# The Muddy Puddle June 2006

## Welcome!

Here we are again with another edition of the Muddy Puddle, its June and the diving season is in full swing. So far this year we have had day trips to Brighton and have managed to recover from two weekends in Plymouth. Write ups of some of these trips can be found on pages 8 - 13, along with a write up from Tony Dillon on his recent trip to the Red Sea. Easter, as always, signaled the start of the Croydon BSAC 23 season and what a great weekend it turned out to be. Thanks to all those that attended -I hope you enjoyed it as much as I did (some might say I enjoyed it a little too much on some nights). We also had a bit of a social evening where Clare Walton organized a raffle and gave away a load of rubbish, thanks to Walton for that, a good time was had by all – especially the prize winners!

The club continues to grow and those in training continue to further their knowledge and experience through the BSAC courses the club provides. I'd like to welcome (somewhat belatedly) Jeremy Hopes and Chris Hughes to the club. Jeremy is an extremely experienced diver who has joined as a 'proper' member after having come out on a couple of trips with us in 2005 (that's right - he's seen us on a boat and STILL wanted to join!!!! Madness!!!). Chris joins as an already-qualified PADI Rescue Diver and, having dived extensively overseas, has made the wise decision to trade in all the viz and nice fishes for a bit of UK muck diving (a report of Chris' first UK dive features on page 8) . Welcome to both of you and to our newest member Nesha Markovic, who has joined and begun his Ocean Diver training - please make the effort to say Hi to him at the pub and welcome him to the club. Hopefully we can gain a few more members in the coming weeks especially with our participation in BSAC's brand new promotional scheme 'GO DIVING'. This is similar to the annual try dive nights, but the aim is to recruit members who are already qualified and want to try a bit of club/UK diving. The evening will really just be a meet and greet with a short talk from Paul C and I about the club, dates are 12<sup>th</sup> and 19<sup>th</sup> July. It would be really good if you could make to effort to get to the pub/pool on those nights to show what an active and sociable club we are - especially those of you who came to us already-qualified, as you will be able to offer some guidance on crossing over to the BSAC system.

Starting on page 17 there are reports from myself and Chris Boddington on our respective rebreather and trimix courses, mine was in the luxury of Stoney, Chris done his in some dump called the Philippines. There is also a review of the DiverSE '06 conference that was held in Guildford in March and pics of the best drysuit I have ever seen! Hopefully that lot and all the other nonsense will keep you amused (for about 30secs...).

Enjoy!!

Paul Brown Chairman

#### In This Issue...

2. DO's Drivel

**3.** Club Polo Shirts

4.
Training Officer's
Report

**5.** Dry Officer's Report

**7.** Expeditions Officer's Report

8. Trip Reports

A Blonde's Guide to UK Diving – Like Duh!

**16.** New Drysuit Anyone??

Rocking and Rolling on a Rebreather

3 into 1 – Trimixing in the Philippines

**25.** Caption Competition

26. DiverSE 2006

A Diving Library – What to Buy

## **DO's Drivel**

Paul Carvall



The rise of affordability of twinsets has meant that more and more wrecks that were previously unavailable within the normal sports diving range have become ever more accessible. It could be argued that the quality of kit has improved and a certain high level of reliability is now expected as the norm. The days of improvisation kit for most of us largely gone.

One of the benefits of twinsets is that if they are properly set up they offer levels of redundancy where there is the option to shut down the cylinder in the event of a problem. However, there is also the fact that for run of the mill sports diving you can also carry the nest dive's gas on your back. In this case, should anything occur, there is the facility of the extra gas on your back when you need it. Clearly this is an advantage over the 15 liter and 3 liter pony. With this set up, if the dive approaches a problem

(incident pit) scenario, that extra gas is simple not available. A 3 liter pony won't get you far (barely out of the stables!) and increasingly its likely it will contain a strong nitrox mix that is not ideal on the bottom.

So, possible solutions? Lets look at our personal air consumption with greater scrutiny. Work it out against bar to liters consumed rather than guess, evaluate it against the dive plan - do they work together?

Make a dive plan that is realistic and feasible and agree to stick to it:

# PLAN THE DIVE, DIVE THE PLAN

Believe me, it makes for a much more relaxed dive if you both know what's going to happen and when it's going to happen. This is especially important when singles are paired with twins on a boat. It is easy for a twin to squeeze a few more minutes bottom time, not so for the single. So you twinset divers out there, spare a thought for the singles when you add a few unplanned minutes (singles to be fair - work on your breathing rate!).

Lastly, **minimum 50 bar back on the boat** - it's a club rule for club divers. This allows a small margin for when it doesn't go quite to plan.

Keep your Karma.

Paul

Your loving DO

## **Club Polo Shirts**

Right you 'orrible lot, we haven't had many takers for the club polo shirts yet, so here are the details again...

100% cotton polo shirts with embroidered club logo, available in either Black or Navy

Size Guide (All measurements are in inches)

Unisex	S	М	L	XL	XXL	XXL
To fit chest	38	40	42	44	46	50-52

Priced at a bargain £15.00



## **Order Form**

Please i	orint out	and return	vour com	pleted	order i	form to	Clare	Walton	or Chris	Griffiths
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Name:	

Contact number in case of any queries:

Colour	Size	Quantity	Amo unt
		Total	

Please make cheques payable to Croydon BSAC 23

Treasurer use only:			Date / /
Cheque	_		Amount received for £

## **Training Officer's Report**

Alan Glen

There is still some unfinished business to conclude as far as current training is concerned:

- Victor needs to complete the Sports Diver lectures.
- Marie, David and Victor need to sit the little theory exam for Sports Diver.
- Ian Mulcahy / Chris Griffiths needs to complete the Dive Leader lectures.
- Ian , Rick, Chris C , Chris G need to do the DL theory exam.
- Then, all the above need to do the practical chores in the water.

Can you all please get in touch and confirm when the above will happen. Tell me what nights you are available and I shall try and fit in with you. I want to move this on as soon it will be time for another intake of divers from the try a dive evening.

Another issue for all to consider is the recently published change to the ratio of chest compressions to expired air ventilation. For many years it was 5 compressions to 2 breaths, then it became 15 compressions to 2 breaths and **now it is 30 compressions to 2 breaths**.

The rationale here is quite simple. Chest compressions to artificially get a heart to pump blood have been found not to be very effective. To move blood, and get oxygenated blood from the lungs to the brain needs a (hydraulic) pressure gradient and it has now been decided that this is more likely to occur if 30 compressions take place, given the variation in how people deliver chest compressions etc. Each compression of a sequence raises the pressure gradient so that blood eventually starts to move.

Every few years there is a conference where life support techniques are compared and considered. This is the place where statistics are compared and results of experimentation are discussed.

The key issue here is to recognize that nothing is set in tablets of stone. We must all keep an open mind on what we are doing and consider that we may have to act on new information, given that the objective remains the same. Whether it is to try and save a life or to complete a dive safely using good housekeeping and best practice.

Please advise if any of you would like to come and have a bash on the Mannequin to practice your skills. I am not sure when all the training manuals will be brought into line with the above however it is important that we all know the basic life support guidelines.

A complete review of the news resuscitation guidelines can be found on the BSAC website at www.bsac.org/techserv/irc/resupd06.htm.

For additional training information please have a look at the BSAC Instructor Resource Centre online at:

www.bsac.org/techserv/irc/ircintro.htm

This is especially useful for those taking part in training, so take note those who have just completed the IFC!!!

## **Dry Officer's Report**

Clare Walton



#### LIDS - London International Dive Show

Attendees: Chris H, Claire, Clare, Dave E, Jeremy, Paul B, Paul C, Rick and Vicki

My journey to this years LIDS seemed like one from one end of the country to the other, I know people travel vast distances to these events although I am sure their days are more productive. Every year members of the club manage to do the same thing at the show and that is to have a look round, rarely buy anything (especially that of great use) and drink booze all day ranting on to one another about past dive stories. Most of us have drawn the conclusion this is the way it shall always be and as such the team this year did not let the side down, except those who actually brought useful gear! After a car, train, bus and two tube journeys later (dedication for you) oh and a vodka or two better off, I arrived at ExCel with Paul's B and C.

Here we debated buying alcohol from the nearest shop to take in with us due to the high prices inside and decided we would go in empty handed to see what the security was like.

Already the hall was buzzing with people buying gear, looking for advice, deciding on lectures to attend and viewing the activities in the try-dive pool/ rebreather pool. Off we went in a very strategically planned route to look round at the colourful array of, and of course the teckie black, dive gear and displays. All the major companies had stands such as Oceanic, Tony Backhurst, Buddy, Kowalski and Custom Divers to name a few. By now we had established Dave and Claire had been wandering round for some time and we found Chris at the nearest bar. We had also gone out of the show with our lovely 'Diver' bags and smuggled in a few drinks which we made short work of. After which the day continued to get warm and glowy!

Dave and Claire attended one of the lectures (please speak to one of them for details) and brought two very cute yellow dry boxes. Jeremy joined us for a few drinks and then we were off in search of the **Dive Girl** stand. PC has taken it upon himself to purchase a pink item for me every once in a while (next year he's giving her a pink oboe - Ed) and this year I got my very own pink **Dive Girl** bag (look out for it people – you will need sun glasses). Due to the effect of the alcohol and the cheeky person on the stand, PC was way overcharged for the bag however we did get a mini Mars chocolate from them which had to have been a bonus.

A few rebreather Drings later for Paul B and me trying to spend money for a friend on snorkelling gear we came across the Kowalski stand. There PC managed to buy a lovely sexy torch in silver and got a free bag or was that he brought a very expensive Kowalski bag and he got a free torch? At this

stage we had acquired Vicki along the way as well as Rick, when we retreated to the riverside bar where we all discussed the day. A few members debated the idea of buying a pair of Force Fins at a very very cheap rate, at which point the whole group crowded round the little stand selling them and watched while those purchasing decided on sizes (this really did seem fun at the time – I think).

