
sea touring

CHAPTER NINE

THIS AND THAT

Well, I have covered much of what I consider essential and now, as I near the end of my book, I want to include some miscellaneous bits of information that do not warrant a chapter each and which I have therefore included under this final chapter which I have called, for the want of something more appropriate "THIS AND THAT".

Here you will find a few words on the following:-

SEA KAYAKING WITH THE DISABLED	Page 264
SEA MOUNTAINEERING	Page 266
B.C.U. COACHING SCHEME	Page 266
KNOTS	Page 275
PHOTOGRAPHY	Page 278
ORNITHOLOGY	Page 282
MARINE MAMMALS	Page 283
BEACH COMBING	Page 285
GEOLOGY	Page 286
LEADERSHIP	Page 288
SEA KAYAKER AND THE ENVIRONMENT	Page 291
THE USE OF A SWIMMING POOL	Page 292
A GRADING SYSTEM FOR SEA KAYAKING TRIPS	Page 294
FULL EQUIPMENT LIST FOR REFERENCE PURPOSES	Page 296
FISHING	Page 301
GLOSSARY	Page 302
THE USER'S GUIDE TO THE EXPEDITION ADVISORY CENTRE	Page 314
BIBLIOGRAPHY	Page 318

SEA KAYAKING WITH THE DISABLED

Many years ago a few friends and I organised a crossing of the English Channel for a few local paddlers. At our meeting on the beach at Dover over thirty - yes thirty, paddlers turned up. My 'few friends' were friends no more. Clearly I had been too enthusiastic in my invitations. The 'final straw' was to see a young chap paddle up to our beach, get out and with the help of crutches make his way up the beach to join us for the briefing. Over 30 paddlers and one of them totally disabled, from the waist down. There was much foreboding. In the event, the landing on the French Coast was disorganised in that the majority could not resist the temptation to land at the first opportunity after 8 hours in their kayaks. A small number of us persisted to paddle along the coast to reach our chosen destination - a small village where I had booked a camp site. One of our small number was our disabled paddler who constantly kept up front and chivvied us all to keep up. His legs may have been useless but his upper trunk and arms certainly were not. Once in a kayak he was as good as anyone and better than most.

Tim was the first of many disabled paddlers that I have kayaked with or I have coached. Before he sadly died, before his time, I became involved with Ron Moore who did a lot of pioneering work to enable the disabled to be adequately introduced to kayaking. We owe much to Ron who, long before the current initiatives to involve handicapped people in sport were in place, was encouraging his fellow able bodied paddlers to themselves encourage the disabled. So long as a person can get or be got to a kayak; can sit in

the kayak with some degree of comfort, then they can go sea kayaking. The precautions and requirements will become obvious enough and it is not necessary to go into too much detail. I will make a few general comments just to illustrate the range of disabilities that can be **adequately** coped with and some suggestions as to how this coping should be achieved.

Start by having a clear understanding of what you are doing. You are responsible for all those you invite on the water with you and in my view you are entitled to know the relevant medical history of these fellow paddlers, as it effects safety. For example, it is insufficient to simply be aware that someone is paraplegic and cannot use their legs if there is another over-riding condition such as epilepsy or diabetes. So begin by asking your disabled paddler just what he or she can do and cannot do. Be 'up-front' with your questions. It is too late when you are on the water several miles from shore and your disabled companion starts feeling faint, or out on a multi-day expedition only to learn that a special diet has not been catered for. Be guided by what your disabled paddlers tell you. If they say they are OK then do not fuss. The important thing is that you are present to assist when asked. Most disabled are like able bodied, they prefer to work it out for themselves. As far as possible, do treat all your paddlers with tact and understanding. For a start many have tremendous compensations for their obvious disability. All of us hate being lowed for example. It is often seen as an admission of weakness. Disabled paddlers are no different, often encouragement and advice is quite sufficient. Blind people often have an increased sense of hearing which can make them a lot more aware than others. A blind participant was once the first, to notice a nearby whale which provided a profound lesson in how the sightless sometimes 'see' better than the rest of us. Peter Bray (of trans Atalantic kayak crossing fame) took a blind person with him to kayak around Britain back in 1999.

The increasing use of double kayaks has opened the opportunities for taking disabled paddlers on the water. I have taken quadruplegics kayaking when all they have been able to do is sit and let me paddle. For someone permanently stuck to a wheelchair this can be a wonderful experience; simply to be free of the chair, close to the water and enjoying the wind and spray on their face.

You do not require much medical knowledge. Rather you need common sense and some sensitivity. Having ascertained more or less what the limitations of your disabled paddlers are, it is then up to you and your helpers to work inobstrusively to compensate for them. Comfort in the cockpit is important and sufficient padding in the right places should be provided. The able bodied can feel their 'bum getting numb' and shift position to relieve the discomfort. Often paraplegics have no such sensation, and may start to damage tissue. The best prevention is to avoid too long a stay in the kayak and the use of good padding such as small Thermarest pads and plastic-coated closed cell foam pads. Many disabled will have appropriate padding with them that they use frequently themselves.

Adequate supplies of water and warm clothing are particularly important for people with mobility impairments. Many have difficulty with regulating their body temperature, so you need to keep an eye on the weather conditions and air temperature. Bladder and bowel functions may be impaired in either paraplegic or quadruplegics, particularly the latter and you might be required to render assistance. Again, be sure to ask. "Do you need a pee before we go?" is a perfectly ordinary question, but may break the ice in that it allows the disabled paddler to reply that he or she is, "OK right now, but I might need assistance later".

The fundamentals of safety apply to disabled just as they do to able bodied. Capsize drill is usually a necessary exercise; I say 'usually' because you may be presented with a couple of disabled people who want an afternoons kayaking experience and an initial capsized will probably be sufficient to discourage them altogether, just as it does to any other paddler. Under these circumstances, get everyone on the water as soon as possible, but only in large cockpit kayaks so that clean exits are the norm and, given buoyancy aids of adequate standard are being worn, all that happens is your kayaker gets wet. It certainly pays to talk

through a capsized before getting afloat and also to have a ratio of one able bodied to one disabled paddler so that constant awareness is maintained. To sum up. Ask your fellow paddlers just what it is they can do and have them agree as to what help you should provide. Be aware as far as possible, of all relevant medical history. Respect the person at all times. Disabled people are rarely over sensitive but they have a habit, as indeed most of us do, of suffering in silence. The joy of introducing disabled people to kayaking is something special. To understand how much they appreciate the freedom and the opportunity to shake off wheelchairs or crutches for a while ensures you never take your own fitness for granted!

SEA MOUNTAINEERING

The term "Sea Mountaineering" is not mine but was coined by the great mountaineer and explorer Tilman, to describe the combination of a sea journey with a climbing trip. When in his eighties he undertook several expeditions of this type in a small yacht many of them to remote areas of Patagonia.

The modern sea Kayak has also been used as an alternative means of gaining access to coastal mountain ranges, sea cliffs or stacks. The appeal lies in adding an additional element of challenge to the planning of a trip plus allowing you to explore an area more fully. From a practical viewpoint it is also a lot easier to carry several weeks food and climbing equipment into some areas by kayak than on your back! Also it gives you more versatility, strong winds that might stop you paddling for a day could still allow rock climbing on a sheltered area inland. Similarly if the tide is flowing in the wrong direction or perhaps is way out on a steep boulder beach, a few hours sea cliff climbing or sea level traversing is a pleasant way to fill your time.

Obviously, the more extreme the climbing undertaken the more extra gear you have to carry with you. Though mountain activities like fell running and scrambling can be accomplished with just the addition of a strong pair of good trainers or lightweight walking boots and a small rucksack, the rest of the normal mountain safety equipment; compass, map, waterproofs, first aid kit etc. you should have with you in the kayak anyway. If your plans involve rock climbing then extra equipment like ropes, harnesses, boots and a lead rack will have to be carried. This adds quite a bit of weight and bulk to your gear to be stashed in your boat, so ideally you want to distribute it amongst a team of 2 or 3. When packing climbing gear, you should try to avoid likely contact with salt water and it is best stored near the centre of the kayak to minimise upsetting the boat's handling. Another point to note when packing climbing gear, is that you may only be using it in one area or occasion so it needs to be packed out of the way of your day to day equipment. I normally seal all of the heavy climbing hardware into a plastic bag then tie it into the boat just behind the footrest. In this country there are some great sea mountaineering trips that can be undertaken using kayaks. The island of Skye, Rhum and Arran off the west coast of Scotland have mountains dropping down to the sea which can offer a challenge for all levels of climbing experience. The sea cliffs of the Pembroke coast and Lundy Island offer superb rock climbing which can be accessed by kayak, and probably "the most satisfying is to paddle into, then climb sea stacks like The Man of Stoer and the awe inspiring Old Man of Hoy.

B.C.U. COACHING SCHEME

Tests and Qualifications Synopsis

The tests and qualifications are agreed jointly within the BCU Coaching Service, consisting of the National Associations for Northern Ireland, Scotland, Wales and England.

TESTS OF PERSONAL PERFORMANCE

There are five levels of personal performance tests. They gradually build up the range and level of performance of the strokes and techniques necessary for successful paddling in the canoeing discipline concerned. The first three levels are assessed on flat water, while the 4 and 5 Star are assessed in the real situation to which they relate. There are no age restrictions on BCU tests.

The levels are intended as 'milestones' to indicate when natural learning plateaus have been reached, as follows: 1 Star Beginner (encouragement test)

2 Star	Improver
3 Star	Intermediate
4 Star	Proficient
5 Star	Advanced

TYPES OF CANOE AND KAYAK

The tests and qualifications system is based on the need to cater for devotees of three main types of craft, with further sub-divisions among them. The three main types are:

Closed Cockpit Kayak Kayaks designed for use on white water or the sea where a large measure of the control of the kayak is gained by use of the lower body through the knees and thighs gripping firmly within the boat. (For practical purposes, decked canoes also come within this definition)

Canoe An open boat derived from the traditional craft of the indigenous peoples of North America, which is propelled with a single blade paddle, and can also be poled or sailed.

Open Cockpit Kayak Kayaks designed for touring or racing which have large cockpits, where the knees are not engaged under the deck. In the event of a capsizing the occupant falls freely out. Canoes which are used for fast touring and racing also fall within this category.

DEFINITIONS FOR INLAND CANOEING

Very Sheltered Water.

The definition involves:

- > Quiet canals with easy bankside access and egress.
- > Small lakes, which are not large enough, and do not have difficult landing areas, for problems to occur if there is a sudden change in conditions.
- > Specified sites on gentle, slow moving rivers.

The definition implies weather conditions which are not in themselves likely to cause problems.

Care must be exercised when water temperatures are low.

Sheltered Inland Water

The definition involves:

Flat water rivers. Faster flowing rivers, but not involving the shooting of, or playing on, weirs or running rapids. Lakes. Discretion and commonsense must apply when considering the use of lakes. To operate further than 200 yards from shore on a large lake can be a serious undertaking. To paddle in offshore breezes on large lakes requires the same degree of caution as for the sea. Water temperature (especially in Scottish Lochs) must always be a consideration. Suitable lagoons, or sections of sheltered bays, or large lakes can sometimes be designated 'Sheltered' or even 'Very Sheltered' water by careful and sensible selection. The definition implies normal conditions. Care must be exercised when water temperatures are low.

Moderate Inland Water

The definition involves:

Grade II white water, and equivalent weirs

Advanced Inland Water

The definition involves:

Very large lakes

Grade III white water and above

DEFINITIONS FOR SEA KAYAKING

The sea is a very different environment from inland waters. It can easily ensnare the unwary, the uninitiated, or the careless, with its sometimes apparently tranquil appearance. It can change, often gradually and imperceptibly, at other times dramatically and suddenly, with devastating consequences. For these reasons the BCU has always operated a separate syllabus for awards for sea canoeing.

Sheltered Tidal Waters

The definition involves:

Small enclosed bays where there is minimal possibility of being blown offshore

- Enclosed harbours where there is minimal possibility of being blown off shore
- Defined beaches (a short section of beach with easy landing throughout, no tide races or overfalls, in conditions in which swimmers and beach craft could be happily operating) - winds not above force 3 (force 2 if offshore when the greatest of caution must be exercised)
- The upper reaches of some suitable, slow moving estuaries
- In all cases the wind and weather conditions must be favourable

Moderate Tidal Water

The definition involves:

- > A stretch of coastline or estuary in close proximity to the shore, with easy landing, not involving fast tidal streams, tidal races, or overfalls, winds not above force 3 (force 2 if off shore, when the greatest of caution must be exercised)
- > The upper reaches of some estuaries

Advanced Sea

The definition involves:

- > Any journey on the sea where tidal races or overfalls may be encountered, which cannot be avoided
- > Sections of coastline where difficult landings may be encountered or where landings may not be possible
- > Difficult sea states and/or stronger winds (force 4 or above)

DEFINITIONS FOR THE CONDUCT OF SURFING

MODERATE SURF

The definition involves:

- > Beaches which are free of significant hazards (strong rips or undertow, tidal streams, rocks, groins). An area of beach must be marked out with flags to contain the group and prevent any loss of communication. The area selected must not interfere with other beach users - swimmers and surfers in particular (Third party insurance is required on some beaches to indemnify against damage caused to other beach users)
- > Small to moderate waves - 1 metre maximum (see BCU guidelines for assessing surf height and character).

ADVANCED SURF

The definition involves:

- > The surfing of reefs, points, and other off-shore features.
- > Surfing from beaches where surf height exceeds 1 metre or where stronger winds, cold conditions, rips, long shore drift, rocks or other potential hazards are involved

QUALIFICATIONS FOR THE COACHING OF CANOEING

There are five levels of coaching qualification for the teaching of canoeing, the first four of which are related to competence to be in charge of canoeing groups on the type of water involved: or in the case of the Placid Water progression, a wider range of experience and use of increasingly specialist craft:

Level 1 Coach*	Very Sheltered Water
Level 2 Coach Trainee	Very Sheltered Water
Level 2 Coach	Sheltered Water
Level 3 Coach Trainee	Sheltered Water
Level 3 Coach	Moderate Water
Level 4 Coach	Advanced Water
Level 5 Coach	A qualification to indicate an extensive all-round level of knowledge and ability, able to train others for advanced qualifications.

* *The Level 1 Coach is intended for teachers and youth leaders for whom canoeing is not a main activity. Club canoeists may enter the scheme at Trainee Coach Level 2.*

sea touring

The teaching qualifications are sub-divided to cater for the differing disciplines within canoeing as follows:

Level 1 Coach	<u>Closed Cockpit Kayak</u> (can also supervise canoes and open cockpit kayak) <u>Canoe</u> <u>Placid Water (Open Cockpit)</u> (also includes canoes used for racing)
Level 2 Coach	<u>Closed Cockpit Kayak</u> (can also supervise canoes and open cockpit kayak) <u>Canoe</u> <u>Placid Water (Open Cockpit)</u> (also includes canoes used for racing)
Level 3 Coach	<u>Closed Cockpit Kayak</u> (can also supervise canoes and open cockpit kayaks on Sheltered Water) separates into: White Water Sea Surf Canoe Placid Water (Open Cockpit kayak)
Level 4 Coach	As for Level 3
Level 5 Coach	As for Level 3 (except Placid Water)

OBTAINING BCU QUALIFICATIONS FOR THE COACHING OF CANOEING

In order to obtain a coaching qualification it is necessary to become a comprehensive member, be 16 years of age and first hold the pre-requisite Star Test, the Canoeing Safety Test, and a current First Aid Certificate, in order to attend a 2-day Training course. The Level 1 Coaching Award can be obtained either by doing a one day evaluation course if the pre-requisites are already held or on a 2-day course when a First Aid certificate, and membership or registration are the only pre-requisites. It is necessary to be 18 years of age for assessment, except for levels 1 and 2, when those aged 16-17 may be accredited as Junior Coaches, provided they are working under the auspices of a club or organisation. Minimum age for level 5 is 21. Star Tests can be undertaken locally. A list of courses appears in the BCU Yearbook, or the name and address of the Local Coaching Organiser, who can put the enquirer in touch with a local examiner, may be obtained from the relevant national association.

The prerequisites are;

Level 1 Coach	2 Star Test Canoeing Safety Test First Aid Certificate*
Level 2 Coach	3 Star Test Canoeing Safety Test First Aid Certificate*
Level 3 Coach	Level 2 Coach Award (in the relevant discipline) 4 Star Test First Aid Certificate*
Level 4 Coach	Level 3 Coach Award (in the relevant discipline) 5 Star Test Coaching Processes Course First Aid Certificate*
Level 5 Coach	Level 4 Coach Award (in the relevant discipline) Alternate 4 Star Test First Aid Certificate*

**Any HSE approved certificate or one issued by the recognised bodies is acceptable. For Levels 1 and 2 a minimum 4 hour course including CPR and EAV is sufficient. For higher awards a minimum hour course including CPR and EAV is needed. Certificates must be kept current (ie less than 3 years old)*

Training Courses

When the pre-requisites have been gained the candidate should register for training with the BCU (or National Association) It is normally necessary to obtain the Level 2 Coach award before proceeding to Level 3 Coach, and then to Level 4 and 5 Coach. It is not necessary for established paddlers to become a

Level 1 Coach first. Exemption from Level 2 is available only to very experienced white water, sea or surf paddlers, on the recommendation of a current BCU grade 4 Assessor in the discipline concerned. All applications for exemption must be made to the Director of Coaching at the BCU office. The granting of an exemption does not make the candidate a Level 2 Coach. No qualification exists until the relevant assessment course has been attended. Successful completion of the Training Course provides the candidate with the status of Trainee Coach of the relevant level. This will be acknowledged by a letter and a code inserted in the member's record, which will show when the membership card is next renewed.

The status is valid for 3 years from the date of the course.

Assessment

An assessment course for the full award for Level 2 Coach and above may be attended at any time after the relevant training course, once the candidate has gained the necessary experience: ie having worked with groups in relevant activities and at relevant levels for the requisite number of hours of class contact time. There is no stipulated minimum time lapse between training and assessment, except that assessment may not take place during a training course and the requisite number of hours of experience must be completed between training and assessment.

Log Books

For Level 2 Coach, a Coaching Service Log Book should be obtained from the BCU or your National Association office.

FOUR STAR - SEA KAYAK

AIM

The purpose of this test is to ensure that the candidate has sufficient knowledge and skill to enable him or her to take a kayak safety to sea in moderate conditions under a competent leader. Holding the 4 Star Test is a requirement for attending a training course for the qualification of Level 3 Coach - Sea.

PRE-REQUISITES

BCU 3-Star test. Where a candidate does not hold this test a cross-section of the requirements of the 1 -3 Star tests should be incorporated at the assessor's discretion.

The candidate must have taken part in at least three one day expeditions at sea. To rate as a qualifying expedition, the journey must have been on open water (i.e. where it is possible to be three miles from land in any direction). The journey may, however, be inshore close to a simple coastline not involving overfalls, tidal races, difficult landings or open crossings. Winds not exceeding Force 4. Not more than one trip shall be carried out on an estuary. The journey must have involved four hours travelling, with a lunch break in which the candidate was self-sufficient for food and drink. At least one journey must be on an entirely different stretch of coast to the other two.

ASSESSMENT AND VENUE

The test must be taken at sea, under moderate conditions (wind or sea state 2-4) ideally during a day trip. Allowance will be made by the assessor if conditions are rough, but the kayak skills must be performed in a competent manner. For reasons of safety three kayakers will participate. The test will not be taken in a flat calm.

