



Banstead Underwater Diving Club

THE FROG ON THE BOG NEWS

MARCH 2017

Fellow Bubblers,

What's been happening?

Spring has sprung, the grass is riz, I wonder where my dive kit is? ☺

The boat handling course went ahead on the 4-5th March despite the inclemency of the weather, a full day was spent on theory with Andrew, with practical boat handling exercises being conducted on Sunday, there was a brief sortie out to sea but conditions were not conducive to training only experience! Do read Kirsten's report on the club website.

When the boat goes out in the coming months please let the new handlers take their turn on the helm so they can gain experience.

Mark & Owen Cawood and have completed their Ocean Diver training, well done to them both! Really pleased with these two as they have met every challenge head on and remained in good humour throughout despite being very cold and damp! (report on club website)

Let's go diving!

Well the curves have been scrutinized and summarised, if you haven't received an email or have deleted it by accident do let me know. Looking for willing volunteers to come forward and take ownership of particular days.

Featured Wreck

MV Zaanstrom

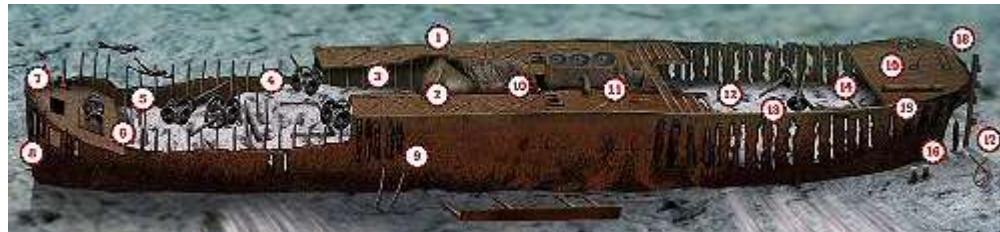
I haven't dived this wreck for a few years and can be dark, sits in 29m with the top of the wreck at 24m (subject to tides)

It sank at 7.45pm in the early darkness of 21 December, 1911, Captain Ralishocks cargo was china clay, and he was on his way home from Fowey to Amsterdam.

He sprang his leak close to the stern and very near the propeller-shaft housing soon after leaving Fowey, although he was not aware of the clay swelling with sea water until hours later, when the wallowing became obvious, The Zaanstrom was built by Huygens and Van Gelder in Amsterdam in 1895, 215ft long with a beam of 32ft and a draught of 16ft. Her three-cylinder triple-expansion engine produced 108hp from two boilers. She was worked hard by her owner, Hollandsche Stoomb Maats of Amsterdam, and produced good profits from the money it had spent on her building. When it became obvious, just after 7pm, that the Zaanstrom would soon sink, the coaster was two-and-a-half miles ENE of the Owers Light Vessel. Captain Ralishock ordered his crew of 20 to the boats and the vessel foundered soon after they pulled clear.

They were picked up by the steamer Westdale of Liverpool and landed at Ryde. But somehow in the

darkness and confusion of the rescue, one of the crew was lost, the only casualty.



For greater detail google: Divernet Wreck Tour 92

What is your favourite wreck off Littlehampton and why? Send me an email so we can include in the forthcoming editions of 'Frog News'

What's on the horizon?

Red Sea - 17th to 24th March 2017

The commandos are back! I counted them all out and counted them all back! A great time was had by all as you might expect with such a motley crew.

Philippines – 14 to 29th April 2017

Dave and Kirstin have headed off for what looks a fantastic trip, so jealous!

Galapagos – April 2017

Andrew and Jenny will be following in the footsteps of Darwin, although he didn't do any diving? Awesome wildlife but the water is surprisingly cold!

U1195 –Friday 21st April 2017

The Submarine that sank the James Egan Layne! Rupert organising as usual – Mulberry Divers - £35 for the day.

Portland - 25 to 28th July 2017

11 members off to dive 'the Bill' with Skin Deeper, wrecks galore await, the M2, Aeolian Sky, Alex an Opstal etc **Note one space still available.**

Where are you off to? Please do let us know if you have any diving holidays planned, once back any report and photographs will be gratefully received.

Club Events- These are run by member, for members and your attendance at these events is always appreciated especially if we have external speakers.

Please note the timings for the monthly Tuesday events will be 8pm for an 8.30 pm start

- Tuesday 28th March 2017 – Scuba Bring and Buy Sale (Football Club) – a good turnout and great to get together and have a chat, the consensus was that there should be a surplus kit table at each monthly meeting.
- Club Compressor Training – went ahead with 5 members turning up – see report on the club website.
- Tuesday 25th April 2017 (Football Club) – Decompression – a History, plus demonstration of deco training software.

Non-Club Events

- Great Northern Dive Show 8-9th April 2017 – new show, could be interesting but in Manchester!
- Seasearch Observer Course – 22nd April 2017 – Maidstone, Kent
- Do check out the Nautical Archaeology website www.nauticalarchaeologysociety.org as they are running numerous courses both wet and dry plus there trips out to the protected wreck off Eastbourne – Holland 5 (awesome!) & Normans Bay Wreck (not much viz!)

