

• Decompression dives

Divers undertaking planned decompression dives with the club should

- be suitably qualified/experienced.
- be experienced in the use of all of the equipment they take on the dive .
- have a Surface Marker Buoy (SMB) that is deployable from depth, with at least 6 metres of cord attached, to allow decompression with a float marker.
- have a cutting device suitable for cutting a tangled SMB cord.
- have a dive computer with decompression capabilities, or appropriate dive tables and have calculated a suitable range of decompression scenarios for the dive planned.

Blue water ascent

Guidelines

- Blue water ascents are best avoided!
- It is much more difficult to control your ascent rate in blue water with no point of reference than when on an anchor line.
- Current will cause you to drift, usually away from the boat.
- Always plan to ascend the anchor line at the end of the dive - navigate carefully.

Safety Sausages

- The club provides safety sausages (big **orange** tubes closed at one end) with every BC.
- If you surface a long way from the boat inflate one to attract attention.

Surface Marker Buoy (SMB).

SMBs are like safety sausages, but can be deployed from below the surface on a line, so that the boat can find the diver while they are completing a decompression or safety stop. Use of an SMB requires training/experience. ***Never attempt a deep or difficult dive with an SMB with out experience.*** SMB lines can easily become entangled with the diver, and drag them quickly to the surface resulting in decompression sickness. If you carry an SMB, you should also carry a knife to cut the line. Where use of an SMB is referred to below, it assumes the diver is trained in its use.

Dive Reels.

- Are very useful navigation tools, and can be used to avoid the necessity of a blue water ascent.
- Require experience to use safely. They can:
 - easily become tangled.
 - change dive profiles (e.g. at the end of a dive when retrieving a reel

- dropped in deep water at the start of a dive)
 - be lost and lengthen a dive.
- Are the responsibility of their owner, and are not provided by the club.
- *Never use a dive reel on a difficult or deep dive without experience.*

If a blue water ascent is necessary

- establish buddy contact and indicate an ascent
- take a bearing on the current
- ascend at the normal rate swimming into the current – stay together and monitor depth carefully so that you keep ascending
- when you are low-on-air or are lost in a raging current with no idea of where you are and a long way out to sea :
 - Surface, locate the boat and if possible attract the attention of the occupants with a safety sausage or SMB.
 - Return to the boat, or wait for the boat to pick you up.
 - If you missed a deco stop, if possible,
 - obtain extra air and within 5 minutes return to depth of last missed deco,
 - spend 150% of the indicated time there (see Omitted Decompression Procedure below)
 - on shore breath 100% oxygen ASAP
 - contact DAN
- When you have enough air, know you are in the general vicinity of the boat (i.e. no strong current), and conditions are suitable:
 - If you have an SMB that you can use, deploy the SMB by the 1st deco/safety stop so people in the boat can locate you
 - Finish safety stop/deco requirements (hopefully a boat will turn up during that time if you deployed an SMB).
 - Surface, if required locate the boat and attract the attention of the occupants with a safety sausage or SMB.
 - Return to the boat, or wait for the boat to pick you up.

Surfacing and returning to the boat.

After surfacing and locating the boat:

- If possible, **signal to others in the boat that you are OK** and that you will swim to the boat.
- **Take a bearing on the boat** with your compass if it is any distance away.
- If you have air and want to you can swim below the surface at 5 metres to the boat (making up any missed safety stop) – take account of the current.
- Otherwise swim back to the boat on the surface.
- If you can not swim back to the boat, attract attention and **signal your distress**
 - use a **safety sausage or SMB**
 - use a **whistle** or other signalling device
 - wave a **fin blade** above your head
 - **keep your BC inflated**
 - be prepared to **dump your weights**
- Stay with your buddy.

Decompression and Safety Stops.

Sometimes it is safer to not do a safety stop. The use of a safety stop should be determined by: remaining air, likely distance from the boat, strength of the current, distance from the shore, and any other factors relevant for diver pick up or survival.

Even if there is a decompression requirement, it will sometimes be safer for one of the buddy group to surface very briefly to take a bearing on the boat, then descend to complete their full deco requirement while swimming to the boat (usually up current). In this event, even if using a computer that has accounted for this brief exceeding of the maximum ceiling, it is prudent to ensure that as much additional deco time is undertaken as the air supply permits. In an extreme case where divers are in a strong current, a long way from shore, or in very cold water then the best option may be to remain on the surface with an uncompleted deco requirement trying to signal others in the boat until contact has been made.

○ ***NOAA Omitted Decompression Procedure***

- Proceed to the surface at a normal rate of ascent
- Once on the surface, he should notify the divemaster of omitted decompression.
- If asymptomatic, and he can be returned safely to the water within 5 minutes after surfacing, he should return to the depth of the missed decompression stops (with a dive buddy) and remain for 1 1/2 times the required decompression stop time.
- If he can not be returned to the water within five minutes after surfacing, he should be placed on oxygen for a minimum of 60 minutes.

Reference:

NOAA Diving Manual, Diving for Science and Technology, 4th Ed, Joiner JT (Ed)
National Oceanic and Atmospheric Administration, U.S. Department of Commerce,
Best Publishing Company, AZ, USA, 2001, p4-23. ISBN 0-941332-70-5