcoa (Spain)
Outdoor Leisure Supplies	Unit 5, Lôn Parcwr Ind. Estate, Ruthin, Denbighshire LL15 1NJ (United Kingdom)
Patrice (F)	5, rue de Orangers, Port de Plaisance, F-64700 Hendaye (France)
Perception (USA)	Import: Perception Kayaks & Gear, Markus Rychlik - Postfach 500264, D-41528 Dormagen (Germany)
P&H Manufacturer Ltd. (UK)	Station Road, West Hallam, Derbys DE7 6HB (United Kingdom)
Pietsch & Hansen (D)	D-25852 Bordelum (Germany)
Plasmor (F)	Z.A.St. Léonard Nord, F-56450 Theix (France)
Point 65°N (S)	Styrmansg 23, Box 24088, S-10450 Stockholm (Sweden)
Polyform (F)	Z.A. La Mongervalaise, 2 – F-35520 La Mézière (France)
Pouch-Boote GmbH (D)	Bitterfelder Str. 24, D-06774 Pouch (Germany)
Prijon-Vertrieb GmbH (D)	Innlände, D-83022 Rosenheim (Germnay)
Pyranha-Mouldings Ltd (UK)	Marina Village, Prestion Brook, Runcorn, Cheshire WA7 3DW (United Kingdom)
Qajak-Sea Kayaks (I)	Resinvetro – Via de Nobili 16, I-60010 Brugnetto (AN) (Italy)
Quality-Kayaks (Newzealand)	→ Import: H.Gadermann Kajak-Import – Wilstedter Weg 37, D-22851 Norderstedt bei Hamburg (Germany)
Quest-Composites (F)	Pai du Moustoir, BP 216, F-56402 Auray / Crach (France)
Rotomond (F)	Z.I. Jean Malèz, F-47240 Bon Encontre (France)
rdsklova (S)	Nyköpings Kanotcenter, S-61193 Nyköping (Sweden)
P (UK)	Valley-Canoe-Products Ltd Private Road 4, Colwick, Nottingham NG4 2JT (United Kingdom)
VKV (S)	AB Vituddens Kanotvarv - Kanotvägen 2, S-59338 Västervik (Sweden)
Weiterer, Udo (D)	Kreuzstr. 9, D-28203 Bremen (Germany)
Watermark (NL)	J. van Leeuwen - Kuipersweg 13, NL-4338 PH Middelburg (The Netherlands)
Wilderness-Systems (USA)	→ Import: Bavaria Boote - H.Bösch, Gewerbegebiet 12, D-83093 Bad Endorf. (Germany)
(4/99) For corrections	contact: J.Ramwell (UK), U.Beier (Germany), Chr.Gabard (France) or S.Cadoni (Italy)

OCEAN PADDLER Magazine

subscribers have been contacting me as ex-editor wanting to know where their latest issue has gone to. At time of writing this (end of March) it is long overdue. They had a stand at the International Canoe Exhibition lst month where they were taking new subscriptions. I contacted the publisher, David Hart (0161 339 1687) and the editor, Jon Blackburn (01625 504302) by email on your behalf and here is their reply: "Reference the magazine, I believe that it should be the subscribers who address us. If you would refer them we will advise about publication dates, etc. and any information they require and they of course may feed it back to you. I am of course always pleased to hear and confirm that the magazine is about to come out and sent to subscribers but surely they would contact us not you as you have made it quite clear to all and sundry your position......."

International Directory of Sea Kayak Hire Companies

Mike Dales

International Directory of Sea Kayak Hire Companies. This is an idea I have had for some time, but a recent trip to Canada gave me the inspiration to actually set about producing it.

l intend to gather information about as many sea kayak hire companies as possible and produce an International Directory.

Once published this book will provide a resource for paddlers whenever they go travelling. Whether someone is planning a two-week sea kayak trip in New Zealand, or is just going to have a day in Vancouver at the end of a ski holiday, this book will provide details of the companies that can provide you with the kayaks.

There have been occasions when I have been on holiday somewhere and fancied a day trip in a kayak, but I haven't been able to find out about hire companies in advance. Then when I've arrived in an area and discovered the local company I've found that they have been closed until May or haven't yet managed to sort out their insurance.

