LMCDO 95 A REPORT

MINEWARFARE AND DIVING

VOLUME 7	NUMBER 1	JULY 1996

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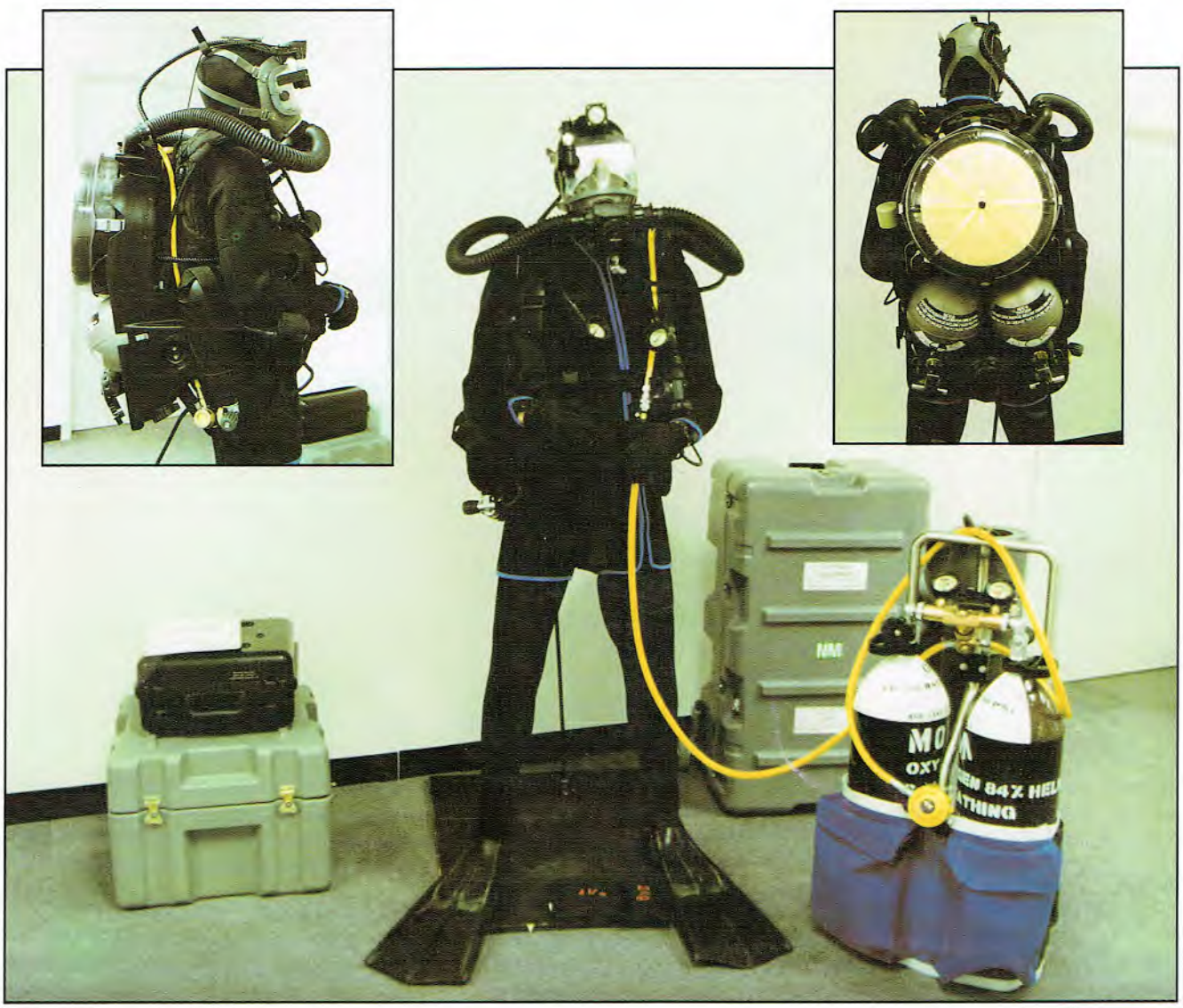

CDBA 96 IS HERE!

LOM(MW) CAREER COURSE

MINEWARFARE AND DIVING

THE MAGAZINE OF THE
MINEWARFARE AND DIVING COMMUNITY

VOLUME 7 NUMBER 1 JULY 1996

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EDITORIAL

Thank you all for the many and varied articles received for this 7th volume of the MAD Magazine; we have even had to defer some articles to the next edition. We are particularly honoured to have FOSF writing the Foreword; his first opportunity since becoming our Type Commander last November. It is already my turn to 'move on' before the next edition and I am sure that my relief, Lt Cdr Graham Landrock, will enjoy taking on this highly popular magazine with your continued and invaluable support.

Foreword by

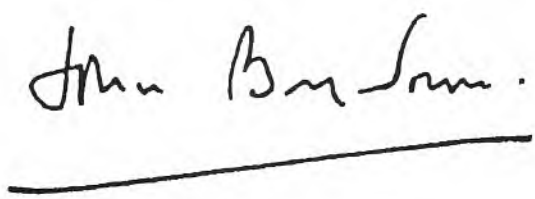
Vice Admiral John Brigstocke RN

Having assumed the responsibility as Type Commander for Minewarfare, Diving and EOD in November last year, it is a special pleasure to be asked to write the Foreword to this edition of the MAD Magazine.

The past year has been one of change for your community, with the relocation of Cdre MFP and MCM Squadrons, the formation of the Northern and Southern Diving Groups and the transfer of the COMMW Work up Staff to FOST(MPV), based at Faslane. It is a credit to all involved that the new organisation is settling down so well. I believe that we now have the best possible basis for maintaining our operational capability and for taking forward policy issues.

I now look forward to seeing improvements in our platform capability, with tropicalisation of the Sandown Class and the fitting of the new TMCC compression chambers. The introduction into service of the new Clearance Diver Breathing Apparatus (CDBA) is an exciting prospect, which will give our minehunters an unrivalled EOD capability down to 80 metres.

I have very much enjoyed my visits, albeit brief, to the Diving Groups, and was greatly impressed with the air of efficiency and purpose - and with the diving pay! You have a hugely important job to do in peace and war, and I wish you continued success.