Near the end of the day we were all shopped out and so descended on the nearby pub where most people stayed until closing time – the scene was messy by all accounts.



All in all a great day out and thanks to all those who came and made it a social one. See you next year!!!

## DVD/Photo night – 18<sup>th</sup> March

Attendees: Alan G, Alan L, Ben, Claire, Clare, Chris B, Chris C, Chris G, Dave E, Marie and Paul B

This was a fantastic evening where a group of members got together to share DVD footage and pictures of dive trips. Unfortunately Marie's DVD players were unable to play all of the DVDs so some clips were cut short.

Chris G recently brought a very sexy camera and housing set up for his trip to Cuba (Muddy Puddle March 2006) and for his first attempt of underwater camera work was great. The waters were clear and shark infested, this is defiantly a place to go to get up close and personal with sharks.



Our very own Chris B who has done more than his fair share of travelling the globe and many years filming his diving exploits showed us his latest footage of Bikini Atoll. The clarity of the water was amazing and the vibrant colours of nudibranchs were awesome. It looked a fantastic trip especially if you are into macro life.

Most members of the club have been to the Red Sea at least once in their diving life and the night brought out three DVDs of trips over the past three years. The first was from a Southern trip down to the likes of Elphinstone Reef and Daedalus Reef where there are very few wrecks but masses of reefs (hence the word Reef after every rame). The second was taken on a Northern trip (Muddy Puddle November 2004) diving the famous SS Thistlegorm wreck. As well as The Giannis D and The Carnatic wrecks and the reefs of Ras Mohammed Marine Park.

After several bottles of wine and beer later we all crowed round Marie's dinning table and tucked into chilli, rice, jacket potatoes and nachos with home made salsa and guacamole. If that was not enough it was followed by chocolate muffins and cup cakes. Marie was also celebrating her birthday so we all sang Happy Birthday to her while she blew out her candle and made a wish!

The third instalment of the Red Sea was provided by Alan G when he and his group dived the SS Thistlegorm wreck. I am not sure anyone can get tired of looking at this wreck.

Claire & Dave recently purchased several of Jacque-Yves Cousteau television specials. The clips we watched were from "Beneath the frozen world" which saw Cousteau and his team including the famous zodiacs exploring under the ice of Antarctica. Watching Cousteau reminded us why you both shudder in disgust at some of his antics as well as marvel his exploration. It also showed that ice bergs can be so much fun when you use them as park slides!

Massive thanks to: Marie for letting us use her home for the evening.
Claire and Dave for providing the great food.

And thank you to everyone who attended and who brought along material to watch.

## **Expeditions Report**

Rick Whitby

Hope you are all enjoying the season so far – unfortunately a blowy and wet April/May meant that some of the club dives got canned and some additional dives we organised got pulled at the last minute. However, at the time of writing (first week of June) the weather has really improved. April saw the first club dive off Nauticat in quite heavy conditions and was Marie's first sea dive which she coped with extremely well as the sea-state and viz where awful with more than half of the crew turning a fetching shade of green and everyone agreeing to bin the second dive. Easter saw the first of the two trips out of Plymouth on Venture (covered elsewhere in this issue) and between the 2 weekend trips saw the club descend to Brighton en-masse filling both 'Nauticat' and 'Brighton Diver' with BSAC23 divers; although the latter failed to locate the wreck!

I was going to do a little preview of what we can expect off the West of Scotland on our trip to the Sound of Mull, but I couldn't be arsed. So instead I thought I would use this spot to highlight what else is coming up and explaining a little more about next years diving, as the time is fast coming up for booking the day and weekend boats for next year.

Alongside this article is a list of the upcoming dives which should see us through to the next issue of Muddy Puddle – if you are interested in getting on the reserve list for the full dives or wish to take one of the spaces please drop me an email or collar me on Wednesdays. For those new to the club get in touch will Paul Brown about getting yourself added to the club e-mail list as we regularly organize dives in addition to the club dives and this is the best way to find out about them and changes to the club's dive schedule.

Since the club has continued to grow and add new members next years diving should prove even busier than this year – fortunately it seems that most club members are keen to dive regularly and this has seen us book additional boats outside of the club divelist just to keep up with demand. Next year will see us add to the current boats and venues with some more dives and destinations which will be revealed in due course but as a club if you're interested in a specific destination or would like to help to organize a dive/weekend or week please get in touch. Certain favourites will be retained such as Steve Johnson out of Brighton/Eastbourne on his new catamaran

## **Upcoming Dives**

Sat 24<sup>th</sup> June Portsmouth, Wight Diver Camswain 25m

**FULL, TAKING RESERVES** 

Sat 8<sup>th</sup> July
Portsmouth, Wight Diver
Polo 30m
3 SPACES

Sat 15<sup>th</sup> – Sun 16<sup>th</sup> July Weymouth, Wey Chieftain III 35m wrecks FULL, TAKING RESERVES

Sat 22<sup>nd</sup> July
Brighton, Nauticat
Ashford or Porthkerry 40m
3 SPACES

6<sup>th</sup> – 13<sup>th</sup> August Scapa Flow, Sunrise 35m Wrecks FULL, TAKING RESERVES

Sun 13<sup>th</sup> August Eastbourne, Nauticat Oceana, 25m 4 SPACES

11<sup>th</sup> – 18<sup>th</sup> August West Scotland, Gemini Storm 35m Wrecks 1 SPACE

**Sat 19<sup>th</sup> August**Eastbourne, Nauticat
Alaunia, 35m **4 SPACES** 

Sun 27<sup>th</sup> August Portsmouth, Wight Diver Anchor Wreck, 35m FULL, TAKING RESERVES

(which is due to replace 'Nauticat' in November) and our Plymouth jollies on Pete Fergus' boat 'Venture' at Easter and the late May bank holiday weekend. We are in negotiations to organize other UK venues for weekend and week long dive trips in addition to the other venues on the south coast for our regular day trips.

I would especially be interested to hear if someone wishes to help organize a club trip to a warm water destination such as Tenerife, Gozo/Malta or the Red-Sea. Have a chat within the club and if you think the idea is viable see if some of your fellow club members wish to join you!

Enjoy your diving over the next few months.

## Wanted/For Sale 1 Mares Fin...

Chris Hughes

I finally broke my UK sea cherry yesterday. I went on a club trip to Brighton, diving from Nauticat. The chosen destination was the *Pentyrch*.

Arriving at Brighton Marina early I bumped into Alan Glen and Darren. We had plenty of time to kill as ropes away wasn't until after 12pm and the other early Croydon starters hadn't returned from their dive (so glad I didn't have their 4am start). After grabbing a bacon sandwich and chatting to Darren and Ian for a bit I realised that I was finally going to do it. Reports had been that the viz had been good the day before so I wasn't too apprehensive about the dive at all.

The other Croydon bunch final arrived back, all smiles talking about good viz and carrying sacks of booty (well, crabs, plaice and scallops). Steve the skipper of Nauticat told us to load up and we'd be setting off around 12:30. This transpired to mean around 1:30, Steve explaining due to the neap tides that we didn't really need to hit slack as the current would be so benign. He was also debating whether we might do the City of London instead of the *Pentrych* as there was another boat going to the *Pentrych*.

#### **About the Wreck**

The Pentyrch was a first world war merchant ship that was a casualty of UB40 (I know their music is criminal sometimes but I wouldn't of blamed it for sinking ships) and sank on April 18th 1918. The Pentyrch was built in 1899 and launched as the Bardsey. The 3382ton British steamer was in service for 9 years before passing into the ownership of the Pentwyn Steamship Co. Ltd. Renamed Pentyrch in tribute to a village north west of Cardiff and armed with a stern mounted 4.7 inch gun, she survived 3 years of wartime trading. Her fateful encounter with the UB40 wasn't the Pentyrch's first meeting with a submarine. She had been narrowly missed by a torpedo on a Mediterranean voyage on the 30<sup>th</sup> September 1916. She did though encounter some damage from gunfire from the pursuing sub. In 1918 she was not so lucky, when laden with coal and five miles W.N.W. of the Brighton Light Vessel, she was torpedoed and sank with one fatality.

We finally got away and we had the briefings about the boat and the wreck. Buddy pairs were assigned and I was to dive with Ian and Sue. I started chatting with them and we set about a plan of action. I said that I was happy to go with whatever they wanted to do but didn't want to push anything too far. I did ask to do a simulated deco stop at 9m. We decided that our max dive time would be 44 minutes but knowing how I like my air at depth I'd either run low on air or I'd start feeling a little bit chilled before then.

We arrived at the shot and there were 2 ribs and another hardboat on the wreck. We kitted up and buddy pairs started jumping in when they were ready. Due to the tide state there wasn't any real rush to get in. We finally entered the water, gathered around the shot line and descended. This was it, what was it going to be like?

As soon as we got below 3 metres all the tales of superb viz were blown out of the water. The water looked like a Batchelors minestrone cuppa soup. The bloom had finally arrived. We went down the shot slowly and even though my computer was showing 19 meters I didn't sea the bottom coming until I was there. I sorted out my buoyancy and fiddled with my torch and we were all systems go. But where was the wreck? I was so focused I didn't notice the stern raising up to my right.



Next thing after realising that the wreck was resting on it's side with the deck raising up towards the surface was the fish. There were lots of fish. Fish I'd only ever seen in the chippy before (or at least thought I seen). I didn't know their names but tried making mental notes of distinguishing markings so that I could. Afterwards I found out that they were most likely be Bib, Pollack and Cod. There was a lot of fish on the wreck than I expected; not quite the same quantity as my Thailand dives but definitely more than I saw in the Cyprus or in Dominican Republic (but then again there are more fish

in Wraysbury than either of those 2 places).