Being able to find out about companies in advance would mean that a paddler could make contact, check what equipment is available and what the charges are, and then make a booking.

I have discussed this idea with John Ramwell and we both feel that there is a market for such a Directory. We need to sort out the precise format of the directory, but the basic idea will be to follow the "Yellow Pages" idea of giving every company a free entry, whilst offering the option of a highlighted entry or block advertisement at a set cost. The emphasis will be very much on this being a Worldwide Directory.

As well as listing the companies in North America and Europe, I want to find out about hire outlets in the less likely parts of the world, such as the Middle East, Africa and Central America. I am mentioning this in the ISKA Newsletter in order to ask if members from around the world would help me with the initial research phase of tracking down all the companies. I would be grateful if members could send information about hire companies in their home countries, or other countries they may have visited.

Company names and addresses are the main pieces of information that I need, although if you have e-mail addresses, web-site locations, and even promotional leaflets, that would be a great bonus. If you have any information, could I ask you to send it Via Snail-mail to:

Mike Dales, Beautyfield, Aberargie, Perth, PH2 9NF, Scotland.

Or via E-mail to: mikedales@zetnet.co.uk

I would grateful for any piece of information that members are able to supply me with. Once I have worked out the format for the Directory, arranged a timetable, and gathered most of the company details, I will write to ail the companies to invite them to take part and to confirm their details on a standard form. I hope you will share my enthusiasm for such a Directory, and look forward to hearing from you.

Mike Dales

I.S.K.A. NEWS.

We have just returned from the National Exhibition Centre, Birmingham where the annual International Canoe Exhibition is staged and where every year for the past 30 years ISKA has it's stand. This year we experienced a lot of interest and took on many new members. We all know that the interest is sea kayaking is growing year by year. I was speaking with both manufacturers and with Outdoor Activity Centre managers and they all say they are under pressure to produce more for the sea kayaking aspect of our sport. Good to know.

The Nordkapp Trust and the Sea Touring Committee of the British Canoe Union have taken up the offer of space in our newsletter. I have asked both Nigel Dennis and Dave Evans to explain the workings and their aims and objectives within their first contribution. Nigel runs the Anglesey School for Sea & Surf and Dave is Chairman of the BCU Sea Touring Committee. So watch this space.

I am delighted that Knoydart, Lendals and Valley Canoe Products are supporting our aims to produce a more lively newsletter. Several outdoor activity centres expressed an interest in promoting their programmes within these sheets and this I have agreed to. One of the most useful aspects of this letter is the *events section*.Let the have details of your events

SO WHY DOES IT WOBBLE ON THE WAVES?

Robert Craig

I don't like canoeing down the

WAVES. A big wave slides up behind me, scenis to pause with its crest lapping over my gunwhale, and then moves off ahead. When the canoe is on the crest it feels unstable - and on the crest is where I'm exposed to the wind.

It's not obvious why the canoe should feel unstable on the top of a wave: the intuitive thought is that it should feel more stable. The beamier a boat, the more stable it is. On the crest the narrow bow and stern are out of the water, so the centre of the canoe sinks a bit to make up for the lost displacement. As it sinks, the beam increases, so the stability should increase, not decrease. So why does it feel all wobbly?

To explain this, I need first of all to clarify what "stability" means. In this context I am talking about "initial stability", or how the canoe feels for small angles of heel. "Final stability" refers to big angles, and, while it matters in keeping you dry, doesn't affect. the feel of the boat. Stability doesn't mean how far the canoe tilts before it fails over even I don't fall over in every wave. It means how far the boat tilts in response to small forces generated by wind gusts or incautious paddle strokes. Thus my canoe might capsize at the same angle of heel as the QE2, but it heels much further in response to a one kilogram push. An unstable boat feels "twitchy" or "wiggly". Another way of explaining stability is to say that a measure of stability is the restoring force generated when the boat tips through a small angle, say 5°. This force arises from the shape of the hole that the boat makes in the water and amount of water displaced from this hole. The shape of the displaced water is set by the shape of the canoe, and the amount by the weight of the canoe and its occupant. The weight of displaced water equals the weight of the boat. [Thank you Archimedes!] A loaded



Shows acceleration at surface due to wave motion **only** for a wave of 6 metres wavelength, 1 metre height. The force felt by the canoe is the combination of this and the force of gravity, as shown in the next picture. Note that acceleration has always the same magnitude, but points in different directions in different places.