THE SURVIVAL GAME

By Lt. Dave Ince

As the summer approaches and the cold weather (hopefully) becomes a bad memory, it seems the right time to tell the M&D readers of the joys of the SMAC 427 Survival, Escape and Evasion course run by the Survival Equipment Group at HMS Sultan. Now before you Muppets fall over yourselves to get on the course (I can call you Muppets because I was one once) it is only open to Aircrew and Clearance Divers. This is because in hostilities our line of 'work' can put us in the tenuous position of being close to/behind enemy lines and hence prone to capture.

The story begins in late 95 in the nice warm confines of the Officers' Mess at the Joint Services Intelligence School in Ashford where an old acquaintance, knowing my mentality, suggested that a bit of survival training might be just up my alley. Despite the few 'lemonades' I had been drinking the idea stuck fast and I began to make a few phone calls on the subject when I joined the Bicester a few weeks later. It wasn't long before I had secured places on the SMAC 427 course in Feb 96. I say 'places' because by this stage I had persuaded L(D) Bomber Brown, AB(D)s Taff Galsworthy and Bungy Williams that it would be a really good idea and would make a refreshing change from a deep dive work up in Gibraltar! Bungy (God bless'im) well and truly stitched up his relief Mark Okell, who quite unexpectedly found himself living in a cold damp forest just over a week after joining, while Bungy enjoyed several weeks extended gardening leave! Unfortunately the Coxn, PO(D) Blamps Blampied, had developed sparrow leg syndrome and had no hope of propelling his quite considerable frame over the prerequisite 1.5 miles in under 10.5 mins. The other AB(D), Billy Bounds, was still broken after a valiant attempt at the All Arms Commando Course.

So the four of us arrived at the SEG in Sultan and tagged on to a baby Air Crew Course, a mixture of pilots, observers and operators, and two divers from the Fleet team, Andy Lonsdale and Mac McPhearson. The first four days of the course consists of the initial fitness test and basic survival techniques. The latter included sources of food/water, navigation, fire making and practical mad war dog evasion. They threw a couple of physical bits in just to keep us on our toes, but the Staff were unnaturally nice to everyone... I was sure it was a ploy. Most of our time was spent packing and unpacking then re-packing our survival tins, 80z tobacco tins with come in handy stores for 8 days in the field. Not surprisingly the divers stocked theirs with garlic gloves and oxo cubes, but really useful things like money and matches were taboo! Everything was building up to the Friday when we were to be set free in some remote area, the exact location of which was a closely guarded secret but appeared to be any

Stretcher March.

Roadrunner.

heavily forested area any where in the UK! Dislocation of expectation was the Staffs' favourite quote. It snowed continuously that first week with average temperatures well below freezing We looked forward to getting into the field with grim humour!

The day came, we ate the biggest breakfasts in NAT0, we had our medical, signed our lives away, ate some more, had our last posh craps, stripped naked, submitted to humiliating body searches, got our meagre kit and were bundled on to a coach, destination unknown. (By this time we had been allowed to put our clothes back on). Previously we had been divided in to teams of four or five, all the divers were split in to separate teams so we were less trouble to the Staff, but as it happened Mac and I ended up together. The Staff were still being very cagey about our destination but it soon became clear that we were heading for the New Forest, just like every other survival course before us. The exact location however, remains outside the classification of this article! We disgorged from the coach and turned our backs on civilisation for the next 8 days.

THE SURVIVAL GAME

Home in the woods.

Bomber in his Basher

The first 4 days became the static phase of the course where everyone built bashers, became wild men of the woods and slowly got used to being hungry, thirsty, wet and bloody cold. It did not take long, it is incredible just how quickly the body adapts. With the prospect of no food (water was plentiful by the way) and limited kit, the majority of us very quickly resorted to being tramps and thieving gypsies, and a variety of useful items were rapidly liberated from the surrounding countryside in our time of need! Bomber, being particularly adept at this (being a 2sy), found himself an entire outfit of mildewy civvy clothes, a torch and other bric a brac, he wore the clothes for the rest of the course! On one such foraging outing, during a hideous and thoroughly demoralising thunderstorm, I 'found' a couple of gallons of flammable liquid. Returning triumphantly to our basher we quickly got a morale raising roaring blaze going, teams came in from the surrounding area to scrounge some fire and spirits noticeably lifted in the woods that day. Our flammable 'blue' (as it became lovingly known) was a closely guarded secret from the Staff.

We were never left to our own devices for long, and we were constantly out on Navex's (day and night) or being given demos by the Staff. It is worth noting here that the Staff remained unreasonably 'nice' throughout the course, there were no beastings, silly jobs or thunderflash 'call the hands' at ridiculous hours! At one of the Staff demos we were given the chickens, sad scabby ex battery hens that became the family pets and had to be taken everywhere with us until their eventual and inevitable demise! Our chicken was called Roadrunner, she laid us a few eggs and had, I believe, the happiest days of her life during her short stay with us, we even gave the well chewed bones a funeral and burial! She had the last laugh though, our baby pilot, Cosy, had been a vegetarian for 14 years prior to partaking of her flesh. He was very ill for the rest of the course and was pretty much a Zombie at the end. Apart from some minnows and boiled seaweed, Roadrunner was our only official source of sustenance other than the ten boiled sweets we were allowed to bring in with us. However, we were virtually challenged to secure money about our persons before we went into the field, under the proviso that if we were caught doing so then life could get very grim. As it turned out, each team had managed to do just that, and ours was no exception. With a rather smelly fiver, which had avoided digestion due to it's condom overcoat, I went with the illegally mounted expedition to a local garage (spotted on a night navex) to buy the Team Nutty. The end certainly justified the means, although I did feel sorry for the unsuspecting shop assistant who was holding my money up for close inspection!