ASSESSOR

Level 3 Sea Coach or higher, who is an A1* Assessor

THEORY

The candidate should be able to answer questions on the following:

Equipment

Show a good knowledge of kayak, paddle and personal equipment.

Safety Be aware of: Safety precautions applying particularly to the kayak at sea

The general effects of tide, current and wind

National Coastguard organisation and rescue services

Local waters and conditions

Potential hazards,(especially busy estuaries and water ways)
Basic collision regulations and sound signals

Hypothermia / First Aid

Show a good understanding of immersion hypothermia, its causes and symptoms. Be able to deal with basic first aid incidents -eg a cut forehead or hand - or hold a first aid certificate.

Access

Be aware of our basic freedom to paddle on the sea, but also of the need not to bring the sport into disrepute through irresponsible behaviour. Be aware that some harbour authorities have the right to charge canoeists, and occasionally do so.

Environment

Be aware of the policy set out in the BCU leaflet 'Earning a Welcome' and show appreciation of the need to avoid obvious disturbance to wildlife such as playing 'hide and seek' around rock pools.

Planning

Be able to determine from a chart:

- Depths and drying heights
- Simple recognition of hazards - i.e. tide races, overfalls
- Basic recognition of main buoyage
- Simple tidal predictions by the tidal constant method
- Demonstrate an ability to use a simple compass to follow an escape route.

Weather

Be aware of the sources of weather forecasts and the effect of the weather on the sea environment.

General

The candidate should have a good understanding of the types of canoeing in which they are involved, and know something about the range of activities which the sport incorporates, together with an awareness of one or more of the competitive forms of canoeing which have World Championships or Olympic status, and Britain's performance in them.

Group awareness

Show group awareness and self-control consistent with a 4 Star standard journey on the sea.

The candidate should be able to align a map, work out the distance between two points, and identify any particular features which would indicate position, comprehend compass 'variation', and have an understanding of how to use a transit when paddling on open water.

CANDIDATE'S KAYAK AND EQUIPMENT

Each candidate will present him or herself suitably equipped, for the test. Borrowed equipment will be judged as though it was the candidate's own.

The following items, which must be both suitable and serviceable, must be presented for inspection:

1. Kayak and paddle. * Kayaks must be provided with end grabs suitable for carrying out rescues without trapping the hand. Safety lines and/or painters (if fitted) must be taut and not capable of becoming loose accidentally, or fouling the cockpit area. Fitted buoyancy must be securely fixed and fill all available space apart from cockpit in suitably customised 'general purpose' kayaks. Sealed bulkheads are regarded as sufficient in themselves for sea kayaks.

2. Personal clothing. Personal clothing should be appropriate to the expected conditions, and should include windproof and water-proof outer garments.

* *The award may be taken in any kayak, provided it is suitably fitted out and the candidate can meet the requirements of the test*

3. Buoyancy aid, appropriate headgear and spray deck. A buoyancy aid of minimum CEN 50N inherent buoyancy should be worn. There is a weight of paddler to buoyancy ratio and you can find this in the BCU Handbook (Pg 42). A lifejacket may be substituted, in which case the candidate should know under what conditions it should be inflated, and should demonstrate its inflation and deflation. A brightly coloured helmet or woolly or other hat is recommended. The spray deck must be fitted with an efficient release strap.

4. Simple first aid kit and repair kit. The first aid kit should be appropriate to 'the level of first aid knowledge required under the Theory section. The repair kit should be appropriate to the type of kayak used.
5. Spare clothing. Adequate spare clothing should be carried. The clothing should be applicable to the prevailing conditions and suitable for use in a bivvy bag to prevent hypothermia.
6. Packed lunch. A packed lunch and equipment for providing a hot drink (may be a vacuum flask) should be carried.
7. Emergency equipment for personal use. This should include: simple compass; emergency food; whistle; exposure (bivvy) bag of minimum size 1.8m x 0.9m (6' by 3'); torch; matches or lighter; flares or other suitable means of pinpointing position if in the water.
8. Waterproof kit bag(s). Spare equipment must be stored in appropriately secured, waterproof kit carriers and must remain dry even after a capsize.

PRACTICAL ON FLAT WATER

1. Rolling.

Where the kayak is of appropriate design the candidate should be able to demonstrate a roll. It is permissible to allow the candidate to set him or herself up before capsizing. A roll on one side only is required. Provided the rest of the candidate's performance is sound, an inability to roll is not a fail factor in itself.

PRACTICAL ON OPEN WATER

1. Launching The candidate should demonstrate launching techniques appropriate for the conditions
2. Efficient paddling technique, forwards and backwards. The assessor will look for: correct dynamic seating position; correct entry and exit of the blade; ability to keep the boat straight; sufficient power in the stroke to paddle against wind or current; trunk rotation; correct width of paddle grip.
3. Turning the kayak 360 degrees. In both directions by using alternate forward and reverse sweep strokes. Paddle blade just covered, reaching out to full arm extension, elbow slightly bent. Paddle drawing well into the stem with the forward arm pushing across the body. Body turning to place the paddle in the water at the stern of the kayak. If the kayak is fitted with a rudder, it must be turned again in both directions, this time steering with the rudder only.
4. Emergency stops. Forwards and backwards. Reverse direction should be in evidence within 4 strokes.
5. Drawing the kayak sideways in both directions. Top arm high, blade deep. The boat must keep a straight line sideways through the water in both directions.
6. High and low recovery strokes. To be performed on both sides. For high braces the water must reach the paddler's waist, with a strong pull and associated hip flick to recover.
7. Paddle brace. High and low on the left and right. Where wave conditions are not suitable the candidate must paddle hard forwards then glide with the blade flat on the surface at right angles to the kayak. For a high brace, the water must reach the paddler's waist at the onset of the stroke.
8. Stern Rudder. The paddle blade should be placed in the water upright, well back to the stern. Candidate should be able to keep the kayak running straight, downwind on small waves, with the paddle kept on one side of the boat.
9. Landing Bring the kayak into a beach forwards, sideways and backwards (forwards only if kayak is fitted with rudder). This is controlled, not a 'surf' landing. Holding position in order to allow for the waves.
10. Capsize and rescue. Perform capsize drill, followed by a deep water rescue with partners. Take charge of a rescue and then act as a capsized victim. Any sign at all of fear or panic, and failure to retain the kayak during the drill will automatically result in failure of the test. The capsize must be 'accidental' with spray deck in place - either whilst paddling or in an attempted recovery stroke or sculling for support.
11. Handling waves. Demonstrate an ability to paddle into a head sea, with a following sea and in a beam sea.
12. Negotiate moderate surf. Demonstrate an ability to handle moderate surf (maximum 1m/ 3ft) in order to safely commence a journey or achieve a landing.
13. Knots. Tie the following knots: Bowline, Figure of eight, Round turn and two half hitches, Clove hitch

and demonstrate and explain their uses.. (For a description of these, see end of this section)

JOURNEYING

Provide evidence of having taken part in at least 3 one-day expeditions at sea as stated under Prerequisites.

FIVE STAR - SEA KAYAK

AIM

The purpose of this test is to ensure that the successful candidate has sufficient knowledge and skill to lead others of adequate ability on sea journeys, up to and including advanced level, with safety, in British conditions. When used with the relevant coaching award it shows that the candidate has sufficient expertise to coach and lead groups in more demanding situations. This award is intended for paddlers who journey on the sea in areas where tidal races, headlands, open crossings, swell and challenging coastlines may be encountered. The award should be accessible to all those people who journey on the sea on a regular basis and should not be seen as the preserve of a few elite performers. It is envisaged that the average club member canoeing regularly, should be able to obtain this award within three years of starting to paddle regularly on the sea.

PRE-REQUISITES

Due to the nature of this test and its remit for leadership it is necessary that candidates should show three days logged experience of formal training in leadership, safety and rescue, prior to assessment. Such experience may be gained on advertised courses, or from endorsement by a level 5 coach

The candidate will have documented a minimum of six journeys on the open sea. These will have involved a variety of different conditions including:

- A journey of a minimum distance of 20 nautical miles, (see journeying)

- An open crossing of at least 5 nautical miles.

- Navigation in poor visibility and darkness.

- Winds reaching at least force 4.

- Exposure to no landing zones.

- Tide races and overfalls.

- Camping from a kayak.

- Tidal streams of at least 3 knots.

- Paddling in swell and waves.

- The candidate must already hold the BCU 4 Star test (or be recommended for exemption by a current level 5 Sea Coach).

- The candidate must hold an appropriate, and current, first aid award (e.g.BCU Lifeguards Aquatic First Aid - 8 hour course). Any of the nationally recognised standard first aid certificates, or any H&S.E approved, are acceptable provided they involve a minimum of 8 hours training and include CPR and EAV.

ASSESSOR

An A5 Sea Assessors as per student ratio supported by an A4 Sea assessor

SYLLABUS

Theory

Navigation: Weather: Equipment: Environment; History; First Aid Practical

Show an efficient and effective forward paddling technique.

Demonstrate an ability to manoeuvre and control a kayak in a variety of different situations.

Launch and land in a variety of situations.

Perform a range of rescues.

Roll in rough water

Be conversant with different methods of towing.

Show the ability to navigate on the water.

Exercise group control and show concern for the general welfare of other group members.

Demonstrate the capability to handle a range of incidents.

JOURNEYING

Have experience of a minimum of six journeys on the open sea. These will have involved a variety of different conditions.

Two of the journeys must have taken place in a different sea area.

At least one journey must have involved an overnight camp or bivvy.

METHOD OF ASSESSMENT

Theory

As well as oral questions over the course of the assessment it is envisaged that there will be two written examinations. The first will take the form of a written paper which is sent out in advance-and for which the candidate will be able to utilise all the resources which are at their disposal to answer the questions. The second will be a navigation exercise, which will usually be undertaken on the first evening of the assessment course. The candidate should have produced sufficient work for the assessors to make a judgement as to their competence within two hours.

Navigation

Plan a two day journey in an unfamiliar area which includes an open crossing.

Weather

Know where to obtain relevant shipping and weather forecasts. Understand the probable sequence of weather which occurs during the passage of a depression.

Have an understanding of the following:

- > The formation of fog, onshore and offshore winds, the effect of relief, line squalls.
- > The relationship between the pattern of isobars on a synoptic chart and the probable resultant wind speed and direction.
- > Be able to relate physical signs to the actual forecast.

Equipment

Show an understanding of the variety of equipment which is available including radio and navigation aids.

Environment

Candidates should be aware of the environmental factors that affect the sea. These will include the effect of wind, tidal movement, swell and physical factors. The candidate should also show a basic knowledge of the wildlife which is likely to be encountered on the sea and be aware of times and areas when special consideration should be given. The candidate should show a personal responsibility for the environment.

History

Show a knowledge of past and present developments in the sport of sea kayaking.

Coastguard

Have a knowledge of the role and responsibilities of the Coastguard Service.

PRACTICAL

The assessment course will normally be run over a weekend or similar time span. The first evening will be spent on the navigation exercise and course administration, followed by two days and a night undertaking a journey of the appropriate level. It is anticipated that an overnight bivvy or camp will be involved.

Forward Paddling

The candidate should be able to demonstrate efficient and effective forward paddling technique in different wind and sea conditions. This should include a following sea and a beam wind.

Manoeuvre and Control

The candidate should show manoeuvring skills in relation to static and moving objects and demonstrate good control in moving and broken water. Where a rudder or skeg is fitted the candidate should demonstrate reasonable control in the event of a failure.

Launching and Landing

The candidate should show the ability to launch and land themselves and the members of their group in a variety of conditions. This may involve beaches, rocky inlets, headlands and surf. They should also show the ability to land an injured paddler.

Rescues

The candidate should have a good repertoire of rescues and be able to adapt them to a range of conditions. It is expected that they should be able to rescue a loaded sea kayak without assistance apart from the casualty. In addition, the candidate should have a knowledge of a variety of self rescues and be able to demonstrate one. This part of the test should not take place in calm conditions but it is not necessary to perform it in a tide race.

Rolling

Perform a roll in rough water.

Towing

The candidate should have a towing system and be aware of the need for flexibility and be able to drop and pick up the tow with ease. They should demonstrate single and multiple tows.

Navigation

The candidate must demonstrate the ability to keep a compass course on open water and make good a course using transits. They should be able to fix their position using a combination of bearings and transits. The candidates should be able to navigate in poor visibility or the hours of darkness. They should be able to plan alternative routes whilst afloat which take into account wind and tidal conditions. They should also be able to identify features from the chart and recognise navigation marks.

Group Control

The candidate should exercise appropriate group control whilst on the water. They should also be concerned for the comfort and welfare of the party throughout the whole journey. The importance of effective group control cannot be over-emphasised.

Incidents

The candidate should carry and have easily accessible suitable means for summoning help in an emergency. They should have a first aid kit and be familiar with the use of its contents. A repair kit should also be carried. It should be possible to effect a repair on a kayak whilst afloat as well as being able to deal with more substantial problems to the equipment whilst ashore. The candidate should be equipped and prepared to deal with any incidents which could occur during the course of the journey.

Equipment

It is expected that by the time the candidate is ready for assessment they will be aware of what equipment is required for undertaking a multi-day journey. It is reasonable for people to make personal choices as regards equipment but they should be prepared to justify those decisions. It is not essential for candidates to present themselves for assessment in a specialised sea kayak, but due to the fact that they may have to paddle with people in those type of craft they should have some experience of paddling a variety of sea kayaks including singles and doubles.

KNOTS

1. The bowline

bowline (breaking strain - 60%) (fig. 1)
 The Bowline (say "Boh-linn") (fig. 1(A)) forms a loop that will not slip in a single end of line. The left-handed Bowline (fig. 1(B)) is less secure, so don't use it. To tie the common Bowline first form a loop in the standing part of the line as shown. Next, pass the working end up (Fig. 1(C) through the eye of the loop, around the back of the standing part, and then back down through the eye once more. Practice until you can tie it fast, with your eyes closed.

It's a simple, strong and secure knot which holds tight the greater the strain placed upon it, yet can

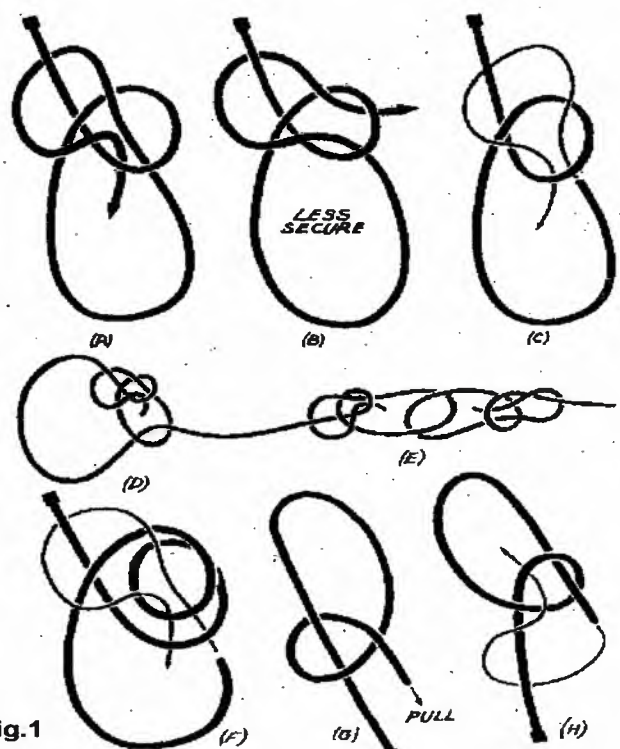


Fig.1

always be untied easily by pushing forward the bight which encircles the standing part of the line. Use it for climbing, lifesaving and boating, and in the end of parcel string. The Running Bowline (fig. 1(D)) makes a noose which readily falls open once tension comes off it. The Bowline Bend (fig. 1(E)) joins large less manageable hawsers or cables temporarily, just as illustrated, with two common Bowlines interlocked.

The ropes may each be a different thickness.

A word of caution — the Bowline may be a little less reliable in modern synthetic ropes. If so, secure the end with an extra half-hitch, or tuck it and trap it beneath one of the rope's strands.

A more secure version of the Bowline called the Double Bowline (fig. 1(F)) should be tied if the knot is likely to be towed over rough ground or through water.

If you ever have to tie a Bowline speedily and snugly under the armpits of some poor soul in distress down a cliff face or overboard from a boat, you will quickly realise - too late - that it takes practice to tie the knot when you are looking at It from the wrong direction! Spend time now learning to tie it 'upside down' (Fig. 1(G)-(H)). .

2. Figure of Eight (Fig. 2)



Fig. 2

3. Round turn & two half hitches (b.s. - 70%) (fig. 3)

The name describes exactly what this knot looks like; a round turn secured by two hitches, one beneath the other (fig. 3(A)).

Use it any time you need to attach a line securely to a beam, rail, pole, ring, hook or handle. It moors boats safely and will support loads of any description. It's a real all-rounder.

To tie it, take the working end around the securing point to make a round turn, (fig. 3(B)), slowing and holding the load - whatever it is—by friction. Secure with two half hitches (Fig. 3(C) worked up snugly against each other and the first part of the knot. For extra security, especially if the line is likely to be wet or slippery, pass the first half-hitch THROUGH the round turn. This forms a Fisherman's Bend (Fig.3 D) -which is NOT, of course, a bend at all; it's a hitch.

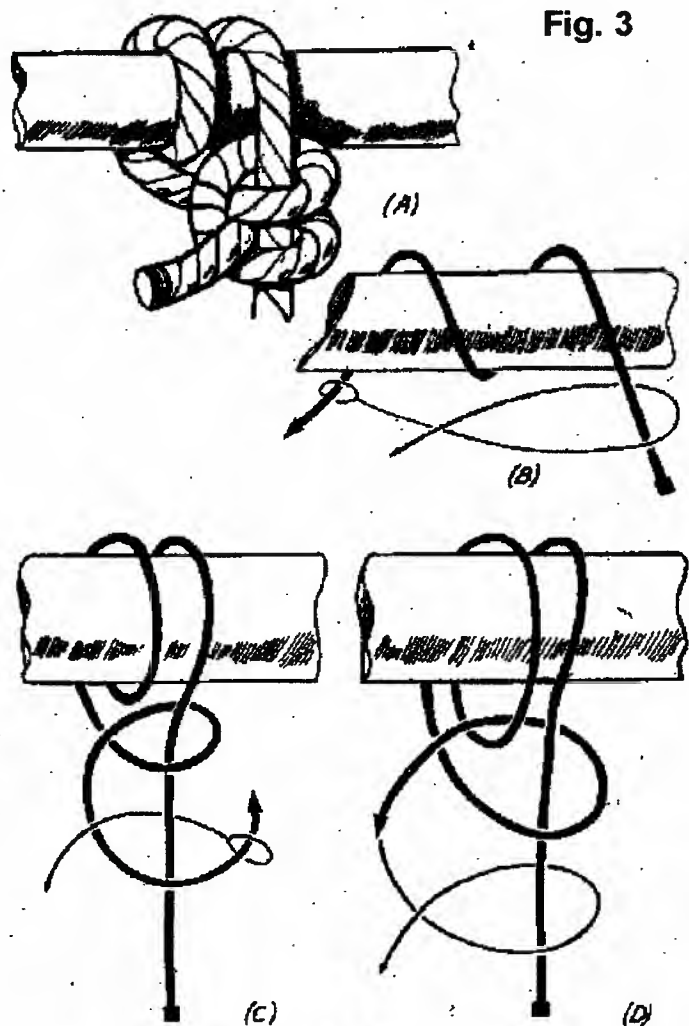


Fig. 3

Fig. 17 Round Turn & Two Half Hitches (A) – (C). (D) Fisherman's Bend.

