

CHAPTER TWO

EQUIPMENT.

The Canoe.

Much thought should be given to your choice of sea canoe. Basically there are two major considerations. The first being how well will the boat shape up in rough conditions. The second is how 'roomy' do you need the boat. In other words, a low slung canoe like the Eskimo kayak is good to handle in rough conditions, and easy to roll, but there is little room for stowing much camping gear, whereas in the larger boats that sit high in the water there is plenty of room for stowing gear, but they can be difficult to handle in rough conditions. A lot may depend on what use you are going to put your canoe to. If just short coastal trips are envisaged then not much camping gear is required. If on the other hand you wish to embark on long journeys and camp along the way then maybe a larger boat would be better. I personally prefer the big boat as not only is it roomy for stowing kit, but having a fairly large cockpit one is able to shift around to avoid 'pins and needles' or cramp. Of course the larger the cockpit the more chance of falling out after capsize. There are quite a few considerations so do talk to someone who has done some sea canoeing before making any final decision.

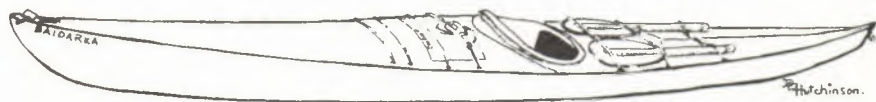
Here are some thoughts on the various types of canoes that can be used at sea.

Sea Touring Kayak. E.g. Anas Acuta,
 North Sea, Sea Hawk
 Baidarka, Eskie.

Ideal for open sea canoeing and long distances: for landing on beaches or at harbours. Not so good when landing on rocky beaches or exploring islands and caves.

Some of these designs are rather cramped for some people. You should definitely give this type of craft a thorough test run before purchasing if possible.

Diagram 1 Modern type of sea touring kayak



White Water Racing Kayak.

The more extreme designs are not very suitable being quite 'tippy'. They are faster and more directionally stable than a slalom, liable to damage when landing among rocks. A high aft section tends to catch beam winds.

With some adaptations a white water racing kayak may be found to be quite suitable. The adaptations mainly consist of applying toggles and deck lines increasing buoyancy, strengthening foot rest and maybe canoe.

Slalom Kayak.

Variations within this category are very great. For the sea choose one that is not too buoyant, has some directional ability (some of them do).

With a four meter kayak you rarely experience a lack of manoeuvrability at sea. The older traditional designs are often most suitable; plus some of the "training" type craft that have evolved out of the slalom designs.

Avoid anything with a high aft section - gunwale just above (1" to 1½") water line is best.

The front deck should be fairly buoyant and shaped to shed water quickly. The 'low-line' front decks of certain modern craft are not very good in this respect. In a light sea it is much more pleasant to ride over the waves than be swamped by each one.

These kayaks are ideal for 'messaging about' in. Easy to handle in awkward places like caves, coves and rocky beaches. The biggest criticism of slalom kayaks is that they are slow and difficult to control in fresh breezes. The remedy for this lack of control is the use of a skeg. A skeg is a 'fixed' rudder which is clamped on to the stern of the canoe. See Diagrams 2 and 3. It is made quite simply from G.R.P. and can be held to the canoe by strong cord or elastic.

Diagram 2 A skeg



Diagram 3 Slalom canoe showing a fitted skeg



Build the skeg deeper than obviously required - test it, then plane off the bottom until you have the most efficient skeg area for your boat and your weight. The boat should still 'just' turn into the wind when you stop paddling.

A well designed skeg should not need to project below the base line of your kayak - hence no damage when lying the canoe on the beach.

Probably the best way to secure a skeg is by a loop of thick shock cord which fits into a hook situated just behind the cockpit. If the skeg tangles irrevocably with something e.g. fishing lines, nets or lobster pot lines it can be released quickly and completely by the man in the cockpit.

The Paddles.

The paddles need to be light weight and strong. As one criterion tends to counteract the other a compromise must be reached. General information about paddles can be found in other publications. I use a pair of sea blades similar to those illustrated in Diagram 4. Mine were made for me by Tim Kidman from the Wirral, West Kirby. They are slightly cupped at the blade ends and are a pleasure to use. Made completely from a combination of hard and soft wood, they are both strong and light. They are of course feathered, a feature essential when paddling in strong winds. Geoff. Blackford from Southampton has made me a pair of his 'Nanooks', a blade copied from the type used by the Eskimoes. The dimensions of these blades are 80cm x 7.5cm and the shaft is only 65cm long. They are gripped at the junction of the shaft and the blade, and are at first difficult to use because of the unusual grip, they are unfeathered and they appear to offer little support on the water being so narrow. In fact perseverance pays off as they are good to use, particularly in high winds, being so narrow they are little wind effected. Always carry a spare pair of paddles. I use the type that un-join mid-way along the shaft, and stow them on the rear deck of the canoe in such a way that if you lose your paddles and capsize you are able to reach behind you, take up half a paddle and roll back upright again. Incidentally this is a technique well worth practising in a swimming pool in order to get the hang of it before having to use it in sea conditions.

