

# The Seahorse Dive Club Newsletter

## Editor's Note

Welcome to the August edition of the White Horse Dive Club newsletter. Apologies for this arriving slightly late – I was off camping in the Mendips contemplating life on the surface before departing for a week in Scapa!

Despite all the nice weather and excellent diving conditions I haven't received any trip reports from July or the tail end of June. Come on, we all want to know what you have been up to. As such there won't be that much in the way of trip reports but there will be a load of other stuff ☺

Congratulations to Paul Morse, ex-club member who has recently gained his Commercial Divers Licence – well done and looking forward to a report on the course!

Finally, further congratulations to Mark Horton for 20 years as a PADI Instructor and Mike Scott for 10 years as a PADI Instructor – well done the pair of you. May you continue to pass on your wealth of knowledge to those who want to experience life beneath the waves.

## Welcome to...

Jason Costello who teaches at the weekend sessions has officially joined the club for this year and welcome to Simon Waterfall (PADI OW). These 2 bring the total membership to 41.

August 2006

## Committee Notes/ Important Club News

Nothing to note.

## Tip of the Month

**Tank Markings.** Have you ever wondered what the markings on your tank mean? Well here is a handy guide!!

The details below as you would read from the top to bottom lines, left to right.

M25 x 2 ISO BREATHING AIR KENT DIVING 1234/567/890  
BS5045/1/CM/S TP 348 BAR 2006.06 CP 232 BAR 12.2L WT13.2 KG

**M25 x 2 ISO.** This is the thread found in the cylinder neck, 25mm in diameter and with a pitch of 2mm. The pitch of a thread is the distance between two peaks when measured along the axis of the thread. ISO is the shape of the thread when viewed in cross section.

**BREATHING AIR.** What you should use the cylinder for, and what it was designed for, unless O<sub>2</sub> cleaned.

**KENT DIVING.** The manufacturer of the cylinder will sometimes mark the name of the shop on the cylinder is they buy a large quantity. This cylinder was made by Faber, although their name is not marked on it anywhere.

1234/567/890. This is the cylinder serial number. It may be made up of several components, such as the batch of steel it was made from, then the batch number as it was made and then the number in order of production within the batch.

**BS5045/1/CM/S.** This marking is the standard the cylinder was made to. DIN is another widely used national standard [Deutsche Industrie Norm, a German standard similar to BS-British Standard]. Both BS and DIN are being replaced in a lot of fields by CN standards, a Europe wide standard, and so in future diving cylinders may also be manufactured to a new standard.

**TP 348 BAR.** TP stands for 'test pressure', this is the pressure the cylinder will be subjected to when it is hydrostatically tested. The test pressure is 50% higher than the pressure you would fill to, so for a 300 bar tank it would be 450 bar. An average 12L tank like this one will expand about a quarter of a litre when it is tested in this way.

**2006.06.** This is the date that the cylinder was tested after manufacture. This is the new format with the year first, then the month, the old format was month and then a two digit year, such as 01.97 for January 1997.

**CP 232 BAR.** This should be fairly obvious in that it is the fill pressure of the cylinder. CP stands for Charge Pressure, and WP for Working Pressure is also commonly used.

**12.2 L.** This is the size, in litres, of the cylinder. It is more usual to see the letters WC in front of the size,

this stands for Water Capacity, and is a measure of the amount of water the tank will hold, not the size of the exterior. For example, because of the thickness of the walls, this tank will displace more than 12.2 litres of water.

WT 13.2 KG. This is the nominal weight, without valve, of the cylinder. This figure is used when a tank is tested to determine if any corrosion has taken place.

Now when the dive shop asks for your serial number of the cylinder you will know where to find it!!

### Forthcoming Trips

UK – Following on from a successful trip to Scapa Flow, Phil Green is thinking of organising a trip to Scapa or Normandy next year but needs to see what interest there is. Contact Phil for more information.

UK – 15-18 September, Club Long Weekend, Lyme Regis. Rib and Hard Boat diving with large subsidies for all. Contact Mark for more information.

Overseas – Steve Cain and his bunch had a fairly successful trip to the Red Sea earlier this year and Steve is thinking about chartering a boat next summer as a dedicated video/photography dive boat. Costs are in the region of £1000 for the week and 10 people are needed to get any discounts. The trip is as per Steve's itinerary and so you have a choice as to where to dive. Contact Steve if you are interested.