By this point I could just make out Ian's fins disappearing, so I started to follow and with one eye on him and one on the wreck I moved my way forward to midships. I have to say there was a lot to take in and I'm sure I missed a lot of stuff. I was concentrating on keeping my buoyancy right, looking for any wildlife, pointing my torch in the right direction and making sure I got a move on so as to see as much of the wreck as possible. I say a lot of deadmans fingers, anemones, starfish and mussels.

By the time we got to the broken section of the ship I'd forgotten about her what with all the fish and looking in the nooks and crannies. This is where we came across the 2 big boilers. There seemed to be a large tangle of wreckage and this seemed to be where most of the damage of the torpedo must of occurred. There were a few trawler nets snagged at this point which reminded me of the fact in my reading that the local fishermen call this wreck the six miler and that it was first discovered by divers called in to unsnag the nets.

We made our way around the boilers, trying to see what else was recognisable but to my untrained eyes I was lost. I'd loved to have seen a wreck map or a deck plan before going in and I made a mental note to myself that when I next dive a wreck to do a little bit more preparation.

The viz had started to get a little worse by this point but that wasn't surprising with around 20-30 divers descending on her. Also the current seemed to be getting a little bit stronger. Checking air and time we pressed on knowing that we would soon get to the end of the dive and have to deploy the dSMB.

Making our way towards the bow we swam over the collapsed deck and around. I have to say I was at this point a little bit disorientated and didn't know whether we were returning towards the shot. Ian then stopped in front of me and started shinning his laser beam of a torch at something. At first I wasn't sure what it was but finally it dawned on me that it was the ships gun.

It was now time to start our ascent and for some reason I seemed to drift down into the wreckage and have trouble turning around to watch Ian send up the sausage. As it went up, I linked on to the reel and started ascending. I seemed to be a little bit trapped and wriggled to free myself. Up we went slowly and as we got to 13 metres I felt my left fin come off!

After the safety stops we got on board and I thought it was great dive. I just couldn't wait to get back in the sea again but due to my lack of footwear I'd have to wait for another time. I'd like to thank Ian and Sue for looking after me and I realised that I had a lot to learn about diving in the UK. Valuable lessons we're learnt and now I'll have to look at getting a set of fins that either lock or won't come off as easy next time.

Max Depth: 20.1m. Dive Time: 36mins



## **Brothers Wreck Special, May 2006**

Tony Dillon

It has been 14 months since we were last on MV Typhoon (Wrecks and Reefs) and we were looking forward to doing the Brothers Wreck Special from the same boat.



We arrived early at Gatwick to check in, but unfortunately fell foul of Monarch Airlines weighing every piece of luggage, including hand luggage. Unfortunately, both hand luggage was over the 5kg limit, thus we ended up having to re-pack our regulators into one bag and putting it in the hold (I am never very happy doing this and prefer to keep regulators in our hand luggage, along with computers, compasses etc), at the cost of £15. Other than that, the flight out was routine.

Also routine was the total chaos at Sharm El Sheik airport, we waited by the carrousels for almost an hour for our luggage to arrive. While we were waiting for our luggage, we were looking over the other divers with Tony Backhurst, among them being Monty Halls and we were wondering whether he would be on Typhoon or Cyclone. Once the luggage arrived, it was obvious that whichever boat Monty was on, it would be with the other re-breather divers. It turned out that the five re-breather divers would be on Typhoon (one instructor, two trainees and one qualified re-breather diver). Monty made it as far as the boat – due to the fact his re-breather was on the bottom of the trolley – and apologised to the crew and fellow divers that he would not be joining us as he had just been phoned to go to Dahab and write an article about how it was recovering after the bombings.

The guides for this trip were to be David and Tracy, also along on this trip were Dan (Tornado Marine's new General Manager) and Kerry (Tornado Marine's Marketing Manager).

There were 13 divers on this trip; this included one instructor and two trainees from the UK doing an AP Inspiration re-breather course. Dan was also doing the AP re-breather course. All three successfully passed the course.

Day one of the diving started with the obligatory check dive at Ras Katy and then on from there to the wreck of the Dunraven, which is an upside down wreck which sank in 1876 which makes an interesting first wreck dive in the Red Sea. After this we moved onto Sha'ab Abu Nuhas, there are four wrecks here, but we only dived on the Giannis D (sunk after striking the reef in April 1983) this time – it was at this time we realised that our guides were more into fish and reef than wrecks, I was not very impressed when I lead a minor penetration dive on the wreck because our guide had not charged her torch, so couldn't see where she was going and indicated that I should lead and then shook my hand afterwards.

Day two, we had sailed over night down to the Brothers and our first dive of the day was on the Numidia, a freighter that struck the reef and sunk in July 1901. An interesting wreck, well colonised by coral lying in about 30+ meters. Our second dive of the day was on the Aida, an Egyptian troupe transport, which sank in 1957 – the main part of this wreck lies between 30 and 60 meters and therefore we were diving on air for this dive. We were only able to explore the top 10 meters of the wreck. As we swam back along the reef we saw two turtles feeding on the reef, they ignored us and carried on feeding as usual. The third dive of the day was on the reef off Southern Point, Big Brother. Where we saw a moray eel swimming across the reef – unusual during daytime.

Day three started with a short move to Little Brother Island and here we dived the reef around the island with a view to spotting any sharks that were about. All we saw was a solitary grey reef shark. From here we made the long move to Safaga. This should have taken about 4 hours, but due to us sailing into the wind, it took us 6 hours and was a very rough crossing. Several divers, including Sandra, suffered quite badly on this long move. Our aim at Safaga was to dive the Salem Express. The Salem Express was a passenger ferry returning from Saudi Arabia with pilgrims which struck the reef and sunk, the official death toll is about 650, but in reality it was probably 1,400 people lost their lives that night. This makes it a very poignant dive. There is still a debris field beside the boat, with passenger's personal possessions. Sandra was unable to make this dive, due to her suffering on the trip up.

Day four, as the weather started off too rough to dive the Rosalie Moller, it was decided to dive Bluff Point, which is a simple reef dive rather than wait and see if the weather improved enough to dive the Rosalie Moller. As the weather had not improved, it was decided to move on to Sha'ab Ali and dive the Kingston. Although this was another rough crossing, it only took a couple of hours, but meant that Sandra missed diving the Kingston. The Kingston was a small steam driven cargo ship, which sank after running aground on the reef in 1881. From here it was a short crossing to the Thistlegorm (probably the most dived wreck in the world). As it was late afternoon, there was only one other boat moored on the wreck, which meant we would have the wreck to ourselves for this dive. As we have dived the Thistlegorm before, we decided to start off by exploring the holds on the starboard side. We finished off day four with a night dive on the Thistlegorm.

Day 5 started with an early morning dive on the Thistlegorm - so as to avoid the hoard of day boats we had hoped to crack the 60 minute barrier - but failed - this time, we penetrated the holds on the port side and then swam across and back through the holds on the starboard side, exiting by the bomb damaged area and continued along the starboard side around the prop and rudder, up along the guns, along the top of the wreck to the bough and then back to the shot line. After this dive, we were told our last dive would be on Shark and Jolande reef. Several of the divers were guerying this, as Tony Backhurst sales rep. had told them that although it was a five day trip instead of six, that they would only be losing the two dives from day six, and that we would be doing four dives on day five (we had also been told this when we phoned to query why only five days instead of six - this was due to the itinerary being changed from Sunday to Saturday to Saturday, hence we were only doing Sunday to Saturday), the guide got a little shirty about this, and then managed to get in a third dive on Ras Peter. Ras Peter is where the Israeli's, when they handed back Sinai to the Egyptians, rather than take some very old bren oun carriers and lorries back to Israel, they just bulldozed them off the end of the cliff and this can make an interesting last dive as they form a triangle of vehicles, spreading down the wall from 20 meters to about 32 meters. From here it was back into Sharm El Sheik where we spent the last night on the boat.

As our plane was not due to depart until 22.20, we spent Saturday at the Eden Rock Hotel poolside and shopping in Na'ama Bay.

Overall, an enjoyable holiday, but if we do another trip with Tony Backhurst, (probably "Get Wrecked") we will enquire as to who the guides will be so as to ensure that the guides are wreck orientated rather than fish huggers.

## **Narked**

Our club's mole at the counter...

Welcome again to Narked's report back from our first major jaunt of the year to Plymouth. The accommodation was fine as ever. In fact, Paul Brown informs us that "The litmus test of a good B&B is the size of their sausage...". Some of the Divettes also argue that the size of the sausage provides a good litmus test, but I'm pretty sure that they're not talking about B&Bs...

As usual the members behaved in an exemplary fashion.....if this was an alternative universe!!! However, what actually happened was a large number made fools of themselves, drunk too much and stuffed themselves full of "Ganges" curries. That should keep you all in curry for a while!

Message to the DO – Ricks head is not a toilet and should not be treated as such every time he bends down to sort his kit out. The joke was wearing a bit thin after Rick received his eighth fart-assisted centre parting...

On a similar note Chuckle Brother II also had weighty issues on his mind. Ian decided that he was "in conference" on board Venture and was not to be disturbed. Armed with a copy of the Times Educational Supplement, our bowel-challenged hero settled down to mark some math's homework while "it situ" – rumor has it he likes to work it our with a pencil. Anyway, Pete Fergus, or "Skippy the Kangaroo" as he likes to be known, is normally as laid back as Heather Mills-McCartney in an Arab nightclub, but on this occasion he found his breaking point. Pete was less than happy ("What's that f\*\*king smell?"). All was not



smelling of roses in the wheelhouse, in fact it was more akin to what goes in roses to make them grow. A bemuses Ian emerged, homework duly marked, to Skippy's displeasure. For future reference, if you need to "drop your weightbelt" it may be best to do it before you get to the boat.