The static phase was followed by the tactical phase and the real fun began. Up to this stage the weather had been fairly unkind to us but fortune smiled and instead of the wet and cold we just experienced the bitterly cold. The worse thing for morale whilst on the run was to see the council gritters going up and down the roads during the night! Much of our kit had to be handed in before setting out, and we were left with bivvy bags, ponchos and the clothes we were wearing. Once again everyone was searched and much of our ill gotten nutty gains were found. Fortunately I distracted the Staff during my search and sneaked four Mars Bars out, (this time in a more conventional place on my person) a veritable bonus for the days ahead! Each team was taken to a different location and our runs down the 'Rat line' began. Basically we headed from Rv to Rv meeting 'agents' as the anti, in the form of troops, road patrols and dog teams, was wound up. We were only allowed to move by night and had to find suitable lay up positions by day break. Arriving at one LUP with another three pairs of runners, we were instructed to watch a bin, and report any activity

continued overleaf

THE SURVIVAL GAME

around it. I had already been through said bin and found two jam pies, a penguin biscuit and a packet of crisps and a (relatively) fat and full Mac and I elected to build a LUP some 1 50m from the bin in a gorse bush, the other lads put their LUP in the woods about 20m away. By this time we were in pairs as it was too risky to move in a foursome. With the best intentions in the world we quickly fell asleep on watch only to be woken by savage barking and hostile shouts from the vicinity of the bin. We looked out to see our erstwhile comrades being lifted from the their LUP by a dog team. Mac and I beat a very hasty retreat out the back of our gorse bush with a dog in hot pursuit. Making like rabbits we ran down a water course, over a fence, back over the fence over the fence again, over more fences until we eventually stopped to count our blessings. We had successfully escaped and evaded; there was no sign of pursuit. We later learned that the others had all been caught and had various items of their precious gear lifted from them, with the notable exception of one lad. At the time of the compromise he was at a phone box calling a pizza company and ordering for a pizza delivery at the bin's grid reference! If it ever turned up, no one was there to benefit!

At another Rv/LUP we were instructed to set up in a chicken coop in a farmyard, and eventually laid up in what turned out to be a pigsty. I must admit it was one of the cosiest places I'd ever got my tired head down but unfortunately we received a rude awakening a few hours after settling. I still have not worked out to this day whether the Staff had deliberately sent us to the wrong place or we had made a catastrophic map reading error. I suppose the latter is more likely considering our physical and mental state at this stage. Anyway, the young stable girl who found us sleeping in the hay ran off shouting hysterically, which didn't quite seem right for someone who had been warned of our presence. Shortly afterwards the farmer appeared, somewhat cautiously, and 'politely' inquired what the *!?* we were doing in his pigsty. Not surprisingly he thought we were tramps, but producing my ID card I managed to convince him otherwise, and explained our situation. To our great and lasting pleasure he creased up laughing and invited us in for breakfast! In no great hurry I eventually rang the staff control number and asked for an agent to come and get us. We spent the remainder of that day in the chicken coop we were supposed to lay up in. Well, as Mac said .... "I wouldn't recognise a chicken coop if it came down the road and head butted me!"

That pretty well concluded our time on the run. The last exercise of the tactical phase involved all twenty five of us crossing East to West through bandit country with all the enemy forces and dog teams (forty troops and 12 dog teams) on the ground ahead of us. By this stage we were supposed to go individually, but Mac and I stayed hooked up as he had lost his watch during our earlier encounter with the war dog; timing was critical at this stage as there was only a small Rv time window at our target. The Staff promised that if we got there without being caught it would be worth our while. In the back of a four tonner on our way to the last drop off, we finally saw the other lads we had not seen for several days, and we automatically sought out Mark Okell; seeing him always made us feel much better and true to form - he looked awful! The Staff gave us our final brief and relieved us of more of our kit. By this stage we were down to button compasses and 'silk' escape maps, but me and Mac kept hold of our bivvy bags as a ploy to cross a substantial river en route without getting soaked. It came our turn to de-bus and then we were out. In the distance we could hear dogs barking and I later found out that this was a patrol hunting Bomber, the poor bloke had had a dog team on him the instance he left the lorry. Luckily he escaped only to be caught by the troops a little later! Remembering all the theory and practical lessons, we crawled, slithered and ran the final miles. The bivvy bags were a brilliant innovation for the river crossing but sadly we ran into a waist deep swamp four hundred yards short of the Rv and got thoroughly soaked and miserable anyway! But we arrived in plenty of time without getting close to being caught. All around us we could hear and see the enemy activity and arrogantly thought we were the only ones to make it. As it turned out about fifty percent of the lads did, which included all the divers except Bomber! Our reward for this final brilliant piece of escape and evading (if I do say so myself) was a Blue Riband wafer biscuit..pah! Unfortunately we now had to give ourselves up and the final fourteen hours of the course were spent in captivity. If you want to find out what happened during those fourteen hours, then you will just have to go and do the course!

For realism, challenge and shear entertainment value then I give the SMAC 427 Course 10/10. It appears that there is no expense spared and no short cuts taken in the professional organisation and running of the training, from the civilian 'agents' (who take it all very seriously) to the supply of livestock for demos. Well I guess the latter stopped us rustling the local farm animals! It was one of those courses where you learn a lot about yourself and those around you. It also changes your whole perspective of the world in general, I just can't walk past bramble or gorse bushes now without sizing it up for a LUP! If you want to go on survival training then why not contact Lt Cdr Al Cronin, OIC at the SEG, on Sultan Ext 2909?!!

HOLES IN THE ICE

by LCPL Keane 28 Engineer Regiment

Having been tasked to do a bottom survey of the amphibious lake at Sennelager by 28 Engineer Regiment, it was established, during the recce, that to gain access to the water we would need some hefty equipment to cut through the ice. It was mid February, after all!

The survey was necessary to see if the MZD and M3 Amphibious bridging equipment could drive into the water and ferry, or bridge the gap, without fear of grounding. With the vehicles loaded we embarked on the drive to site.

Hindered by the weather, we arrived 45 mins later than normal, to an ice rink covered with 3-4 inches of snow. We landed the gemini with all the kit required and the team; Capt Moreton, WO2 Wilson, myself and Cpl. Vernon got into dry suits and endeavoured to walk along the 250m centre line across the ice, pushing the boat as we went.

Preparing holes in the ice.

Cpl Vernon (standing) and L. Cpl Keane (Diver).

At the site of the first hole to be cut, the breaking began, well that was the plan, but the axe and sledge hammer just bounced off the ice - time for the big fella.

With the chainsaw going through the ice like a knife through butter, in next to no time a series of holes were cut along the centre line and either side.

Once we removed the ice from the hole we could see that it was 12-14" thick all the way across the lake. The first diver, Cpl Vernon, 'kitted up' and lowered himself into the darkness and carried out a series of circular searches on the bottom around each hole looking for obstructions and possible hazards, checking the depth as he went. Using this method, with a fresh diver every 30 - 40 minutes, and a new hole at the end of each search, the lake was covered fairly quickly.