Don't be tempted to use the Fisherman's Bend instead of the Round Turn & Two Half Hitches for every-thing. With a load on it you may be unable to free it when you need to

The Round Turn & Two Half Hitches is the most generally used one of a number of such hitches. It is a strong and secure old hold-fast which never jams and is good when tied over something of small diameter.

4. Clove hitch (b.s. - 75,%) (fig. 4)

The front view of a Clove Hitch (fig. 4(A)) resembles a letter 'N' (although, as the diagonal part may go either way it may be written

Fig. 4

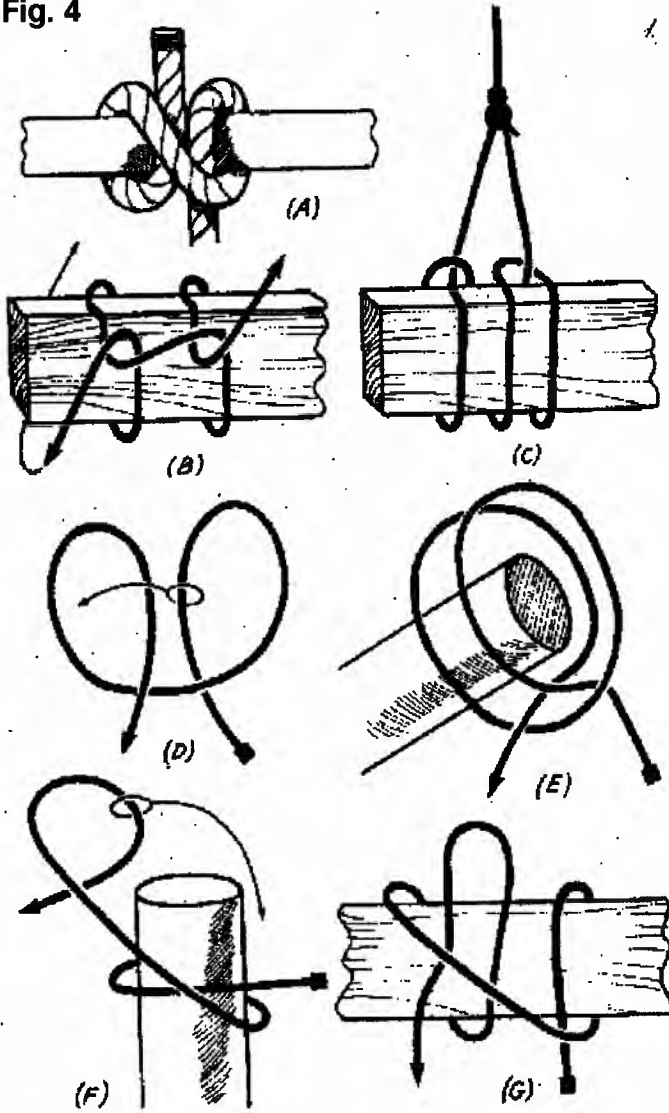


Fig. 16 Clove Hitch

The Halfhitch

backwards). The Clove Hitch is used to fasten a line to a rail, post or bollard, or onto another rope which is not part of the knot but only if the strain will remain steady and at rightangles. It can be used to hang things in your garage, or scenery backstage or to suspend a fender from a boat but it is not a very secure mooring hitch although it's often used. Distorted (fig. 4(B)), it makes a safe scaffold hitch (fig. 4(C)) to support a workman's plank seat.

Tying the Clove Hitch is quick and easy, and it is notable for the many different ways it can be tied. Basically, pass the working end around the hitching rail, cross the standing part at the front, take another trip around in the same direction, and finally trap the end beneath the diagonal. But, should the end of the line be inaccessible (or simply for speed) form two opposing loops (fig. 4(D)), cross the loops placing the 2nd one on top of the 1st and slip the result over the post (fig. 4(E)), etc.

Alternatively, on a vertical post, apply an underhand loop (fig. 4(F)), using this frictional device to slow and stop the load on the line; then lock in place with a second half hitch (fig. 4(G)) similarly applied. Forming the loops in large sizes of rope is best done while it is lying on the ground or deck - either with one hand or a docker's hook — and then the two can be picked up together. Small cord can, with a little

ingenuity, be tied one-handed.

The Clove Hitch is one of the most valuable hitches, provided the strain always comes from the same direction. Otherwise, it quickly works loose. Slip it off the end of the spar around which it was tied and it just falls apart. If great strain is to be applied, and the diameter is small, use a draw-loop (fig. 4(G)). The name Clove Hitch was first used in Falconer's 'Dictionary of the Marine' in 1796. Samuel Pepys knew Falconer - and also knew about knots - so he probably knew the Clove Hitch. In 1884 the knotting authority Burgess wrote that the Clove Hitch could be "... made in the bight as if it was a single piece of line, this tie is often used by surgeons in cases of dislocation of the thumb." (Ouch!)

PHOTOGRAPHY

Photography is painting with light. Good photographs rarely just happen. You can increase your chances of taking memorable images by being ready to shoot when you recognise an opportunity and by studying the arrangement of subject within the viewfinder. Here are a few basic rules

1. KEEP IT READY.

Paddling in Alaska some years ago we came across a Black Bear. He slid down a glacier, ambled across the beach and, would you believe it, swam right in front of us as he crossed the bay. Absolutely amazing. The whole incident lasted perhaps two minutes. I got a bunch of pictures, really great pics, even though I say so myself, and all because I was ready with a 300mmf/ 4 lens.

Keep your camera hand, especially when at a new camp in a remote place. Animals will often come to check you out the first evening or morning, then stay away. Above all, stay alert and be ready for the unexpected.

2. GET CLOSE.

Most photographs would be improved by getting closer to the subject. Fill the frame, and fill it edge-to-edge. This isn't always easy. Often on the water, by the time you decide to take a picture, open the dry bag, pull out the camera, focus, frame and shoot, your subject has shrunk to a dot. On the water, anticipate opportunity. Ask your paddling companions to pass close by. In camp, look for close-ups of activities. Create images that will engage the viewer by, for example, showing active hands: tying knots, checking the chart, preparing a meal.

3. SHOW FOREGROUND DEPTH.

Photographs are two-dimensional and, without help, they can look and feel flat. Fore-ground elements, things like sea shells, lily pads, or flowers add depth. Using the bow of your boat can be pretty mundane, but at least it says "I'm in a kayak at sea" instead of just "the sea." To lead the eye into the image position a close-up of a kayaker off to the side of the frame.

4. SEEK DIAGONAL LINES.

Psychologically, we associate horizontal lines with rest, inactivity, peace. A prominent horizon makes a peaceful sunset. Vertical lines, by contrast, imply potential energy, alertness. Think of standing totem poles compared to those that have fallen. The most dynamic lines, though, are diagonals. Diagonals are energy in motion. An object on a diagonal surface can't be static. So put those jagged, pointy sea stacks in the photo. Show the kayaker with his paddle blade angled. Use the edge of a shoreline rock to lead the viewer into the scene.

5. TAKE VERTICALS.

Every photo composition has two obvious options: horizontal or vertical. The vertical is often stronger. Get in the habit of looking at both.

6. SHOW BLUE SKIES; ELIMINATE GREY ONES.

Blue skies beat grey skies hands down. If the sky is grey, though, all is not lost. ' The diffuse light of an overcast sky is perfect for people portraits, camp scenes, flowers. If it's bright enough, it's the best light for wildlife. If you're on the water, put your kayakers close to shore along verdant green hillsides, or sculpted rock and use a short telephoto lens to crop out a gray sky.

7. PEOPLE YOUR PICTURES.

Images of people stay with us. They provide the best laughs and stories. Keep People talking and active when you're taking their picture. Show them doing ordinary tasks, like pitching the tent, building a camp fire, hanging food, or patching a hull (why were they patching the hull?). Show the exciting and unusual if you can, -- again be ready with your camera.

Skip the forced-smile group photo at the scenic spot--show the group paddling through it instead. Get out in front of the group so you're not always photographing their back sides. If you need to, set the shot up. If you miss, for example, a shot of the group paddling through an archway, have them go through again.

Paddling solo? Pictures showing the bow of the kayak and no other paddlers get dull fast. Use your camera's self-timer and get yourself into the action. Show your launchings and landings, and stops at interesting terrain. The little infrared remotes, available on many low-end cameras, can be useful if you set up within 10 to 12 feet of the tripod. Quality remote-control devices (good to at least 100 feet) allow more flexibility, but they are bulky, expensive, and not waterproof.

8. ADD POP WITH COLOR.

Dull colors make dull photographs. Use a bright colored kayak, yellow PFD, perhaps a red hat to punch up the scene. Photograph the sunrise or sunset, with kayaks or kayakers in silhouette, or use the colors of the early morning or evening to paint your subjects in a warm glow. Turn light-colored kayaks into surreal reflections with the setting sun as your paint-brush.

9. KEEP YOUR HANDS DRY.

If you are shooting with a camera that is not waterproof, wear elbow-length latex gloves, and take them off to photograph. Using this strategy, my hands have stayed dry enough to get numerous offshore images, pictures I probably would not otherwise have taken the risk to take.

10. GET OUT IN THE WET.

Inclement weather can make for great photos if you have a waterproof camera or housing. For shooting in the rain when ashore use you can improvise splash protection. Use a lens hood and punch a hole in a generously-sized resealable plastic kitchen bag just large enough to just slip the lens hood through, then duct tape the bag to the hood. You should be able to lift the bag opening to see through the viewfinder, and operate the controls without exposing the camera to the elements. I've shot all day like this in rain and spray without problems. If you don't have a hood, use a reducing ring or pop out the glass from an old filter. Thread the ring onto your camera with the zip-lock bag in between the lens and the ring. The threads will cut through the plastic. Peel out the cut circle that's covering your lens, and the rest of the camera will be nicely covered.

11. GET IN THE WATER.

You might not want to risk your non- waterproof SLR by wading into it, but surf means action. To photograph surfers one year I waded out in thigh-deep with my camera on a tripod. As each wave crest passed by, I lifted the tripod over my head to keep my camera from being trashed. I got some frame-filling kayakers that I couldn't have shot from the beach.



12. GO SLOW.

Slow shutter speeds can create pleasing blurs, sometimes capturing the feeling of motion better than freezing the action with fast shutter speeds. Try using a 1/10 to 1/20 sec. shutter speed, pan with the subject, squeeze the shutter gently, and follow through. If the kayaker is on a standing wave, set up a tripod on shore and let the moving water blur. Usually, with speeds faster than 1 /30 sec.,like a 1/ 45 or 1/ 60, results tend to look fuzzy, like a hand-held mistake. If you go longer, say 1 /2 sec. or so, your kayaker may turn into an unrecognizable blob, diminishing the impact.

13. GO REALLY SLOW.

Magic happens at really slow shutter speeds. Set up landscape shots on a tripod and try exposures of several minutes for a melding of colors or ocean waves.

14. GET UP EARLY.

Good light beats a good subject every time. Dawn brings consistently good light, mirror-calm water, dew- covered foliage and boats, ethereal fog, and the best chance to see wildlife. Use the colors of the early morning or evening to paint your subjects in a warm glow.

15. SHOW A STORY.

Imagine describing details of the trip on your return home. Photograph the details. Show the group going over charts, on shore and afloat; show them tossing the line to hang food; building a fire; deploying a sail; etc. Try developing a theme. When we paddled in the Kodiak archipelago, the trip theme was bears. I represented this in part by photographing how we hung our food at each camp. This repeated activity added tension to our slide show, and augmented the impact of images of bear tracks and bear day beds.

DIGITAL CAMERAS

Little DIGITAL cameras ARE NOW cautiously popping out of dry bags, and paddlers rafted up to view the results on tiny liquid crystal display (LCD) screens on the backs of the cameras. Digital images produced by these hi-tech wonders can be e-mailed to friends and family or even sent from expeditions via satellite phone to be loaded daily onto Web sites. Digital does away with film and developing expenses-just transfer the files to your computer, and you're ready to go again. With in-camera editing,



movie modes," stitched" panoramas, reasonable prices, and new compact waterproof cases----digital has come to kayaking, and the number of features are rising. The cost of memory, a big issue a few years ago, has dropped through the floor. 128-MB memory cards sell for under £40 and have the capacity to store a dozen to hundreds of images, depending on image dimensions. Waterproof cases for select digital cameras from Canon, Sony and Olympus first hit the market in 2000. Underwater housings for digicams have been available before, but they've been much bulkier and more expensive than the new compact cases. They hold the cameras securely, are lightweight, and take up only a little more space than a 35mm point-and-shoot. This year's models are depth-rated to 100 ft or more, great for snorkeling, diving or kayaking. External, O-ring sealed buttons control most or all of the camera functions.

DIGITAL PRIMER

When you are shopping for digital cameras you need to understand how they work in order to choose the one that best suits your needs. The following is a list of features that you need to consider.

MEGAPIXELS AND RESOLUTION: The light-sensitive sensors that make up the CCD (charge-coupled device) in the camera are referred to as pixels. More pixels means higher resolution for bigger and sharper images. Digicams usually list the dimensions of the images they record in pixels: the Canon 530's 2048x1536 image has 3,145,728 or roughly 3.2 Megapixels. If all you want is to send e-mail pictures, 640x480 is fine. Good 8x10 prints, require a 3 or 4 Megapixel digicam.

FOCAL LENGTHS

of digital cameras differ from film. The CCD area is smaller than 35mm film, so a 7- 21mm zoom may be equivalent to 35-105mm in 35mm. Digicams usually list 35mm equivalents.

OPTICAL ZOOMS

use moving lens elements. 2x or 3x optical zooms are typical. I like 3x, in the 35-105 range, for nice wide-angle to short- telephoto coverage.

DIGITAL ZOOM

extends the range of optical zoom only by cropping and consequently reduces resolution. It's useful only if you want low- resolution images for things like e- mail. Optical Zoom is the real deal.

LCD AND VIEWFINDERS:

LCD screens consume valuable battery power and are tough to see in bright light. You'll use the optical viewfinder to save power and frame pictures in bright light. That said, try to get a bright LCD. You'll use it on the water to check

framing and exposure. A water- proof case may partially block the viewfinder especially at the wide angle end of the zoom.

BATTERIES:

Many digicams require proprietary lithium-ion batteries. They are compact and have excellent storage capacity-twice that of NiCd's- but with the LCD screen on and some in-camera editing, a few hours is all you'll get before the battery runs down. This is fine for day trips, and possibly overnights, but for extended paddles you'll want a few spares (at about \$50 apiece). Recharge from an AC outlet takes 1 to 2 hours. Some digicams take AA batteries. Digicams eat power too quickly for regular use of alkaline AAs, so it's best to use rechargeables. NIMH (Nickel-Metal Halide) have 40% more capacity than NiCad's (Nickel-

Cadmium) and can be recharged without being fully discharged. And you'll be charging a lot. A NIMH charger and a dozen batteries will handle weekend-long excursions. For expeditions, solar chargers available commercially for NIMH batteries would tip the scales toward AA's.

IMAGE STORAGE FORMAT:

JPEG, a compressed format designed for photographic images, is the most common. Compressed images take less storage space, but at the expense of image quality. If you want top-quality images, digicams with TIFF compression will retain the highest image quality.

MEMORY:

The removable memory cards differ: Canon uses CompactFlash; Olympus uses SmartMedia; Sony has a proprietary Memory Stick. You can process your images with your computer and printer or take your memory card to a digital mini-lab or kiosk to make low-cost prints.

VARIABLE ISO:

The light sensitivity of the CCD is listed in equivalences of ISO ratings for film and can be changed to suit the image. You'll have the flexibility to capture action in low light at ISO 400, and, moments later, a tripod-mounted, color-saturated sunset at ISO 50.

USB (UNIVERSAL SERIAL BUS) PORT:

Most new digicams come with a cable to connect to the computer USB port for downloading images. If your computer was manufactured in 1998 or later, it almost surely has USB.

VIDEO PORT:

Some cameras have a video port so you can view the pictures on your TV or transfer images to a video tape.

WEB PUBLICATION:

If you want images for e-mail or Web use, any low-end digicam will surpass your need. E-mail and Web images are best kept small.

A 480x640 pixel, low-quality JPEG is usually as big , as you'll need and will download l quickly.

PRINT PUBLICATION:

Most magazines, including Ocean Kayaker, print photographs at 300 dpi (dots per inch). This means the top-quality 2048x1536 image from the 3.2 Megapixel Canon S30 will print no larger than 5" x 7", or half a page. Newspapers print at 150 dpi, so a 3.2 pixel image will work for 10" x 14". For home printing, 200 dpi generally makes very satisfactory prints.

WHITE BALANCE: Many digicams allow you to adjust color balance, a great feature when indoors. For kayakers, it's a plus in the pool, or while snorkeling, or while ashore in shade.

WATERPROOF CASE:

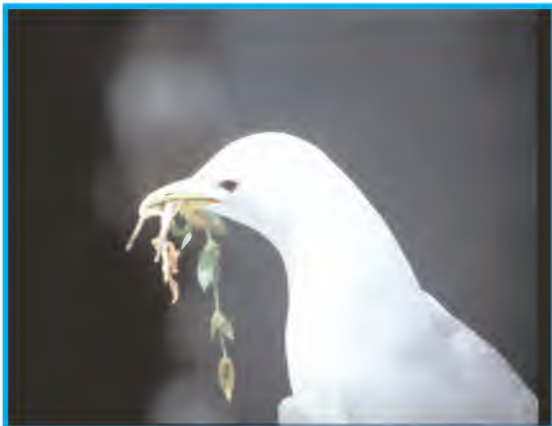
Finally, the reason to consider on-the-water digital in the first place: the availability of compact waterproof housings that allow camera operation by way of external buttons. This years cases are rated for submersion to 100 feet or more, and made from ABS plastic that should take some abuse. The cases aren't pocket-sized, as the cameras are, but the extra bulk makes the camera easier to handle. The extension of the case around the zoom lens is likely to partly block the viewfinder. In addition, some of the camera functions may not be accessible via the buttons.



Eric Totty. Circa 1987

BIRD WATCHING

Ornithology, sea kayaking and photography go so well together. Before we really took to sea kayaking I, for one, used to wonder what was there about paddling on the ocean with nothing but lots of sea and sky. Hopefully I have already described enough about what our sport is about to convince you that is wide embracing. Sea bird watching is just another facet. This is not the place to go into detail. There are more books (some of which I have listed in the bibliography) than enough, most lavishly illustrated, that will tell you all you need to know.. All I want to do here is to encourage you to think about including this interest within your interest in kayaking. You must have watched in wonder as terns sweep and swoop into the sea for their small fish prey. My book shows fifteen varieties of the species. How many can you identify? Can you tell the difference between Shags and Cormorants? Can you say anything about their habitats and habits? It is a whole new dimension to coastal kayaking. Here are a few pictures of mine.



ALL THE ABOVE WERE TAKEN ON THE FARNE ISLANDS OFF THE NE COAST OF ENGLAND

MARINE MAMMALS

Of course there are not only birds out there; if you are lucky you will come across seals, whales, dolphins, porpoises, sea otters.....the list goes on.