### Trips Reports...

*Basking Sharks, 20m Vis, 4 cracking wrecks and all in the UK....Gareth Lock*



*Wilbo on/in the Maine*

The plan was to dive 4 wrecks in the 30m range and the suggestions were the Elk and the Rosehill on 5 Jul and the Maine and the Persier on 6 Jul.

Everyone met up on the quay near Deep Blue (Deep Blue Diving - Home) after a hearty breakfast. There were 3 students for Rich on breathers Janos (Kiss), Lindsey (Inspo) and Neil (Inspo) plus Wilbo, Rob, Marianne, Martin, Dom, Nigel and myself on OC. We set off on the Endeavour at 09:00 to blue skies and a slight breath of wind to keep the temperatures from rising too much.

As we passed the breakwater the engine cut and a cry of 'SHARK' went up! Nick (skipper of Endeavour) pointed out a basking shark in the harbour, we motored over slowly and could see the dorsal and (?) fin making movements through the water. After a couple of minutes we moved off, and then another call went up, this time it got quite close to us and I managed to get some video of it.

After watching it for some time it was time to motor out to the Elk. This was a small wreck sitting in 30m of water which was described by Nick in the pre-dive brief. As was to be the norm over the next 2 days, Rob, Wilbo and I jumped in first and descended down the hotline. I was leading and did a very good impression of superman during the descent much to the amusement of the rest of the team, and even more amusement when I didn't quite replicate Tom Cruise in Mission Impossible at the bottom of the shot though. I didn't go splat, but it wasn't pretty! We set off sternwards over the top and found a hold to descend vertically into. The holds were segregated and this section contained 4 boxes; just like one of those puzzles where you have to move a piece out of a square before you can move a new piece in. On the way out of the 4th section, I saw a large conger sitting in a section of tubing; however, he didn't like the Salvo so skulked into the back. Around on top again to another hold section, again I led in and the before the others followed Dom and Marianne decided that they were going to join our team and we had 5 divers in the forward hold section, rather tight. Nick had told us there was a reef WSW off the bow, so once we had finished on the wreck we decided to find that. Nope, nothing, nada. However, I did find a large McMahon reel and SMB with the name SAM on it; if anyone knows of a reel going missing off the bow of the Elk drop me a line. I blobbed up and we ascended pretty smoothly. Once on the surface we were met with a slight drizzle and overcast skies, but TBH it was welcome in the heat that we had.

Dive over time for some tea and sausages...it was at this point that Marianne put her head through the neck seal of her drysuit. Whilst you would think that this was the correct thing to do, she put it through the intact section and not the Diving over for Marianne, so off to sleep (sulk ) 9hole in the middle in the wheelhouse while we motored over to a site where Rich had lost some kit earlier in the week. Seems like Rich has found Andy Kerslake's 9training ground as there were lots of golf balls on the bottom Keeping that place secret so Andy doesn't take me there later in the year! Sausage sarnies all round apart from Marianne who was asleep even though Martin tried to wake her up by biting her ar\*e.

Off to the Rosehill for another 30m dive. Wilbo lead this one and the descent was much smoother apart from my Salvo decided to give up the ghost on the descent. As I was in the middle there wasn't any reshuffling to do and I deployed the backup ready to go, but doing a dive without a primary isn't much fun. The Rosehill is pretty much flattened plates everywhere and not much in the way of swim-throughs. Back to the shot we saw what a mess the rebreather divers had made of the bottom Wilbo thumbed it after 25 mins as he was at min gas and we ascended doing some drills at 6m once the stops had been carried out. A pretty uneventful dive from a visual point of view. Back on the boat dekked and motored back in.

Following day, down to the quay again for a departure time of 08:30. Marianne had managed to get a drysuit from Brian but she didn't

check the drysuit nipple... This time there were extra cylinders to make the second dive longer as the Js on the boat did not have enough pressure and the compressor has yet to be installed (look at Rich's site for the big plans he has for the future of Deep Blue and the Endeavour – sounds like a top plan). The first dive was to be the Maine which is a good 1.5 hour steam out to the site. The weather was again nice and the seas were slight. We arrived at the site with 40 mins to spare to planned slack time which gave everyone plenty of time to get there kit sorted. Top tips, those with a Vyper do not set the 32% for the computer too early as when it goes into sleep mode you will end up with a 21% computer which you will Just ask Dom bend on the way up after spending 30 mins on the bottom and Nigel!