Have you attended any dive related events? Talks, shows? Do send a report in so we can include either in the ‘Frog News’ and BUDC website, lets show the rest of the UK diving community how proactive we are!



I do have a few people interested for a Dry Dive, will be sending out a doodle shortly. As a recap this will take place at the LDC in St John’s Wood, a 50m experience every Tuesday night at 6pm – cost is £40



The Walrus Reports

London Diving Chamber Lecture – Wednesday, 8th March 2017

9 members attended (better than most Tuesday club nights!) for two presentations, one by Dr Dawn Kernagis on the NASA Neemo 21 Aquanauts Splash Down into the Aquarius Reef Base at 18m below the Atlantic 6 miles off the Florida Keys.

There was a short but inspiring talk by a woman who is now wheelchair bound after a horrific mountain bike accident and has benefited from learning to dive with the Scuba Trust, she is hoping to participate on a Red Sea trip next year.

Paul Rose then gave a presentation on his work as expedition leader and ambassador of the National Geographic Pristine Seas project and their drive to convince governments to protect and preserve the marine biosphere through a number of measures.

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Dive Safe

Paul

FOTB Medical Facts

Why do we produce more urine when we go diving?

When we enter the water, we take away the effect of gravity. Gravity normally causes a fair amount of blood to stay in our legs and arms. When we are in water, this blood moves back into the chest area. Our bodies sense this increase in blood volume in the chest and interpret it as too much blood/water. It sends a signal to our kidneys to get rid of this excess water. Therefore our kidneys produce more urine and we have to pee. When we get out of the water after swimming or diving, gravity reasserts its pull and blood pools in our arms and legs. As a result the body senses less blood/water in the chest and sends a signal to the kidneys to conserve water.

A second reason we need to pee when we dive results from the cold. If we become cold, our bodies attempt to conserve heat by allowing the arms and legs to become colder. We move blood from our arms and legs and keep it in the stomach, chest and head to keep the vital organs in these areas warm and functioning properly. Again, our bodies sense this extra blood in the chest and send a signal to our kidneys to produce more urine to eliminate this excess water. When we warm up after the dive we will again be relatively dehydrated.



FOTB Term of the Month

'Scapa Mix'

The first trick is always to think two dives ahead: about the dive for which you are getting the fill, and the dive after that.

With a nitrox fill for the current dive, which fill would we have for the next dive if we topped up with air? Get this right, and we can benefit from nitrox for every dive, while paying for it for only half of those dives.

The top-up mix depends on the mix with which we begin, the pressure to which we breathe it down, and the pressure to which we top it up. We know that an air top-up will always result in a weaker mix. This is a bit awkward, as the first dive is usually the deeper in a day, so would benefit from a weaker mix, while the shallower second dive would benefit from a richer mix.

So to make the most of a top-up fill, we need to get our nitrox fill for a second dive, then use an air top-up for the first dive of the next day.

The set used for today's first dive is blown down, then filled with nitrox ready for tomorrow's second dive (and then, with an air top-up, used for the first dive of the day after).

It is much easier with an on-board compressor and oxygen bank for nitrox-filling. Now the time to buy nitrox is mid-day after a deeper first dive, and ready for a shallower second dive.

After the second dive, an air top-up will give a weaker mix for tomorrow's first dive.

Many boats about the country are equipped for this, virtually all the boats in Scapa Flow in the Orkney Islands are equipped for on-board nitrox. Little surprise then that this trick for getting the most out of nitrox has become known as the 'Scapa Mix'.

With this in mind, we will use Scapa Flow as an example. For a nice easy second dive on the cruiser Karlsruhe at a maximum depth of 26m, we get a fresh fill of 39%, the richest mix compatible with a maximum PO₂ of 1.4 bar, giving an equivalent air depth of 18m.

Our first dive tomorrow will be the battleship Kronprinz Wilhelm, with the seabed at 38m at the stern. If we breathe the 39% down only to 100 bar on the Karlsruhe, an air top-up to 232 bar will give us a 29% mix for the Kronprinz, with a Maximum Operating Depth (MOD) of 39m and an Equivalent Air Depth (EAD) of 33m.

Air Top-Up Formula

To calculate the mix from an air top-up, add O₂ partial pressures of the starting mix (Start P x Start Mix) and the amount of air added (Fill P - Start P) at 20.9%, the proportion of O₂ in air, then divide by the final fill pressure:

$$\frac{\text{Start P} \times \text{Start Mix} + (\text{Fill P} - \text{Start P}) \times 20.9}{\text{Fill P}}$$

Courtesy of John Liddiard – Divernet

FOTB Antique of the Month

Capillary Depth Gauge

There are some among us who still remember the dark days when your wet suit sleeve was adorned with many gauges, this was one of my first scuba related purchases when I was a small boy in short neoprene trousers. For those who may wish to dive in a retro fashion they are still available (about £20!)



Capillary Depth Gauge (also known as a bubble depth gauge) is the simplest instrument designed for diving to measure the depth in which you find yourself. It consists of a tube that is stoppered on one end and attached to a scale plate. This depth gauge is very accurate in shallow waters, but its accuracy reduces in deeper waters. Additionally, you will need to have good eyesight and light to read this gauge.

(Thanks to the Scubamuseum.com for image and copy)