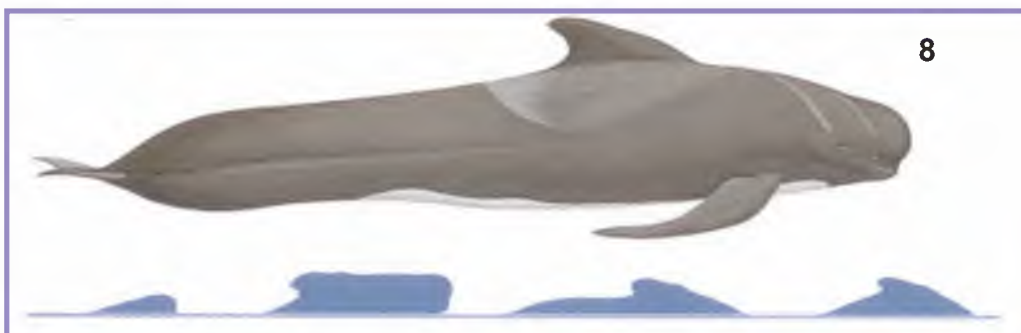


The most amazing thing is to have any form of sea life come to the surface and be with you, even for a fleeting moment. Make a study of their life style, habitat, and behaviour. Be able to recognise what you see. I will remember for ever the experience of a fairly large group of whales surfacing and blowing air (very smelly!) in Prince William Sound, Alaska. I have watched them feed on shoals of caplin off the Newfoundland coast. It is just fantastic as they circle the fish and herd them by blowing off air to bring them near the surface. Then they leap upwards from the surface of the sea with their mouths open wide to scoop up huge amounts of fish. Seals are curious creatures and will come close for a better sight of you, especially in areas where they are allowed to breed in peace. They are not popular with fishermen. One of my favourite places for seals is the Farne Islands off the north east coast of England. On a calm day don a full face visor, approach as quietly as possible and just as they are about to slither off the rocks into the sea, capsize and let them come eyeball to eyeball with you. Roll up for air and go down again. I have never experienced anything quite like it.

Interestingly it was the Greek philosopher, Aristotle, who undertook the first serious classification of marine mammals. He gave them an identifying name and classified them into categories or genus. These mammals first evolved on land but many millions of years ago returned to the sea where they adapted. They became streamlined and the ends of their limbs fused and shortened to form paddles or 'flukes'. The most perfect adaptations is that shown by the Cetaceans - whales, dolphins and porpoises. Other vertebrate groups like seals, many sea birds and sea turtles rely on the land for breeding.

There are various marine protection agencies such as the Whale & Dolphin Conservation Society. Check out their web sites as they are always interested in your sightings being recorded. To help you identify some of the whales and dolphins you come across I have included a few pictures here.







1. Risso's Dolphin
2. Bottlenose Dolphin
3. Atlantic white-sided Dolphin
4. Orca
5. White-beaked Dolphin
6. Common Dolphin
7. Minke Whale
8. Long-finned pilot Whale
9. Harbour Porpoise.

And here are few varieties of seal that you may spot along the coast.



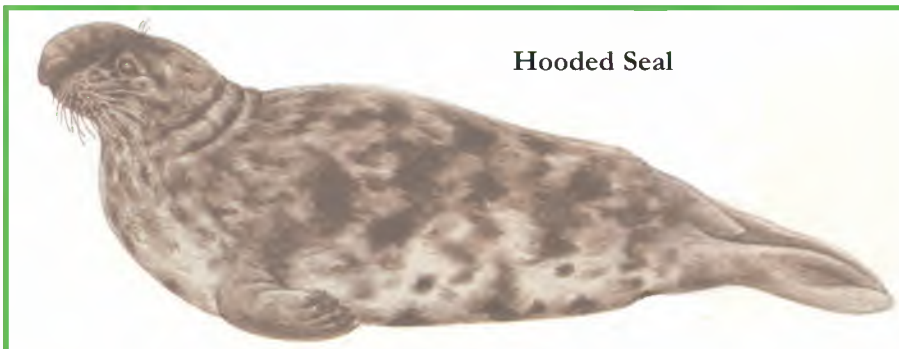
Grey Seal



Harp Seal



Common Seal



Hooded Seal

BEACH COMBING

IN 1560, QUEEN ELIZABETH I appointed an official 'Uncorker of Bottles' following the discovery of a vital political secret washed ashore in a bottle. Any unauthorised person caught opening message bottles found on the shoreline was liable to be hanged. Such harsh treatment lapsed in the reign of George III- luckily, since combing the beaches for anything of interest is both a pastime and 'a profession for some. The coastline is a battleground where two great: opposing forces of land and sea meet, with ~ frequent violent exchanges, and like all battle grounds it ,becomes strewn with debris. Not only, do bottles with messages get washed up, but also a whole assortment of articles from money to fishing .floats to crates of whisky.

Known to the professional or dedicated amateur beachcomber as 'wreck', this debris can be valuable, useful or just interesting. Beachcombing has provided some with a livelihood for centuries. In its darker moments, 'wreckers' would deliberately set up false lights to lure passing ships onto the rocks in order to pillage their cargoes. Fortunately this practice has faded into history, but if a ship does founder and its cargo is washed ashore, the local population may still rush to the shore in the hope of beating the customs

officers. The famous story, 'Whisky Galore', by Compton Mackenzie was based on a real-life incident in which some Scottish villagers went to great lengths to conceal a wrecked consignment of whisky from the excisemen who were trying to find it. If you are law-abiding it is no less possible to make a living from beachcombing, but most people do it simply for fun. The attraction lies in the unexpected -the hope that something valuable might be lying just behind the next rock. To know where to look does require a sound knowledge of weather and tidal rhythms and times. It is no good scouring one beach if the prevailing wind conditions mean that any possible 'wreck' will have been washed ashore miles further along the coast. A keen eye is also essential, not only to spot concealed treasures but also to watch out for other beach-combers. Among professionals the rules of territory are rigidly enforced, and fights have been known to occur when one beach comber 'trespasses' onto another's 'patch'.

Visions of finding lost treasure or precious stones are the obvious attraction for the novice. Very few are so lucky. It is true that some of the world's richest diamond mines lie on the beaches of South West Africa, but, alas, no beach comber is welcome there. However, just raking through the mud at low tide underneath piers and jetties can produce a modest find of lost coinage or the occasional ring inadvertently dropped. One beachcomber in Dorset once calculated that he made £40 in three months by this simple method. Even old coins are sometimes washed ashore from a sunken wreck. For the enthusiast these are best located with a metal detector, but it is worth remembering that a metal detector does not discriminate between a gold coin and an old bottle top.

If diamonds and doubloons are few and far between, the shore can still yield other materials of value. Coal, for example, will at least keep you warm, and in the north-east of England beach combers eke out a living by collecting coal that has been washed up from tips or the docks. Jet, a form of pure coal, is a semi-precious stone that can also be found, mainly along the Yorkshire coast. In the nineteenth century it was highly prized in the jewellery trade and the men of Whitby searched the beaches after every tide to keep the craftsmen busy. Amber, usually found tangled up among sea weed, is another semi-precious stone which makes an interesting find for the beachcomber. The main deposits of amber are in East Prussia, but some is borne by currents from the lignite beds of the Baltic and it is not uncommon along the shores of south-east England. Although valuable finds are the exception for the beachcomber, the coastline is still littered with objects of both interest and utility. Old stone bottles, for example, are to be found in numbers. Glass fishing floats, pieces of cork, shells of fantastic shape and colour are all intriguing finds, and to the inventive can make attractive souvenirs.

For the practical-minded, driftwood from packing cases to pit props can come in handy. In the Scilly Isles, no self-respecting fisherman/farmer is without his small mountain of wreck outside his cottage; with this stockpile, many a repair job can be carried out. The shoreline can even provide a source of food. If you relied on washed up cans of corned beef you might not survive for long, but cockles, mussels, sea snails and even seaweed can be gathered in quantity and provide nourishment, rich in vitamins. Lastly, it should be pointed out that all wreck legally belongs to the official Receiver of Wreck. 'The King shall have wreck of the sea throughout the realm', decreed Edward II. Today only objects of value need be reported and even then, if unclaimed, the salvor usually receives some reward for his trouble. So a fortune may lie just behind the next rock.

GEOMORPHOLOGY

Geology is the study of the Earth, its composition, structure, processes, and history. As such it deals with the rocks and minerals of the Earth's crust, the fossilised remains of plants and animals, and the history of the Earth since its formation some 4,600 million years ago.

This definition is based on the work of Charles Lyell in 1830 and has changed little except that we now include the study of other planets in geology. Like the other major sciences, geology has a number of branches. The chief of these are: mineralogy (the study of minerals), petrology (the study of rocks), geochemistry (the chemistry of the Earth), geophysics (the physics of the Earth), stratigraphy (the study of the

sequences and ages of sedimentary rocks), palaeontology (the study of fossils), structural geology (the study of the deformation and configuration of rocks), and **GEOMORPHOLOGY** (the study of landforms). The practical applications of geology draw upon all these branches of the subject.

Sea kayaking plus geomorphology equals bliss!

Sea kayaking is sometimes about prolonged journeys on blue water, but for many, sea kayaking is inexorably linked to the shoreline. For me the epitome of "good paddling" is a journey along a rocky coastline with a succession of daunting cliffs and an accompaniment of interesting coves and bays with their attendant beaches. Here the kayak comes into its own... it can venture close inshore where no other type of craft could travel in safety and take skerries, boomers, surf, tide races and most other things in its stride.

Of course the experienced kayaker must learn about these potential hazards if he is to remain safe, but a coastline can offer a fascinating array of experiences beyond that of sea kayaking for paddlers willing to extend their horizons. The paddler is in a unique position. With just a few paddle-strokes he can leave behind the buckets and spades of the popular holiday beach... as he rounds the headland, he is in wilderness; surrounded by rock and lonely water, while above, struggling vegetation is combed to the cliff by the prevailing wind. Before him, a ribbon of desert inviting exploration. The geology of a coastline can have a profound effect on the type of paddling you will encounter, and I've made it a habit to always check out the type of rock I'm paddling past. There are any number of books on elementary geology and the Ordnance Survey produce geological maps at many different scales. Of course geology is a complete study in itself, and one that sea-paddlers can only dip into, but far more accessible - in fact, 'staring him in the face' is geomorphology - literally the study of the shaping of the land surface - and on the coast the vegetation has been striped away exposing the basic land form for the paddlers' delight!

Wind, water and sun are powerful forces that attack the land, but in fact the elements don't have it all their own way. The land fights back. Waves generate huge forces - water is heavy stuff. A three metre high wave can exert a pressure of about thirty metric tons per square metre. This is not just the weight of the water, but is a combination of weight, velocity, and very importantly, trapped air - breaking waves are more powerful than green water. This is a massive pressure for solid rock to withstand, but the base of a cliff is seldom solid, it is riddled with fissures and planes of weakness, a legacy of the process of its formation. It is only a question of time before the base of the cliff gives way to the waves' onslaught, and the blocks above crash down after being loosened by wind, rain and frost. Gradually the blocks are ground down by the waves until they are small enough to be transported. Large pieces will stay close to their original position, but smaller particles will be moved by wave and current - often for many miles. Sand usually ends up in areas of low wave energy - in nearby bays and coves.

Thus the products of erosion eventually help to protect the coast from further attack, they form barriers and sand spits that can slowly reclaim land from the sea, a prevailing long-shore drift may build up huge deposits of material, each with its own special topography. Rivers too are bringing material to the coast, and as the battle ebbs and flows so the coastline is slowly modified. The headlands generally are cut back and the bays filled in. Even the coast of Norway will eventually be reduced to a smooth featureless coastline... in just a few million years or so! And of course with the proviso that there is no tectonic activity during that time to rejuvenate the coastline. So that's the cycle... Erosion, transportation and deposition. But within that simple pattern the minor themes are infinitely varied. Is the beach flat or steep? Why is it? Are the waves dumping or spilling? Is the tide scouring away deposits or building them up? The variations are infinite, and provide the passing kayaker with a fascinating study, right there at his paddle's end. Sea-paddling and geomorphology together can open up new insights, understanding and interests. It's a powerful combination. Try it and enjoy.

The relentless pounding of Bass Strait waves. Australia, over centuries has worn the coastline into these spectacular stacks, known locally as 'The Apostles'. I paddled around these some years ago with Earl Blomfield.



LEADERSHIP

*A LEADER IS BEST,
WHEN PEOPLE BARELY KNOW THAT HE EXISTS,
NOT SO GOOD WHEN PEOPLE OBEY AND PROCLAIM HIM,
WORST WHEN THE DESPISE HIM.
FAIL TO HONOUR PEOPLE,
THEY FAIL TO HONOUR YOU.
BUT OF A GOOD LEADER WHO TALKS LITTLE,
WHEN HIS WORK IS DONE, HIS AIM FULFILED,
THEY WILL ALL SAY, "WE DID THIS OURSELVES".*

LAO TZU

.... LEADERS ARE NEITHER BORN NOR MADE - THEY GROW

MARY COX

Much has been written about the art, the knack, even the science of leadership. I believe it is worth a little consideration within the context of any book on sea kayaking. The responsibility we naturally have for each other is emphasised when we are out as a group on the water. It is emphasised a hundred fold when the conditions deteriorate and the mucky stuff starts heading towards the fan. The word 'responsibility' is linked, in my view, with the whole issue of leadership. Often this responsibility is clearly defined as on the occasions when an individual puts an expedition together and invites others who agree to join on the basis that he or she, the organiser, is the responsible person and as a consequence, the leader. From the onset the leader will have a style of leadership that, all being well, will get things done. Not only done, but done effectively and on. schedule. The art of delegation, the art of asking, correcting, influencing is down to basic skills in communicating and relating.

So let us imagine that our leader has by dint of hard work, encouragement and even by 'threatening' has got his/her group under way at last. The route is agreed, safety strategy agreed upon and the sun is shining. Several days into the expedition and the group is experiencing real wilderness. The weather is bad, morale is down and muscles are weary. Does our leader remain the leader? We shall see.

A crisis out on the water. A sudden squall has capsized several less experienced, paddlers who are now clearly anxious. The group is being blown towards the cliffs. Does our leader remain the leader? Clearly there is a huge difference between leading when all is well and taking charge when all is not well. The knack of retaining leadership when all is not well is to remain in control, or at least to act as though you are in control. You do not have to be the strongest or the most skillful. You should recognise the strengths of those in your group and be ready to exploit them. If someone is better than you at rescuing capsized paddlers, at swimming, at giving E.A.R. then be sure to have a mental note as who does what if the need arises.

A leader's role is both a legal and moral one.

Legally the leader is responsible for the learning, the safety and the positive well being of the group members. Morally the leader helps the group members to create, identify, work towards, achieve and share in common goals.

To influence effectively the leader must have a competence and experience in a wide range of components for technical activity skills to sound judgement.

Three leadership styles have been identified:-

- (i) The autocratic
- (ii) Democratic and
- (iii) Abdicratic

These are self-explanatory and I do not intend to describe them in any detail here. Suffice to say that often a measure of all three are appropriately employed at different times by the effective leader.

In addition to a style, leaders also have an orientation or loyalty preference. This preference may be for one of several orientations: -

- (i) maintaining themselves
- (ii) building the group relations
- (iii) achieving the task at hand
- (iv) supporting the sponsoring organisation
- (v) protecting the natural environment
- (vi) caring for individual group members

Each leader holds a unique combination of these orientations. Some are totally concerned with achieving goals and press on no matter what the cost, while others are totally interested in teamwork, sometimes at the loss of an objective. Many may worry about looking after individual participants, a few may care only for their own skins and some may be dedicated to the agencies for which they work or toward looking after the wildness.

The key point here is that orientations are often fixed while styles are fairly flexible. It is said that at any given moment in time, styles may be an expression of leaders' orientations but the expression is flexible only under conditions of little or no pressure and stress. Under extreme pressure and stress, leaders will revert to the fixed orientation they personally favour.

Does our leader remain the leader at all times?

I have elaborated somewhat on this issue of leadership, for which I make no apology. It is important for a number of reasons, many of which are obvious, some of which I have alluded to.

In summary here are a few pointers.

- (a) Be confident in your own ability. Ask the B.C.U. to test it for you. Having those pieces of paper does not make you invincible but it does ensure you have competently gone through the fairly wide ranging syllabus.
- (b) Keep your gear in good order and ensure you carry it. You can be sure that if you set out on a calm day without a flare there comes a good chance you will need it.
- (c) Plan your expeditions well. Have contingency plans to include alternatives and escape routes.
- (d) Be satisfied the conditions are and will remain within safe limits for the group you are leading.
- (e) Brief your group thoroughly. Tell them of the routes timing, hazards, signals, emergency drills.
- (f) Check equipment belonging to individual members that has a direct bearing on safety such as well constructed kayaks and paddles, adequate clothing, buoyancy, spray deck etc.
- (g) Is your group strong enough for the trip you have planned? They usually say yes, when asked, as I did on my first extended paddle. 'Have you paddled so far before?', I was asked. 'Of course' I replied which was untrue.
- (h) Maintain good group control on the water. Easy in fair weather; not so when the conditions deteriorate.
- (i) Operate within a reasonable safety margin.
- (j) Amidst all the formalities of leading groups at sea, do remember to make your trips fun. After all, enjoyment and interest are the reasons why we do anything - including sea kayaking.

“For those letting off more private steam, diaries were waste bins for hurt feelings, minor dislikes and petty jealousies. On all expeditions diaries have traditionally targeted for criticism the person responsible, the leader. On the *Discovery* expedition every action Scott took, every mood he exhibited, every meaningful comment he made was recorded in one or a dozen diaries. All that went wrong or was thought to be wrong was his fault. Any item missing or faulty was due to his inefficiency. Discomfort, bad weather, poor morale all, in the diaries could be blamed on Scott. Some writers tempered and balanced their criticisms. Others just let off steam.”

From Captain Scott by Ranulph Fiennes

THE SEA KAYAKER AND THE ENVIRONMENT

I have been pondering on this title for a while as I could write reams on how we, as sea kayakers, interact with our natural environment. Most kayakers, indeed most 'outdoor people', are well aware of their natural world and are consequently well placed to both enjoy it and protect it. It is this awareness that I wanted to write about. Marine life, coastal features, bird life, flora and fauna, the beauty of landscapes, of idealic camp sites on remote islands, of distant mountains and peaceful bays and inlets, of wind torn waves and swooping terns and sea gulls. A little experience of sea kayaking will give you a wealth of appreciation for your world; a world of sea meeting land, of skies, of nothing but open seas all around. So you can see that to start writing in any detail will lead me on forever. Suffice to say that there is already a wealth of information available on our natural world and some knowledge does provide a much deeper appreciation. You may find a few books from my bibliography particularly useful. There is now a lot more written about the need to protect the natural world and a few sea kayakers will need encouragement to 'take their litter home' and

'to take nothing but photographs and leave nothing but foot-prints'.

The great thing about sea kayaking, indeed about any form of canoeing, is that it is totally non-polluting. We leave no trace of our passing as the splashes and ripples fade away. We make no noise, no fumes, and no impact. Because of this we can view wildlife as no other group of people can. Seal, whales, sea otters close enough to fill the lens of a 35mm camera. Those of us who have kayaked for a while will soon build up a library of special experiences.

I can recall standing quietly by a smouldering camp fire with a couple of friends on a remote beach in Alaska. The light was just starting to fade. Suddenly one of us spots a couple of sea otters playing in the small surf waves. They were rolling and tumbling in the waves, totally oblivious of us who just watched in wonder. They came to within a few yards and the sense of joy, of freedom and of pure naturalness came across in a wonderful way as they mated among the waves. We were very privileged by this sighting, considering how the sea otter remains a threatened species, particularly so since the oil spill from the EXON VALDEZ.



It is a truly wonderful world and despite all the gloom about ozone layers, acid rain. North Sea - Dead Sea, deforestation etc., I remain hopeful that we all, world citizens, learn to live in proper harmony within our natural environment.