Step into the limelight our two "torchy torchy the battery boys". Alan Lawrence, when not bothering baby-sized crabs, sadly became the victim of a faulty karabiner i.e. he didn't clip it on properly and lost his torch on the Persiens. Strange as we were diving the Persia... Tony 'Manta' Ray also gently reintroduced his buy-cheap-buy-twice-foreign-import-leaky-torch into the briny with limited effect. Leaking drysuits were to be found everywhere. Matalan specials appear to be owned by Rick, Chris 'if he's not snoring he's breaking down' Griffiths, and Scott 'Trixie' Dillon. Special mention should be given to Ian for this seasons "hanged man" look.

BSAC 23 did their best to muster up a cultural trio who toddled off to bother the National Trust in a vain effort to stay out of the pub all day. Nice try boys!!! One of their number bragged considerably about his geography qualifications at great length. When faced with a real life ninety five foot vertical stream of water all he could do was loudly and unnecessarily point out that it was a waterfall. Other national trust users were suitable impressed...

The Notte Inn offers fine food, fine wine, a fine juke box and a fine place to get pissed as Lords. Congratulations to Marie, who, when she wasn't pouring red wine down her throat, was pouring it over her blouse. Not to worry! Chris C's novel method of removing red wine stains from clothing appears to be pressing himself against said clothing...

Chris C was also a member – for one night only, staring at the Notte Inn – of the Bucks Fizz tribute band, which also included Claire Cohen-Elphick-CohenElphick, Marine and our ever-faithful DO. All those dancing put themselves to shame, whilst being cheered on by big Dave Elphick!

Ian M (again!!!) thought he was live on stage at the Albert Hall ("Thank you Plymouth!!"). More used to bongo mags than bongo drums our hero had to be shown how to play them – bless! Not so our resident Mr Tambourine Man who seemed to enjoy his own display better with each ½ pint of gin and tonic he greedily guzzled down.

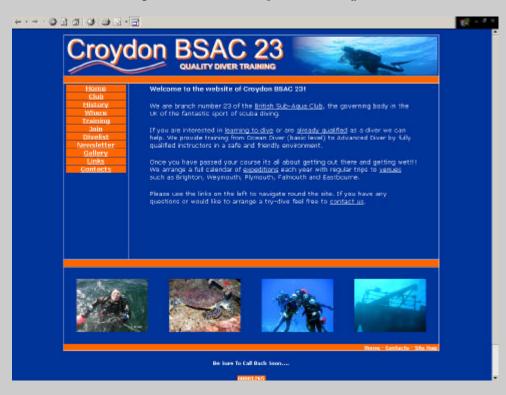
Fast forward to a conversation heard on Venture the next morning - "I feel terrible, I might have to pull myself off for this dive" "That's what I thought I was going to have to do Friday morning, I was  $w^*$ kered". Never a truer word was said...

Until next time, be careful out there...

# Norked

## **Club Website**

Remember to visit www.croydonbsac.com every so often for general information on the club.



If there is a section you would like to see on the site, information you would like to add or pictures you would like shown please let **Paul Brown** know.

## A Blonde's Guide to UK Diving – like duh!

Tinkerbell

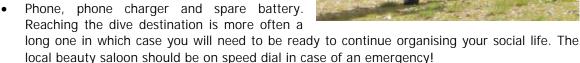
This is an essential guide to UK Scuba (Self Contained Underwater Breathing Apparatus) diving. It will guide you through each step involved in a dive trip.

### Step 1 - Packing

Packing can be separated into non-diving and diving equipment. Here the guide will look at each one in turn.

#### Non-diving equipment

If you think something is essential then it probably is and therefore must be packed. Essentials should include the following:



- At least one hair dryer and pair of straighteners, this will ensure you look your best on an evening out with your fellow divers. It is also recommended to take a cordless pair of straighteners in the event of electricity failure.
- Make up for those evenings out to the restaurants and bars you will discover on your trip.
   Ideally waterproof mascara should be worn while on the dive boat which will avoid unsightly mascara runs.
- Appropriate swim wear particularly in the form of a bikini is acceptable to wear on a dive boat although you are advised to take care when removing you undersuit and revealing the top. Stand well away from any boat skippers and other male divers to avoid embarrassment or cause an eye injury.
- Outfits should be strategically planned prior to the trip, try to pack at least two changes for every day you will be away. You may find at times you have packed unsuitable outfits and unfortunately you will have to improvise in order to create something apt for the occasion.
- Lastly remember to pack accessories, this covers shoes and handbags. Pack as many as you can fit into your bag alternatively as many as can be packed into the car.

#### Diving equipment

The trip organiser will give you a list of equipment you will be required to take with you, however, note the following:

- Ensure you coordinate the colour of your kit, under no circumstances must you have uncoordinated kit! It is preferable to have one or two items in a rose or pink colour which will alert other divers to your presence and avoid confusion with other divers kit. You will note that most male divers have a fascination with technical black kit, it is considered you duty to inform them black was so last season.
- Cylinders should be handled with care as you do not want to break a nail, therefore call a removal company in to do this for you. While on your trip if other divers question you on your



twin set simply answer "they're cute and yellow he he", this will cease any further meaningless questions.

#### Step 2 - Journey to dive destination

You will probably be inundated with calls offering you a lift to the dive destination, you should list the names down and work your way through the list eliminating unsuitable travel companions.

When your car arrives to pick you up ensure you are armed with good music, literature and confectionaries to pass the time away. You should make the effort to keep the driver awake and amused, you can do this by talking to them. The driver may not be able to contribute to the conversation due to concentrating on the road so feel free to do all the talking for the entire journey. They will certainly appreciate your kind gesture!

It is advised to make regular stops, every 30mins should be sufficient, in order to refresh yourself and purchase a new lip or nail colour.

Once near the appointed destination offer to direct the diver through the local roads to the accommodation. The driver will more often than not refuse your offer however you should insist. When following the directions on a map remember to continuously move the map around to orientate yourself.

#### Step 3 - Room share

On arrival to your room introduce yourself to your room buddy, if you have previously met with them go about empty your entire bag and organising it appropriately as you go. If this trip is the first time you have met your new friend take time to speak with them to establish their likes and dislikes. Do to worry too much about taking all this information in as you are in no way expected to remember.

On setting up your hair dryer and straightener along with your hair and beauty products you should establish if your room has tea making facilities available. If so you should insist on making your room buddy tea at regular intervals. If a TV is also available in your room this will allow you to watch all those weekend cartoons at early hours of the morning. By making tea for your buddy you are in fact providing them with the caffeine they need to watch these cartoons with you.

## Step 4 - Dive boats & skippers

You will undoubtedly at one point dive off an old fishing boat turned dive boat. You will note the Skipper will be old and set in his ways. As such be aware when climbing the dive ladder he will be more interested in grabbing your behind to help pull you into the boat then other conventional methods. In comparison the modern dive boat is often equipped with a lift and hot pole. To show the skipper appreciation for his hot pole, especially on those cold harsh days, you should dance around the pole in your swim wear. This gesture has been known to secure a free dive on your next trip.

## Step 5 – Dives

On splashing into the water it is becoming customary to impersonate an upside down penguin. Do not concern yourself with practicing this task as it will become apparent to you that you are a natural at doing this.

Try to avoid straying from the shot line, the shot line is a very important place to be when the deco dancing takes place. This is a great chance for you to show off those dance moves. Currently the most popular dances are the 'YMCA' and 'Stop in the name of love'. This will impress the technical divers in your group to no end.

#### Step 6 – Evenings

Take time to pamper yourself before a night out. Accept one or two offers from your dive group to help wash your back, this is a particularly good opportunity to note how friendly the dive community is.

After drying and straightening your hair apply a tube of gloss and hit the local bars. If asked to contribute to ideas for the evening meal it is well advised to suggest a local curry house. Here you should always order a Chicken Korma, Pulao rice with Keema nan. Drinks to accompany the meal should include either Lambrini or Smirnoff ice.

After some serious drinking time you should retire to your room and scroll though your photographs of the day, do not be surprised to find tasteful art photography on your digital camera of the male divers in well thought out poses. Again this demonstrates that diving is certainly the sport for you!

#### **Disclaimer**

Croydon BSAC 23 accepts no responsibility for the intelligence (or lack thereof) of it's members. Should any person, member or non-member, blonde or non-blonde follow the advice noted in this article you can't blame us. So there.

## **New Drysuit Anyone?**

Came across this suit being advertised by Scapa Scuba (www.scapascuba.co.uk) – any takers???? I can just see Mr Ray turning up on Nauticat with this – very classy.





Cost? A mere **£900**...

## Rocking and Rolling on a Rebreather...

Paul Brown

In the middle of the season last year I got up at 4am to drive down to Weymouth for a dive on a 70m wreck on the French side of the Channel called the Pangani. I'd seen the crappy forecast but was assured it was a go'er, so off I sent with all my gear and about £80 worth of gas in my four cylinders. On arriving I had a feeling we wouldn't be going the 47miles we had planned - we gave it a go, but by the time we passed Portland Bill it was far too rough and we blew out. As the wind was blowing from the east we stopped on the flat-calm west side of the Bill and decided what to do - we could either call it off (my choice as I wanted to save my expensive gas for another day) or go out and do the Salsette. The 11 others on the boat (who all had rebreathers) went for the latter option as the cost for them was the same no matter where they dived – about a fiver. So about two hours later I found myself bimbling round the liner Salsette and cursing the £ notes that were bubbling off into the water every time I exhaled. Why am I telling you this? Well it was at that point I decided to buy myself a rebreather.

I started looking for a second hand unit it the weeks following that dive and had one or two slip through my fingers. Luckily enough Bob Lenham, proprietor of the everpopular Amphibian Sports, gave me a call when he decided to sell his Inspiration, which he was upgrading to a newer model. Delivery of the new one would not be until April 2006, so I would be collecting my unit around that time perfect for me as it gave me time to sort the money side, source an instructor and get the dates I wanted for the course. Fast forward to the weekend of the 22nd/23rd April and I arrive at a school in Stafford for the first day of my course.