As were kitting up Marianne realised that she didn't have the same inflator hose as her new suit...Nick to the rescue as he did and a quick change of hoses and all was back to normal. After waiting for slack Rob, Wilbo and I lead again, down the shot line (eventually) and Rob's job was to tie a waster into the shot. As we got to 15m we could see the surface of the wreck clearly. Excellent! Rob dropped to the bottom to carry out his duties and there was probably a good reason why Rob was kicked out of the boy scouts! Wilbo took over, tied in and off we went. What a dive, approaching 20m vis (although difficult to judge) but look at the photos



*Rob and Wilbo in one of the holds on the Maine*

Anyone who tells you the Maine is just a pile of plates, they are correct. You cannot do massive swim-throughs of the voluminous holds, there aren't beams/ribs everywhere that make for a scenic dive, there isn't plenty of life, you can't have a bloody good dive and it isn't at all like the JEL (but better) at 30m.

This was my 99th dive and I would rate it as my best dive. After exploring the wreck we were approaching our min gas so Wilbo signalled to return to the shot (brief from the skipper) as he was approaching min gas; Rob thought this meant get the shot asap, so he shot off (that is how we know the vis was about 20m as he was probably 10+ lengths in front of us!) and Wilbo and I caught up with him near the shot.



*Rob and Wilbo in one of the holds on the Maine*

Ascended and carried out the

switch without any problems and up the shot line. I decided at this point that I like doing free ascents (or with a blob) more than a shot. Trying to get the 3 of us around the line was quite uncomfortable. As we carried up we saw Rich and his students below carrying out their drills and ascending. We made room for them at 6m just as our stops finished and we surfaced to find Dom and Marianne being picked up some distance from the shot, seems they missed that part of the brief!

On the boat, pepperoni pizza for all except the RB divers and then off to the Persier. This was to be my 100th dive and I chose to lead. Rich had explained that there is a nice swim-through of the prop-shaft tunnel which was well worth doing. Vis was about 10-15m in places but there was some definite sediment in the water compared to the Maine. Dropping down the shot the wreck didn't immediately appear to be that impressive but we soon found the prop-shaft tunnel and indeed it is a nice swim-through.



*Rob under a fallen plate on the Persier*

As are some of the gaps under the fallen plates – these can be quite deceptive until you drop to the floor and you can see green water on the other side. I decided to do

the tunnel again from the other end but had to wait for Rich and his train of students to come out first; counting them out I made a mistake and nearly went head to head with Lindsey as Rich had another student join him today (and he had sat the first dive out and I didn't know he was coming in on this one) and that made 5 divers and not the 4 I had counted through. No bubbles and a backup lights means it was hard to spot them in the dark!



*Rob and Wilbo under a fallen plate on the Persier*

Finished the dive and then ascended, gas switch okay and then some more drills to kill the time after the stops had cleared. Doing shutdowns in free water is a real laugh and a skill I will need to have nailed before November when I undertake Tech 1...

### *Final Thought...*

This month's Final Thought is about Situational Awareness and Resource Management. One of the problems with diving is that it is an alien environment and as such there is a loss in capacity to monitor what is going on around you. It can be likened to when you learned to drive a car; approaching a junction, you have to look in the mirror, start to signal, apply the brakes gently, change down the

gears, monitor what other road users are doing, turn the steering wheel, accelerate and then move back up through the gears – this seemed very daunting when you started but now you do it without really thinking and you can even have a conversation with a passenger while doing it. Diving is the same, once the basic skills have been nailed, you have more time to monitor and interact with what is going on around you and in the process spot issues before they have time to develop. The following text by Peter Steinhoff was taken from a technical diving forum ([www.direxplorers.com](http://www.direxplorers.com)) of which I am a moderator and should give people an idea of what is meant by situational awareness when applied to the diving environment. Although it is biased towards technical diving, it is still very relevant to recreational diving.

### *“What is Situational Awareness and How does it apply to Diving?”*

If we organise SA into three levels, we have:

#### **Level 1. Perception**

Keeping track of our environment (currents, wild life, navigation, lines), our instruments (gas, depth, time, direction), our buddies (position, lights, stress level, swimming pace) etc.

#### **Level 2. Comprehension**

Taking the information we have and making a picture of our current situation. For instance having 100 bar in our doubles means nothing unless we combine it with all information like gas consumption, depth, direction of travel, position of dive boat, swimming speed,

decompression obligation etc and form an opinion of our current state. Do we need to go up or turn around?

