

## **RAFT BUILDING TIPS**

### **BUILDING A RAFT AND EQUIPMENT**

The following is a suggestion about how to build a raft. It is not mandatory that you follow this suggestion. There are many ways to build a raft, but please ensure that your raft conforms to the **regulations** itemised under the **ENTRY CONDITIONS**

#### **RAFT BUILDING SUGGESTION**

##### **Basic Construction:**

If one uses 6 x 200 litre barrels to provide the buoyancy, an oblong wooden cradle or grid with 9 slots the size of a half-barrel, the three on each side designed to sit astride the barrels, leaving the middle three empty for the hull spacing forms the basic structure. Whilst virtually any materials can be used, remember to clean away anything that may be an irritant, cause pollution or damage the river environment. Fixing can be by bolting or bonding or screwing or tying together, but if the barrels are cut open for easier fixing remember they will sink unless they have some additional flotation built or inserted into them.

##### **Steering:**

A rudder or tiller can be attached to the back timber to steer the raft but there is a disadvantage in that someone will be needed to steer and it can also break. Alternatively, the back two paddlers can use their paddles to steer – a far simpler method but something that needs some practice.

##### **Nose Cones:**

Anything to soften the passage through the water will help the raft go faster.

##### **Improvements:**

The following principles can be adopted in whole or in part to obtain improvements over the basics above:-

##### **Size:**

Longer rafts go faster but are harder to steer and transport. Wider hull spacing makes for greater speed and stability but makes for more difficult steering and transportation.

**Weight:**

Lighter rafts go faster but become more unstable, and especially if the crew outweigh the craft.

The lower the centre of gravity, the more stable the raft, but the less amount of barrel in the water, the faster it will go due to less drag.

The raft race course has a couple of shallow stretches, so lighter is better than heavier.

**Miscellaneous:**

- a) Rowlocks are not permitted, so paddles if used, need to be manageable. Propulsion can usually be by any means other than a motor. So pedals, pushing, carrying, etc. may well be necessary especially when grounded or if your design fails
- b) Seating of some sort will provide comfort but does add weight and will need to be fixed firmly.
- c) A surface for a painted number on both sides is required.
- d) Using Water cannon will bring exclusion from the race on hygiene and safety grounds.
- e) Wearing a lifejacket throughout your time on the river is compulsory, in your own interests!

*Happy Rafting!*

*YouTube is also a good source for building instruction and ideas*

[www.youtube.com](http://www.youtube.com) search raft building