I had booked the course with Matt Robinson at MR Diving (www.mrdiving.co.uk) which was to run over two consecutive weekends. The first Saturday was to be a day of theory and two hour pool session with the following 3 days all open water dives at that favourite-haunt-of-the-novice Stoney Cove. Arriving at the school where we were going to do the theory I was really up for it - my rebreather had been sitting in my house for about a month and I just wanted to get in and actually try it out. We kicked off at 8.30am with theory and for the next few hours went through the workings and characteristics of the Inspiration, how the unit is constructed, the electronics, physiology and the problems that can occur when diving one of these units. By 2pm we had covered all the lecture material and it was time to get our grubby mitts on the units. Matt demonstrated how to put the unit together and how to fill the scrubber - the part that removes the  $CO_2$  from the expired gas so it can be rebreathed. Then it was our turn and we set about pulling apart our units as Matt had done with his. These are fairly robust pieces of kit, but care has to be taken when filling the scrubber as this really is the make-or-break part of the machine - if the scrubber isn't packed with the absorbent material (Sofnolime) properly then  $CO_2$  breakthrough can occur and Hypercapnia (too much inspired  $CO_2$  leading to blackout) will follow.

To give you a quick overview of how the unit works - the Inspiration contains two 3l cylinders, one filled with pure oxygen and one filled with diluent, in this case air. Sitting between these two cylinders is the scrubber unit where the cleaning of the expired air takes place and the addition of  $O_2$  occurs. The scrubber forms part of the breathing loop which consists of the divers lungs, two counter lungs that are worn over the divers shoulders, hoses to and from the mouthpiece from the counter lungs and hoses to and from the scrubber to the counter lungs. When the diver breathes he takes air from his left counter lung and inspires it, gas exchange takes place in the lungs with  $O_2$  being used and  $CO_2$ ,  $N_2$  and some  $O_2$  being expired. When the diver exhales this gas mix travels via the right counter lung into the bottom of the scrubber. As the gas passes up through the scrubber the  $CO_2$  is chemically absorbed, so the time it gets to the top all the  $CO_2$  has gone. In the top, or head, of the scrubber there are three  $O_2$  cells, similar to those found in an  $O_2$  analyser. These provide an analysis of the scrubbed gas mixture and electronically tell the unit to add oxygen to a preset pp $O_2$  - typically

0.7 bar on the surface and 1.3 bar on the dive. This means that the rebreather will give the ideal nitrox mix on the fly no matter what depth the diver is at - this reduces the required decompression and, because the expired  $O_2$  is reused instead of bubbling off into the surrounding water, means that very little gas is used on the dive.

Back to the course. Once we had assembled the units we put them on and Matt talked us through the startup and calibration procedure using a checklist and the instructions displayed on the rebreather's electronic handsets. Having done this we were ready to dive, so at about 4pm we headed off for our 2 hour pool session. Now kitting up is something I like to think I am fairly good at - I like to be able to sort myself out and not have to rely on other people to find inflators/shoulder straps/second stages etc, so it was strange using a piece of kit that was completely alien and that I needed help in putting on. Still, once strapped in I was ready to go, so fell into the water to cool off (I had my drysuit on). The first thing you notice is how buoyant everything is - there is gas in the two counter lungs, the wing and the suit - there is a lot of dumping going on (cue toilet gag from the DO). Once we had all got to the bottom of the pool we started to have a swim round to get used to the feel of the units and to attempt to get our buoyancy right. I was massively over weighted so trying to get the buoyancy right was rather difficult, but just about manageable. The thing about a rebreather is that there is no change in gas volume, nothing is exhaled into the surrounding water, so the usual breathe-in-to-go-up-a-bit and breathe-out-to-go-down-a-bit doesn't work - This takes A LOT of getting used to! Once we had all cooled off a bit and had a swim about we started practising some drills, these included removing, clearing and replacing the mouthpiece, removing and re-connecting direct feeds and bailing out on to the backup regulator. All of these were interspersed with periods of

swimming about trying to sort the rubbish buoyancy. Finally we were made to face the wall and were given a surprise problem to sort out - as this article will be on the website I won't reveal the surprise, suffice to say I cocked it up. I really wasn't happy with my pool performance, my buoyancy was all over the place, the unit didn't feel as thought it fitted correctly and I had messed up the emergency skill. However, the 2 hour pool session seemed to pass in the blink of an eye, after which it was off back to Matt's house to wash down the kit and sort out  $O_2$  fills for Stoney the next day. By the time I'd done this and driven to my digs it was  $10 \, \text{pm}$  - having been up since about 4.30 it had been a long day...



Sunday and I'm inexplicably awake at 5.00am. I got to Stoney at about 6.45am and was the last one who managed to get down into the lower car park (I was able to sneak in front of some bloke who'd wondered off, which was handy). Matt wasn't arriving 'til 8.30am, but since I was up I thought I'd get down there. I prepped the unit and the rest of my gear and generally loafed about until the others arrived. We had only planned to do a single dive today, a one hour stint on the 6m shelf. Once Matt arrived he done a briefing and went through the skills we needed to demonstrate. I was in the second pair in, so was in the water at about 12.30pm. The unit felt better on than during to pool session, the bulk of my undersuit made the harness a little tighter and the thing didn't seem to move about nearly as much. Sitting at the far end of Stoney next to the slip I went through my predive checks and took the plunge. Once again there was masses of buoyancy and lots of things to dump (cue toilet gag #2 from the DO), this all seemed fine and I was, once again, over weighted by guite a bit - this was without my heavy torch too, so I think I'll be able to shed a fair bit off the weightbelt over the coming weeks. Once we got to the bottom we sorted ourselves out - whoops error 1: drysuit inflation bottle empty, so I couldn't put air in my suit! This wasn't a problem though as we were so shallow. My self and my buddy done bubble checks on each other, at this point I found my unit actually doubles as a Jacuzzi - error 2: Don't buy gear from Bob!!! There were bubbles from the O2 bottle and the pressure gauge, but they weren't too bad, so we carried on the dive and I was told to watch my O2 gauge closely. Once this drama was over we went through the same skills as we had practised in the pool, mouthpiece removal, diluent and O2 hose removal and bailing out to the

backup regulator - after these were done we went off for a swim to try and refine our buddy skills as well as our buoyancy, whilst also monitoring the rebreather handsets and checking gauges. After about 30mins Matt threw in another little surprise - I picked up on this one fairly quickly though and managed to sort it out, again I'm not telling you about it as this article will be on the website.

Throughout the dive my confidence was growing, especially as the drills had gone well and my buoyancy was improving enough for me not to be bouncing off the floor all the time. Once our hour's dive was up we sent up our delayed SMB's and demonstrated a 1 minute safety stop at 3m. This all went well and it was back to the slipway to get out. Again the time underwater flew by and I didn't feel the cold at all, surprising really after a hour in 8 degree water, however, that is one of the benefits of rebreathers - warm gas. Post-dive we had a debrief where we talked through the dive and discussed the good and bad points and anything we should/shouldn't have done, that was the lot for the first weekend and I have to say that I really did enjoy it. I went away fairly optimistic about the following weekend's diving and about being able to dive the unit.

A week later and it's Saturday 29<sup>th</sup> April. I am back at Stoney Cove having spent a week re-reading the Inspiration manual, completing the written exam and fixing the list of faults we'd discovered on the previous dive. The plan for these two days was to dive a little deeper on the units, to 20m and finally 30m on the Sunday. We met on Saturday morning at about 8am and after unloading and setting up the kit got straight into the dive briefing. The plan for the first dive would be to descend to the 6m shelf and practice the mouthpiece and bail out drills before carrying on to the 20m shelf where I would have to run the rebreather manually, that is, maintain the ppO2 at 1.3 bar by injecting oxygen using the injector on the exhale counterlung. This would carry on through the rest of the dive until the ascent. Once we were kitted up we got straight in and swam down to 6m, the viz was awful (for Stoney Cove) which was a pain as it made keeping in contact difficult. As soon as we were down at 6m we got on with the drills, these all went well and we swam off down the road to the 20m level, switching to the high setpoint on the way down. We carried on to the Stangarth where we had a bit of a swim about before Matt told me to start the drill. I swapped back down to the low setpoint (0.7 bar) breathed for a while and watched the PO2 drop. As the setpoint went below 1.3 bar I put in a squirt of O2 to bring it back up - at which point it went shooting up to 1.6 bar and the buzzer started going off! "OK" I thought, "I don't need to squirt as hard" (cue filth gag number three from the DO). The knack with this is a bit like controlling your drysuit, you have to get used to how much gas you need to inject and how often, by the end of the dive I was doing OK and managing to keep the setpoint around the 1.3 bar mark. Apparently in the event of the rebreather electronics failing completely you can run the unit like this as long as you know to inject O2 every x breaths - this sounds a) difficult and b) dangerous. I hope I never have to do it.

The ascents all went OK on the first dive, despite Matt hitting me with an off-the-cuff bailout drill that I cocked up (note to self, don't dump your breathing source unless you know where the backup one is!!!) and it wasn't long before the cuppa-soups were on the go and after a short surface interval we were back in the water for more of the same. The plan was to again control the rebreather manually, but this time through the ascent as well as the bottom time. Ascents on rebreathers are not easy. As you ascent the gas in your suit, wing and loop all expands so you have to vent gas from three sources. To make things even more difficult the ppO2 drops so the unit injects



oxygen into the loop, meaning that even more venting is needed. So my ascent consisted of reeling in the SMB, dumping air from my suit, dumping air from my wing, dumping gas from the breathing loop, adding O2 to the loop, monitoring the handsets and monitoring my dive timer – I ran out of

hands very quickly! Anyway, it all went fairly well and we were soon in the pub for the debrief and to have the theory exam marked. Thankfully I passed this and so was set for the final day of the course.