UTILISING A SWIMMING POOL FOR SEA CANOEING TRAINING

A swimming pool is a tremendous asset when it comes to training. The obvious forms of training take the form of capsizing drill, rescue drills, rolling Practice and the like. The purpose of this chapter is to demonstrate the uses of a pool for sea canoeing technique training; I will make a list of techniques with explanations where necessary.

1. CAPSIZE DRILL - without and then with spray deck. Concentrate on achieving a clean exit from the canoe in order to prevent water entering it, and always retain a grip of your paddles. Wear a life jacket when practising this technique because, first you should be wearing one when you capsize on a sea trip, and second, it becomes a little more difficult to make a clean exit from the cockpit after a capsize. Your body is quickly brought to the surface after a capsize and you, therefore, tend to escape from the boat along the surface of the water. As the cockpit is turned sideways it fills full of water. Concentrate on getting out of the canoe whilst keeping it continually upside down. On surfacing remember to hold on to your paddles and the canoe - move to one end of the canoe and now you can decide on your next move.

Here are the alternatives:

- (a) Swim to the shore with your canoe
- (b) Wait to be rescued by other canoeists
- (c) Climb back into your canoe and roll upright
- (d) Right the canoe and clamber over the stern into the cockpit

(a) and (b) are realistic alternatives. (c) is okay if you really know what you're about and (d) is impractical in conditions found at sea.

2. RESCUE DRILLS

The best rescue technique is the roll. It is quick, efficient and should always work. Practice will ensure that it will work even in rough conditions. Full explanations of the various rolls can be found in the B.C.U. handbook on the subject. As I have already mentioned, a useful technique worth practising is to lose your paddle as you capsize, reach for one of your 'split' blades from the stern deck and use it to roll back upright.

The Eskimo rescue is a good one. There are two ways of accomplishing this; bow presentation or paddle presentation. In both cases the capsized canoeist remains in his boat and slowly moves his arms from side to side above the surface of the water, he may need to bang with his hands on the hull of his canoe to attract attention. The rescuer can approach the upturned canoe presenting his bows for the capsized, canoeist to take hold of to right himself. It is best to approach at an angle of 45 degrees - less chance of ramming an upturned hull and maybe even badly bruising an arm or hand.

The rescue I prefer is the one where the paddle loom is presented to the capsized canoeist. Here the rescuer comes alongside parallel to the upturned canoe, places his paddle across his and the upturned canoe and then reaches for the moving hand of the capsized canoeist placing it on the paddle shaft. The 'upside down' canoeist should now pull himself into the upright position. The advantages of this particular rescue are three fold. First you have a fairly stable platform, second you are in a position immediately to assist the righted canoeist and third, should the capsized paddler fall unconscious you are in a position to reach right over the upturned hull and grab life jack collar or arm and pull him upright.

3. OTHER RESCUE DRILLS

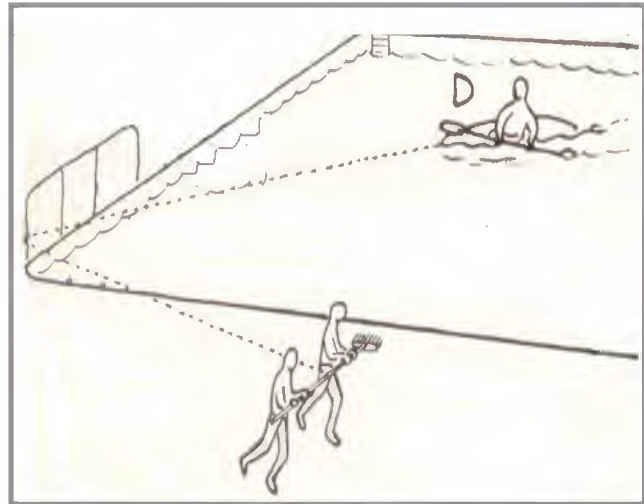
I have explained these in Chapter 3, page 53. In a pool try rescuing a completely waterlogged canoe but beware of damaging boats and equipment when trying this one out. The rescue of choice when dealing with a waterlogged canoe would be the H.I. method - see page 53. First turn the boat on its side, cockpit towards you, and gently lift by the cockpit combing, keeping the canoe level, and allow the water to spill out. When as much water as possible has left the canoe by this method continue as the H.I. rescue.

Another technique worth practising in a pool is 'All-in' rescues. Here, everyone capsizes (and keep your feet off the pool bottom), work in pairs, keep one canoe upside down and use it as a platform to rock the other canoe to and fro on, thereby emptying the water out. Right the 'dry' boat and I will let the following picture show how entry is made into this canoe.

3. SKILLS -

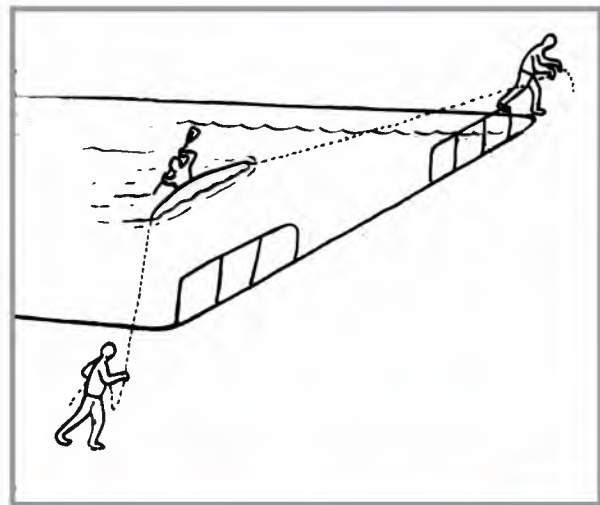
Stern Rudder

A pool is a useful aid in practising certain skills. Here's how we can Practice stern rudder - the technique of placing a blade in the water at the rear side of the canoe to use it as a rudder and keep the canoe straight. We use this technique when running down a surf wave. First, clear the pool. Place a canoe with canoeist at one corner facing diagonally across the empty pool, lead a line from his bows diagonally across the pool through the steps railing and attach to paddle shaft. Two people take either end of the paddles and run down the pool side, this 'drags' the canoe across the pool giving the canoeist the chance to try out his stern rudders and emergency stop!!



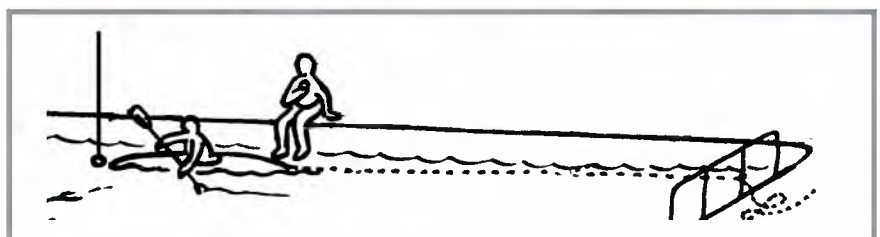
Rolling into a wave surf

Clear the pool. Have canoe with canoeist at one end of pool facing one side i.e. boat is across the pool. Now attach a line to bow and one to stern. Give the end of one line to a man on the side of the pool and the other line to a second man on the other side of the pool, both men now run keeping opposite each other down the pool sides drawing the canoe across the pool. The canoeist should roll into the direction of movement. He should need to do no more than wind up into screw roll position before the men on the side start moving, because once under way he will automatically capsize, and be caused to roll upright by the momentum. This simulates rolling into surf waves. By the time the canoeist reaches the other end of the pool he should be quite dizzy!!



Rescues off Cape Horn in Force 8

I have already mentioned rescues, try doing them this way. Clear the pool. Place an empty canoe across the shallow end of the pool with someone at the bow and one at the stern. Have them move the canoe up and down to create a wave formation, it is really effective. (See my picture). Now come to the deep end of the pool and assemble the canoes and canoeists who are to Practice their rescue technique on the water. Round the pool side have volunteers with buckets, bailers and paddles, it is their job to throw and splash water over those practising the rescue. Keep everyone quite and use the stop watch to see how efficiently a deep water rescue is performed under these circumstances!!



Strength Training

Simply attach a strong elastic shot-cord to the stern of a canoe and to the pool side and have the canoeist paddle hard in an attempt to reach a fixed point. Using a stop watch see how long he/she can hold the bows on the fixed point. Mind the shot-cord doesn't snap - we could have the first canoe and canoeist in orbit!!



A GRADING SYSTEM FOR CANOEING AT SEA

By using the tables below, one may discuss whether a sea trip is suitable to a particular group of canoeists. Three factors requires analysing before a proposed expedition is graded. These are: -

- (a) Effect of wind on the sea
- (b) Tidal influence
- (c) The relative commitment entailed
- (d) Grading

In the three tables, (a), (b) and (c) points I to 6 are given to various potential conditions which are likely to exist. These conditions must be evaluated by careful planning and preparation by reference to charts, tidal atlas's, tide tables. Reeds Nautical Almanac, Coastal Pilots, weather reports and local information.

Points from each table are totalled then, by reference to table (d), an overall grade for the proposed trip may be determined. I to VI. Besides each grade listed, the sort. of experience a.nd technical proficiency required of a group and its leader, related to B.C.U. elementary, proficiency and advanced proficiency certificates.

(a) Wind affect on Sea

- 1. Calm easy water
- 2. Mild chop or swell under 1 foot high
- 3. Rough choppy waves up to 2 feet high
- 4. 3 foot waves where canoeists disappear in troughs
- 5. 4 foot waves
- 6. 5 foot waves - difficult to keep together

(b) Tidal influence

- 1. Little or no tidal effect
- 2. Some tidal effect up to 1 knot
- 3. 1 to 2 knots - progress difficult against current
- 4. Tide races and overfalls 2 to 4 knots
- 5. Tide races and overfalls 4 to 6 knots
- 6. Tide races, overfalls and whirlpools 6 to 8 knots.

(c) Relative commitment entailed

1. Landing easy at all times
2. Landing occasionally more difficult more than 200 yards away.
3. Landing only effective every 400 yards
4. Landing over I miles away
5. Landing over 2 miles away or landing impossible due to cliff
6. More than 5 miles from shore or safe landing.

(d) Grading

Grade	Points	Group	Leader
I	1-3	Level 2	Level 4
II	4-6	Level 4	Level 4 +
III	7-9	Level 4	Level 5
IV	10-12	Level 4 +	Level 5
V	3-15	Level 5	Level 5
VI	16-18	Level 5 +	Level 5 +

The following examples show how the grades may be worked out and how conditions do affect the final result.

River Conway	(a) Calm	1	
	(b) 2-4 knots	4	
	(c) easy landing	1	
			6 Grade II
Bardsea Island	(a) Waves choppy 2 ft. high	2	
	(b) Tide 6-8 knots	6	
	(c) Landing over I mile	4	
			12 Grade IV
Irish Sea	(a) Waves 2 ft.	3	
	(b) Tide 4-6 knots	5	
	(c) More than 5 miles from land	6	
			14 Grade V

The final decision on whether one should attempt a given sea trip with a certain group lies somewhere between the leaders strength, endurance, judgement, compatibility, technical ability, and experience and the weakest member of the group. Remember that a technically able group is no substitute for the leader's experience. The final decision therefore depends on:-

1. The Target

- (a) Easy coastal trip
- (b) Estuary canoeing
- (c) Surfing
- (d) Round headlands and reasonable cliffs
- (e) 5 miles off shore or along inhospitable cliff lines.

2. Ability of the group as shown above (Leader and weakest member).

3. Equipment

This must be checked under the following headings:-

- (a) Personal canoeing equipment
- (b) Personal clothing
- (c) Navigation
- (d) Sustenance
- (e) First Aid and emergency equipment
- (f) Rescue aids

4. Strength

The potential strength of a party depends on an assessment of:-

- (a) Strength of leader
- (b) Strength of average member of group

- (c) Strength of weakest member
- (d) Age of group
- (e) Pre-training amount, depth, quality and grading
- (f) Medical allowances
- (g) Sleep
- (h) Food
- (i) Size of party

5. Prevailing Conditions

This depends on an evaluation of weather conditions, state of the sea, effect of tidal influences, time of year and time of day.

FULL EQUIPMENT LIST FOR REFERENCE PURPOSES

What follows is a straight forward list under separate headings, included as check list or base line when compiling your own list. As I have tried to make this a fairly exhaustive list you are obviously going to be discriminating when you come to put your own together. Clearly much depends on what you have in mind -short day trip or an extended expedition. As a tip - I have always maintained a full list of all my gear. As I add to it, lose or discards items, or up grade gear I always keep the 'master list' up to date. This is kept on a clip-board behind perspex and I use a wax crayon to tick items off as I assemble them.It can be a good idea to consult this master check list on your return from an expedition to ensure you return with everything, that broken items are replaced and that you did indeed really require everything you actually took out with you. You might be surprised at the superfluous gear we take yet never use - safety equipment aside, that is.

KAYAKING GEAR

- Kayak - checked over and in sound condition
- Paddles
- Split Paddles
- Spray Deck
- Cagoule
- Hat - waterproof
- Hat - with peak or visor
- Over trousers - waterproof
- Boots - mini Wellington
- Socks - warm wool ones
- Trousers - Helly Henson fleecy one piece and braces
- Vests - polypropylene
- Pullovers - woollen
- Trunks (swim)
- Neckerchief or towelling
- Sun glasses
- Sun cream
- Paddling mits
- Sponge
- Spare clothing in form of:~
 - Warm tracksuit
 - Socks
 - Sweat shirt
 - Trainers
 - Towel
- Flares
- VHF Hand Held
- Navigational Equipment: :-

Compass ~ deck mounted/hand held

Charts

Douglas Protractor

Tide Tables

Waterproof stowage bags

Buoyancy Jacket

Kayak Repair Kit

CAMPING GEAR

Tent - checked over and in sound condition

Ground sheet - even if tent has a built in ground sheet, an extra one in form of. light weight space blanket, or a polythene survival bag can make a difference on a really cold night or in very wet circumstances

Camping mattress

Sleeping bag with Inner sheet

Torch - batteries

Candles

Matches

Clothes - here you can make use of the spare clothing. I prefer to keep spare clothing tightly wrapped and proofed against damp for emergency use only. Anyway - see the items under this heading and add a cagoule

Washing kit - soap, shaver, toothbrush, mirror etc.

Water carrier - e.g. collapsible bucket

Tarpaulin light weight plastic tarps with metal rimmed (Tarp) corners and along the edge makes an ideal cover for camp kitchen in wet weather. Even good to bivvy' under

Bivvy Bag - from cheap polythene bag used for emergency protection to the expensive and roomy gortex bags used instead, of a tent. I never go anywhere without one.

COOKING EQUIPMENT

Cooker (I've covered these elsewhere)

Pots

Frying pan

Grill for over fire

Kettle/tea pot

Plates, Mug (insulated - not metal)

Cutlery

Good camp knife in sheaf

Spatula

Egg Carrier

Plastic food boxes

Fuel for cookers

Wind shield for cooker

Matches

Potato peeler

Tin opener

Washing up liquid

Pan scourers

Tea towel

Toilet paper

Thermos - for midday drinks and for saving hot water at camp site

FIRST AID KIT

RECOMMENDED CONTENTS FOR FIRST AID BOXES AND KITS (SEE PAGE 152)

Travel kit 1 person	1 to 10 persons	11 to 50 persons	
Guidance Card	1	2.	1
Adhesive Plasters	6	20	40
Eye Pads	-	2	4
Triangular Bandages	2	6	6
Safety Pins	2	6	12
Medium Dressings	-	6	8
Large Dressings	1	2	4
Extra Large Dressings	-	3	4
Individually Wrapped Wipes	2	6	10

ADDITIONAL ITEMS

Sterile Eye Wash (500ml)	-	2	2
Blunt Ended Scissors	-	1	1
Plastic Gloves			
Disposable Aprons	sufficient quantity to provide protection for first-aiders		
Disposable Bags	-ditto-		
Stretcher	When it. may be necessary to transport casualties		

MISCELLANEOUS

- Cash - change for telephone
- Credit Cards/cheque book
- Camera - accessories
- Film
- Collapsible ruc-sac
- Pen
- Notebook
- Binoculars
- A good book for when 'weathered in'
- Waterproof watch
- Small transistor radio (for weather forecasts and general entertainment)

FOOD

I make up two lists. One of the general items you are going to need then a list of daily menus. Food can be made up ready for taking along on your expedition either by commodity or by daily rations. A combination of both is usually the case though I normally pack by commodity. This way it seems that better use is made of the food as often you supplement with fresh fish or fresh food bought (or scrounged) en route. Over lengthy expeditions you will need a carefully kept record of food used/food remaining to ensure adequate rationing. How lengthy can a kayak expedition be when you rely on only the food you take with you.. We put this to the test some years ago when we circumnavigated NUNIVAK ISLAND in the Bering Sea off the Alaskan coast which, with the exception of one small village, was uninhabited.. We anticipated a months trip and took sufficient food between us to keep us well fed for the month. The only items we had to rely on were water and firewood. Anyway - here is a check list of general items:-

- Powdered milk
- Sugar
- Tea (lots of tea!)
- Coffee
- GORP (stands for Good Old Raisens and Peanuts) on the water sustenance
- Butter/Margarine
- Salt, pepper
- Spices

- Herbs
- Lemon or two
- Oxo cubes
- Cheese
- Biscuits - savoury- sweet
- Breakfast cereals
- Cooking oil
- Preserves (Jams, marmalade)
- Spirits of your choice (for medicinal purposes, you understand!)
- Flour (if you intend baking)
- Dried Fruit

List number two is made up by considering the meals you want day by day. I usually like a substantial breakfast, a light lunch and a reasonable meal in the evening.

One of the problems you are going to face is that of keeping perishable food fresh. I will start an expedition relying on some fresh food but then quickly fall back to preserved food. Of course there is no problem with any of this if you are able to re-provision en route. When you have acquired all your provisions it will appear quite bulky. Once you have got rid of the packing and rationed the food out into clearly labelled polybags (and do not forget the cooking instructions), most of the bulk will have been discarded. This packed food needs to be waterproofed and then packed so that food for the final leg of the expedition is out of the way at both ends of the kayak so that you are not forever packing and unpacking it in your search for stuff as you unpack every evening at your camp site.