### Level 3. Projection

Projection of future events is when we can play out "what if" scenarios and decide on different courses of action and know what their implications are going to be. For instance you are diving a wreck in really cold water and at the end of your planned bottom time you find that bell you have been looking for. To decide if you have time to shoot some pictures of it you need to consider a couple of things, for example: how much more bottom time do you need, how much more deco would that mean, how much longer total time in the water, water temperature at shallower depths (hypothermia?), slack/tide/current situation, backgas and decogas reserves, any potential problems reaching the shotline when going back, surface or support diver situation regarding extended times.

To learn situational awareness you first need to master the basics of diving so you have time to look around and think. Then you need to learn what potential problems you are likely to encounter in different situations so you can look for them, anticipate them and if possible avoid them. Finally you need to develop your understanding of cause and effect and build you own mental picture of how all the moving parts connect.

There are several ways for an educator to facilitate the development of situational awareness and I personally find it

interesting and rewarding to constantly trying to refine and improve my own methods.

The definition of the SA model in three levels comes from research (Endsley 1988) so I can't take credit for it - I do believe however that it is the model most applicable to diving.

When I teach this I go over the three levels of SA first because it is easier to understand something when you can organise it in your mind. Since it is team diving we do, the ability to communicate is paramount and seriously affects SA. It's all team members responsibility to keep track of each other but we have a range of procedures to actually accomplish this and they need to be taught and practiced.

From this platform we can go on and build level 1 situational awareness, which at first means keeping track of time, depth and gas. It's however very difficult to memorize something that doesn't mean anything so most students can't keep track of these variables to a satisfying degree. The solution is to segment the dive into manageable chunks that has some meaning. In cave diving for instance that could be 1-putting in the reel, 2-going in, 3-coming out, 4-taking the reel and deco. For each of these segments you routinely check time, gas and depth. Because you have done this on several dives these figures means something to you. For instance will you find out that you will become faster and faster at running the reel, high flow will slow you down severely until you learn how to handle it, a too fast pace means that you are wasting energy and will not reach as far into the cave as going slower etc etc.

Regarding keeping track of other things it is something we develop as I increase the task load. For instance when somebody is running the reel in the team you know they are a bit more task loaded so you as a good buddy need to pay extra attention to things in their surrounding. And if you are the reel person you should know this and act accordingly, meaning from time to time stop what you are doing, make sure your buddies are with you, check your surroundings, look where you are going. Task management in another word.

Actually in different scenarios you need to shift your attention to different things. Looking at the levels that means that level 2 and level 3 affects what information you need to keep track of at level 1.

Each level of situational awareness is built on the previous one. For example, when you can keep track of time, depth and gas you can start thinking about gas consumption, gas management, swimming speed and decompression obligation. When you have that down you can start to think about what if's.

As you learn this you will build a mental map of how things interconnect. It is difficult for to obtain level 3 SA because it requires a high level of understanding and that takes time to develop. And if you don't have the foundation to stand on (meaning the understanding and practice of the previous levels) you can't do it.

Situational awareness is primarily a mental or cognitive skill. My primary tools for teaching it is in

scenarios I create under water with the briefing and de-briefing of the dives. I also use lectures, case studies, home work, cause and effect charts and mental training.”

I hope you found this article useful and you can apply some of the rationales listed to your own diving. Being aware means you can enjoy what is going on around you whilst subconsciously monitoring what is going on around you.

### **Social Notices**

Nothing notified.

### **Sales and Wants**

If you want to advertise anything, on the website, email Steve Cain [stevecain\\_diving@tiscali.co.uk](mailto:stevecain_diving@tiscali.co.uk).

### **Links and Contacts**

If you need to raise an issue with the club committee, contact Lesley [lesley.s@cotswoldwireless.co.uk](mailto:lesley.s@cotswoldwireless.co.uk) and she will put your issues or questions to the committee.

Sea Horse Dive Club:  
<http://www.seahorsediveclub.co.uk>

Website Issues:  
[stevecain\\_diving@tiscali.co.uk](mailto:stevecain_diving@tiscali.co.uk).

Newsletter Issues:  
[gareth.lock@imagesoflife.co.uk](mailto:gareth.lock@imagesoflife.co.uk)

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<http://www.againstthewind.org.uk/whitehorse/index.htm>

Website of the Month:  
<http://www.travel-dive.com/explore/>