True sea-touring paddles, the type I use, can be much longer than ordinary river or white water blades, in some cases perhaps even as much as a foot. The area of a normal blade is about 690 sq. cms. If this is placed at the end of a longer loom, the strain at the joint

between the blade and the loom is increased. But if, while preserving this area of 690 sq. cms., the blade is shaped longer and much narrower, then, even though the loom is no longer, the stroke is lengthened. Because the water pressure is much more gradual on the blade as it is pulled through the water, it is rather like paddling in low gear. The propulsion is the same but the effect seems less, and with the increase in length the upper blade is therefore lower during the stroke, not only presenting a better angle to any wind there might be but also a thinner shape offering less resistance. (See Diagram 4)

The Screw Roll is made easier because the upper blade does not have to be pushed up as high as a wide blade to clear the bottom of the canoe, while the blade which is sweeping outwards on the water is at a better angle for the downward strike of the roll proper.

The Spray Cover.

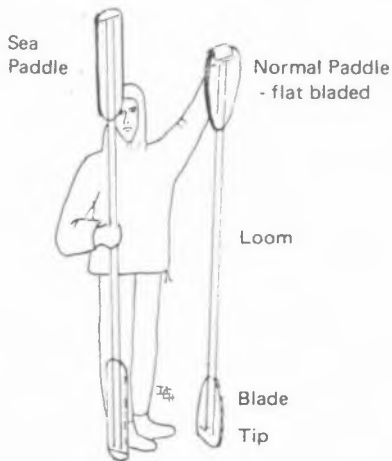
The spray cover must be efficient, tight fitting and secure. There is a choice of material, neoprene-nylon or just neoprene. Have it tight fitting with no looseness over the knees to hold the water. Remember to have the release strap accessible.

Deep water rescues play havoc with neoprene spray covers. One way of extending the usefulness of a cover is to sew a cycle inner tube around the edge that attaches to the cockpit.

There is now available a spray deck incorporating a vest, all made from neoprene in one piece. It is secured over the shoulders by velcro strips. They are expensive but certainly make for a dry boat.

Diagram 4

PADDLE LENGTHS



Life Jackets.

A life jacket every time at sea. It should conform to the B.S.I. Number 3595 and be B.C.U. approved. It should be the right size and worn deflated. This way there should be no incumbrance to paddling. The jacket is blown up orally via a tube set in the life jacket and should be blown up if you are floating in the sea with a fairly long wait for rescue. By inflating the jacket your head will ride clear of the waves. If you insist on wearing a buoyancy aid make sure it will not 'chaff' under the arms, that it is not too loose, and it is of a bright colour for being spotted out at sea. Wearing a buoyancy aid with no inherent buoyancy is almost as bad as not wearing any form of aid at all. This is foolish. Some experienced canoeists have a habit of not actually wearing their jacket, but instead keeping it handy should the need arise, e.g. beneath elastics on the rear deck. This may be OK if the weather and sea is calm and you are in a strong group. It is not normally advocated.

Deck Layout.

How you lay your deck out for sea touring depends on what you want personally. Certainly flares, towing line and spare paddles should be readily accessible, and for extended trips a chart, tidal information and compass should be readily visible.

Some sea canoeists stow a lot above decks, while others very little. Remember heavy seas and winds, deep water rescues, and towing from rear of cockpit could dislodge gear from the decks.

I have included a diagram of a deck layout as food for thought.

Bear the following points in mind when fitting:

- (a) When the lines are in position they should be secure.
- (b) Your deck lines should not rest against the cock pit combing and they should never be able to foul yourself, others, or your paddles.
- (c) Any holes drilled for fittings should be water tight.

Toggles.

Toggles are essential. Hand loops are dangerous especially if you have to hang on while coming in through 'soupy' surf.

Toggles are made from wood or plastic, and should be large enough to grip and lift the canoe, and should be attached to both bow and stern.