Sunday morning and it is, once again, bloody early. This was the final day of the course and I thought it had all gone fairly well so far - this was mostly thanks the Matt's teaching, rather than any talent on the part of the student. We jumped in for the first dive where we enjoyed the now familiar mouthpiece drills. After this we headed down the roadway to the deeper section of the Cove. Our max planned depth was 30m and it was nice to get down there and see how we coped with a bit of depth, the viz was also very good down there which made a nice change. It is far easier to control buoyancy with a bit of depth as ascending or descending does not have such a huge effect as it does in the first 10m. After about 20mins at depth we ascended to the 20m level where it was time for more skills. The scenario this time is that the solenoid has stuck open and is constantly injecting O2 into the rebreather. After being given the nod from Matt the first thing I had to do was change the setpoint on the handset to 1.5 bar so the unit would start injecting O2, I then had to turn off the O2 bottle and wait for the ppO2 to drop. Once it dropped to below 1.3 bar I opened the cylinder valve and allowed a small squirt of O2 into the loop, at this point the ppO2 went thought the roof again and I got a "high oxygen" alarm clearly a my squirt was more like a bucket load. A couple of breaths soon brought the ppO2 down though and we set off for a swim about, all the time controlling the ppO2 by opening and closing the valve on the cylinder. This all went well but, once again it

## In Brief: Diving with a Rebreather Diver Clare Walton

'Cool' I thought, 'my best mates a rebreather diver now', cool that is until you try diving with him and his yellow box!

Firstly there are no exhaust bubbles to look out for. This I found very strange and will take me some time to get use to. I often would look out for PB's bubbles coming from a section in a wreck in the event that I can't hear his lump hammer going.

Secondly like most tekkie divers who deck themselves out in black, spotting them in UK waters can at times be a problem and PB is no exception. With a black mask, hoses, mouth piece, half the box and the other normal black dive gear working out what he is signalling or if he is looking at me is far from a giggle especially when you are a fair way down, in the dark and struggling to maintain your position in a strong current.

So like PB is trying to get use to his new unit I am getting use to having a new type of buddy, one who is grumpier than normal and shouts at me loudly through his mouth piece.

I think I will have to resort to attaching glow sticks to him to overcome the 'where is he' situation and get him glow in the dark mask and gloves, of course he will love this idea when I tell him. Mmmm...if that fails I could always threatening him with the idea that Jamie and I are going to get rebreathers next year.

If in the mean time you see either PB or I buddyless on a dive please be kind enough to point us in the right direction of finding each other, this way we can slag each other off sooner rather than waiting to hit the surface.

meant high task loading on the ascent. As the ppO2 drops on ascent the length of time you have to leave the valve open for is slightly longer, meaning only one hand is left to do all the venting of gas and handset checking. The key for ascents on the rebreather is to take it very slowly, its surprising how much the gas expands in the space of just 1m. At 6m it was blobs-up time and 5mins or so of simulated deco.

More cuppa-soups followed before we jumped in for the last dive. We dropped to 6m where mouthpiece drills were done before we went off for a bimble about on the 6m ledge. It was satisfying that I could now hold my buoyancy fairly well at this shallow depth and not be crawling along the bottom kicking the viz up - very different to that first Sunday the week before, where buoyancy was an alien concept. After about half-an-hour it was time for our final drill - the rescue. This involved lifting an unconscious but breathing rebreather diver from 6m to the surface. Now if ascents with a rebreather are difficult then ascents with two rebreathers are flippin' horrendous. On approaching the casualty the first thing to do is give them a shake and make sure they are actually in trouble and aren't just staring at some bit of old crud on the floor. Next you need to do a diluent flush, where diluent is injected into the rebreather loop and O2 is dumped, this will sort out a number of possible problems including low O2 and high O2. After flushing with dil its time to make the ascent, where gas from the casualty's counterlungs, wing and suit needs to be vented whilst continuing to periodically flush the loop with diluent as well as venting gas from your own wing/suit/counterlungs and monitoring your ppO2....sound difficult? Well it is. The volumes of gas are just so large that once you start going a bit too quickly that's it - your on the surface. It was an excellent demonstration of why you wouldn't want to be in this situation and why it is worth practising in shallow water. After acting as the casualty and then completing my lift as rescuer the dive was over and we got out and packed away.

After we had sorted our gear out we retired to the pub for a de-brief where (as with all the other dives) we talked over the skills we had practised and discussed any issues that the dive had raised. Matt then let me know I'd passed (thank God!!!) and we had a general chat about going forward with the unit and building the hours. I really enjoyed the course, and certainly learned a lot. After that first pool session I really wasn't sure that the rebreather was for me, but over the course of the two weekends my skills improved to a level where I think I'll happily be able to dive it. This was thanks to the excellent standard of teaching I received from Matt, the theory and skills sessions were all very thorough and taught is a laid back style that meant I didn't feel a tit when I cocked it up. If anyone is thinking of going the rebreather route then I would certainly recommend you contact him, have a look at www.mrdiving.co.uk for more information.

So that's it, I'm a rebreather diver – you'll see me out on the club dives and in the pool with the unit, if you want to have a prod about or ask any questions feel free. Once I have built my own experience on the thing then I may line up a few try dives if people want to have a go.

# 3 into 1 – Trimixing in the Philippines Chris Boddington



For many months I had tried to do my IANTD Normoxic course, but a small thing called work kept getting in the way. I was working in Taiwan and the closest place to do it was in the Philippines, which is a hive to technical diving in the Asia Pacific region.

After much searching of the inter-grot-net and speaking to friends I found the perfect place Tech Asia, in Puerto Galera. It was attached to the excellent Asia Divers and had a great reputation, friends spoke highly of it, and it was run by a Brit... what more

could you ask for?

My preparation for the course was non-existent as my last weeks in Taiwan were filled with working late nights and very early morning beers, plus having to pack all my belonging and gut my apartment for my return home... Needless to say what I needed before the course was a little rest... and the drunken weekend in Hong Kong before connecting flight to Manila didn't help, also I hadn't dived in over 3 months.

The journey from Manila to Puerto Galera, involves a 2 hour car ride and a 1 hour boat ride, which I managed to sleep through and this set the trend for the coming week - sleeping wherever possible. I arrived at the jetty and had the long walk of 30m to my hotel, and was quickly shown my poolside room. I again, promptly crashed into the bed and slept till dark.

The IANTD Normoxic Trimix course is, as the name suggests, a course designed to teach the student the wonders of Normoxic Trimix. Normoxic Trimix is a blend of three gases, Oxygen, Nitrogen and

Helium, as per normal Trimix, but percentage of O2 is sufficient to allow the gas to be breathed from the surface to the required depth, usually around 60m, depending upon the mix. This means that the minimum amount of O2 for the course was 19% to the total mix. The Helium is used to replace a quantity of the Nitrogen to reduce the narcotic effects of Nitrogen at depth. The course being from IANTD, also dealt with in-water skills, equipment set up, decompression approaches, and multi tank/gas decompression and numerous other issues. There is a lot to take in and a few stark truths come home, but in the end you become a much better diver.



The next morning I met Dave the manager of Tech Asia, and Ralph my instructor, after introductions I was told that the course would be a 1 on 1, which was a pleasant surprise as most courses seem to be going to the 1 to 1000 approach. Then it was straight into the theory, and some complex equations. IANTD produce a student work book, which combines the Normoxic and Technical Diver course into one book, but with separate sections for each. Ralph went through the equations and explained to me what was to come in the coming week. Everything was taken at my pace, and a good thing too, as I fell asleep again during lunch.

After lunch was the first water session, this would not be on any exotic gas mixes but on air, as we would be at a max depth of 9m. Now I know what your thinking - 9m, on a tech course??? But this was a hard 9m dive. I choice to use the shops APEX regs with my own Wing, as my Possies were due for a service and had sat in someone's garage for 4 weeks after the last dive before they were given back to me still wet and salty.

Many of the skills we carried out here, were to be repeated at depth, but also some 'tests' were performed. IANTD won't just pass any Tom, Dick or Chris, you need to prove you can handle the difficulties should they occur, my notes from the course just describe them as S&M stuff...

The basic skills were ditching and retrieving 2 7lt stage bottles; swimming with said bottles; practicing neutral buoyancy with the stages; gas shut down drills (which I had a touch of difficulty with.. nothing to do with turning each one off, just the order and not always turning them back on again); gas sharing as a donor and as a receiver; and finally something I have been doing ok for years - deploying a DSMB. This became a real handicap as I didn't do it properly all week...

As for the 'Tests', well for the squeamish it might be time to hide behind the couch. We laid out 18m of line across a mostly sandy bottom in 9m and this was my torture. First off it was to swim the length of the line with no mask... not too bad. Next it was with no mask and NO reg...Hmmm, you're sitting there thinking 'ok I can do that easily, I can swim a whole length of the pool underwater'. Easy? No, you have all your diving gear on, creating drag so you swim much slower, plus if you rush you burn more oxygen in your system. I did it but with very, very little to spare. Next it was to start at one end of the 18m line and Rolf started at the other, I removed my mask and reg again and signal out of gas, then we swam towards each other and gas shared. Then the exercise was repeated but Rolf started 9m away and swam away from me and I had to catch him and signal out of air again.

It all sounds very easy sitting here, in a warm safe place with air all around you. The reason for these drills/tests isn't some macho stunt, but to teach you and at the same time test you. The teaching came from the understanding that although you may be not be able to use your own gas for whatever reason, you probably have enough to reach your buddy if you do not panic. The lack of a mask, just raises the stress, and simulates a low viz or loss of mask situation. The testing came from how one handles the stress and reacts.

After 88 minutes, the dive was over and I hauled my sorry arse out of the water and waded up the beach, washed our stuff, debriefing and a wander back up the beach to my hotel room to revise, or in my case fall asleep after a quiet beer in the 'local', the Point Bar where all the divers meet at the end of the day.

