Differences between BSAC and PADI (or other agencies)

You've seen Star Wars right? So PADI is like the empire. PADI divers are like storm troopers and PADI instructors are like the emperor or Darth Vader. BSAC is like the resistance. BSAC divers are like Luke and Leia and BSAC instructors are like Yoda and Obi-Wan.

Only joking. In fact, a large number of our club divers were originally PADI trained and we have club members join us from at least 4 other agencies too. Only 3 of our 8 committee members did their first qualification with BSAC. We welcome all divers and forgive them for their previous sins. Every now and again we even get an instructor join us from another agency. It's always emotional when they take off their broken black helmet to look on with their own eyes…

Intro

In all seriousness, many differences between BSAC and other organisations are somewhat arbitrary. One way isn't necessarily better than another but there are some advantages to everyone in a community doing things the same way. It's better for new joiners not to get surprises at the wrong time so the below is intended to include as many differences as possible, however trivial or arbitrary they may seem, along with what I believe is the rationale for the BSAC method. There will of course be omissions (please suggest updates!).

There are however some more important structural differences between BSAC training and BSAC diving practices compared to commercial structures like PADI. These have safety consequences on dive trips. PADI is geared around diving in very easy tropical conditions with calm seas and very good visibility, with a guide (or several) in the water being paid to look after everyone. The risks are very low in these conditions so the level of competence and discipline required or expected of the divers is low.

UK club diving isn't like that. The sea is frequently rough, the visibility means you will usually not see the surface from the sea-bed (and vice versa), and you may well see no divers other than your buddy while you are down. There will not be any guides so you and your buddy have to find your own way around and look after each other. Sounds scary? Don't worry it's not really. But the levels of risk at the start are higher which means that we have to mitigate those risks with more thorough training, more equipment, more procedures and better standards of discipline in sticking to the training and the established procedures.

BSAC briefings are based on the acronym SEEDS, so that's how the information below is organised.

Safety

Gas Planning
We use the rule of thirds. In practice this means that you should be back on the surface with 70 bar left in your tank. Depending on the dive you're doing that might typically mean leaving the bottom with 100 bar. That might seem quite limiting compared with the PADI norm of 50 bar, but bear in mind that you need enough in your tank for both yourself and your buddy in the case that they have a free-flow and lose all their air. You also need enough to sit on the surface waiting for the boat to collect you. That might take half an hour on a bad day, during which your reg should be in your mouth all the time.

Separation procedure
If you separate from your buddy then have a look around in the area for up to 1 minute. If it's silty it may be better to ascend a meter or 2 and look for the bubbles. If you don't find your buddy after a minute of looking then ascend safely to the surface. If you need to do some decompression then do it – but typically don't bother with a safety stop. You will hopefully discover that your buddy has followed the same procedure and surfaces somewhere not too far away at about the same time. If it was a shallow dive and/or you weren't far in then you can consider going back down to continue the dive – but err on the side of caution in case of doubt. Multiple ups and downs make DCI more likely.

Air shares
In BSAC we train "secondary take" – i.e. the out of air diver takes the secondary (octopus) regulator of their buddy. In particular, it's important that the buddy (rescuer) does not take their own octopus and give it to their buddy (secondary donate) as taught in some agencies. This is partly because it's more efficient for the out of air diver to take it as they can see it and free it more easily - and are already acutely aware of the need to do this! It's also important to follow the muscle-memory built up in training. Doing something different for the first time in a panic situation isn't ideal.

If you haven't done this technique before please let the training officer know and you can practice it in the pool.

NB lots of technical divers use a long-hose setup and use a primary donate technique. That's fine when diving with other technical divers who will have practiced this technique but, when diving with inexperienced divers, please breath from the short hose on the dive and have the long hose routed/ready for your buddy to take as per their training (side-mount divers: please use 2 short hoses for yourself and have a spare long hose exclusively for your buddy). Ask for advice if unsure.

The 4th possibility - primary take (the out of air diver takes the regulator from their buddy's mouth) is explicitly disallowed by BSAC.