The dive itself was fantastic and a great experience. The visibility was about 1 metre on the bottom, due to the silt, particles in the water and also the snow-covered ice at the surface. On return to the ice hole it looked a mass of grey, and where the snow had melted around the hole some light produced a fairly yellow patch. A black square in the middle changed to faces peering down as the angle became more vertical.

Everything was so still and quiet, it was fantastic, like being in another world, I could of stayed there all day but, one, we didn't have the time and two, we only had DSSCCA(A) and not storage cylinders on our backs.

On breaking surface we had to keep the DV in the water to prevent freezing, not that we minded because the water was surprisingly warmer than anticipated compared to the air temperature, but it was still cold though. The diving continued, one diver at a time, until the task was complete and all four of us had dived. We then packed up and headed for home with the experience with us for ever, well, until the next time anyway.

M3 Ferry.

M3 Bridge.

LMCDO 95 A

by LMCDO 95 A

THE HORSEA PHASE

Week One - Theory Week (30 Oct-3 Nov 95)

The theory of diving, although important, can be pretty tedious unless large amounts of coffee are ingested.
Lectures on the physics and physiology of diving were broken up by a Ships Diving Supervisors exam, Royal Navy fitness test and Army battle fitness test. Both LMCDO course and AB(D) course seem incapable of passing the tests. Perks of being at sea on MW course before the diving phase. It is decided that passing a fitness best will be compulsory for all future courses, and to give candidates a chance of passing, sports periods (preps for Diving Phase) are introduced into the MW programme.
The army PTI seems to have a deep personal hatred of all naval personnel and attempts to kill us with a PT session from hell during the week. Lt Maddison plays his trump card and claims to have a cold during the first week!

Week 2/3 - Horsea Diving Weeks (6 Nov-17 Nov 95)

Having all passed the theory exam we are reintroduced to the pleasures of Horsea Lake that we all know and love from our Ships Diving courses and aptitudes. It turns out that everyone on course seems to suffer from some kind of inner ear problem that effects their balance when they jump from the top board during circuits. Instead of filling spectators with awe as we jump from the boards, we all find that we cannot enter the water gracefully, and instantly adopt the nickname "The Plumpers" after our unusual entry style.
Spence seems incapable of entering the water and keeping his fins on his feet. The cry 'round again Mr. Brown" becomes a familiar one and Spence ends up doing 3 times as many circuits as everyone else. By the end of week 2, the pile of fins building up under the boards is deemed a hazard, and divers have to take a run-up to clear the underwater obstruction known as "Spencer's Mountain".
Time not spent underwater is spent pulling a Gemini the length of the lake whilst the CPO(D) quizzes everyone on their diving knowledge.
Lt Fletcher decides after week 2 that he wants to be a civilian in 18 months and, because the course requires a 2½ year return of service, has to come off course.
Live - In week looms on everyone's horizon like a big, looming thing!

LIVE-IN WEEK
Mmmm, live-in week, what can I say now that its all over. It's the one week at Horsea that everyone loves to hate. Mind you the other 13 weeks are no holiday. But live in week is definitely the worst. However, I can honestly say when it's all over you feel a kind of sadistic pleasure in having got through all the s*!t. Preparation, forget it, not unless you want to practice going without sleep for days, coating yourself in mud, running round and giving yourself a bollocking for five days. No, its not worth it, all you can do is grin and bear it and take it day by day. Mind you, I say all this and I didn't even get in the water once, having an ear infection. But, I can honestly say there were many moments I would have preferred to have been in the water rather than get a grilling from the staff in the gemini. As a result I was made class leader for the week and by Thursday evening I was scraping the leadership barrel of ideas to keep everyone motivated, especially when they are pi@*ed off, cold and wet.
Its now week fourteen and with only four of us left on course, looking back its hard to recollect all that went on during week four. In fact its a fine thing that we can't recall pain. I did however, keep a journal and have taken some quotes from it to build up a general picture. I'm sure with time all our memories of live-in week will become completely tainted with stories of how hard we all were. If you took all the stories as gospel from previous courses you would never even go on course. I mean lets get real I'm not a six foot beef cake by any stretch of the imagination, its determination that gets you through. Having experienced the pleasure twice, I can confirm its always horrible. Our only saving grace was the weather which stayed reasonably mild and the water was a respectable 8°C.
"Tuesday - went to bed last night at 2320, something doesn't feel right," 2340 "AWKWARD" now there's a surprise.
"Bed again at 0230 up again at 0440 for a lock gate surface swim and prep to dive at 0700 before breakfast."
It all starts to get a bit hazy from Wednesday.
"Its now Wednesday 1530, Tuesday's now a blur, I remember a mud run at 1600 then bed at 0030 up again at 0245." Thursday in no particular order, diving, mud run, awkwards, lock gate swim, recharge and back in water, what a nightmare. Of course, it all ended with the traditional pint or 5, 6, 7. By this stage I had convinced the team that would be it. They didn't seem too surprised when we were up again at 0500 on Friday for a final mud run. Even the chief 'Donkey' must have been thinking "what the hell am I doing". Throbbing heads and aching bones we retired to do maintenance and scrub out before a well deserved weekend home and a relaxing week to recover at INM.

PORTLAND
As the long course Training Officer I feel I should fill in the gaps in the course article for continuity purposes.
The Portland phase is 2 weeks where students learn to rig, lay, dive and supervise all sea bed searches. Now that, as a task is OK, but you have to remember that the staff are now starting to apply pressure in terms of the control, briefing and general ability shown by individual students. The searches and tasks were all completed relatively well and with only minor harassment from the staff, the course returned to Horsea for some tool training.

UW Engineering
Having unloaded the lorry after Portland the course were quickly introduced to KMB 10; the setting up, diving and drills. Diving in hoofs added to the new experiences during this phase. CPO MEA "Whacker" (no surely not) Payne quickly took control of the course, making best use of 2 weeks separated by Christmas leave, not to mention a meat raffle and Christmas dinner.
By way of an introduction to pneumatic tools we completed a drilling and tapping exercise, with all course members, barring the ex clanky (who remains nameless), achieving a near perfect product. The next day was spent in that lovely warm (not) tank in Paisley Building, where we took a trip down memory lane, diving in DSSCCA, while mastering the art of the Nikon/s Camera. Naturally as the subjects were divers there was an abundance of modesty and a reluctance to pose during this serial. The run up to leave had more KMB dives, with supply failures and stand-by divers being exercised regularly. All this and being let loose with Seafire cutting gear and the Hydraulic grinder.
Refreshed and revitalised, and just perhaps a little porky post Christmas the second week kicked off with Kerrie cable cutting, do these gadgets get any more dangerous? Surely not, well until we got onto a coxes bolt patch exercise and a tornado surface firing. Unbelievably the tool hut and the course survived injury to. Carry out a blade change exercise on Wednesday. The highlight of the next day proved to be DSSCCD Stand-by diver and ditching drills, once again in the Paisley tank. The verdict of all concerned was that no matter how much bad press the set gets we'd rather be with it, than without it, well until the introduction of CDBA 96"

OBAN

The Oban phase of LMCDO95A started a week before the actual flight to Glasgow with the inevitable packing of everything the staff and students could think of with that little bit extra just to make sure. This was completed and the lorry went on its way on Friday 12 January. The course followed on Sunday 14 January 2 hours behind the staff which obviously made them very thirsty. We were met by the minibus and driven to Oban to start the next 4 weeks.