Day 2 of the course started with a look at decompression table software, and how to use it, as well as the old IANTD tables. We also discussed What/If scenarios, basically reserves, what to do regarding deco obligations, proper dive planning.

Later we did another air dive in the shallows in front of the shop, here again I went through skills I would be performing at depth. Again the gas switching was performed, the simulation of gas failures, ditching and retrieving stage bottles, and another disaster of the SMB deployment, in my defence this was the first time I had ever used a spool, not a reel but a spool, but it just wasn't my SMB week. New skills on this dive were swimming and holding depth whilst being negatively buoyant (no gas in



the wing), ascend whist being negatively buoyant, and stay at the surface in full kit negatively buoyant with your reg out for 5 minutes. This was exceptionally difficult, and I see why the first thing to drop is the weight belt. Next it was some rescue skills, practicing getting my buddy out of his kit whilst in deep water (no standing up here), which again needs to be thought about when setting up your kit, to be honest for most wing/harnesses users require a knife to cut them out of their harnesses, if speed is off the issue. Finally we descended again and had a little swim around then ascend with our SMB's as the only buoyancy. This included a safety stop. We were not hanging below our SMB's but rather holding them as a ball in our hands, expelling gas as required, and balanced them under our waists for the safety stop.

Again, it was a small beer and sleep to end the day.

Day 3 and we ventured out to deeper waters, with a Nitrox mix in our twins. At 30metres we repeated several of the skills I practiced in the shallows on previous days. Gas switching, out of gas simulations, ditching and retrieving stages were becoming second nature. Well almost. Here another advantage of doing the course in the Philippines came to the fore, the fish and reef life. I truly, truly love diving in the UK, but those 'surprising underwater encounters' seem to happen more often in warmer climes. I had time to take in the reef and enjoy my time here.

The second dive of the day was much the same, and as before required me to screw up my deploying of an SMB again... 4 dives 4 bad SMB deployments...

Day 4, saw me truly venture into the dark arts. Here was my first Trimix dive (21/30 for the tekkies out there), to a mere 48metres, but what a feeling. Here I lead the dive, and called all the ascent plans etc. But first the usual ritual of skills were required to be accomplished, ditch and retrieve of stage bottles, gas switching, out of gas simulations. After 20minutes we began our ascent up the reef, and crossed paths with the biggest Barracuda I have ever seen, longer than me, and that's big. At the 21metres gas switch my primary regulator free flowed for real, and my training kicked in automatically, I performed a perfect shutdown (first time ever), and turn the gas back on and it worked fine. However again my SMB deployment was dire.

The second dive (21/22) was much like the first except to 45metres, and a blue water ascent. Here I found out that contrary to popular belief, I do fin a lot, in fact my fins are in almost constant motion. It plays havoc with buddies trying to stay with me on deco stops when there is no line about, apparently.

Day 5, was the Biggie, 60m. Now I don't mind admitting it's been a while, a fair while since I went below 50m, and the last time I was at 60m I have a hole in my memory from narcosis. I was a tad anxious, but Ralph reassured me, and well I thought what's the worst that could happen.

60m on Trimix (19/35) was a true revelation, I now understand why some Trimixers won't dive on anything else. We dived a seamount, in deep blue water, full of life. At 60 metres, my head was unbelievably clear. I've been more narced in muddy lakes at 9m. I looked at my gauges and understood them immediately, I could take in my surroundings and it was amazing. Now I know what some of you are saying, "I don't know what he's going on about, I never get narced..." Well, as the

old saying goes there are two types of Diver: #1 He/She knows he/she gets narced. #2 He/She is too stupid to notice.

Again we repeated some of the skills, but with a bottom time of 20 minutes we still had time to look around. Dog Toothed Tuna, Jacks, Grouper, Sweetlips, Anthia, the whole host of traditional tropical fish were here and here in numbers. We ascended up the seamount, and as we ascended so the sights grew more colourful and plentiful. It has to be one of my favourite dives in the world. At 6m we headed out into the blue to deploy the SMB





and found the currents spilling of the seamount gave a washing machine effect, currents dragging me in ever direction, exhaust bubbles swirled around like snow in a blizzard. After 70minutes we were back in the boat...I could have spent 70 days there.

The final dive of the course was supposed to be a fun dive. We topped off our tanks from the morning to end up with 19/22 mixes. The weather had started to turn, and we jumped into some decidedly not blue water, for a free ascent down to 35m. here we swam into the current along a sandy bed and

dropped over a ridge to find Sweetlips Cave at 52m. Whether it was the low light, the increased nitrogen in my mix or the fact that Ralph had a light and I never, it just felt...well, eerie. We swam through the cave, my night vision didn't fail me, as some of you will know it's nothing new for me to be in a sea cave without a working lamp. Again after 20minutes we began to ascent, when Ralph signalled he was out of gas. The training kicked in and I handed over my primary and got on my back up, and proceeded to instigate the ascent procedure whilst monitoring both Ralph and our gas supply. We ascended all the way from 50m to 21m, our first gas switch point, including our deco stops. We had been sharing gas for so long that I had no longer thought of this as a drill, but as a real gas failure. We switched gases, to our deco mix of 50% oxygen and continued our deco profiles. I even offered him my primary at the next change point much to his bemusement. Finally sent up a proper SMB, I almost dropped my reg through the shock of it. Although after a week of extended decompression stops, my lower back was aching with the effort of having to remain vertical without support for so long. Finally we ascended, and it was beer time....

The final day consisted of the exam, which isn't easy but well worth it. I passed thanks to the teachings of Ralph and all at Tech Asia, so a few more beers were sunk.

This was the first overseas course I have done and can thoroughly recommend it. Tech Asia are great and have top notch staff and equipment (mainly Halcyon and Apex). The course is a great way to spend some down time, and the family would be catered for in a place like PG, where the people are always friendly.

The course itself taught me a lot about myself and my diving, like all IANTD courses there are the bits in the book and there are the extra bits you learn. I have come a long way, the course taught me more than I can put down, but will I use it all. I will take the skills and practices I learn on the course and bring them into my regular diving and practice them to remain familiar.

My thanks once again to Ralph, Dave and all the guys at Tech Asia...Cheers! Have one in the Point Bar on me.



# **Caption Competition**

This man is a teacher – is this really any example to be setting to the kids????? Anyway, best caption wins a night on the booze paid for by the alcoholic northerner featured in this pic.



#### DiverSE 2006

Paul Brown

Sunday 12<sup>th</sup> March saw BSAC's South East region host the first DiverSE (**Diver S**outh **E**ast – geddit?) conference at the University of Surrey's Guildford campus. 280 delegates from all over the region attended for a full



day of talks and presentations from an assortment of diving bigwigs. As we are never shy of a day out that ends in the bar, four Croydon BSAC stalwarts attended in an attempt to learn something about this diving lark...

Having been diving the day before and being snotted-up with a stinking cold, I can't say I was that up for the day out. I had promised a lift to Marie though so 9am saw us wandering through the manky back alleys of the University looking for the lecture theatre and dodging the remains of the student's Saturday night kebabs. Once in and registered we got a cup of tea and made our way into the lecture theatre and found Claire and Dave, Dave already having been bollocked by the jobsworth on the door for not wearing his name badge – naughty naughty Mr Elphick!

At 9.30am the day began in earnest, with an opening address by Dave Tresidder, the South East (and our) Regional Coach. The format of the day was to be a series of six 45min – 1hour presentations interspersed with brief 10min slots from regional representatives. First up was Mark Stevens of British Divers Marine Life Rescue (BDMLR), talking about the Thames Whale saga and the work involved on that weekend. I'm sure most of you followed the story just as I did, and it was interesting to hear from someone in the know what really happened. The media had saturated the weekend's TV with so-called experts, and Mark covered in detail the plan of action, problems encountered and the reasons for the unhappy ending to the story. This was a great way to start the conference as the whale thing was not a diving story but something that had captured everyone's imagination. The result of the rescue wasn't the best, but the effort and dedication of those in the BDMLR cannot be faulted.

Next up was a bloke talking about snorkelling. Thankfully only for about 5mins.

The second main presentation of the morning was from Kate Cole of Sussex Seasearch. Kate spoke about the ongoing work of the Seasearch programme in detailing the life found on the Sussex coast. I found this talk very interesting and certainly feel that it is something the club could help with. Seasearch run courses in marine identification and organise dives on specific sites to map and identify life all along the Sussex coast. Once you have attended the basic 'Observer' course any dive can be a Seasearch dive as long as you carry a slate to jot down what you see. The data is then collated and added to a national database which is being used to identify areas in need of conservation and to map the distribution of species on a national level. The data does not have to be collected on specific Seasearch dives either – so this is where perhaps we could help out. I'm sure if there is enough interest we could organise an 'Observer' course and try to give some of our dives a useful purpose.

The second 'regional advert' bit was on the First Class Diver and Advanced Instructor grades. Mark Mumford, a National Instructor and co-ordinator for FCD and AI on the SE Region spoke about the knowledge needed and general course content for these higher grades and encouraged people to try to extend their knowledge further through this type of training.

The third speaker of the morning was John McIntyre, a freelance journalist specialising in diving stories. John showed footage from South Africa's sardine run, the Jordanian Red Sea and the UK and covered some of the equipment and techniques used to get his stories on the telly. According to John, if you can find a half-interesting diving story and film it to an OK-ish digital quality you've a chance of getting on the box – Messer's Boddington and Griffiths – over to you!!!

After a quick break we were back for the last session of the morning, a presentation by Martin Farr covering his book *The Darkness Beckons*. Some of you may remember that Martin gave a presentation for the club a couple of years ago, unfortunately I missed that so I was really looking forward to this one. For those of you who haven't heard of him, Martin is a cave diver who has been at the forefront of cave diving exploration for over 30 years. He has literally written the book on the subject and really is something of a caving legend. In his presentation Martin covered the history of diving in overhead environments from its inception to the present day. He showed some stunning photos from various expeditions in the UK and overseas and presented these with humour in a way that wasn't condescending. He also ripped the piss out of the Americans and the DIR crowd – always a good thing in my book! Martin's presentation was the highlight of the conference for me.