Exercise

Make a dive plan with your buddy
You should receive a dive briefing about the site from the dive manager. You will then be free with your buddy to do whatever dive you choose on the site (subject to the dive manager's approval). Even on an easy dive you should as a bare minimum agree with your buddy what is the max depth you will go, what is the max surface-to-surface time and what minimum air you will start the ascent with. Once you've agreed this report it to the dive manager.

Buddy check
Within your buddy pair do your check one at a time. While your buddy is doing theirs you shouldn't be fiddling with your own equipment or mimicking the check yourself. Your job is to watch your buddy's check carefully to make sure that they haven't set something up wrong (eg twisted hoses) and that they haven't forgotten anything (eg their weights). You also need to make sure that you understand how to use their equipment. Think to yourself – if I have to rescue my buddy how will I hold them, do I understand how to de-kit them? If I need my buddy's air how do I get it?

The BSAC buddy check is based around the acronym BAR e.g.

- Bouyancy. E.g. “Air goes into the BC here, out here, here and here. Air goes into the dry suit here, out here. I dive with my valve fully open”. Actually operate all the controls – your buddy wants to hear the air going in and out to be satisfied that everything is connected correctly and working.
- Air. E.g. “I have 220 bar of air in a 12L cylinder. <breath 4-5 breaths>. It breathes fine, tastes find and there are no fluctuations. My secondary is this yellow one. If you need it – just pull it towards you”. Show your buddy your gauge as you breath from it – they will want to be satisfied that you have read it correctly and that the needle isn’t moving.
- Releases. Eg. “Press to release here and here, squeeze here and here. My weights are on this belt which comes out this way”. Actually touch the releases and verify yourself that they are closed.

Other acronyms are acceptable too – so long as they are systematic and reliable.

Descent

Meet your buddy on the surface. Exchange Oks. If everything is OK then exchange down signals. Descent together. NB most problems on the descent happen very near the surface so don’t bomb straight to the bottom leaving your buddy struggling with something near the surface. Stay together and watch/help each other.

If the descent is down a shot line, don’t pull on the shot line to help yourself to descend and don’t swim near to it. Make an OK signal around the line as you descend.

You will often want your torch on during the descent as, if visibility is poor this will help you and your buddy to see each other and stay together.

Ascent
On no-deco dives we do a safety stop of 3 mins at 6 meters (or as directed by our computers).

Following that we are trained to spend a further 1 minute ascending from 6m to the surface. This is important as it significantly reduces your chances of getting DCI.

On nearing the surface the drill is to face our buddy, make a fist and put it high over our head (in case we are surfacing into a solid object such as a boat) and to look above our buddy’s head for the same.

We will typically surface using a (D)SMB line (a.k.a. “safety sausage” or “blob”). You and your buddy should both surface together and right by the SMB. If you surface far from your buddy you are taking a significant risk that the boat heads for your buddy and runs you over.

Equipment

Your kit is solely your responsibility – even/especially if you’ve borrowed/hired it from the club. We aren’t a commercial centre so it’s nobody’s job to ensure that you have all the equipment you need on the boat, or that it is all in good working order. We are a friendly club though and, of course, we will try to help if we can.

There is a full kit list on the website, however, according to our club diving rules, on every single club dive all divers must carry the following safety equipment:

- A DSMB or a flag (so that you can surface safely without boats hitting you and so that you can make yourself visible to the boat if the sea is wavy). NB you want a large DSMB – both tall and wide – so that it can be seen from the boat even in big waves.
- A whistle (so that you can attract the boat if you can't see it – e.g. due to an obstruction, due to fog or due to drifting away a long distance
- A knife or line cutter (so that you can free yourself or your buddy from entanglements)

Other than the point above about not using a primary-donate set up with inexperienced divers, BSAC doesn't mandate or require divers to use or not use any particular kit configuration. There are experienced divers in our club who use many and varied set-ups who will be delighted to bore you to death about why theirs is best. That's the techies though. Some differences in normal basic set-up:

Hose routing. Standard in BSAC is to have the primary reg, the gauge and the dry-suit feed coming from the right, and the octo and BC feed from the left. The octo generally cones across the chest and clios onto the right side of the diver. That presents a clear yellow target for an out of air buddy. In PADI it's normal to have both regs on the right with the octo clipped on the right. That's not wrong, but it will be unexpected for an inexperienced diver so might lead to confusion in an air share situation. If you plan to keep using that setup please at least clip the octo where it's highly visible with the yellow face pointing forwards not down. Same if it comes from the left and is clipped on the left.

