



Preparing to use side mount deco mix

Deep Diver

Correspondent Mike Clark

wanted to do a Trimix course

and thought why not do it at

Scapa and get a great trip as well

as valuable tuition. Did things

go to plan ...

SCAPA FLOW, Orkney is one of the most popular wreck diving destinations on the planet. It is home to the scuttled remains of the German High Seas fleet, which now lies between 30 and 50 metres deep on the bottom of the flow. It really is a fantastic wreck diving destination and I visited in September 2008 with the intention of not only seeing these magnificent wrecks but also completing a Trimix course. Could it be done and would Scapa be a good destination for training?

My buddy, Gordon Mackie of Tuscan Divers, had a good contact in Orkney - Barry White, IANTD Instructor and owner of White Diving Services. We discussed our requirements with Barry who suggested we try out the IANTD Course called Advanced Recreational Trimix. This sounded perfect for our needs, as it's a new course designed to introduce Trimix diving to recreational divers. We would not need to buy any new equipment as the course can be completed with a cylinder and a pony set up, although I used twin 12 litre cylinders with a 7 litre side mount. This course would enable us to dive on Trimix up to a depth of 48 metres - perfectly suited to the diving depths in Scapa Flow. We looked forward to experiencing the wrecks on the helium rich narcotic reducing Trimix mixes.

Day 1

On board the dive boat *Valkyrie*, Barry White arrived and ensured we all had received our course packs from IANTD. He also provided us with further course material. Barry also confirmed we had the required qualifications and we filled out a medical questionnaire. So formalities over, it was time to dive. Today would purely be a shakedown day, getting used to equipment and making sure everything worked properly. We dived on the light cruiser, *Karlsruhe* and the *Seyditz* salvage site. Good shallow dives around the 20 metre mark. Tomorrow the training would start in earnest.

Day 2

The *Valkyrie* takes around an hour to reach the wreck sites, which is an ideal time for us to receive our theory training. Barry went over the course material, advising us that today's diving would ultimately be an assessment of our diving skills. The only tasks we were set for the day were to deploy a surface marker buoy to complete our decompression stops and for one of the trainees to lead the dive. This was purely an air dive and the *Brummer* was shrouded in fairly poor 4 metre vis. Forward of the bridge, I

noted the wreck had deteriorated since my last visit 10 years ago. More of the hull along with the bow gun had now crashed to the sea floor. The bridge and its railings are still impressive though!

At the end of the dive, the two pairs of trainees separated into buddy pairs and deployed the DSMB's. All appeared to have gone well.

Dive 2 of the day was on the F2 and the barge. Vis was poor again but it was a great dive. Another trainee led the dive and DSMB's were deployed again. On the steam back into Stromness, we had a debrief covering what we had accomplished and discussed the theory we would cover tomorrow. It would be time to start seriously thinking about dive planning.

Day 3

The now familiar routine was followed and we covered theory as we travelled out to the *Kronprinz Wilhelm*. Today we were introduced to the Trimix tables that had been included in our IANTD pack. These tables related to the mixes 32/15 and 28/25, the first number being the oxygen content and the second number being the helium content of the mix. Initially these looked complicated but Barry soon clarified how to use them. For this course we would be using a 50%



Learning the basics from Barry



Final check note slate and plan



Striding into the water



Diver at casement gun

We dived the James Barrie and the vis was a stunning 20 metres. Needless to say at 40 metres plus I felt clear-headed. Our bottom time was to be a maximum of 15 minutes. Then it was up the line to complete our stops for real today. First Trimix dive completed - yee haaa!

Nitrox mix in our deco stages to accelerate our decompression, reducing the amount of time we had to hang on the line.

We were now nearing the wreck site and it was my turn to lead the dive. I was planning to see the 12-inch main armament on this dive and so the team brief and the plan had to be clearly understood by all. Thankfully the dive went very well and we enjoyed seeing the big guns.

We then returned to the side of the hull and back towards the shotline, aided by a couple of nice strobes placed there. We then started our planned decompression stops. We were using a 28% Nitrox mix today and whilst our computers were clear, we carried out a deco plan from the tables. What a great dive!

The debrief was interesting and we turned our attention to gas planning formulas which we covered more thoroughly after a dismal dive on the *Dresden*, where vis was a poor 2 metres max at best.

In the classroom, we learned how to choose our best Trimix mixes and work out the safe maximum operating depth (MOD) of said mix by using the 'Pressure T', also known as 'Dalton's Triangle'. We would aim to have an equivalent air depth/narcotic depth of 24 metres by

varying the helium in the mix. We soon put this new knowledge to use. Under the watchful eye of Barry, we chose the preferred mix for tomorrow's dive and worked out the dive plan.

Day 4

First thing completed by us this morning was to analyse our Trimix mixes with a helium analyser. I ended up with a 26/23 mix, which was just perfect for our intended 44m maximum depth. Today we would just be diving with our back gas and no deco stages. These would be added on our last training dive of the trip.

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The second dive of the day was on the *Mara* and we decided to put on our stage cylinders to get used to them before the big deep dive tomorrow on the *Markgraf*. Before that though, we had to learn all about the oxygen tracking table and how to keep within the safe limits when using higher partial pressures of that gas.