Shows combination at surface of acceleration due to wave motion and acceleration due to gravity for a wave of 6 metres wavelength, 1 metre height. Note that acceleration is always normal to water surface, and that acceleration is much less at the crest than in the trough.

Figure 2

canoe feels more stable partly because the extra weight makes it sink a bit, changing the shape of the displaced water by increasing the beam. [And partly also because the centre of gravity is lower, but that's not relevant for the discussion below.]

Surprisingly enough, it seems that this change in stability comes from something which we would expect to be constant gravity changes. Think about canoeing on the Moon. There are obvious drawbacks, including no water to canoe on, but, leaving them aside, there would also be a problem with stability. The force of gravity on the Moon is about 1/3 that on Earth, so everything weighs 1/3 what it does on the Earth. The water and the canoe lose weight in the same proportion, so the canoe would float with the same waterline, but only 1/3 of the force would be required to heel the canoe through the same angle. It would feel horribly unstable when you tried to paddle.

The same thing happens on a lift. When the lift accelerates downwards, you feel temporarily and slightly weightless: when it slows, you feel heavier. A canoe on a lift would be less stable when the lift accelerated down, and more stable when it slowed. An acceleration produces the same effect as a change in gravity. [Thank you Einstein!] Note that an acceleration downwards decreases weight - gravity is equivalent to an upwards acceleration.

ocean kayaker, may

Figure 1 shows the acceleration of the water at and near the surface of a wave. At the crest the water is accelerating downwards, and in the trough it is slowing, just like the lift going down. Figure 2 combines this acceleration with the force of gravity. At the crest, the forces subtract from each other, giving a small force. In the trough they add. In between the crest and the trough, notice that the water surface is perpendicular to the always combined acceleration or force. This isn't surprising because that's what water does - it flows until its surface feels flat - and flat means perpendicular to gravity.

Looking at figure 2 makes it all obvious - on the crest the canoe is less stable because it and the surrounding water are partially weightless. In the trough it's more stable because it and the surrounding water are heavier.

I've done the sums for a wave of 6 metres wavelength, which travels at about 7 mph, and a crest-to-trough height of 600 mm. Not a big wave, but enough to make me think. (The wave in the title picture has the same wavelength and is 400 mm high.) The acceleration at the crest

is about 3 metres per second per second (m/s/s). The force of gravity is 9.81 m/s/s in the opposite direction, so when these combine, the acceleration at the crest is about 7 m/s/s, some 30% less than normal. The canoe is 30% less stable. This can be visualised by considering how different sea canoes of different beams feel. A typical sea canoe has a beam of 580 mm. The stability goes as the cube of the beam, so 30% less stability corresponds to a beam of 530 mm - narrower than a Nordkapp and pretty tippy - and 30% more stability



The concept that the combination of acceleration and gravity is always perpendicular to the wave surface also explains why a sideways-on wave doesn't tip the canoe over. The sloping water situation is quite different from putting the canoe on sloping ground, where it falls over readily. The combination of the motion and the gravity are such that the force from the water always balances the force on the vessel and doesn't produce a tip. This is analogous to a playground swing. While the child is swinging, all it has to do is stand up; but if you stop the swing and hold it at some angle, the child falls off.

All the above only applies when the waves aren't breaking; bad things happen then. But I always try to avoid breaking waves - I can't do the sums.

corresponds to a beam of 630 mm - wider than an Orion and pretty stable.

Unfortunately, understanding this problem doesn't help to solve it - it's **always** going to wobble on a wave.

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Europe faces an ice age as world warms

THE icing up of the Thames, permafrost in Yorkshire and the reappearance of glaciers in Scotland have been fore-shadowed in two new studies showing how climate change could affect Britain over the next 100 years.

