# SCRA

## Notes on Navigaion and Passage Planning

What follows is by way of guidance and assembled thoughts when planning a cruise by skiff. The following should be taken into account:-

### SOLAS V - Chapter 5 of the International Convention for the Safety of Life at Sea

This Regulation includes parts applicable to small, privately owned pleasure craft Regulation V/34 – **Safe Navigation and avoidance of dangerous situations concerns the prior planning of any trip** and the following points should be addressed:-

**The weather and tides, limitations of the vessel (**is it up to the planned trip and suitably equipped), **crew (**the experience and physical ability, crews suffering from cold, tiredness and seasickness won't be able to do their job properly), **navigational dangers, contingency plan, information ashore** (make sure someone ashore knows your plans and knows what to do should they become concerned for your well-being. In the event of an emergency, dial 999 and ask for the Coastguard. The Sandbay Century is registered under the Coastguard Voluntary Safety Identification Scheme (CG66) which is lodged with Aberdeen Coastguard, the closest Maritime Rescue Coordination Centre to our area of operation. This includes a description of the Sandbay Century and its equipment. Have you registered your skiff on CG66? https://www.gov.uk/register-boat-coastguard-safety-scheme

Many large vessels rely on radar for navigation and locating other vessels – the St Ayles Skiff is mostly of wood which does not offer a good return to radar transmissions. The links below are for big ship stuff but there is some good advice and general background – particularly if you are going to be rowing close to shipping lanes

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/460848/MGN_538.pdf

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/442645/MGN_315.pdf

### Planning a Trip – Passage Planning

Do you have an Admiralty Chart of the Area? These can be quite large and unwieldy in a small boat. Can you photocopy (copyrights laws?) in smaller sections and laminate them so they fit in a waterproof map case – another thing to dangle round the cox's neck, along with VHF, compass, gps? Do you have a gps (waterproof cover) or mobile phone app?

The Admiralty Leisure Chart Folios are quite a useful asset (£50 approx) which have a number of charts/chartlets for within a geographical area – e.g. West Coast of Scotland SC5611 - Mull of Kintyre to Point of Ardnamurchan – 47 chartlets – on 28 pages. (A3 Size) Do you have access to tidal information for the duration of passage and can you get hold of the relevant Tidal Diamond base port tide information as referred to on the appropriate chart.

When doing a passage plan there are four distinct phases:-

**Appraisal** – select the appropriate chart or charts for the proposed passage - look at the chart (there are some inland lochs for which the Ordnance Survey have maps which include under water contours – which may assist) and check for obvious dangers – most usually associated with charted depths. Remember – these are the depths at chart datum – the height of tide has to be taken into consideration. Using a 2B pencil circle the tricky bits to highlight them – use the largest scale chart possible – particularly close to the shore. Where the chart is printed in white – there is always enough water for a skiff. (we hope – but check the numbers written there). The areas printed in buff are the hard bits – which can be sore and cause damage – those in varying shades of blue may be safe depending on the height of the tide and the draft (depth) of your skiff. Green bits on the water are areas which are dry when the tide goes out. When you look at the proposed route – check out places of safety – as a contingency plan – is it a sheltered place for the number and type of craft undertaking the voyage. Have you got a safety boat accompanying you – which might need fuel. Check out the appropriate Sailing Directions – Clyde Cruising Club produce some excellent documents and chartlets for the West Coast of Scotland. http://www.clyde.org/publications/

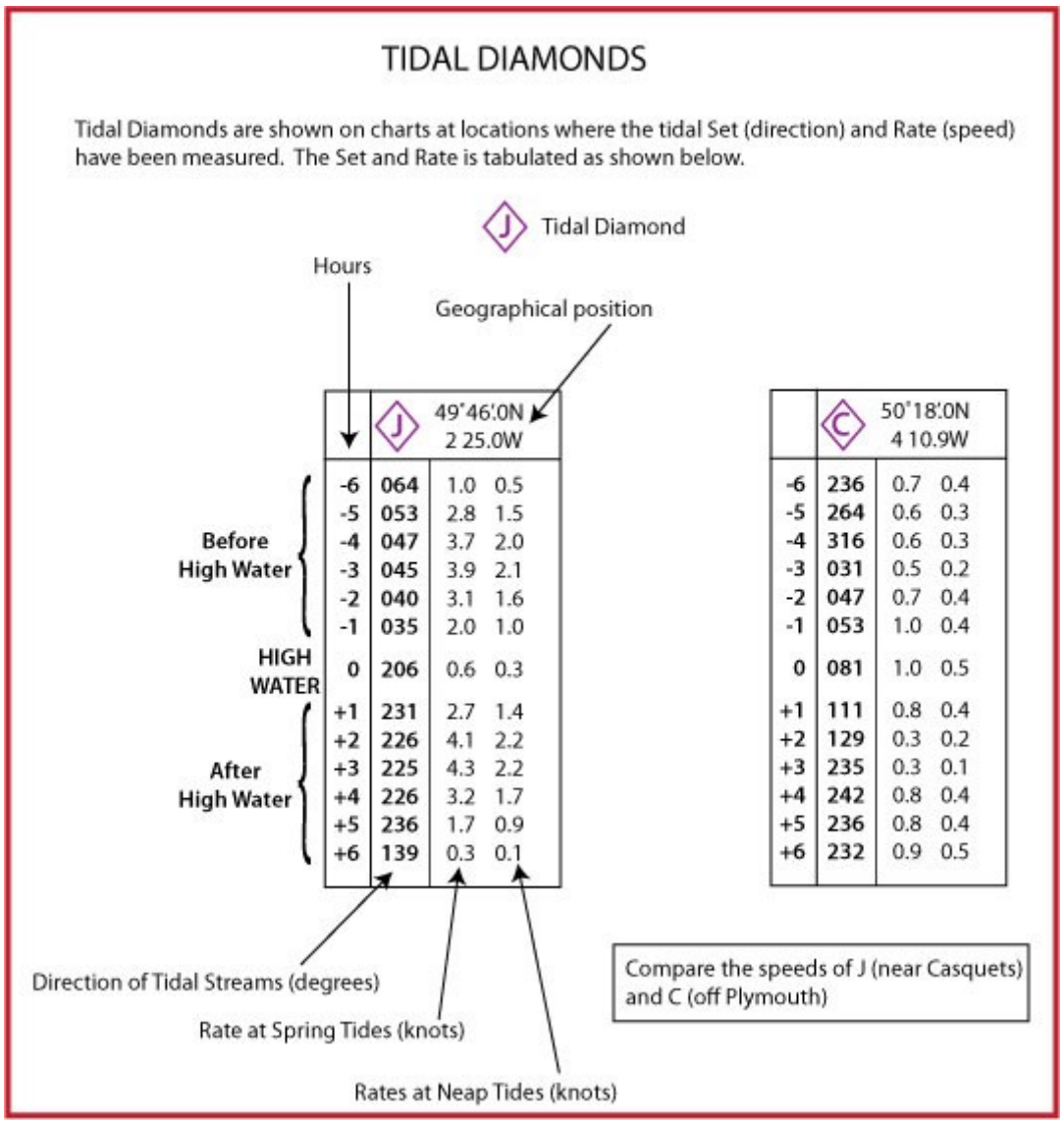
The internet is a wonderful place to source information. Check on Ports and Harbour Authorities – they will have any details for contacts – whether you need permissions, need to submit passage plans (if you are using Scottish Canals – e.g. Caledonian Canal you may need to submit any plans 3 months in advance). If you set all this up in advance, you get on with enjoying the row and the scenery.

