

## **Recommendations Concerning the Use of Redundant Air Sources (Pony Cylinders)**

Redundant air sources can be independent cylinders and regulators carried by a diver in case of a regulator malfunction or an out of air emergency. A common form of redundant air source in the UK is the 'pony cylinder'. These normally comprise a small (approx 3 litre) cylinder and a regulator with a single second stage and pressure gauge. These are often carried attached to the diver's primary cylinder. A pony cylinder of this type is intended to provide sufficient air in an emergency for a diver to abort the dive and return safely to the surface. If you do have to switch to your pony cylinder, you should alert your buddy and return to the surface. The pony cylinder is not intended as a means to extend a diver's bottom time.

When using a pony cylinder, divers should be sure to check their weighting and trim in shallow water and on build up dives. Pony cylinders often affect the amount of weight a diver requires and, if worn on the back, can require counter weighting to prevent rolling. Divers are advised to practise in a controlled environment to determine whether these factors relate to them.

When a pony cylinder is carried on the back, divers should check that it is full and in working order prior to diving. Divers should establish a routine practice for whether to keep the cylinder constantly on, or whether it should be pressurised and then switched off. If the cylinder is constantly open, it will readily provide air in an emergency. This does however provide the danger of an additional free flowing regulator in a cold water environment, and the prospect of the redundant air source being mistaken for the primary regulator during the dive (more on this later). Alternatively the diver may wish to pressurize the redundant air source, and then close the valve. This will allow the system to provide a breath of air in an emergency whilst the diver opens the valve. This prevents the danger of the regulator being accidentally used underwater, although the diver must be sure that he can easily reach the pony cylinder and that it can be opened quickly and fluidly.

It is important that the regulator used for the pony cylinder can be easily identified, and that it cannot be mistaken for the diver's primary regulator. This can be achieved in many ways including:

- Colour of the second stage
- Colour of the mouth piece
- Shape and style of the second stage
- Shape and style of the mouthpiece
- Colouration of the pony cylinder hose
- Use of a physical item, which covers the mouth piece and must be physically removed before the regulator can be used.

Divers may wish to use one or more of these options to identify their pony cylinder. A thorough buddy check should always be conducted prior to every dive. When a diver is using a pony cylinder, this should be carefully checked by both the diver and his buddy prior to entering the water. Buddy teams should confirm the procedures that will be used, should a diver need to switch to a pony cylinder and end the dive.

Breathing from the wrong regulator may potentially result in the diver emptying the cylinder and apparently running out of air. This has been implicated in accidents in the past.