The big freeze would be the result of a sharp decrease in the size of the Gulf Stream, the ocean current whose delivery of warm water from the tropics to the seas around Britain is responsible for maintaining its temperate climate.

The first study, a computer simulation, looked at how global warming could slow and possibly halt the current. It would mean that, while most of the world was getting warmer, the British Isles would be plunged into a mini ice age,

The simulation was carried out by Dr Stefan Rahmstorf, an expert on the computer model predictions, to be published in the journal Climate Change, have been bolstered by other scientists who have found evidence that the last time this ocean current faltered, medieval Europe was plunged into the socalled little ice age, when cold weather caused harvests to fail and Londoners held fairs on the frozen Thames.

The Gulf Stream flows from the Caribbean, moving a volume of water 100 times greater than that flowing from the Amazon River. Its warming effect is so marked that Mediterranean plants can survive on the western Scottish coast at the same latitude as Siberia.

After hitting northwest Europe, part of the current turns south to the equator and then westwards back to the Caribbean. This movement is responsible for the incidents of bottles thrown into British waters being found in the Caribbean.

Rahmstorf's research showed, however, that this cycle could be disrupted by the melting of ice in the Arctic through global warming.

As the ice melted it would release huge volumes of fresh water, altering temperature and, salinity which control the current's speed and size.

The simulation suggested that initially the current would only be weakened, with global warming compensating for any fall in temperature in Britain. After about 100 years, however, there is a strong chance that the current would stop, plunging temperatures to below freezing for much of the year.

Rahmstorf, who is based at Potsdam University in Germany, said: "We cannot tell if we are heading for this collapse or whether the current may recover, but the risk is too significant and the impact on us too severe to ignore."

Other scientists say there is evidence that currents associated with the Gulf Stream are already weakening. Peter Wadhams, a glaciologist at Cambridge University's Scott Polar Research Institute, said one, a current in the seas to the east of Greenland, had stopped in the early 1990s.

Fresh water released from melting ice was bound to alter ocean circu-

lation systems: "The effects may be even more severe than Rahmstorf predicts, particularly if carbon dioxide emissions continue to rise."

Evidence that even a small reduction in these currents can sharply decrease temperatures in Europe has been found in seabed sediment by Nick McCave, professor of geology at Cambridge.

The deposits, collected south of Iceland, show that changes in currents associated with the Gulf Stream have coincided with large shifts in climate. They may have caused the temperature falls across northern Europe from 1400 to 1850.

Similar evidence for such effects — also unpublished — has been found by American scientists from the Woods Hole Oceanographic Institute. Their work shows that another cold current flowing southwards along the east of America from Greenland may have slowed during the little ice age.

Dr Wallace Broecker, an oceanographer at the Lamont-Doherty Earth Observatory in New York, said the evidence all suggested that the Gulf Stream could be abruptly switched off, with devastating consequences.

"The little ice age was the most serious cooling event in the last 8,000 years but it was relatively small compared with the possibility of shutting the entire ocean current system off," he said.

"Climate is an angry beast and we're poking it. We know from the past record that the angry beast can do some very outrageous things."

Getting Knotted

Many years ago the BCU added some knots Into the Proficiency Tests. This seemed

like a good Idea at the time but have any of us remembered them? There are actually

four knots, of which three are Included here.



The Figure of Eight knot looks just like Its name - a number 8.

It is a stopper knot formed in the end of a rope to prevent it running out through a block, sheave or fairlead. To us this means usually the jam-cleat on the back deck. This means when we release the line accidentally the tow-rope does not loat off, never to be seen again. Its design also means that no matter how tight the 8 is made it is always relatively simple to undo.

The Bowline Is so useful It Is frightening. It provides a standing loop on the end of a line. Such as the eye of a towpoint on the car and the end of the sea-kayak you love so dear and wish to still be on the car when you get home.

Again it Is easy to undo even after it has been under severe



strain.

There are many ways to tie a Bowline and the end can be lie inside or outside the final loop. The easiest way in light line is to apply the end of the line to the standing part, and twist as shown above so that it appears through a loop. Then pass round the standing part and back down through the initial loop. This is a knack, but easily turned. This is the one that goes "Rabbit goes around the hole, up through the hole, around the tree and finally back down the hole."