Week 1 was primarily to continue our training on KMB whilst working up to a 50m dive on air. It was also the first real testing time for the students ability to supervise a whole day in uncontrolled waters. The dives would start problem free and as the chief saw the student become more confident minor incidents would appear to tax them further. The afternoons were taken up with EAD swims in areas that the student thought interesting seabed conditions may be present. As the week progressed every student had a chance to supervise as well as dive and experience the effects of nitrogen narcosis and the boredom of being on inwater stops. By Friday afternoon the course had decided that as John Craig had got this far before and knew what the usual Saturday morning problem was we more than likely wouldn't be doing that and the Chief had mentioned that we might be doing some Chamber driving. By midnight in the Lorne the world did not look that bad and the beer tasted good. Saturday morning provided a rude awakening by Spence getting a phone call explaining that somebody had found some suspected ordnance by Maiden Island. All panic followed as the course ran towards the Ixworth with pounding heads and nauseous tendencies. Steve was the first to sober up by carrying out his best entry for the course by slipping from the jetty ladder straight into the harbour through a confined gap. As this meant that his clothes were wet he was first to be volunteered into a dry bag. The task was completed by about lunchtime with only half the course getting wet, the afternoon was taken up by C and M and generally feeling sorry for ourselves before starting in the Lorne again.

Week 2 continued along the same veins as week 1 with everybody attempting to deal with the progressively more complex incidents. It was also the first time that the problems involved with using blueberry and banana gas and changing over the gases on the pump, a shortfall in our system was noticed so we were back onto the keep fit campaign of the hand booster pump. This combined with defects arising in gauges meant that the planned 54m dive on the Friday had to be postponed until the Monday which allowed the course time for allegedly much needed gemini driving practice. The rest of the C and M for the week was finished and to give the course some thinking time about the defects a trip to Connel Bridge was injected with a scenic run back. Saturday morning was taken up with a lecture on the theory of minehunting diving followed by a trip into town to watch the rugby.

Week 3 the start of the assessed supervision phase of Oban and the constant reminder of "expect the unexpected". The pace stepped up and the course started to receive visitors from various places who like the staff seemed to have problems every time they dived especially LS(D) "Pony" Moore whose antics ranged from disappearing off into the darkness away from his buddy, suddenly going onto 02 stops to getting tangled round buoys and drowning. The week progressed well with everybody being told that they were getting towards or reaching the required standard. On Friday Spence had his day which consisted of problems that may have caused any of the course serious difficulties. After dinner he went for his debrief and the rest of the course went to get ready for the night out. Spence then announced the news that he was now off course and would be heading South the following day. Morale nosedived rapidly and remained there for the weekend with the course contemplating their chances of remaining on course.

Week 4, final Oban week, final exam, arrival of Boss Burden, what else could be wrong with the world. So Monday morning I was tasked with trying to drag Boss Burden around the seabed at high speed followed by Steve doing the same in revenge for calling us unfit at the start of course and still looking the same. The rest of the week went as expected with the incidents being correctly dealt with and the own goals being kept to a minimum. On the Wednesday night LS(D) "Pat" Patterson suddenly became more studious, if that is possible, and a touch nervous about being given Thursday on paper with the students able to cause him minor problems so long as "Boss K" was told. That evening the problems for the next day started to appear with the lorry driver not taking the trailer, trying to find space for 100 dozen scallops. This continued into the next day with us missing our flight, roads being closed all around us, the trailer still on the jetty. The only way to relax on route to Glasgow was to close your eyes ignore what Pat was making the van do in the snow and sleep off the alcohol and think there ended Oban.

Seemed like a good idea at the time!

The ever caring and gentle staff recover the "Brave" student.

OBITUARIES

Lt-Cdr Geoffrey Hodges

LIEUTENANT-COMMANDER GEOFFREY HODGES, who has died aged 87, was one of the so-called "Suicide Squad" of Rendering Mines Safe (RMS) officers based at HMS *Vernon*, the torpedo and mining school in Portsmouth, during the Second World War.

There was at first a shortage of RMS officers. They were required to respond to emergency calls from all over the country; in one short period in 1940 Hodges himself disarmed mines in places as far apart as Dungarven Bay, in Ireland, and the 2,000ft summit of Cairnmoor, in Scotland, where he had to use a hacksaw to cut the fuse out of a mine in a crashed aircraft.

During the Blitz, the Luftwaffe began dropping 1500lb parachute mines. Impact with the ground activated a fuse which ran off in about 30 seconds, where upon the mine exploded. But the fuse was often damaged, and the RMS officer could not know how much time the fuse still had to run.

On Sept 16 1940, Hodges was Duty Mining Officer at *Vernon* when a mine was reported at Walthamstow. Hodges and his party were taken by police car to the site. The streets were empty as the local people had been evacuated. All went well, and when the mine was made safe and hoisted onto the *Vernon* lorry, people came out to cheer and shake Hodges's hand.

The next day Hodges was called to another huge mine which had fallen on a busy road bridge over a railway in Richmond, Surrey. Hodges and his companion, a novice RMS officer, first considered their escape route if things should go wrong. Hodges decided he would run for five or six seconds and then lie down in the gutter where he would be somewhat below the blast. His colleague decided to run for some 75 yards and jump over a fence.

As they packed the parachute around the mine to prevent it rolling over, they heard the fuse clock restart and ran for their lives. Hodges was down in the gutter and his companion behind the fence when the mine exploded. "It hit me hard," Hodges said, "tore my coat, half wrenched off a shoe, seemed to fill me with black grit, and left my ears bleeding."