Have you worked out where and how you wish to go – how long will it take – do you allow 3 to 5 nautical miles per hour? Have you added a contingency time for crew changeovers, photographs? A Nautical Mile is taken as being about 6080 feet as opposed to a statute mile 5280 feet. Nautical Mile = 1 minute (1/60th of a Degree of latitude, at that latitude) = on average 1852 metres.

Always measure distance on a chart on the latitude scale (North / South) as close to the latitude as you are using. Due to the projection of the Chart (Mercator) – the length of a mile will increase (in centimetres on that chart) as you move northwards. It is also useful to note on the chart areas of high density traffic – use the 2B pencil and make a note – is there a ferry? when does it sail? Where does it go? Please keep away from these things – they are bigger than you , create a wash which might be uncomfortable and when manoeuvring may have difficulty avoiding you – so stay out of the way , listen to the VHF and head into the resultant wash.

Have you checked the tides and any tidal flows along your route – some charts have tidal diamonds and at salient points – flood (incoming tide – direction and rate) ebb (outgoing tide (direction and rate- how fast- is it faster than you can row?)

https://www.youtube.com/watch?v=5IheSnLfJLI




**Planning –** why are you doing the trip? What do you hope to achieve? Have you told someone or are you just heading off to see somewhere new? Are you trying to row against a strong tide? Will tide and current assist timings for the row? Is there are prevailing wind? For example, on Loch Ness , the prevailing wind is south to north – so as a plan, transit from Fort Augustus to Inverness would be easier. Once you have sorted out the best way to go – identify and highlight all points of danger or places to avoid, mark your proposed course on a chart(let) – obtain courses to steer and distances. Remember all courses on a chart will be True Courses – you will have to correct for Compass Variation. Compass Variation named West is added to True to give a Magnetic Course to steer.
Once you have a total distance, it may then be prudent to identify stops for comfort breaks, sight-seeing , overnights etc. Plan your safety check-in procedure.

**Execution -** Have you sufficient safety equipment for the passage? Do you have sufficient line for your anchor? Do you need a larger/heavier anchor? Have you worked out a rowing rota? Are there sufficient trained and/or experienced coxes ? Do you have someone experienced in navigating vessels? Are you carrying extra bodies or equipment on board for your passage? Remember – if you are rowing in fresh water (lochs), you will be lying deeper in the water, for the same weight.

**Monitoring** – know where you and where you would like or ought to be. How? - GPS – good and generally reliable means of position fixing. If it includes a compass , can be used for steering to input waypoints. Remember – if the Americans want to – they can reduce accuracy – normally within about 10 metres – or turn it off or reduce the number of satellites. It is an aid and should be checked and verified. How else can I check my position? – Use a compass and take bearings and plot them on a chartlet. If two or more bearing lines cross, then that point is the position you were when you took the bearings. A useful tool is the transit bearing – when two shore (fixed) features e.g. a church steeple and a hill top are in line – they are then in transit – a cross bearing will indicate a good position or fix.  Please ensure that both features are clearly recognisable on the chart. When using a paper chart, it is important to use a 2B pencil , easy to rub out – or if using laminated chartlets use a chinagraph pencil.

Any compass which you use will indicate a Magnetic Bearing which is subject to the Earths Variation at that geographical location. There is limited effect of Deviation – another component of Compass Error from the True North – deviation is a function of the boat that you are on – wooden boat – little magnetic effect – unless you keep your compass by your anchor.

***Now the important bit, have a good enjoyable and safe expedition!***