Snorkels. PADI divers invariably use a rigid snorkel and keep it on their mask. This has the advantage that one can see them coming a mile off! BSAC divers either have no snorkel (not recommended), a rigid snorkel strapped to their leg or have a rubber snorkel rolled up in their pocket. Of these I recommend the rubber type as the rigid ones are brittle and break easily and, wherever stowed, are prone to detach and get lost.

Discipline

Stick to the plan!
If you tell the dive manager that you'll be gone 40 minutes and then you surface after 50 minutes then you can expect to see that search helicopters, life boats, the national guard and thunderbirds 1 and 4 are already deployed and on-site. Well, OK we might not react that strongly – but you can at least expect that everyone is very worried and stressed and that you get a severe telling off.

On most dives keeping to time is a simple matter of starting your journey towards the surface in good time (at least 5 mins before your max time even on shallow dives).

Stick with your buddy!
Never be out of sight of your buddy. Try to make regular eye-contact with your buddy.

The best buddy diving position by far is shoulder to shoulder (not one behind the other). That way you can always see your buddy, you can communicate easily and if one of you sees something interesting then you can point it out to the other.

In lower visibility it's very easy to lose your buddy and it can happen very quickly. Don't learn this the hard way! The lower the vis the closer your shoulders need to be to each other – in extremis dive with arms interlocked.

Keep your reg in!
We put our mask and reg on in the boat before the dive and we keep these in place until we are back on the boat. No taking regs out to chat before descending or after surfacing – use hand signals only (or an unexpected wave might cause you to swallow sea water). If the boat has a ladder or lift then keep the reg in and mask on as you ascend to the boat – it's surprisingly common to see a diver fall back in if the boat rocks suddenly.

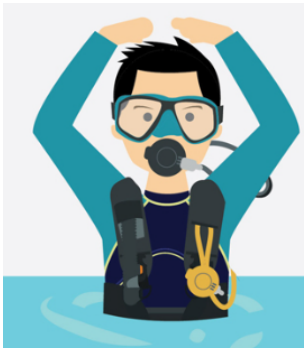
NB some PADI divers are trained to switch between to their snorkel after exiting the boat and before descending, and similarly after surfacing while waiting for the boat. We don't do that. The snorkel is carried just for emergencies, such as if you are lost from the boat and have to survive at the surface for a very long time. I take mine on every dive but I've never used it yet.

Signals

OK at the surface
If you've just jumped off the boat then tell them that you're OK with a normal OK hand signal as you would to your buddy during the dive. When you surface after the dive you will be far from the boat so tell them that you're OK by putting that hand signal at the top of a tall straight extended arm.


BSAC Surface OK


PADI Surface OK


Some agencies do this!

Please don't do the PADI one as, from a distance, moving the arm round to this position looks like a distress wave. The last one is bizarre as it involves dropping any equipment that's in your hands.

Air signals

In BSAC we don't generally tell each other what air we have – we show it. If you are diving shoulder to shoulder with your buddy (as recommended) then when you look at your own gauge you will easily be able to show it to your buddy. Your buddy's reaction will be to show you their gauge. Similarly If your buddy shows you their air then, after reading their gauge, show them yours.

NB if you forget this and decide to give an air signal then be aware that a T made with your hands will be understood to mean that you have 100b left (T for ton) *not* that you are at the halfway point (T for turnaround).

I am cold

This is for the French. We don’t brush our hand with one finger to say that we’re cold, we mime being cold by rubbing each arm with the opposite hand.