Hodges's companion, who was unhurt, helped him to hospital. Both were awarded the George Medal in December 1940.

Geoffrey Ambrose Hodges was born on Sept 8 1908 and educated at Winchester College and the Carnegie Institute, Dunfermline, where he took a degree in Physical Education. He then returned to Winchester as a member of the staff.

In 1939, Hodges was accepted for the Solent Division of the RNVR, having played cricket with its Commanding Officer. He went to HMS *King Alfred*, in Hove, in September, and was surprised to discover he had already been commissioned as a Lieutenant RNVR, with no training whatever. After nine days at *King Alfred* he took a three-week course at *Vernon*, and then again to his surprise found himself travelling about the country advising on mines and mining. He took part in trials on depth charges and on "Flying Wedding Rings" – Wellington bombers fitted with large electric coils to fly over and detonate magnetic mines.

He also vetted improbable ideas sent to the Admiralty, such as "Sub-Lt Flat Fish RNVR" – a scheme to fit small magnets to flat fish – and the "Willing Egg", a small egg-shaped self-propelled vessel that would be streamed ahead of the protected ship and would soar upwards with the explosion and drop back unharmed into the sea.

In the bitter winter of January 1940 Hodges paid three visits to Whitstable Bay to disarm a giant mine lying in the frozen sea just offshore. Such was the camaraderie of the *Vernon* Suicide Squad that, although Hodges was mentioned in despatches, he also had his leg pulled for not bringing back some Whitstable oysters. Hodges was truly brave: he was always afraid whenever he approached a mine, but managed to control his fear.

"All we knew of what was ahead of us was a mathematical certainty of misfortune," he recalled. "We volunteers might be lucky and be in a safe position at the inevitable detonation or we might be less fortunate. Not an easy situation to live with – but one that had to be accepted."

Survival often depended upon chance. Hodges and a colleague were in Dover dismantling a new type of enemy minesweep cutter and were holding it with both hands when the explosive device activated itself. It was too late to try and escape. They watched the striker slide into the percussion cap. Happily it was bent and did not strike home hard enough to fire the charge.

Late in 1940, after he had recovered from the injuries suffered in Richmond, Hodges was appointed Mining Officer of *Teviot Bank*, a merchantman converted into a minelayer employed in laying mine barrages off the east coast. He kept watches, though he had no training in seamanship, and was in charge of the crew of a 1898 vintage 12-pounder gun, though he had no instruction in gunnery.

Hodges returned to *Vernon* in September 1941 to take part in a bizarre and, from a modern viewpoint, abhorrent series of trials sponsored by the Naval medical branch to investigate the likely damage to a man's internal organs if he were bombed in the water after a ship had sunk.

Goats, whose belly areas were reckoned to match those of humans, were fitted with life jackets, streamed in a line at Spithead and subjected to depth charges. Most of the goats survived.

A repeat trial was held later in the month involving goats, pigs, dogs, ducks, chickens, a monkey and even a handful of bees. Rough seas drowned many of the victims before the charge was fired and the trial was deemed a failure.

Hodges then did the long torpedo course at *Vernon*. He was one of the first Reserve officers to do so, qualified in 1942, and was appointed to the fast minelayer *Abdiel*.

Abdiel steamed 28,000 miles in three months, laid a dozen minefields in the Mediterranean, and took commandoes to the Sicily invasion beaches., In September 1943 she acted as a troop ship for the seizure of Taranto. While at anchor she swung over a mine which sank her in 90 seconds with great loss of life, especially among the soldiers.

Hodges was picked up by a boat from the battleship *Howe*. *Abdiel* had lost half her officers. She had been a very happy ship, and Hodges said, "There was an emotional farewell on *Howe's* quarterdeck. I'm afraid we were all in tears as we stood together for the last time." Hodges was again mentioned in despatches.

Hodges then joined Naval Party 1645 on the staff of Admiral Sir Bertram Ramsay. Allied Naval Commander Expeditionary Force responsible for the mining plan for Operation Neptune. He visited the D-Day beaches and wrote an influential report on the mining aspects of the Normandy Invasion.

Hodges's last seagoing appointment was in the fast minelayer *Apollo*, laying mines in the Arctic to assist the Russians. It ended in the liberation of Oslo with Prince Olaf on board.

After the war Hodges went back to Winchester. After his retirement from the college he became education officer at Winchester Prison.

A devout Christian, he had a lifelong interest in the College chapel, and was the sidesman in Winchester Cathedral.

He was an expert on antique silver. He published his memoirs *Of Mines and Men* in 1993. He was awarded the Volunteer Reserve Decoration.

Geoffrey Hodges married, in 1937, Evie Lena Marshall, who died in 1991. They had a son.

LEADING OPERATOR MECHANIC MINEWARFARE CAREER COURSE

By OM(MW) Collyer

STUDENTS:
LOM (MW) TEX "what's this turn to thing then?" RUTTER
LOM (MW) TAFF "I don't know where to put it! PRICE
LOM (MW) MO " Cousin IT!" MORRIS
OM (MW) LARRY "Regulation 3 pints and innit at 2200" LAMPH
OM (MW) BAZ "After midnight log" COLLYER
OM (MW) SMUDGE "I love my single role I do" SMITH
LOM (MW) DIZZY "I ain't been laid for 9 months" DAWSON

1. **MEASUREMENTS:** The course started with two weeks of measurements, which I might add was a week less than all the other LOM courses running at that time. It was most certainly the hardest module of the course with four out of seven failing, who incidentally went back and passed with flying colours. My advice to all students about to commence the LOM (MW) course is to study the maths document which is sent out prior to the course and learn the equations within it.

2. **WORKSHOPS.** It was a module designed to improve practical skills in sheet metal work (led by the HOME GUARD!) and soldering, led by EGGY "lets stop there to talk about my XR2 and house".

3. **MAGAZINE SAFETY:** Basic. Learning magazine rounds, how to fill in the explosives log, and OOQ log, oh and drinking lots of tea.

4. **POWERS OF COMMAND:** Use your imagination, five whole days with the drill staff. Caps, No.8's parade boots, white belt and gaiters, marching around a parade ground being watched by a PO(M). Teaching your class mates drill. It was agreed by all to be the most beneficial module so far. It was to teach leadership qualities and voice control and it was also good fun. Even Tex enjoyed it, but it did mean he had to take his hands out of his pockets.