Lunchtime came and the organisers had (sensibly) not opened the bar as they wanted us awake for the afternoon session. We had an hour or so to kill with sandwiches, wallys and tea, then had a chance to have a look round the stands that were on show in the foyer. Representatives were in attendance from BDMLR, Sussex Seasearch, the Regional coaching scheme, the chamber at Whipps Cross Hospital, the NAS and Tony Backhurst Holidays. Many of these organisations had sponsored the day, enabling the entrance fee to be kept very low which was a nice touch.

Post grub and we were back in the lecture theatre to hear from Mark Mumford again. This time it was a longer talk on Digital Underwater Photography where Mark went through some of the points to consider when purchasing a digital system. He reviewed the features needed from a camera to be used underwater and went through a selection of systems at varying price ranges that would be appropriate for underwater use. Personally this talk didn't do a lot for me, not being into taking pics, but Mark is clearly very knowledgeable and I'm sure those with an interest in the money-pit that is underwater photography will have gleaned some very useful information.

Another swift break followed for tea and gossip, before coming back for the final session of the day. We heard from Tim Venables, Regional co-ordinator for the Regional Expeditions (REDS) scheme about the dives he has arranged for the coming year. There are about 3 or 4 weekends coming up that are really for advanced divers and will be looking at wrecks in the 50m range. There are more details on the regional website if you are interested. Poor old Tim was unhelpfully interrupted by the fire alarm – so we were all off out into the freezing cold for quarter of an hour whilst the manky students who set the thing off were found and shot.

Simon Rogerson (editor of DIVE magazine) was next up giving a talk entitled 'Making the Most of It!'. This was really a photographic review of some of the assignments Simon had worked on with some stories thrown in. Simons photos are quite spectacular and showed the diverse range of environments he gets to dive in, the Scilly Isles, Scapa Flow, the Red Sea, the Bahamas, cage diving with Great Whites, 8 whale sharks round the boat in Djibouti (8!!!) – simply stunning. I found the talk very interesting, Simon spoke in a very informal manner but with a lot of enthusiasm which (along with the quality of photographs) would be a great advert for non-divers to get into the sport.

Simon was followed by Dave Tresidder with another Regional advert, this time an overview of what can be offered and encouragement to use the Region as much as possible. He then introduced the final speaker of the day – Jack Ingle with a talk entitled 'Technical Diving – the Bits They Don't Tell You'. For those of you that haven't heard of him, Jack is a technical instructor and former technical adviser to the BSAC. The presentation included some impressive footage of the USS Wilkes Barr in Florida and the wrecks of the Seven Skies, HMS Repulse and HMS Prince of Wales in the South China Sea, together with some jokey anecdotes from Jack. I wasn't especially impressed with this talk as I felt it didn't reflect the title, it was basically a comedy routine. Apparently the only bit about technical diving they don't tell you is that tekkies often wear nappies. Still, the other 200-odd people in the room seemed to enjoy it, so perhaps I was the only one disappointed by this one.

So that was it, the first ever DiverSE conference, which I have to say seemed a roaring success. Highlights for me were the talks by Martin Farr and Simon Rogerson and being allowed back into a student bar at the age of 30 (Walton – it was just like being back at South Bank, except cleaner). I really hope they run the conference again next year as it turned out to be a cracking day out.

## A Diving Library...What to Buy

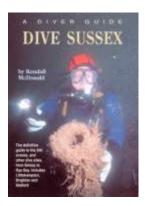
Paul Brown

So obviously I'm short on articles for the mag – this means you lucky readers get to be bored stiff with a short piece on diving books, or to be more precise, diving books I think are good. And there's you thinking I couldn't read...

To begin with there are the series of BSAC manuals, which you should all have at least one of. The new *Diving Manual* and *Dive Leading* are excellent – well written and a much easier read than the old *Sport Diving*. They cover the complete range of skills needed to complete all BSAC diving courses and are written with a focus on UK diving. Other books by BSAC include *Teaching Scuba Diving*, *Safety and Rescue for Divers* and *Seamanship for Divers* which



have all recently been updated I find *Safety and Rescue for Divers* particularly useful as rescue skills and theory are easily forgotten if not practised. These are available from the BSAC shop (www.bsac.org) or at most dive shops, I think members get a discount if you buy it direct.

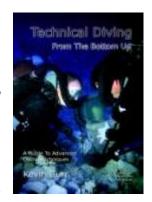


SCAPA FLOW

Bad Macdonald

Dive guides for specific areas are always useful and perhaps the most common and most authoritative are the Dive \*\*\*\* books produced by Diver magazine. The books cover all areas of the UK and list both wreck and scenic dives within specific areas. Positions and depths are listed along with general diving information and history about the wrecks. Most useful to us are those that cover the south coast: Dive Sussex, Dive Wight & Hampshire, Dive Dorset, Dive South Devon and Dive South Cornwall. Perhaps the only criticism is that these guides are not updated very often, but this is a minor flaw as most of the sites we visit are old favourites, so its unusual to dive something that isn't listed. Two other UK diving books worth a mention are Dive Scapa Flow and Dive England's Greatest Wrecks, both by Rod MacDonald. *Dive Scapa Flow* covers the German wrecks plus most other sites in the Flow including the blockships, HMS Royal Oak, the F2 & Barge and various others. Detailed descriptions of the site complete with history are accompanied by drawings and diagrams of the wrecks as they lie today. This is a well-written book by a diver who clearly knows the wrecks inside out. If you are visiting Scapa (and I think it should be the law that everyone does at least once) then you should buy this book. Dive England's Greatest Wrecks is very much in the same style as Dive Scapa Flow, but covers 10 wrecks that (in the author's opinion) the best in the country. Obviously there will be arguments as to which are the best, but having dived 9 of the 10 sites I can safely say he has certainly picked out some corkers. Dives include the M2, Salsette, Moldavia, Kyarra and the Alaunia, each featured in a separate chapter that details the history of the ship's sinking and the current state of the wreck. Also featured are diagrams and some excellent line drawings of the wrecks as they lie today – very handy if you haven't dived the site before.

If you want to extend your diving horizons a little or perhaps just want to know what this tekkie lark is all about there several books that are worth a look. A point to note here though is that technical diving in the last 10 years has evolved rapidly and techniques that were popular only three or four years ago are now 'old hat'. That said, there are still some very good books out there. Probably the most comprehensive book I have read is *Technical Diving from the Bottom Up* by Kevin Gurr. This large-format text book covers the equipment, physiology, physics, techniques, procedures and planning involved in technical diving. Trimix and rebreather skills are covered in detail as is the planning of large scale technical expeditions (using the actual document distributed for the Britannic 1997 Expedition that Kevin led). The book is quite 'wordy' and unfortunately where images are used the copy isn't



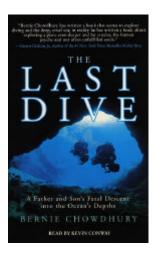
very good, but the content is second to none, having been written by one of the first people to introduce technical diving to Europe and is certainly worth the £35 the book costs. Another excellent read is *The Darkness Beckons* by Martin Farr. I have mentioned Martin elsewhere in this issue of the MP and he really is (and has been for a long time) at the forefront of cave diving. *The Darkness Beckons* charts the history on cave diving from the first cave dives in standard gear into Wooky Hole through Bill Stones large-scale expeditions to Martins recent expeditions to Turkey and Brazil. It features some stunning images taken by Martin and other renowned cavers like Wes Skiles.

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If you are looking for a book that is more readable rather than reference then the following may be of some use. They are all of a technical persuasion but do provide some interesting reading and food for thought. *Goldfinder* is the story of Keith Jessop, the treasure hunter and salvage diver who salvaged the cargo of gold from the 250m deep wreck of HMS Edinburgh. The book covers Keith's lifetime of salvage work, from small wrecks for scrap off of Scotland in the early 1960's, through the first expedition to the wreck of the Edinburgh in 1979 and up to date after the final expedition. The special thing about the recovery expeditions is that they were conducted not with Remotely Operated Vehicles (ROV) but with divers in saturation. Divers worked for hours at a time in 250m of water for weeks on end, simply amazing...

Beyond the Deep by Bill Stone and Barbara Am Ende is the story of divers at the very edge of cave diving/caving discovery. The book chronicles the build-up to and tragedy of Bill Stone's 1994 expedition to the Huautla cave system in Mexico, possibly the world's deepest cave system. The expedition involved travelling 1400m below the earth's surface and 4.5km along this enormous cave system utilising ground breaking rebreathers and a huge team of volunteers. The scale of this type of exploration is absolutely awe inspiring, as is the dedication of those who took part.

The final book is *The Last Dive* by Bernie Choudhury, the story of father and son divers Chris and Chrissy Rouse who, in 1992, died on a dive to the wreck of U-869 (also known as U-Who). I found this book to be a riveting read, even though from the title and covernotes I knew the tragic ending. The author knew Chris and Chrissy well and had been on several expeditions with them, including the 1991 trip to the Andrea Doria. He notes the Rouse's introduction to diving and their dedication to the sport and ultimately their demise, which, sadly could have been avoided. Some have said that the dive the Rouse's died on was a cock-up from start to finish and their probably right, but I really felt there was a lesson to be learnt here - that is that diving deep on air is a very, very bad idea. Trimix, although very much in its infancy, was available and the Rouses had had training in its use. A sad book, but an excellent lesson in what not to do. Well worth a read.



Well, that's the lot for another edition, hope you enjoyed it!

The next edition of the Muddy Pudde will be out in September, please send any contributions to Paul Brown.