Letters to the Editor

Thoughts regarding air-integrated versus separate-second-stage octopus supplies

Dear Editor,

Acott has previously discussed problems with buoyancy compensators (BCDs).[1] In the recent review of regulator incidents by Goble and Acott they state 'The combination of a second stage regulator and a low-pressure BCD inflator as the 'spare' regulator is extremely difficult to use…'[2]

In an out-of-air (OOA) emergency, the air-integrated (Air2) alternative air source is definitely an inferior solution. If you are also wearing a dry suit, it becomes virtually unmanageable. An Air2 should never be fitted without a pull dump cable in the BCD deflator hose, to enable dumping the BCD without removing the Air2 from the mouth. However, this is a heavy task loading in a difficult circumstance, increasing the probability of an uncontrolled rapid ascent.

Another drawback of the Air2 configuration is the high probability that the unit is not serviced annually. Divers also tend to forget to cap the hose fitting, so water can enter the air barrel. If it is disconnected in sea water it must be thoroughly rinsed in fresh water to avoid corrosion.

On the other hand, proper gear maintenance and dive planning will make it extremely unlikely that you will need to share air, as first stages rarely fail catastrophically. An advantage of the Air2 is that it teaches donating the primary, which I believe is the proper method, since odds are the stricken diver will go for the primary in any case. Therefore, despite Acott's concerns, for no-decompression diving at recreational depths an Air2 is an acceptable compromise, provided students are taught properly how to use it and are warned of its limitations.

The most suitable open-water rig is a short-hose second stage hung from the neck with a bungee cord as a secondary or 'octopus' and a 2 m primary wound once around the neck. It is the primary that is donated in an OOA emergency and the donor takes the secondary. With this arrangement, there is plenty of hose for the recipient, reducing stress and allowing a controlled ascent, even from depth. This is the method favored by the GUE agency, and is an offshoot of the Hogarthian rig evolved for use in cave diving.

References

1 Acott C. An evaluation of buoyancy jacket safety in 1,000 diving incidents. *SPUMS J* 1996; 26: 89-95

2 Goble S, Acott C. Regulator incidents: 52 incidents from the Diving Incident Monitoring Study. *SPUMS J* 2003; 33: 30-34

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