As a guide I now provide you with:-

A DAILY RATION FOR TWO

Item	Weight of Food per 2 persons (ozs)	Approximate Food Value		
		Protein (grammes)	Fat (grammes)	Calories
<u>Breakfast</u>				
1. Tea or	1/2	trace	---	Trace
2. Coffee, both with	1/2	---	---	
3. Sugar, and	10	---	---	1,080
4. Milk, dried full cream powder (equivalent to 4 pints)	4	30	30	540
5. Porridge or similar wheat cereal or oats. This dish can be cooked itself or simply use hot milk poured over raw oats with sugar	3	12	8	280
6. Dried egg, scrambled and/or baked beans	2	16	6	160
7. Expedition biscuits (Ryvita, Healthy Life, Pilot)	4	12	---	200
8. Butter	8	16	24	1,000
9. Jam or Marmalade	2	---	50	420
	2	trace	---	180

Lunch This meal is usually eaten 'on the hoof' and should require no preparation. A drink should be made, hot or cold depending on the prevailing weather

10. Mild cheese, Dutch of Cheshire	6	60	60	760
11. Wholemeal, chocolate digestive or expedition biscuits	8	16	42	1,060
12. Chocolate	4	6	24	600
13. Nuts, raisins, fruit bars	6	12	10	460
14. Glucose sweets or mint cake	2	---	---	220

Evening Meal Type 'A'

15. Soup, packet (either cooked separately or put in the stew)	2	4	4	100
16. Meat - dehydrated bar, corned beef, etc	8	56	28	560
17. Dried vegetables, eg. peas, onions	2	14	---	120
18. Dried pre-cooked potato	2	4	---	120
19. Salt & Pepper	1/4	---	---	---

(The above 3 or 4 items cooked as a stew. Cook the vegetables for 15-20 minutes then add meat and finally potato for a few minutes

20. Dried fruit, stewed if required eg. apricots, prunes, apples	2	4	---	100
21. Instant Milk pudding mix (made with milk)	2	4	---	300

Item	Weight of Food per 2 persons (ozs)	Approximate Food Value		
		Protein (grammes)	Fat (grammes)	Calories

Evening Meal Type 'B'

Ingredients as above plus raisins saved from lunch

22. Curry Powder	---	---	---	---
23. Rice (instead of potato)	3	4	---	120

In this meal the soup is cooked separately. The vegetables and rice are cooked apart from the meat to which the curry and raisins are added

Totals (including evening meal only)	15 lbs	266	286	8,260
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My favourite way of carrying food is as 'boil in the bag' meals. They come in foil and vacuum sealed bags and are really handy in that they are simply placed in boiling water for eight minutes. Though a little bulky and heavy in contrast to freeze dried food it is quick, requiring no rehydration. Can be a little expensive but you will not regret the money spent when you land, cold and wet and hungry, on a wind swept beach after a days' hard paddling. Not that there is anything wrong with dried food. We use a lot of this when paddling with Raleigh International and it suffices well. More skill and care is required in the cooking and one idea is to re-hydrate food for the evening meal in a container before setting off in the morning so that it is ready for plonking on the camp fire as soon as it is lit.



FISHING

Practically all freshly caught sea fish are palatable and wholesome, cooked or raw. In warm regions, gut and bleed fish immediately after catching them. Cut fish that are not eaten immediately into thin narrow strips, and hang them to dry. A well-dried fish stays edible for several days. Fish not cleaned and dried may spoil in half a day. Never eat fish that have pale, shiny gills, sunken eyes, flabby skin and flesh, or an unpleasant odour. Good fish should show the opposite characteristics. Sea fish should have a salt water or clean fishy odour. Eels are edible, but may be mistaken for sea snakes. The heart, blood, intestinal wall, and liver of fish are edible. The intestines should be cooked. Also edible are the partly digested smaller fish which might be found in the stomachs of large fish. In



addition, sea turtles are good food. Whenever you are away on a sea kayaking expedition you should not be without fishing equipment, but even without fishing tackle, you can always improvise. Hooks may be made from items with points or pins, such as nail files, or, from bird bones, fish spines, and pieces of



wood. To make a wood hook, shape the shaft and cut a notch near the end to hold the point. Sharpen the point so that the hardest part of the grain forms the tip of the hook. Improvise fish lures by using a coin or snap hook, or a coin fastened to a double hook. Gather seaweed by using an improvised grapple made of wood. Use the heaviest piece of wood as the shaft, and cut three notches in which to fit three grapples. Lash them in place at a 450 angle. Tie a line to the shaft and drag the grapple behind the kayak.

For bait use small fish for catching larger fish. Use a dip net to scoop up these small fish. If no dip net

is available make a net from a mosquito headnet. Hold the net under water and scoop upward. Save guts of birds and fish for bait. Use a piece of coloured cloth, bright tin, or even a button from your shirt. Keep the bait moving in the water to make it appear alive. Try it at different depths. When fishing from your kayak use the following hints:

- (a) Do not handle spiny fish and those with teeth.
- (b) Do not attach the line to anything solid; a big fish might break it. Do not wind the line around any part of your body. You may go into an involuntary capsizel!
- (c) Fish for small fish. Avoid fishing when near sharks - just in case you need reminding of this!!.
- (d) Watch for schools of fish which can be seen breaking water. Move closely to a school if possible.
- (e) Shine a flashlight on the water at night, or use a piece of canvas or cloth to reflect moonlight. The light will attract fish which may even leap into you kayak
- (f) Shade attracts many varieties of small fish. Look for a bay with areas shaded from the sun.
- (g) The flesh of all fish caught in the open sea (except jelly fish and the liver of some fish) is edible, cooked or raw. Raw fish are neither salty nor unpleasant.
- (h) If the fishing equipment is lost, try dangling a piece of fish or bird gut in the water. One guy I know reported that he caught 80 fish in one day by allowing them to swallow a piece of gut and snatching them into his kayak. Just could be a 'fisherman's' tale' of course!
- (i) Care for the equipment. Allow the lines to dry, and make certain that the hooks are not sticking into the line when you stow the hook. Clean the hooks, they soon get rusty.

GLOSSARY

A little port left in the bottle	This is a useful aide memoir to remind us of the colour of lateral buoys on entering an estuary from the sea Port (the drink) is red, is on the left and drink comes in cans and port buoys are can shaped - therefore green buoys are on the right and are cone shaped. - easy!!.
Abeam	On the beam; i.e. - at right angles to the fore and aft line of the vessel
Aft	Towards the stern
AIR MASS	A large mass of air covering an extensive area, and having very little horizontal variation in any of its characteristics, particularly temperature
Amplitude	Sun's bearing at the moment of rising or setting
Anemometer	Instrument for measuring wind speed.
Angle of In-draft	Is the angle which the wind makes with the isobars
Anticyclone	An area of high barometric pressure, with isobars encircling the centre of the 'high'
Astern	Behind; the direction of the stern
Atmospheric	Is the force exerted by the atmosphere at the Earth's surface. Normal = 760 m.m. Hg (millimetres mercury)
Aurora Borealis	The 'northern lights' - bright streaks of light in the northern sky, caused by electrical discharges in the atmosphere
Azimuth	Sun's bearing
Backing (of wind)	When it changes direction to go anticlockwise. Summary of useful situations - the wind strengthens and veers by day, back and lull by night
Ballast	Weight placed low down in a kayak to improve stability
Bar	A shallow area or shoal across the mouth of an estuary or harbour
Barometer	Mercurial or Aneroid. See text
Beacon	A mark to assist navigation
Beam	The width of a kayak
Bearing	The direction of one object from another, usually referring to a compass
Beaufort Scale	A numerical measure of wind strength
Bight	The middle section of rope
Bow	The front end of the kayak
Bowline	A knot that forms a fixed loop
Broach	To swing broadside on to a wave
Bulkheads	Vertical partitions or divisions within a kayak
Buoy	A float used as a navigational mark
C.A.D.E.T.	Compass Add East to get True (A useful pneumatic when determining whether to add or deduct an easterly (or westerly) variation when going from compass to chart (charts always show directions in True
Cable	1/10th of a nautical mile,- i.e. about. 200 yds
Cardinal Mark	Indicating navigable water on the named side of the mark
Carvel	A method of construction which gives a smooth finish with planks edge to edge
Centre of Buoyancy	Centre of the immersed volume of a kayak
Chart Datum	The level to which soundings and drying heights on a chart are related
Chine	The angle between changing sides of a kayak which is not uniformly convex
Clouds	Collection of minute water droplets, or ice, suspended in the atmosphere
Col	Is an area of small and variable pressure gradients lying between two high and two low pressure areas which are diametrically opposite each other

Cold Air Mass	<p>Main source is the Polar or Arctic region. At its source it is characterised by:-</p> <ol style="list-style-type: none"> 1. low temperature 2. low moisture content 3. small change of temperature with height <p>The tracks of all cold air masses are towards warmer regions and the air in the lowest layers becomes warmed.</p> <p>The results of this heating are:-</p> <ol style="list-style-type: none"> 1. The lapse rate increases in the lowest layers. Strong ascending current of air develop (convection currents) 2. The moisture content of the air increases as the tracks lie over a warm ocean. The air temperature rises and thus its capacity to absorb moisture increases
Cold front	The boundary line which marks advancing cold air in the passage of a depression
Compass	Navigational instrument which indicates a northerly point - known as Magnetic North
Contour	A line on the chart joining points of equal elevation or equal depth
Coronae	Coloured rings around the sun or moon, due to diffraction of light by water droplets
Course	The direction in which the kayak is heading
Cyclone	The name given to a tropical revolving storm occurring in the Indian Ocean, Arabian Sea or Bay of Bengal
Cyclonic	Anti-clockwise circulation over an area associated with a depression
Dead Reckoning	Calculating position from course steered and distance run
Declination	Is the latitude of the sun which is to be found for any date and time (GMT) in the Nautical Almanac
Depression	A discrete area of low barometric pressure
Deviation	Compass error caused, by magnetism of metal objects too close to deck compass
Dew	Water drops formed by condensation of water vapour in the air on surfaces cooled by radiation at night.
Dew point	The lowest to which the air can be cooled before condensation (e.g. dew) is formed
Draught	The depth of a vessel beneath the water to the lowest part of the hull
Drogue	A form of sea anchor
Ebb	The falling tide
Equinoctial gales	A phrase sometimes used in the mistaken belief that gales occur with greater severity and frequency near the equinoxes than at other times of the year
Equinox	The time (about 21st March and 23rd September) when the sun crosses the equator giving day and night of equal duration
Eye of the Storm	The area of light winds and often broken cloud in the centre of a tropical revolving storm
Eye of wind Front	The direction from which the wind blows (now rarely used)
Fairway	A navigable channel
Fathom	A measurement of depth, equal to 6 ft.
Fetch	The distance over which the wind has blown over open water
Fix	A position, found from accurate bearings or from heavenly bodies
Flashing	Flashing navigation light with period of light less than period of dark
Flood	The rising tide

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Freeboard	The height of the kayak deck above the water-line
Front	Is a line where the frontal zone intersects the surface of the ground
Frontal Zones	Are the boundaries between two different air masses
Future outlook	A brief description of the general weather conditions for a period following that covered by a more. detailed forecast
Gale	Wind of Force 8 or 9 on the Beaufort Scale (37-47 knots)
Great Circle	Is a circle drawn on a sphere such that its plane passes through the centre of the sphere? The radius of the great circle is the same as the radius of the sphere. Any two points can be joined by a great circle and since it is the line of least curvature - THEN IT WILL BE THE SHORTEST DISTANCE BETWEEN THE TWO POINTS
Gunwale	The upper edge along the side of the kayak
Gust	A rapid fluctuation in the strength of the wind, mainly caused by turbulence or eddies
Haar	A name given to sea fog in some eastern parts of Scotland and England
Hail	Small, hard pellets of ice from cumulonimbus clouds - often associated with thunder storms
Halo	Phenomenon caused by refraction or reflection of light from the sun or moon
Hatch	Waterproof opening on the deck to allow access to bulkheads
Heading	The compass direction in which a kayak is pointing
Hour Angles	Any two meridians of longitude will form an angle at the poles. The angle at the Pole of the meridian of Greenwich and that of New York is 75 degrees. Such angles are known as HOUR ANGLES
Hull	The structure of a kayak below deck level
Hurricane	A wind Force 12 on the Beaufort Scale; also the name given to a tropical revolving storm in the West Indies or off the American seaboard
Inversion	When air temperature (contrary to the usual case) increases with altitude. Sometimes a cause of fog
Isobars	Lines on a synoptic chart or weather map joining places of equal barometric pressure
Isogenic Lines	Are lines joining places of equal variation as shown on a chart showing magnetic variations
Isophase	A navigation light which flashes with equal periods of lightness and darkness
Isotherms	Lines joining places of the same temperature
Katabatic Wind	A wind that blows down mountain slopes, due to cooling by radiation
Keel	The lower fore and aft structure of the kayak
Knot	A speed of one Nautical Mile per hour
Lagging	A tide lags when the period between successive tides is increasing
Land and Sea Breezes	Off-shore and on-shore winds caused respectively by the land cooling and heating up more quickly than the sea under clear skies
Lapse Rate	Is the rate at which temperature decreases with height. This plays an important part in the formation of cloud, rain etc. An average rate of decrease in temperature is 2 C (3.5 F) per 1,000 ft.
Lateral Mark	Navigation buoy marking port or starboard side of a well defined channel
Latitude	Angular measurement of position north or south of the Equator
Launch, to	To place kayak onto the water

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Leading marks or lights	Marks or lights which, when brought into transit, indicate navigable channel
Lee shore	Shore onto which the wind is blowing
Leeward	The side opposite the direction of wind
Leeway	The sideways movement of a kayak as blown by a beam wind
Line squall	A sudden, violent squall often associated with a cold front; usually identifiable by the low line of black cloud from which it takes its name. Apart from a sudden increase in wind and change of wind direction, its passing is accompanied by a rise of the barometer, a fall in temperature, and usually heavy rain, hail or thunder
Line Squall	When a cold front is well defined the sudden under-cutting of the air by the advancing colder air may give rise to cumulonimbus cloud, heavy rain, thunder storms and squally weather
Longitude	Angular measurement east or west of Greenwich meridian
Lubber's Line	Fixed mark on compass housing showing kayaks head
Mackerel sky	A sky with cirrocumulus or high altocumulus arranged in a regular pattern like mackerel scales
Make	An increasing tidal range
Meridian	A north-south line through any point
Mirage	The appearance in the sky of images which are in reality over the horizon, due to abnormal refraction
Nautical Mile	One minute of latitude or 6076 feet 6076 feet = 1' of arc = 1852 metres = (for general purposes) 2000 yards = 10 cables (1 cable = 200 yards) (NB. 1 statute or land mile = 1,760 yards = 0.87 nautical miles)
Neaps	When the tide does not rise or fall very much
Null	When a direction finding radio receiver gives the weakest signal from a station indicating its bearing
Occlusion	When the warm sector of a depression has been raised from the surface of the land or sea by the advance of the cold front behind it, the depression is said to be occluded
Occulting	A navigation light with the period of light greater than the period of darkness
Orographic Uplift	Is the uplift of air as it is forced to ascend on reaching the coast or high land it accelerates cloud formation
Painter	A line secured to the bows by which it is secured or towed
Parallax Error	Caused by an apparent change in the direction of an object due to a change in observers position so providing a new line of sight
Polar Front	A line of discontinuity in the global weather system where polar air and sub-tropical air meet, and where as a result depressions often originate
Portside	The left hand side of a vessel looking forward
Precipitation	Particles of water or ice which fall from clouds - rain, drizzle, snow, sleet or hail for example
Priming	A tide is priming when the period between successive tides is decreasing
Race	A local area of disturbed water
Range (of Tide)	The difference in height between successive high and low waters

Recurvature	Describes the typical track of a tropical cyclone - for example in the northern hemisphere such storms, after tracking roughly west, usually swing round to a north-easterly course
Relationship between:- Longitude, Time and Distance	(i) The earth rotates on its own axis once every 24 hours (ii) The sun APPEARS to cover 360° of longitude every 24 hours which means it covers15° in 1 hour or 1° in 4 minutes and 1' in 4 seconds (iii) 1 nautical mile = 1 minute of arc (iv) Consequently lines of longitude can be considered as lines or as an arc. As the sun crosses each.ch meridian of longitude on its westward path, the LOCAL time is NOON on that meridian. The sun APPEARS to take 5 hours to travel from over the Greenwich meridian to be over the meridian through New York, that is noon occurs 5 hours later at New York from noon at Greenwich (v) 5 hrs = 75° 75° = 4,550 minutes and as we know 1nm = 1 minute we deduce the distance from Greenwich to New York is 4,550 miles
Rhumb Line	A course which cuts all meridians at the same angle (gives a straight line on a Mercators Chart)
Ridge	The extension of an area of high pressure (similar to a ridge running out from a mountain)
Rudder	Vertical plate hinged on or near the stern and usually foot operated to steer the kayak
Rule, The	If going from magnetic bearings or courses to true bearings or courses SUBTRACT WESTERLY and ADD EASTERLY variations. The converse applies if going from true to magnetic
Run	Distance covered at sea
Scud	Seaman's term for fractostratus cloud - low fragments of racing cloud, often beneath rain clouds
Sea Breeze	See land breezes
Sea Fret	Used in parts of North-East England to describe sea fog
Secondary Depression	An offshoot from a parent depression, often formed by a distortion of isobars along a front, which can cause a quick and unexpected deterioration in the weather
Shoal	Shallow area of water
Showers	Periods of rain from cumuliform cloud, interspersed with fair weather and clearer skies
Skeg	A vertical plate, usually movable and situated near the stern to aid directional stability and prevent broaching
Slack Water	When the tidal stream is stationary
Sleet	Precipitation of snow and rain
Small Circle	Is a circle on a sphere, the place of which does not pass through the centre of the sphere. The radius of a small circle is less than the radius of the sphere.
Snow	Precipitation of ice crystals, in formations of varying size
Solstice	The sun's position at its furthest point north or south giving the longest or shortest day
Source Regions	The Poles and sub-tropical pressure areas where air is caused to be fairly slowly yet effectively made cold and hot respectively. This is done by the air being in contact for fairly long periods with the Earth's surface at these regions

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Speed	<p>Is the rate at which a kayak travels over the water and is given in KNOTS 1 knot = 1 nautical mile per hour (Never, never "knots per hour"!!) Average speed is a function of (or = to) $\frac{\text{distance travelled}}{\text{time taken}}$ or</p> <p>Distance Travelled = average speed X time taken or</p> <p>Time taken = $\frac{\text{distance travelled}}{\text{average speed}}$</p> <p>e.g. Distance = 10 N.Ms; Time = 40 minutes; then Speed = 10 / 40 which = 1/4 of a NM in 1 minute = 15 nm per hour = 15 knots</p>
Spring Tide	When the range of the tide is greatest (opposite to Neaps)
Squall	A sudden increase of wind lasting several minutes, usually caused by fronts and large convective clouds, and often associated with a change in wind direction
Starboard	The right hand side of the kayak looking forward
Swing	(of the compass) Procedure for finding compass deviation
Synoptic Chart	A weather map, showing the distribution of barometric pressure and the principal weather features over a large area for a certain time
Six Minute Rule	<p>The Six minutes = 1/10th of an hour</p> <p>Travel .2 miles (2 cables) in 6 mins Speed = 2knots</p> <p>Travel .5 miles (5 cables) in 6 mins Speed = 5 knots</p> <p>Travel 1 mile (10 cables) in 6 mins Speed = 10knots</p>
Temperature	<p>Sun source of heat</p> <p>Temperature varies with latitude, height, season, prevailing wind, amount of cloud, nature of the surface</p> <p>DAY TIME</p> <p>Land</p> <p>Sun's heat retained by upper layer of Earth causing considerable rise in temperature of surface air which expands, and with cooler air lying above the surface, rises. This results in fairly high temperatures being experienced over the land.</p> <p>Sea</p> <p>Heat received from sun is absorbed to a considerable depth because more heat is required to raise the temperature of the sea, relatively low temperatures are experienced over the sea</p> <p>NIGHT TIME</p> <p>Land</p> <p>Rapidly loses its heat and low temperatures prevail</p> <p>Sea</p> <p>Gradually loses its heat because the heat is being drawn up gradually from well below the surface, results in only small variation between day and night temperatures</p>
Thunder and Lightning	Thunder is the noise made by lightning which is a discharge of static electricity within clouds or from a cloud to Earth. Most thunderstorms form in cumulonimbus clouds and may result in squalls, hail and heavy rainstorms
Tidal Stream	The horizontal movement of the sea caused by the tide.