5. **SAFETY:** Just a quick days revision of what was taught on OM1 course.

MINEWARFARE MODULE

COURSE OFFICER: WO (MW) PAWL STOCKLEY

INSTRUCTOR: PO(MW) CRAIG DYER

The Minewarfare module as a whole was enjoyed by all on course. The modules included:

1. **MINING:** VEMS and relevant equipment, FEMS, laying and recovering mines including the MK 14 Drill mine.

2. **BUOYAGE:** Short scope buoy MK 3 and danbuoy MK 3.

3. **MINE SWEEPING:** Wire sweep Mk 8, team sweep rig 2, and C.I.S.

4. **MINE HUNTING:** Learning verbal commands for L.C.O and M.H.D. and SOC's.

5. **SEA TRAINING:** This week is the main area for pass or fail. Not as easy as it seems I might add, especially when you're in charge of 4/5 baby OM's, having to stop and teach them basic seamanship every five minutes.

6. **COURSE EXPEDITION:** The course exped. was a paper work exercise. The students got together and arranged a visit to the London Fire Brigade River Barge. The visiting personnel were:

   WO (MW) "PAWL" STOCKLEY
   CPO (MW) "TAFF" READER
   PO (MW) "CRAIG" DYER
   and all students from LOM(MW) 02 course.

The course arrived at Waterloo station at 1115. The visit commenced at 1145 and on completion of lunch a trip down the Thames on the Fire Barge commenced. All civilian aspects of fire fighting were covered.
Incidentally, one of the officers informed us of a marine world which was opening on the Thames. It will contain species of all living creatures in the Thames, such as Salmon, different types of marine growth, maybe the odd bloated corpse and of course a few press-on towels!
On completion of the boat trip a visit to the station took place. The whole visit lasted a good 5 hours and all members found it most enjoyable.
A course social was held on completion. To cut a long story short the loser (if you know what I mean) was Taff Reader. After drenching some poor innocent member of the public in Boddingtons he proceeded to crash and burn with the famous words "There's nothing wrong with a drop of paint" . . . (yes Taff!). overall a great day was had by all . . . we think!!

MAD Magazine is fully dependent on you for its articles. If you have any experiences you may wish to share with other readers, why not jot them down and send them in using the proforma at the back of this edition.
Thank you!

ACCURATE PLACEMENT OF THE MDC USING RCMDS Mk2

By CPO(MW)(O) R T Darge

With the new generation of mines being fitted with desensitized charges the need to accurately place the MDC at the correct distance is of vital importance.

Here is an idea that I believe may aid the MHD in placing the MDC at the optimal distance from the mine.

1. The black and white camera fitted to the PAP is a low light preset focal length camera, the minimum height that the PAP can be above the seabed is 2 metres.
2. The method to achieve this involves measuring the displayed width of the TV monitor at different heights above the deck and then produce a scale from the results
3. The scale would be made up in the following manner.

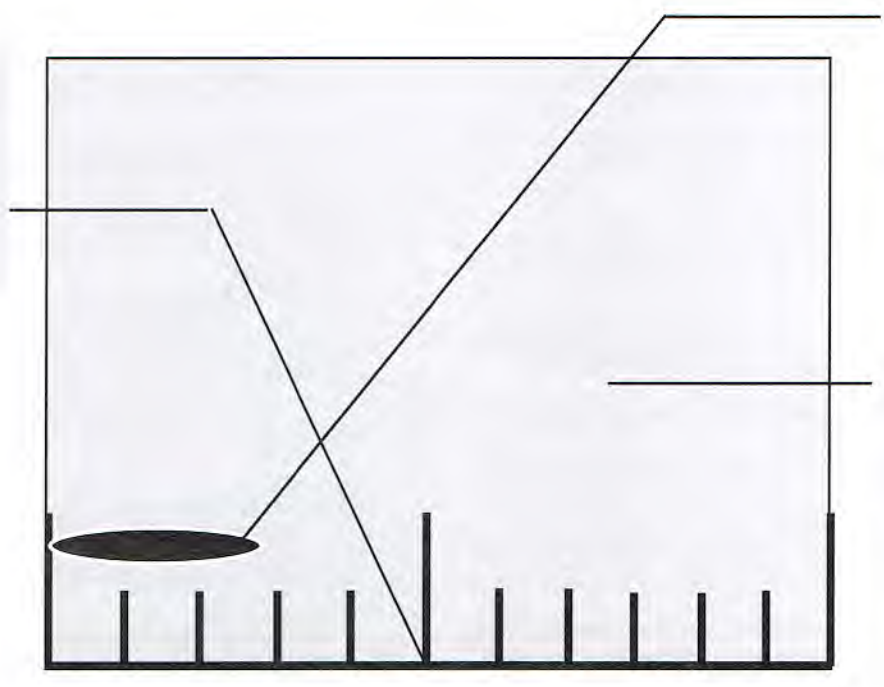
a. Tilt the black and white camera to 90 degree's to the PAP.

b. Position the PAP over the deck at a height of 2 metres, place a tape measure on the deck and measure from the OPS room the width displayed on the TV monitor with the PAP at 3 metres height above the deck.

c. Then move the PAP higher and take another measurement at the new height, this would be done at several heights, to build up a graph showing the displayed width of the TV monitor at the different PAP heights above the seabed.

4. The scale would be made up in the form of a clear plastic ruler graduating from a centre point outwards giving you an accurate measurement of the distance that the PAP is a away from the mine.
5. All the MHD would need to do would be to select the correct scale for the height that the PAP is above the seabed, then place the scale on the bottom of the TV monitor, and position the PAP at the correct distance from the mine prior to release.

Note: This method may be also used to measure the length of a target/mine.



COMMANDER SEA TRAINING (MINEWARFARE AND PATROL VESSELS)

By Pete Cawsey

The move to Faslane in December 1995 proceeded well and, indeed, there were less tears than many people had expected. The working-up of HMS SPEY continued during the removals and everything was in place for FOST to officially open the offices on December 15, coinciding with the general Assessment of the ship. The Clyde has already proved to be a much better training ground for MCM in particular, with the wealth of sheltered waters ensuring that ships will lose less valuable training time because of inclement weather. Traffic levels are lower and negotiations with the local fishing community are progressing. We now share the "Sea Training Building" with CSST Staff and have developed a *healthy* working relationship with them. (Note that "Work-Up Syndrome" prevents me from saying a "*Good*" relationship). The FOST(MVP) Staff are to be found on the ground and first floors and they remain ever willing to receive visitors for an informal chat or a more formal OST Briefing. The MW & Diving office is now at full strength of 3 officers and 3 senior rates, with a (minimum) team of three onboard at any one time, this ensures that each ship gets more Staff cover and increases the quality of service that the customer receives.