Diagram 5

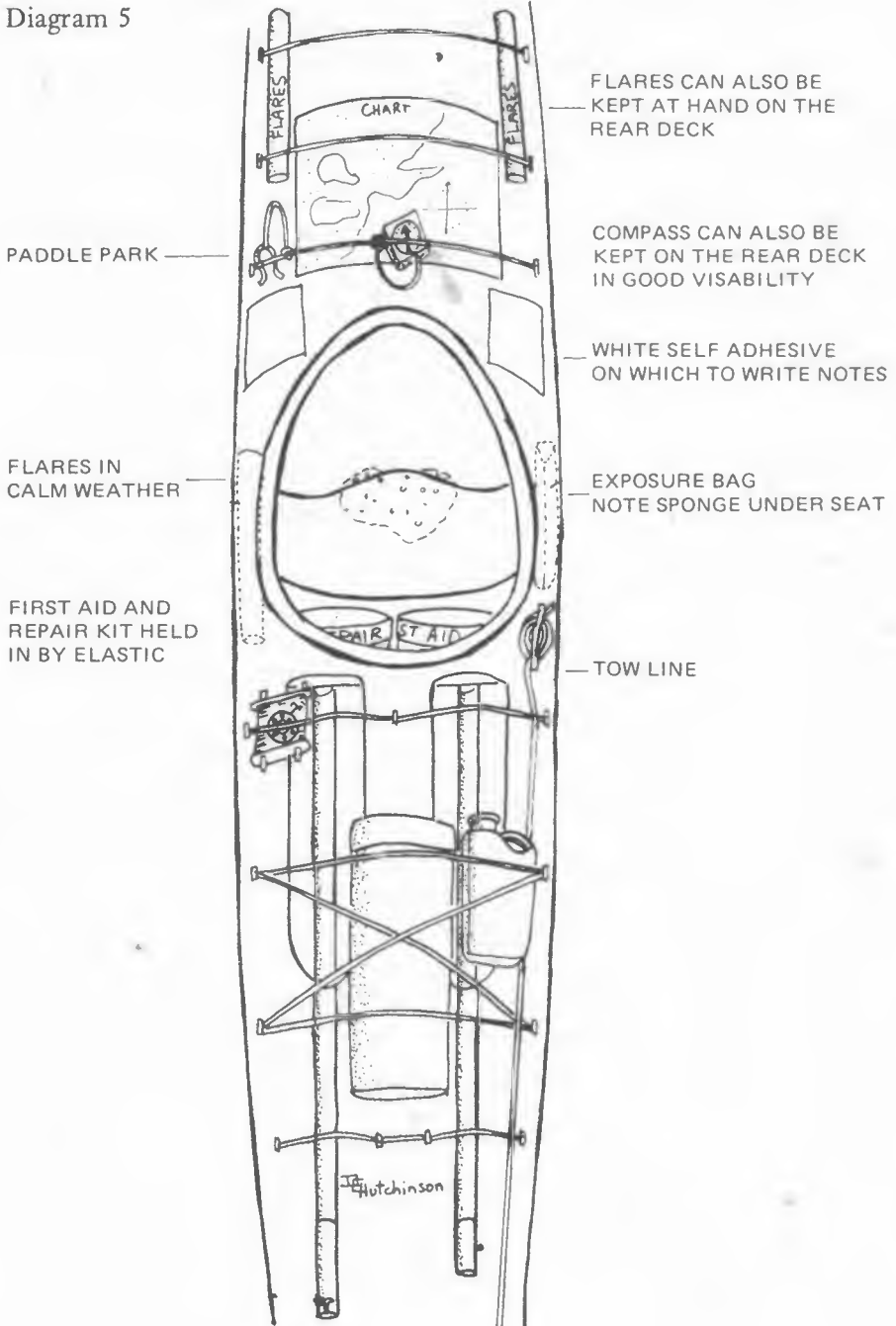
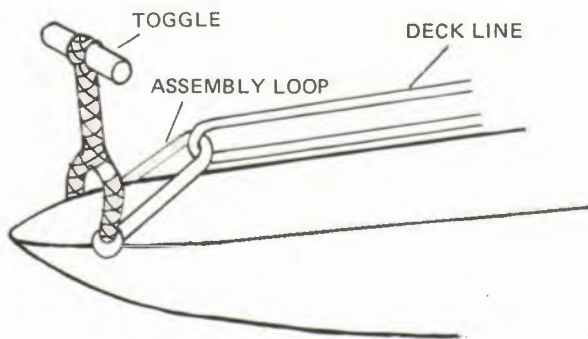


Diagram 6



Towing Lines.

Towing lines should be about 6mm diameter because you may have to handle with cold wet fingers. Poly-propylene line floats and is bulky for its weight. The plaited variety is easier to handle. A short piece of strong elastic cord is used to attach the line to the boat. This absorbs the tugs and jerks when towing.