It must be worked up tight to

is the Round Turn and two Half-Hitches

This is usually used to secure a line to a spar by sailors but can be used to secure the line to the toggle of a kayak, with a bowline at the base, to hold your pride and joy to the roof rack.

It is formed by passing the line round the spar in a complete turn - so the spar is completely enclosed by the rope and the bitter end is pointing back down the standing part - then tying what is really a clove hitch about the standing part. The working end passes round the standing part, crosses



be effective especially on synthetic ropes. The third knot

itself away from the original Round Turn and goes round again in a second hitch as seen above. Again it does need to be checked it is good and tight before you drive off.



where icebergs drift the second newfoundland sea kayak symposium Ed English

Where icebergs drifting south meet whales migrating north. That's where you'll be kayaking this summer when you join us for the 2nd International Kayaking Symposium in Newfoundland. Pools, ponds, rivers and open ocean combine to make it possible to offer you an unequalled kayaking experience. Last summer 106 participants from Canada and the UK converged on Corner Brook for the first symposium. From beginners to experts the full range of kayakers found activities that not only educated but entertained and the bonus was the great time that resulted.

In 1999 we are planning more excitement that will build on the most popular activities of 1998. Join an expedition that will combine with the open water clinics that can have you paddling with the ocean's most impressive inhabitants. Newfoundland is the final destination of the icebergs that form of Greenland's west coast and then drift down on the Labrador Current. To say these are commonly as big as cathedrals and tower hundreds of feet still doesn't convey the awestruck feeling you have in the presence of these slow moving wonders of nature. Their seemingly placid nature, however, is a ruse. Never venture too close as these giants can explode and shed sheets of ice that thunder into the ocean like trains, leaving acres of ice floes for the paddler to play in. Equally spectacular is the slow rolling of bergs as they 'calve' and settle with a new face to the sky. Nature's biggest beasts are also common along this coast, and of these, the Humpback are the favourite for kayakers. These massive animals can jump skyward near your kayak and leave you breathless or they can silently dive under you with a final wave of a tail as big as a boat. The beauty of kayaking in Newfoundland is the mixing of these two marvels of nature. We have paddled amongst icebergs with 38 humpbacks around us as a host of other whales, seals, eagles and other birds complete the menu for a perfect day.

Newfoundland lies where the frigid Labrador current descending from the Arctic meets the Gulf Stream from the south. The result is vastly varied conditions, depending on the coast you choose. On the north side of the island the icebergs nest in the bays as they run aground or drift on by to enter the shipping lanes where more ships than just the Titanic have met their end on these ice mountains. On the south coast of the island there are huge sheltered lagoons that offer all the excitement of open ocean paddling while miles of pure white sand peninsulas keep waves down. Water temperatures here are markedly different from the North coast and few can pass up the opportunity to do a little skin diving to gather lunch. Along the coasts small islands offer a destination for those on multi day trips. These islands offer unlimited camping potential and many harbour ghost fishing villages that have been long abandoned. But the deserted communities aren't the only villages worth exploring here - dotted along the 17,000 kilometres of coast are tiny fishing villages that are isolated from the outside world and are only accessible by boat. The inhabitants of these little enclaves in the wilderness are unfailingly welcoming as many a kayaker has discovered.

So join us in 1999 for Newfoundland's second International Kayak Symposium. Hone your skills, then join an expedition to explore a new culture and wet a paddle in the most exciting water you'll ever experience.

details are available from.....

Ed English, P.O.Box 2305, RR# 1 Corner Brook,Newfoundland, A2H 2N2, Canada

> Tel (001)(709)632-4677 Fax (001)(709)634-3187 <EEnglish@tourism.gov.nf.ca>

or

Joe Dicks, Marble Mountain Cabins P.O.Box 63, Corner Brook, Newfoundland, A2H 6C3, Canada

> Tel (001)(709)634-2237 Fax(001)(709)639-1592 <marblemc@nf.sympatico.ca> or

from John Ramwell, Keith Maslen and Nigel Dennis in the United Kingdom