Tide	The periodic rise and fall in level of the sea caused by gravitational attraction of the moon and sun
Tornado	A violent whirl usually cyclonic and associated with thunderstorm clouds
Trade Winds	Winds which blow from the subtropical high pressure belts towards the Equator - NE winds in the northern hemisphere and SE winds in the southern hemisphere
Tropical Continental Air Masses	<p>Main source region ~ NORTH AFRICA</p> <p>Are characterised by:-</p> <ol style="list-style-type: none"> 1. Very high temperature in lowest layers especially 2. Low moisture content - air is dry <p>The track of these air masses is towards higher latitudes as they move northwards they become cooled in their lowest layers. The moisture content remains low unless they flow over sea when after a period they change to maritime types</p>
Tropical Maritime Air Masses	<p>Main source region is the sub tropical oceanic anti-cyclonic area (i.e. High pressure area of N. Atlantic in vicinity of the AZORES)</p> <p>At source are characterised by:-</p> <ol style="list-style-type: none"> 1. High Temperature 2. High Moisture content 3. Slight lapse rate <p>The tracks of these air masses are towards higher latitude therefore the lowest layers become cooled as result of being in contact with cooler sea or land. The result is: -</p> <ol style="list-style-type: none"> 1. The lapse rate decreasing still further 2. Reduced capacity of lowest layers to absorb moisture
Trough	An extension of a depression shown on a weather chart by isobars with increased curvature. A front always lies in a trough. As the trough passes a place the barometer falls and then rises
Troughs of Low Pressure	These are indicated by isobars extending outwards from a region of low pressure having the lower pressure along the line of the trough. The isobars frequently change sharply in direction at the trough forming a 'V' shape
Typhoon	The name given to a tropical revolving storm in the Western Pacific
Variation	Is the difference between the direction the compass needle points (when not affected by any other influence) and true or Geographical North. The difference is due to the fact that magnetic north moves very slowly east or west of Geographical North, so that both rarely coincide. Also known as Declination or Error of Compass
Veer	When the wind changes direction to clockwise
Ventimeter	A small hand held instrument for measuring wind speed or force
Warm Air Mass	Initially divided into two types: Maritime and Continental
Warm Front	The line, in a typical depression, where the cold air coming in to fill the low pressure area pushes the warm air up in a bulge
Warm Sector	A depression and the warmer air (warm sector) on its equatorial side is called the warm front

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Water Vapour	Presence of water vapour in the atmosphere may give rise to formation of cloud, rain etc. Is increased by evaporation from seas, lakes etc. Is decreased by condensation in form of cloud, rain, fog. The maximum amount of water vapour that can be present at any one time depends on air temperature. Air containing maximum amount of water vapour appropriate to its temperature is said to be saturated
Waterspout	A cone or cloud extending from the base of cumulonimbus cloud to the sea. Often occurs with a tornado
Weather or Windward	The side nearest to the direction from which the wind blows
Wedge	An alternative word for ridge (of high pressure). Now rarely used
Wind	Is the horizontal movement of the air over the Earth's surface when there is a difference in atmospheric pressure between two areas
Wind Direction	Does not blow directly from an area of high pressure to one of low pressure but is at an angle to the isobars being directed across the isobars towards the low pressure In Northern, hemisphere wind circulates ANTI-CLOCKWISE around a low pressure area and in a CLOCKWISE direction around a high pressure area Wind Orientation Rules (for Northern Hemisphere) a. Stand with your back to the lower wind and if high clouds advance from the left then the weather should deteriorate b. Similarly if high clouds advance from the right then the weather should improve c. If lower and upper clouds are moving on parallel courses, then the weather will probably remain much the same NOTE The lower wind must be truly due to the circulation about Lows and Highs and not local ones due to sea or land breezes etc. The best indication of lower wind direction is the motion of low clouds
Wind Strength	Depends on the pressure gradient which is related to the distance between the isobars
Zenith	Is the point at which a celestial body is immediately overhead and is to be found tabulated in Nautical Almanacs
Zenith Distance	Is the distance of a celestial body's (e.g. the sun) zenith from that of an observer's zenith. It is possible to convert this zenith distance to nautical miles and so identify observer's positions. (I include this definition for sake of completion as a full description of how finding zenith distance helps locate position takes us into realms of navigational calculations beyond our needs as sea kayakers.)

CONVERSION TABLES

Feet to metres, metres to feet

Explanation: The central columns of figures in bold type can be referred in either direction. To the left to convert metres into feet, or to the right to convert feet into metres. For example, five lines down: 5 feet - 1.52 metres, and 5 metres = 16.40 feet.

Feet		Metres	Feet		Metres	Feet		Metres	Feet		Metres
3.28	1	0.30	45.93	14	4.27	88.58	27	8.23	131.23	40	12.19
6.56	2	0.61	49.21	15	4.57	91.86	28	8.53	134.51	41	12.50
9.84	3	0.91	52.49	16	4.88	95.14	29	8.84	137.80	42	12.80
13.12	4	1.22	55.77	17	5.18	98.43	30	9.14	141.08	43	13.11
16.40	5	1.52	59.06	18	5.49	101.71	31	9.45	144.36	44	13.41
19.69	6	1.83	62.34	19	5.79	104.99	32	9.75	147.64	45	13.72
22.97	7	2.13	65.62	20	6.10	108.27	33	10.06	150.92	46	14.02
26.25	8	2.44	68.90	21	6.40	111.55	34	10.36	154.20	47	14.33
29.53	9	2.74	72.18	22	6.71	114.83	35	10.67	157.48	48	14.63
32.81	10	3.05	75.46	23	7.01	118.11	36	10.97	160.76	49	14.94
36.09	11	3.55	78.74	24	7.32	121.39	37	11.28	164.04	50	15.24
39.37	12	3.66	82.02	25	7.62	124.67	38	11.58			
42.65	13	3.96	85.30	26	7.92	127.95	39	11.89			

Fathoms and feet to metres

The following table is useful for converting feet (or fathoms and feet) into metres, or vice versa:

Feet	6	12	18	24	30	36	42	48	54	60
Fathoms	1	2	3	4	5	6	7	8	9	10
Feet	1.8	3.6	5.5	7.3	9.1	10.9	12.8	14.6	16.4	18.3
1	0.3	2.1	3.9	5.8	7.6	9.4	11.3	13.1	14.9	16.7
2	0.6	2.4	4.2	6.1	7.9	9.7	11.6	13.4	15.2	17.0
3	0.9	2.7	4.5	6.4	8.2	10.0	11.9	13.7	15.5	17.3
4	1.2	3.0	4.9	6.7	8.5	10.3	12.2	14.0	15.8	17.7
5	1.5	3.3	5.2	7.0	8.8	10.6	12.5	14.3	16.1	18.0

1 cm = 0,39 inch

1 m = 3.28 foot

1 m = 1.09 yard

1 km= 0.62 mile

1 km = 0.54 naut.mile

1 stone = 14 pounds =- 6.35 kg

1 pound(lb) = 16 ounces = 453.6 g

1 ounce(oz) = 16 drams = 28.35 g

1 liter(l) = 10 deciliter(dl) = 100 centiliter(cl)

1 kilo(kg) = 10 hekto(hg) = 1 000 gram(g)

1 inch = 2.54 cm

1 foot = 0,3 m

1 yard = 0,91 m

1 mile = 1,609 km

1 naut.mile = 1,852 km

10 kg = 1.57 stone

1 kg = 2.21 pounds

1 kg = 3.33 oz

BEAUFORT WIND SCALE

knots are nautical miles per hour
and a nautical mile = 1,852 m
=1.15 statute mile = 1.85Km

<u>Beauf.</u>	<u>knots</u>	<u>miles/h</u>	<u>km/h</u>
1 = av. spd of 2		2.3	3.7
2	5	5.75	9.26
3	9	10.4	16.7
4	13	15	24.1
5	18	20.7	33.3
6	24	27.6	44.4
7	30	34.5	55.6
8	37	42.6	68.5
9	44	50.6	81.5
10	52	59.8	96.3
11	60	69	111
12	68	78.3	126

5 Knots = 5.8 MPH
10 Knots = 11.5 MPH
15 Knots = 17.3 MPH
20 Knots = 23.0 MPH
25 Knots = 28.8 MPH
30 Knots = 34.6 MPH
35 Knots = 40.3 MPH
40 Knots = 46.1 MPH
45 Knots = 51.8 MPH
50 Knots = 57.6 MPH
55 Knots = 63.4 MPH
60 Knots = 69.1 MPH
65 Knots = 74.9 MPH
70 Knots = 80.6 MPH

CONVERTING WIND SPEED; MILES TO KM / KM TO MILES

<u>miles/h</u>	<u>km/h</u>	<u>km/h</u>	<u>miles/h</u>
20	32.2	20	12.4
30	48.3	30	18.6
40	64.4	40	28.4
50	80	50	31
60	96.5	60	37.2
70	112.6	70	43.4
80	130	80	49.6
90	145	90	55.8
		100	62
		110	68.2

Here's a tip. If you want to convert anything to anything go to www.ex.ac.uk/trol/scol/



THE USER'S GUIDE TO THE EXPEDITION ADVISORY CENTRE

at the Royal Geographical Society,

1 Kensington Gore, London SW7 2AR (Tel. 071-581 2057)

WHAT IS THE EAC?

The Expedition Advisory Centre provides information and training to those planning an expedition overseas. It was founded by the Royal Geographical Society and Young Explorers' Trust, and is funded by the Shell International Petroleum Company under a six-year agreement.

WHO DOES IT SERVE?

1. Scientific & Youth Expeditions The EAC is mainly concerned with those planning scientific expeditions overseas, mostly at undergraduate level, and through its association with the Young Explorers' Trust those leading school or youth expeditions. However, the Centre also helps.
2. Adventurous Projects. Those planning adventurous activities abroad including mountaineering, caving, canoeing and underwater expeditions.
3. Those wishing to join an expedition
4. Independent and overland travellers

SERVICES FOR EXPEDITION LEADERS

For those involved in planning their own expeditions they offer a range of services:

THE EXPEDITION PLANNERS HANDBOOK & DIRECTORY. This is the primary source of information on expedition planning. Anyone considering organising their own venture should purchase a copy (£12.95 including postage and packing). The chapters are all written by experienced expeditioners and cover such as: planning, research, organisation, teamwork and leadership, expedition field projects, youth expeditions, the logistics of deserts, tropical forest, arctic, mountain, caving, canoeing and river expeditions, medicine, photography, fund-raising and budgeting, legal liability, post-expedition reports, lecturing and writing-up., Three directories give details of Grant-giving organisations. Reference sources (especially scientific institutes with specialist libraries), and lists of manufacturers and suppliers of equipment, food, travel and transport services.

Several of the chapters and directories are available for sale as individual booklets. These include Fund-Raising for Expeditions which includes the chapters on fund-raising and budgeting and the directory of grant-giving organisations; Reference Sources for Expeditions which includes the Chapter on pre-expedition research and a directory; insurance for Expeditions; and the Guide to Writing Expedition Reports. A full list of more specialist technical publications and their places is given on the EAC brochure.

THE PLANNING A SMALL EXPEDITION SEMINAR.

This two-day annual symposium held over a weekend each November gives expedition planners an opportunity to hear lectures from, and discuss their plans with a large number of people involved in the expeditions. Each day usually takes the form of talks in the morning, a long lunch break to meet. speakers and look at the many exhibits. In the afternoon workshops are held on the logistics of operating in different terrains or designing scientific fieldwork programmes. The course notes for the weekend are the Expedition Planners ' Handbook and Directory, and this is included in the cost of the Seminar. I have contributed to this seminar on several occasions and really the opportunity of meeting with other like minded individuals who are now where I was all those years ago. Enthusiastic and broke!!

NOTES FOR EXPEDITION LEADERS VISITING A SPECIFIC COUNTRY (COUNTRY FACT-SHEETS). For those who have identified the country they wish to visit and have decided in broad outline what they would like to do there, the EAC produces Country Factsheets. These include general regulations pertaining to expeditions in that country, useful addresses and contacts in the U.K. and host country, and a reading list. Attached as appendices are notes on the availability of maps, abstracts of past expedition reports held by the RGS Map Room, and details including names and addresses of leaders who have recently planned expeditions to that country. Factsheets cost approximately £6.00 each and are limited to one (or very occasionally two) per expedition. As these are compiled and/or updated for each enquiry only those seriously intending to plan an expedition should apply for these. The more unusual the destination the longer they take to compile, and so please allow 4-6 weeks for delivery.

GRANTS FOR EXPEDITIONS. The Expedition Advisory Centre is a purely advisory body and does not give grants to expeditions or individuals. The EAC publication fund-raising for Expeditions includes helpful tips, a directory of over 70 grant-giving organisations, and sources of further funding information, and is particularly aimed at those planning undergraduate fieldwork abroad. A short article by Richard Crane on Charity fund-raising expeditions is also available on request. The Royal Geographical gives approval and grant-aid to those expeditions with a significant scientific content; full details and a grant application form can be obtained from the Director's Office at the RGS (enclose an A4 stamped addressed envelope). The Young Explorers' Trust gives approval and grant aid to expeditions whose members are predominantly under the age of 19. Those who apply to YET for approval are not eligible to apply to the RGS as well. Application forms for YET approval and grant aid can be obtained from Ted Grey, Stretton Cottage, Wellow Road, Ollerton, Newark, Notts. NG22 9AX.

REGISTER OF PLANNED EXPEDITIONS. All those planning an expedition are requested to complete a form for our Register of Planned Expeditions and Projects which asks for a contact name, address and phone number, number of members in the team, dates in the field, budget and overall aim and supporting objectives, and sample copies of the expedition letterhead and brochure. This is used to provide contact between expeditions going out in the same subsequent years (usually as appendices to the Country Factsheets), but also for enquiries from the media and potential sponsors. Those who have registered with the EAC will automatically be sent mailings about forthcoming events organised by the EAC.

EXPEDITION YEARBOOKS. At the beginning of the year the EAC writes to all registered expeditions asking them how they got on, requesting that they update the details on their original form, and inviting them to submit a two page summary report for inclusion in the Expedition Yearbook. There are guidelines on how to produce yearbook entries which asks for suggestions for possible follow-up work. The Yearbooks bridge the gap between the completion of the expedition and the production of the Final Report. Thus the Yearbooks not only provide a record of the expeditions which went out in any particular year but also provide examples of the type of field work that can be carried out and suggest ideas for future research.

REFERENCE COLLECTION OF PAST EXPEDITION REPORTS. The Royal Geographical Society houses a unique collection of past expedition reports now numbering over 2,000. These may be consulted at the Society, Monday to Friday 10am to 1pm, and 2pm to 5pm. The reports are not available at weekends or on Bank Holidays. These reports are indexed by country, continent and year. Abstracts of the reports on any particular country can be obtained from the EAC either as part of the Country factsheet or as a separate listing. The report collection includes accounts of expeditions supported by the Royal Geographical Society, Young Explorers Trust (see below), Mount Everest Foundation, and WEXAS among others, and more reports are always welcome. All expeditions are encouraged to write reports which can be deposited at the RGS for reference by future expedition planners.

THE MAP ROOM OF THE ROYAL GEOGRAPHICAL SOCIETY. The Map Room at the Royal Geographical Society contains an important reference collection of maps donated from all parts of the world. No appointment is necessary. Opening hours are Monday-Friday, 10am to 5pm (closed for lunch 1-2, at weekends and Bank Holidays and for a fortnight during June for stock-taking). Large format photocopying facilities are available subject to copyright and security restrictions. The Society only sells a very small selection of maps through its General Office.

PLANNING TUTORIALS. As your ideas start to take shape you may want to come and discuss your plans with someone at the Centre. It is helpful if you have consulted the Planners' Handbook and appropriate country factsheet and past expedition reports before this meeting. A project proposal and/or draft brochure sent in advance will help us understand what you are trying to achieve. It is best to telephone for an appointment to arrange either an individual meeting or to attend one of the monthly planning tutorials with other groups. The Centre staff can advise which is most appropriate in your case. Please try and book at

least a fortnight in advance. In cases where a university or polytechnic is organising a number of expeditions, it may be possible to arrange for a member of the Centre staff to visit you provided that travel expenses are paid.

THE UNITS OF THE YOUNG EXPLORERS TRUST. The Young Explorers' Trust is particularly concerned with improving the safety and standard of expeditions through training and advice to leaders of youth expeditions where the members are usually of pre-University age (under 19). As the Trust is a voluntary organisation it provides this help through conveners of specialist Units. Units currently operate for Iceland, Scandinavia, Africa (especially North and West Africa), Asia (particularly climbing and trekking in the Himalayas), North America (especially Alaska and Canada) and for advice on Outdoor Equipment. Separate information sheets are available for the services of each of these. As the Young Explorers' Trust does not have an office at present, it is best to send enquiries through the EAC in the first instance.

SERVICES FOR THOSE WISHING TO JOIN AN EXPEDITION OR RECRUIT MEMBERS FOR THEIR EXPEDITION. A booklet entitled **Joining an Expedition** lists organisations who regularly arrange expeditions abroad. This is updated annually and costs £2.50. For those with specialist skills to offer (doctors, nurses, mechanics, environmental scientists, etc.), there is a Register of Personnel available for Expeditions. Those wishing to have their names and CV's added to this register should ask for the appropriate form. Leaders wishing to recruit members for their own expeditions may consult the register at the EAC, by appointment only please. No typed list of candidates is kept, so if there is a particular skill or type of person you require, but you cannot visit the Centre, then please supply us with a detailed job description and we shall try and look through the register for you and photocopy any possible forms. A small charge to cover copying and postage costs may be needed.

SERVICES FOR INDEPENDENT AND OVERLAND TRAVELLERS. The EAC publishes a booklet Sources of Information for Independent and Overland Travellers which is revised annually to coincide with the Independent Travellers' Seminar held at the Society each May. Regrettably, they do not have the resources to answer detailed enquiries but when they can suggest a relevant publication or key advisor, they will do so.

SERVICES TO SISTER ORGANISATIONS, UNIVERSITY AND POLYTECHNIC EXPLORATION SOCIETIES. The EAC maintains contact with many scientific and youth organisations and sends an annual mailing to over 1,000 key contacts, usually at the start of the academic year in September/October. In addition, the Centre provides a link to University Exploration Societies and can advise on setting up a new club within universities or polytechnics. Many of these clubs have their own lecture programme and the EAC can provide a List of Lecturers on Expedition Topics.

PUBLICATIONS AVAILABLE FOR SALE FROM THE CENTRE AND FORTHCOMING SEMINARS. Publications and forthcoming seminars are listed on their Web Site and is revised annually. Should you wish to receive details of forthcoming events or future publications, just contact the EAC at the RGS



At last you have come to the end of my book, presuming, that is, you have ever reached this far.