There is some controversy over the point of attachment of the line to the canoe. Some say the rear of the cockpit, others recommend the stern of the canoe. Physically the best point is the rear of the cockpit (tugs tow from just aft of centre). It is also possible to reach from the cockpit to jettison the article being towed should this be necessary in emergency.

The problem with towing from rear of cockpit is twofold, first of all, gear stowed on rear deck can be dislodged and second, should the towing canoe capsize the occupant may become entangled in the towing line whilst attempting to roll back upright.

I have laboured this problem of towing lines and points of attachment. It is worthy of consideration. Remember if you are in charge of a group at sea a useful towing line on all leading canoes could make all the difference when assisting weak paddlers through difficult conditions.

Buoyancy.

Tailored air bags, polystyrene, whatever you use to keep the canoe afloat in the event of a capsize, it must be adequate and secure, and in BOTH ends of the canoe. There can never be too much. Most

modern sea kayaks are fitted with fore and aft bulk heads. This makes for easier emptying in the event of capsize. Should your kayak be fitted with a hand pump it is even possible to right your boat (something you never do as a rule) and pump it dry before clambering back in. As I paddle a large sea kayak I have managed to fit a hatch-cover in my rear bulk head through which B.D.H. bottles fit comfortably. This negates hatch-covers on the decks and as the cover is never exposed to the elements I manage to keep a dry boat.

Remember a buoyant boat rides high on the water when capsized - easily carried by the wind. Vertical pillar buoyancy in a kayak helps to hold the deck away from the hull in very turbulent water and when attempting deep water rescues.

Clothing.

As in all aspects of canoeing, careful consideration must be given to clothing. The clothing worn depends on the weather, the time of the year, the length of trip, and the type of trip, so obviously I cannot lay down any definite advice other than plan to stay warm and protected. If in doubt about whether to wear a wet suit refer to the 'chill index'. This is a guide to survival time whilst being exposed to wind and wet, and can be found in the Chapter on Survival on page 23.

Flares.

Flares are obtainable from yacht chandlers. There are several kinds and sizes. There are those that give off smoke, and those that give off light. There are those that launch into the sky and send off their message of help from aloft, and those the canoeist holds on to. The usual colour employed is red for distress. As for size the larger ones are more reliable. There are packs of mini-flares available which are fired by a small tube like 'gun'. This requires proper maintainance and of course you do need a fire-arms certificate obtainable from the police. All these flares have expiry dates and I suggest you renew them long before the date as flares used by canoeists tend to get a lot of wear and tear whilst being carried-around. Make sure the flare is available to you should you capsize and lose your boat. In other words it should be stowed on your person. I personally carry parachute flares as well as the smaller smoke flares in pockets sewn on to my buoyancy aid.

Radio Aids - types available.

(Radio Telephones)

There are basically two types of radio sets that are of any use to sea canoeists.

I). Portable rescue or distress radios, e.g. the CALLBUOY 18 manufactured by Marine Electronics Ltd., 6 Somerset Road, Cwmbran, Gwent, or the SPACE AGE ELECTRONICS MAYDAY which weighs only 3.5 kg and measures 370 x 180 x 110mm.

Distress radio telephones transmit on the international marine distress frequency of 2182 kHzMF, also known as Channel 16 (also transmitted on 156.8 M.Hz VHF). Unlike VHF, which is limited to line of sight ranges, 2182 kHz gives a normal range of between 40 and 60 miles. These distress units incorporate a special two-tone signal which activates the automatic watchkeeping receivers used by coastguards and many commercial sea-going vessels.

Most distress rescue units are two-way radios, so you can talk with your rescuers and keep them informed on your circumstances. Channel 16 is continuously open for anybody to summon aid in cases of emergency. The use of emergency only apparatus is limited to three classes of message; those prefixed MAYDAY, PAN and SECURITE (pronounced SAY-CURE-E-TAY)

You prefix with MAYDAY when threatened by grave and imminent danger requiring immediate assistance. Prefix with PAN when transmitting a very urgent message concerning safety. Prefix with SECURITE when the message concerns the safety of navigation etc.

There is no point in me going into the operational procedure here. It is of course well worth while reading and learning the relevant information which is usually written on the unit. It really is not funny to be 'caught out' and have to read instructions while the situation rapidly worsens.

The cost of the Callbuoy 18 with batteries is about £160 and the Space Age Mayday £130, obtainable through approved Marine Radio Suppliers. You will usually find one of these at most large ports. Any manufacturer will supply a list of approved dealers.