Day 5

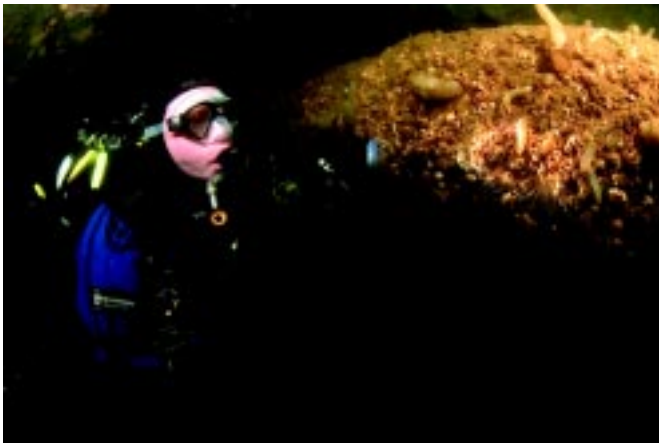
The final dive of the course, where all our training and theory work would come together. We had worked out the dive plan from the tables, taking note of times for deeper depth and longer times to cover for any unforeseen events. Then we marked the information on our wrist slates. We planned for an 18 minute bottom time. This included decompression stops on 50% Nitrox at 15,12,9,6 and 4.5 metres respectively.

We dropped down the shotline. Today there was no nice clear vis. It was back to a murky 5 metres at best. We landed at the stern of the *Markgraf* and fished past slabs of armour plate that had fallen from the hull. One feature that could be easily identified, was the massive rudder, which we investigated at the end of the dive.

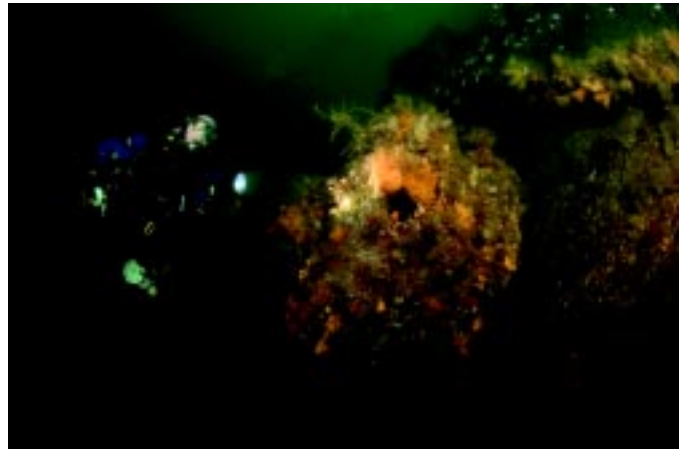
On this dive, I certainly felt the benefits of the helium in the mix and at well over 40 metres, I had a clear head. I ascended back up the line very slowly to let the helium out of my system, ready to complete my deco stops.

We only managed one dive today and we visited the ring of *Brodgar* on a sightseeing trip in the afternoon. Before that though, we completed the theory test that covered all the aspects that we had learnt on the course.

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Trimix diver viewing main guns



Trimix diver at Coln Capstain

Day 6

The final day of the trip and on the way out to the site, we went over our answers for the test. This was openly discussed and everybody could share their thoughts on how they arrived at their answer. This was an excellent form of learning and ensured that we had all picked everything up correctly. Thankfully we passed and we had an amazing

Trimix dive on the *Coln* putting together everything we had learnt. The flow had also started to revert back to its normal vis of around 8 metres.

So to answer my question - can a Trimix course be completed whilst diving the wrecks of Scapa Flow? The answer is a very positive yes for a number of reasons.

Firstly, it's a 3 day course, which can be spread out very comfortably over a 6 day

diving charter. Secondly, rather than being in a quarry or sheltered water site completing training dives, up in Scapa Flow you are actually completing real wreck dives whilst undertaking training.

The real difference is of course that it's much more enjoyable and you are learning in the real environment. In my view Scapa Flow makes an excellent choice of destination for Trimix diving.

FACTFILE

The IANTD Advanced Recreational Trimix Diver programme is one of the new wave of programmes to introduce Trimix diving into the recreational community, without encumbering the diver with lots of new equipment. Designed to extend the diver's knowledge in the use of Nitrox for recreational diving, as well as introducing helium to cut down on narcosis experienced on deeper recreational dives and to further develop recreational diving skills.

This programme will include at least four open water dives of at least 30 minutes bottom time each; two of the dives to be deeper than 30 metres down to a maximum of 48 metres and including up to 15 mins decompression.

To take part in the IANTD Advanced Recreational Trimix Diver programme you must be qualified as a Nitrox Diver either with IANTD or another recognised organisation and be qualified as a IANTD Deep Diver or equivalent or take part in a combined course. The diver must also have proof of a minimum of 30 logged dives or sufficient experience to satisfy the instructor that the student has

enough relevant skill and experience to complete the course and must be over 18 or over 15 years old with parental consent.

The student must also carry on the course, either a twinset, pony or a single cylinder with a dual valve as well as an optional decompression cylinder side or back mounted.

The Advanced Recreational Trimix Diver course usually takes 3 days to complete and training can be carried out onboard any of the dive boats in Scapa Flow. The cost for the course is £350 plus the cost of your Nitrox/Trimix fills (price as per boats standard rate).

Getting to Orkney

Northlink Ferries web address www.northlink ferries.org. There are two main ferry routes to Orkney - Scrabster to Stromess and Aberdeen to Kirkwall. We used the latter route.

British Airways operate flights into Kirkwall Airport.

Barry White details

White Diving Services

07990800525

divertraining@gmx.com

www.techandrecdiving.com

Barry can operate off of any dive boat in the Flow, confirm this when booking though.



The Valkyrie

WET WELDING COURSES

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16th March - HSE Pro Scuba

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