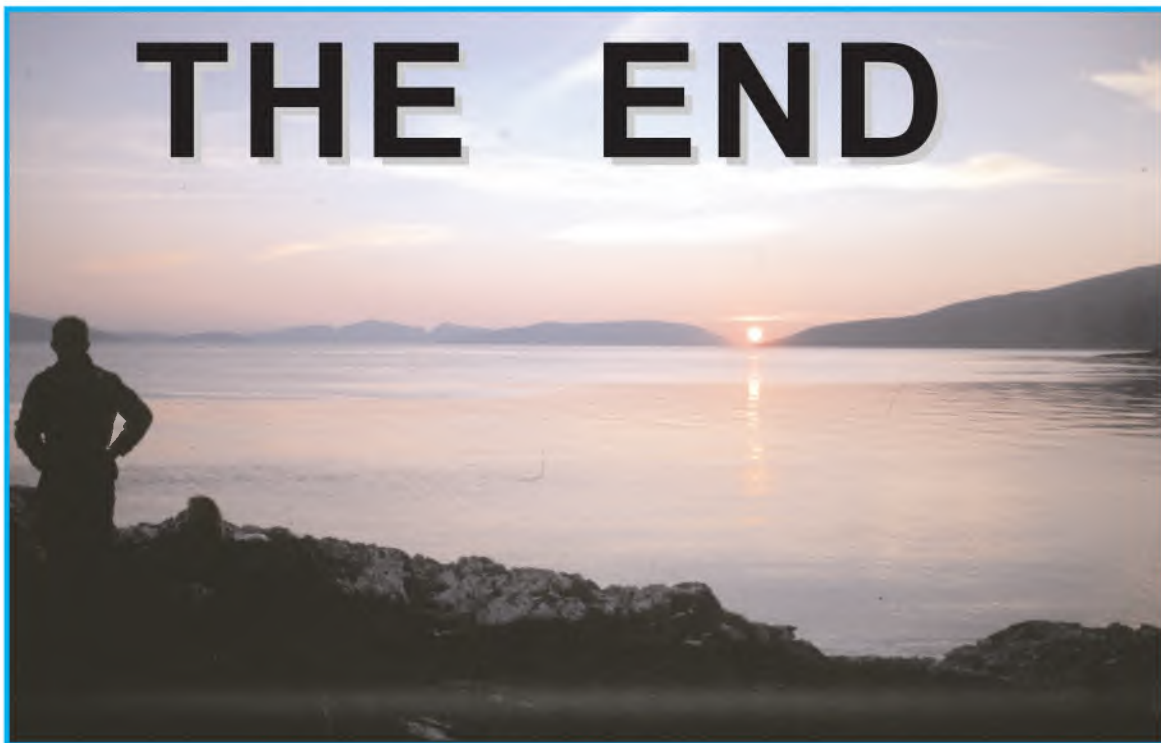
I have designed this as a reference document rather than it should ever be read cover to cover. But if you have persisted and got this far, then you deserve a medal!

I started writing this over fifteen years ago and have come back to it time and time again to add, take away or simple amend.

If I wished I could do this again and still find good reasons to make amendments. But everything has to end somewhere and this is my ending.

It has certainly been a labour of love and has brought back many happy memories afforded me after almost a life time of paddling.

Never did I think that agreeing to partner a friend in a K2 racing kayak in the Devizes-Westminster race all those years ago it would lead to such a wealth of experiences and friendships world wide. It was certainly one of my better decisions.



THE AUTHOR

John is 70 years of age with two children and four grandchildren, who took up canoeing some 50 years ago. He is a British Canoe Union Coach L5 (Sea and inland) a Fellow of the Royal Geographical Society, Member of the Royal Institute of Navigation, and member of the British Institute of Sports Coaches. John holds the B.C.U. Award of Merit. He initially came to canoeing through an interest in the Devizes to Westminster canoe race. He went on to compete in marathon and sprint racing and only gave up and took to sea kayaking when he found himself finishing races after the other competitors had gone home already!!

John has travelled extensively to take part in or lead expeditions; to contribute to sea kayaking symposiums and to instruct. He has been awarded honorary coach status by several countries.

In 1976 he founded the Sea Touring Committee for the British Canoe Union and in the same year he took over the management of the Advanced Sea Kayak Club, an international organisation for sea kayakers which is now known as the INTERNATIONAL SEA KAYAKING ASSOCIATION, (ISKA). John has recently handed over the running of ISKA to Stuart Fisher, editor of THE CANOEIST.

He is one of the founder members of the Nordkapp Trust established in 1989 to promote safe sea kayaking. In the early 1970s John organised the first sea kayaking symposium and went on to organise six further symposiums in the United Kingdom before relinquishing this function to the BCU; so setting the scene for many future sea kayaking meets not only in the UK but world wide.

John has led sea kayaking expeditions in Australia, Europe, North America (including Alaska), South America, Canada and Greenland. He has been involved with the British Schools Exploring Society and was their Chief Leader to Norway in 1989 and Chief Leader to Russia in 1992. In 2004 he led the BSES Mountaineering Expedition to Svalbard. John has also led sea kayaking expeditions for Raleigh International which has taken him to Southern Chile several times. He remains the sea kayaking and water safety consultant to both these organisations.

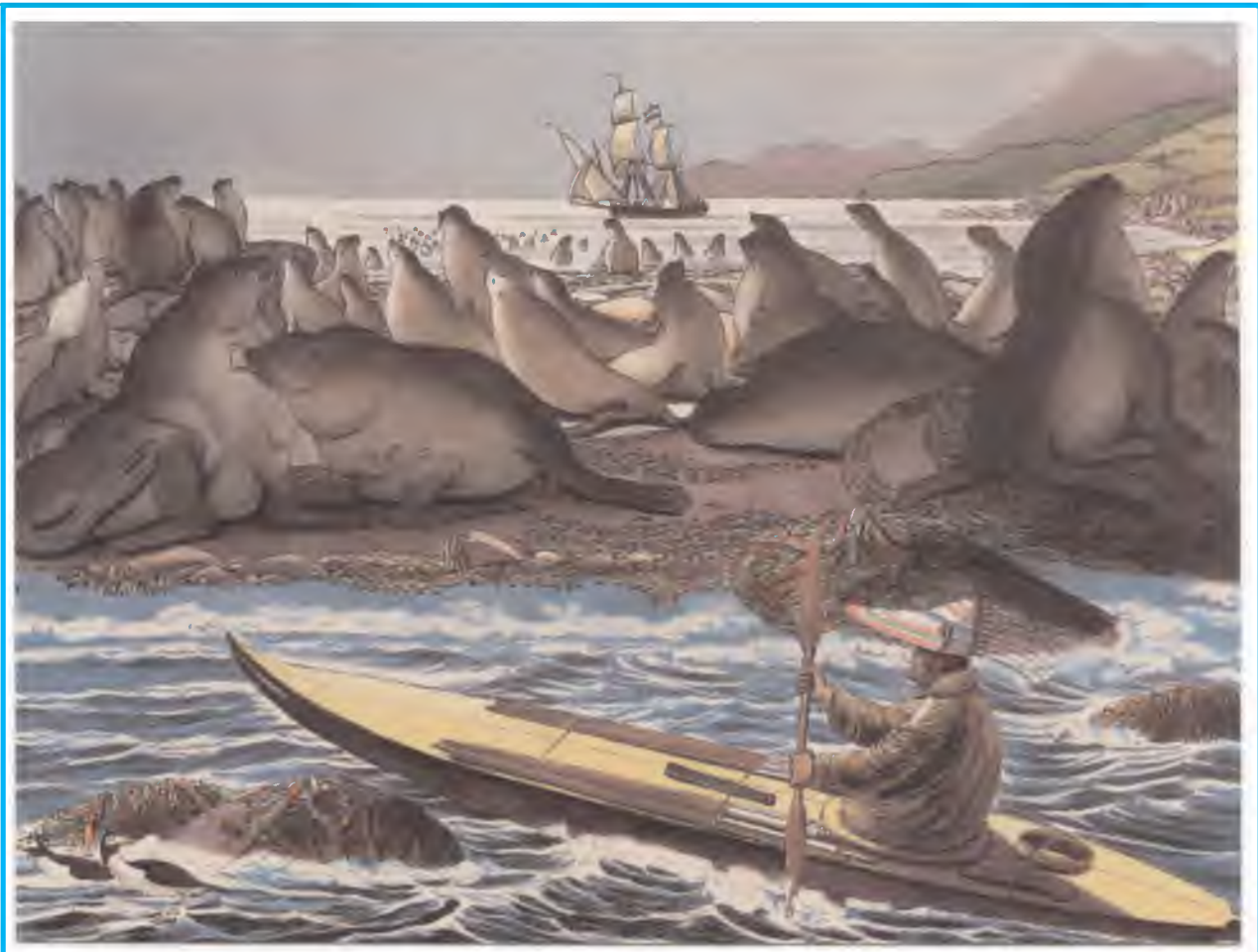
John retired as a Governor in H.M. Prison Service some fifteen years ago. During this time the grass has not grown beneath his or that of his wife, Jenny's, feet. They successfully ran a Country & Western business for ten years and have a second home in Cottlesville, an outpost in central Newfoundland, Canada which they have renovated and where they have entertained many sea paddlers from Canada and the UK.

You can visit Johns's web site at www.seakayak.co.uk or contact him on >johnramwell@seakayak.co.uk





One of our camp sites on the SE Alaskan Coast



“View of Island of St. Paul from the Sea Of Kamchatka”. Coloured lithograph by Louis Choris from his *‘Voyage Pittoresque Autour Du Monde’*, 1822. From the collection of the Alaska Historical Library.

Author

Title

American Red Cross	Canoeing
Anderson, Bill	Practice Navigation Tables for Yachtsmen
Anderson, Scott	Distant Fires
Annat, Maggie	Outward Bound Canoeing Handbook
Arima, Eugene Y	Contextual Studies of the Caribou Eskimo Kayak
Arima, Eugene Y.	Contributions to Kayak Studies
Arima, Eugene Y.	Inuit Kayaks in Canada
Arthur, C.S.	Modern Canoeing
Barry, R.G.	Atmosphere, Weather and Climate
Bascombe, Willard	Waves and Beaches
BCU	Canoeing Handbook
BCU	Guide to Waterways of British Isles
BCU	The Canoe Lifeguard Manual
BCU	Canoe and Kayak Handbook
BCU	Access Workers Guide
BCU	Canoeists Guide to Yorkshire Rivers
BCU	The Coaching Handbook
BCU	Which Sea Kayak Should I Buy?
Black, Lydia	Glory Remembered, Wooden Headgear Alaska Hunters
Blandford	Tackle Canoeing
Blandford, Percy	Canoeing
Blandford, Percy	Canoeing Waters
Blandford, Percy	Canoes and Canoeing
Blandford, Percy	Tackle Canoeing
Blewitt, Mary	Navigation for Yachtsmen
Blewitt, Mary	Celestial Navigation for Yachtsmen
Brailsford, John	Canoeing
Brand John	The Historical Development of Kayaks
Brand, John	The Little Kayak Book. Vol 1 & 2
Braund, Stephen	Skin Boats of St Lawrence Island, Alaska
Bridge, Raymond	The Complete Guide to Kayaking
Brink, Wolfgang	The Aleutian Kayak
Brower, Kenneth	The Starship and the Canoe
Burch, David	Fundamentals of Kayak Navigation
Buscombe	Canoeing
Byde, Alan	Living Canoeing
Byde, Alan	Beginners Guide to Canoeing
Byde, Alan	Canoe Building
Byde, Alan	Black's Guide to Canoeing
Caffyn, Paul	Obscured by Waves
Caffyn, Paul	Dark Side of the Wave
Caffyn, Paul	Cresting the Restless Wave
Caffyn, Paul	Dreamtime Voyage
Canadian Government	Gearing up for Safety for Commercial Fishing
Cary, Bob	The Big Wilderness Canoe Manual
Cassidy, John Klutz	Book of Knots
Cock, Oliver	I Paddled My Own Canoe
Cornish, Joe	The Coast, - National Trust
Daniel, Linda	Kayak Cookery
Davis, Dennis	Canoeing

Davis, Dennis	The Book of Canoeing
Depart. of Transport	Distress Procedure for Small Craft
Dept.of the Environment	Policy Guideline for the Coast
Dept.of Transport	History of H.M.Coastguard
Dept.of Transport	Safety for Small Craft
Deschner, Whit	Does The Wet Suit You?
Dixon, Conrad	Basic Coastal Navigation
Dixon, Conrad	Basic Astro Navigation
Dowd, John	Sea Kayaking
Dunnett, Alastair	Quest by Canoe
Dunnett, Alastair	The Canoe Boys
Dyson, George	Baidarka
Dyson, George	Form & Function of the Baidarka
Dyson, George	Baidarka
Earl, G.E.Capt.	Munros Navigation
English Tourist Board	Maritime England
Ericson, David	The Ever Changing Sea
ESL, Bristol	An Introduction to Coastal Navigation
Evans, Eric	White Water Racing
Evans, Jay	Kayaking
Farrance, Jane	This is Canoeing
Ferrero, Franco	Sea Kayak Navigation
Ford, Tony	Hunters of the Whale
Foster, Nigel	Beginners Guide to the Kayak
Franks, C.E.	The Canoe & White Water
Freeman, John	The Coasts of Britain
Gilpatrick, Gil	The Canoe Guides Handbook
Glenans	Glenans Weather Forecasting
Glenans	The New Glenans Sailing Manual
Grant Gross, M	Oceanography
Griffiths, Susan	Pembrokeshire & Ceredigion, Sea Canoeing Guide
H.M.Coastguard	Pocket Guide to Cold Water Survival
Hall, D.N. Lt. Col.	Expedition Navigation
Harber, Alan	Better Canoeing
Harding, Maria	Weather to Travel
Hardy, Alister, Sir	The Open Sea - Its' Natural History
Hardy, Sir Alister	The Open Sea II, Fish & Fisheries
Harrison, Dave	Canoeing
Harvey, J.C.	Atmosphere and Ocean
Heath,John and Arima E.	Eastern Arctic Kayaks
Hepherd, Lt. Cmd Pat Small	Boat Navigation
Hickling, C.F.	The Sea and Oceans
Hingston, Nigel	S.W. Region Small Craft Sea Touring Guide Vols 1,2,3.
Horsman, Paul	Seafarers Guide to Marine Life
Howarth, Patrick	Lifeboat
Howgate, Bernie	Journey Through Labrador
Hunt, Nigel	Adventures in Canoeing
Hunter, Jeff	Angmagssalik Round Britain
Hutchinson, Derek	Sea Canoeing
Hutchinson, Derek	Guide to Sea Kayaking
Hutchinson, Derek	Eskimo Rolling for Survival
Hutchinson, Derek	Complete Book of Sea Canoeing

Ince, John	Sea Kayaking Canada's' West Coast
Jagger, B	The Book of Canoeing
Jeffs, Howard	A Practical Guide to Sea Canoeing
Johnstone, David	Blue Water Summer
Johnstone, Paul	Sea Craft of Pre-History
Jones, Mike	Canoeing Down Everest
Kane, Bill	Get the Most From Maps & Charts
Kemp	Oxford Companion to Ships & Sea
Kipling, Ray	Rescue by Sail and Oar, Lifeboats before Engines
KTG Series	Know The Weather
Lloyd Jones, Robin	Argonauts of the Western Isles
Lucas, C.E.	Cockleshell Heroes
Ludlam, F.H.	Cloud Study, A Pictorial Guide
Luscombe, W.G.	Canoeing
MacDonald, Janice	Canoeing Alberta
MacGregor	The Rob Roy on the Jordon
MacMillan	Nautical Almanac (Current Edition)
Malo, John	Complete Guide to Canoeing and Canoe Camping
Mason, Bill	The Path of the Paddle
Mason, Bill	The Song of the Paddle
McCarthy, R	Canoeing
McClellan, Tom	Survival at Sea
McKown, Doug	Canoeing Safety and Rescue
McNaught, Noel	The Canoeing Manual
McPhee, John	The Survival of the Bark Canoe
Met Office	Weather Advice to the Community Leaf. No.1
Met. Office Services	Weather Bulletins and Gale Warnings for Shipping
Metzger, Charles	The Silent River
Millman, Lawrence	A Kayak Full Of Ghosts
Mitchel-Christie, Frank	Practical Weather Forecasting
Moore, D.A.	International Light, Shape and Sound Signals
Moore, D.A.	Basic Principles of Marine Navigation
Moore, D.A.	Marine Chartwork and Nav Aids
Moore, Ted and Rossel, Greg	Kayaks You Can Build
Morse, Eric	Freshwater Saga
Murphy, Dan	Canyons, Caves and Coastal Waters
Natkiel, Richard	Atlas of Maritime History
Naval Training Command	A Navigation Compendium
Nealy, William	Kayaks To Hell
Nealy, William	Kayak
Newing, F.E.	The Ladybird Book of the Weather
Nichols	Nichols's Concise Guide, Vol. 1
Nooter, Gert	Old Kayaks in the Netherlands
Nordby, Will	Seekers of the Horizon
Ohio Dept. of River Resources	River Rescue
Olsen, Sigud	The Lonely Land
Ordnance Survey	The Greenwich Meridian
Osbis Publishing	The Sea, Volumes 1,2,3,4
Ovenden, Denys	Collins Hand Guide to Sea Coast
Pecher, Kamil	Lonely Voyage
Petersen, H.C.	Skinboats of Greenland
Peterson, H.C.	Instruction in Kayak Building

Piggott, Margaret	Discover S.E. Alaska with Pack & Paddle
Raffan, James	Summer North of Sixty
Ramwell, John	Sea Touring
Readers Digest	Oceans and Islands
Richards, Gordon	Complete Book of Canoeing and Kayaking
Riviere, Bill	The Open Canoe
Riviere, Bill	Pole, Paddle and Portage
RNLI Sea\Safety Group	Safety on the Sea
Roberts, Kenneth G	The Canoe
Rogers, Joel	The Hidden Coast, Alaska to Mexico
Rowe, Raymond	White Water Kayaking
Russell, John	Shell Book of Seamanship
RYA Publication	The Yachtsman's' Weather Map
Sabella, John	Cold Water Survival Handbook
Sanders, William	Kayak Touring
Seal, Gabriel	Canoe Touring Abroad
Seidman, David	The Essential Sea Kayaker
Shave, Neil	Canoeing
Shea, Michael	Maritime England, The Nations' Heritage
Sheen, Brian	Canoe Expedition to Niger Delta
Skilling, Brian	Canoeing Complete
Skinner, Dean Rulon	Basic Canoeing Techniques
Somerville, Christopher	English Harbours and Coastal Villages
Sparkes, William	The Last of the Cockleshell Heroes
Storry, Terry	Raging Rivers, Stormy Seas
Storry, Terry	Snowdonia White Water, Sea and Surf
Sutherland, Audrey	Paddling Hawai
Tappan-Adney, Edwin	The Bark Canoes & Skin Boats of N.America
Taylor, Bill	Commitments and Open Crossings
Taylor, David	Defects in the Drive Shaft
Tejado-Flores, Lita	Wildwater
The Admiralty	Chart of Charts and Hydrographic Publications
The Admiralty	Symbols of Abbreviations used on Admiralty Charts
The Admiralty	Pilots, various
The Open University	Oceanography, - Physical Processes
The Times	Atlas of the Ocean
Train, David	Canoeing the Fladbury Way
Urban, John	Whitewater Handbook for Canoe & Kayak
U'ren, Stephen	Performance Kayaking
Wallwork, Allan	Basic Ocean Navigation
Washburn, Randel	The Coastal Kayaker, Alaska and B.C.
Watkins, G.G.	Coastwise Navigation
Watts, Alan	Weather Forecasting, Ashore and Afloat
Watts, alan	Instant Weather Forecasting
Weihaupt, John G	Exploration of the Oceans
West Davidson, James	Great Heart
West Davidson, James	The Complete Wilderness Paddler
White, Charlie	Living Off The Sea
White, G.W.	Outlook, Weather Maps and Forecasting
White, G.W.	Exercise in Coastal Navigation
Williams, P.F.	Canoeing Skills & Expedition Techniques
Wilson, Brian	Blazing Paddles

sea touring

Wilson, Brian
Wirth, Bob
Wright, John
Wyatt, Mike
Zimmerly, David, Prof

Dances With Waves
Open Boat Canoeing
Dead Reckoning Navigation
Basic Essentials of Sea Kayaking
Kayaks of Siberia & Alaska
British Kayak Expedition to Nordkapp
New Zealand Sea Kayaking Handbook



A paddle through Black Island Tickle, Notre Dame Bay, Central Newfoundland.