II). Then there is the portable marine VHF/FM radio telephone with multiple channels. May I recommend the Viking Rover VHF-FM, 1 watt 3 channel manufactured by Radcom Ltd, 23 Chantry Lane, Grimsby, Lincs. @ about £300 (5 chan @ £350). Also the

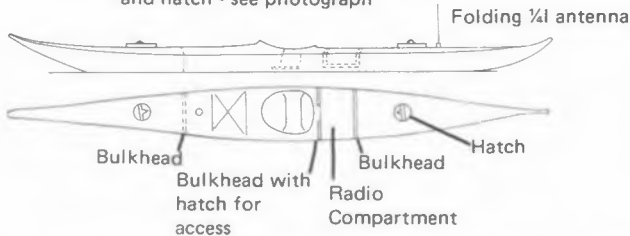
'Standard' Model SR C830S, 5 channel manufactured by the Standard Radio Corp, Japan @ £150 and obtainable through Lee Electronics Ltd., 400 Edgeware Road, London W.2.

These multiple channel sets include Channel 16 of course. This channel may be used to contact any other ship or coastguard station, but having established contact you will be asked to switch to another channel to make your call. Normally you would switch on the set to an alternative channel, listen to ensure this channel is clear, and then call (3 times) the station you require, giving your call sign (3 times). Providing the station is not already communicating with a third party, you should get an immediate response. You are now able to communicate, not an emergency, but anything at all so long as it is essential, i.e. keeping the coastguards or backup crew informed as to your position, getting up to the hour weather forecasts, asking for navigation or medical advice etc., etc.

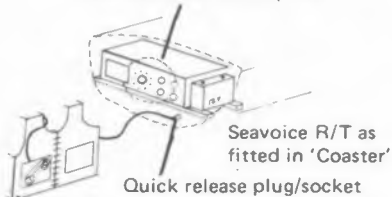
A friend of mine, Eddie Banks, has been experimenting with a VHF Radio telephone called the Seavoice. This has 8 channels, retails at about £250 and he fits it into a false bulk head behind his seat. He has kindly allowed me to publish the following diagrams and photograph.

Nordkapp 'Coaster'

Std. Nordkapp plus extra bulkhead and hatch - see photograph



Access hatch to change channel and reconnect battery etc.



Telephone type handset kept in bulkhead pocket



If you intend taking the use of R/T's seriously you should study the Phonetic alphabet and figure code, and read the GPO Handbook for Radio Operators, an HMSO publication. If you require any special information refer to this address:- Home Office

Radio Regulatory Division
Room 311
Waterloo Bridge House
Waterloo Road
London SE1 8VA

Licensing is a point worth mentioning. For an emergency radio a licence costs £3.20 for five years. For a VHF set a licence costs £5.50 but the user must have a 'Certificate to Operate' which costs £8.00 and involves a simple test on procedure.

Compass.

The compass is an essential item of equipment if you are going to embark on an extended trip out to sea. I use the gimballed type with the compass floating in a fluid-filled glass dome. I have it set on the deck near enough to read during rough conditions but not so near you catch your knuckles when paddling too low as happens when you are tired. You will need to experiment. The ordinary hill-walker's compass is good enough, as is the car compass, sold quite cheaply at car accessory shops. There are various ways of carrying the compass: tied to the release loop of the spray deck, worn on the wrist (I do not favour this way at all) or simply taped to the fore deck. Check that your compass is accurate, and no other item of equipment made of metal is affecting it. It is worth modifying your compass so that it floats. I have recently taken to using the Sailboat Racing compass illustrated below. I have screwed it to a wooden plinth so that it floats. This plinth conforms to the contour of the deck and the lot is held on by elastics for ease of removal. See page 63 under Chapter on Navigation for use of the compass.

Other Items of Equipment.

Here I will list the remaining gear that I always take along on my sea trips.

10 metres of life-line with a float and light-weight karabiner on one end.

A sponge for mopping the boat dry.

Spare clothing.

Food and hot drink.

Water container - 1 pint.

Repair kit consisting of P.V.C. tape, methylated spirits, and towelling.

Sun glasses.

Cream to prevent sunburn.

First Aid Kit, to include sea sickness pills.

Matches.

Emergency rations.

Water-proof watch.

Charts and maps.

Spare paddles.

Polythene Bag, 500 gauge
7ft x 3ft.6ins.

Torch: Whistle: Fishing Line.

If you intend camping out then, of course, tent, sleeping bag, cooking equipment, etc. is required. Ref. B.C.U. Handbook No. 3 on Canoe Camping.

The whole lot needs packing carefully in water-proof bags or containers.



Storage containers ideal for packing gear



The Silva Compass



A hand held Mini Compass



A Sailboat Racing Compass by SUUNTO



Hand held flares