The Operations Sea Training Guide (Volume 2) was re-written in advance of the moved and formed the basis for our first Sea-Training periods. Change One will have been issued by the time this article has gone to print and will have swept up all the amended routines in the light of operating in the Clyde Exercise Areas, with the individual syllabii updated accordingly. The OSTG(2) will always be an evolutionary document and will be updated regularly in order to provide the customer with as much information as possible in advance of OST.

The Exercise Minewarfare Pilot Volume 2 (XMWP 2), a high quality bespoke document covering the Scottish Exercise Areas, has been produced by Taunton and copies are held by RSO to CDRE(MFP) and FOST(MPV). The XMWP 2 is virtually identical in format to the AMP 11 series and has already proved its worth "in the field". Environmental information recorded by ships during OST/ Weapon Training will be incorporated with regular amendments as and when available. (Though the standard of updates will obviously depend on the quality of records produced by each ship). An overview of the MCM areas can be found at the end of this article.

Common Weak Areas (CWAs), which were promulgated by COMMW, are now issued by FOST(MPV) under covering letter 300/4 and will provide much useful information for all departments. They are recommended reading and will guide ships away form many of the mistakes observed in ships at OST. These, plus the training on offer are all designed to help ships get it right.

Commander Sea Training's Overview.

With a customer base running at 56 ships, it was crucial that the relocation to Faslane and integration with FOST were as seamless as possible. I am delighted to be in a position to report that his has been largely achieved and I am convinced that the training on offer is better than hitherto. This is due to a variety of factors inclusive of the better variety areas and shelter on offer, changes to the staff composition and the flexibility of Work Up ships.

The influence of FOST has been crucial to this success: The fact that the checkers themselves are being checked is no bad thing and a number of changes are being taken forward. About 30 percent of ships will be given their final inspection by FOST himself or by CSO(OT) or DRN JMOTS; I will do the remainder.

There are of course, some teething problems but these are being resolved through positive local action and, inevitably, some compromise. What is not for compromise is the standard of training on offer and it is my view that MCM in particular will see an improvement on what is provided. As ever, early and open liaison with my staff will trigger a more effective Work Up and ensure that ships are fully aware of local issues and current practices. We are encouraged by our new location and hope that ships will use these new areas and my staff to full advantage: We believe that we remain well placed to 'help'.

THE FOST(MPV) TEAM

TITLE	RANK	NAME	93-255 (HMNB CLYDE)
CST(MPV)	COMMANDER	B R ARCHIBALD	4340
SWO(MW)	LT CDR	R H HAWKINS	4459
SWO(N)	LT CDR	N HARE	6856
SNO(H)	LT CDR	D WYATT	4031
SGO	LT	S CLEMENTS	4383
SNBCDO(MPV)	LT	M MAXWELL-COX	3774
SWO(MW)2	LT	CPJ O'FLAHERTY	6995
SWO(MW)3	LT	A GRIFFITHS	4408
WOSA(MPV)	WOSA	K TOMLINSON	4470
M(MPV)	WOMEA	J EMBER	4420
WE(MPV)	CCWEA	I FORREST	3652
TPROGO	CPO	S GUPPY	6644
L(MPV)	CMEM(L)	M PATILLA	4451
SGI	CPO	R DEANS	6573
SSEAO	CPO(SEA)	R SMITH	3648
SSI	CPO(SEA)	C HIGHMAN	3770
OPS(MW)1	CPO(MW)(O)	D SIMMONDS	4439
OPS(MW)2	CPO(MW)(O)	P WHITEHEAD	3776
OPS(MW)3	CPO(MW)(O)	(TBN)	6985
SCMA	CPOMA	G SELFE	3651
X1(MPV)	MAA	A COMRIE	3786
SNBCSI(1)(MPV)	CMEM(M)	J BUTT	3712
SCCY(MPV)	CCY	T BATESON	3207
SCY(MPV)	CY	G MITCHELL	3638
SNBCDI(2)(MPV)	POMEM(M)	S BAXTER	3835
SRS	RS	S MURPHY	3204
AO	CIV	M JOHANSSON	3773

SOUTHWELL UPDATE

by Lt Cdr Rob Hoole

End of Another Era

Southwell, this venerable MOD establishment perched on Portland Bill and famed for its achievements in developing underwater weapons and sensors, not to mention the occasional spy scandal, is on the market and will close in Autumn 96. PE staff will move to Abbey Wood near Bristol in Aug 96 to be followed by NSC staff in early 97 after a brief spell at Egdon Hall in Weymouth. Minewarfare research will continue at DRA Bincleaves much as it does now.

Naval Personnel Changes

Commander David Hilton (ex-Diving Applicator) has left us for the Staff Course having handed me the weight on termination of his post. CPO(D) 'Harry' Harrison is holding the diving fort pending draft later this year when his post will also lapse. Somewhere in the pipeline should be a WO(D) to fill a new Billet created in Feb 96. Anyone out there keen to see the new diving sets, chambers and accompanying goodies through acceptance trials and into service should let me and your appointer know. WO(MW)(O) 'Pony' Moore (Asst MW Applicator) retires this year although his relief has yet to be identified. CCWEA Andy Cockram remains with the group as MW Technical Support Manager. CMEA 'Taff' Owen the Diving Technical Support Manager also part of the group but is located for convenience with S of D in Reclaim Building on Horsea Island. I am hoping my appointer will reunite me soon with Mrs Hoole and her three children in Waterlooville on a more regular basis after my three and a half years in exile.

Minewarfare Project News

HUNT Midlife Update (HMLU) - ST(S) 7072 (ISD 2001). In the last edition, I described the issues addressed during the Feasibility Study (FS) which completes in Apr 96. During FS, we have trawled the world markets looking at modern MCM technology. The merits and cost-effectiveness of various option have been debated by working groups variously involving the integration contractor Ferranti Naval Systems (Portsmouth) together with its sub contractors, and MOD authorities including DOR(Sea), DSci(Sea), DCF, DGSS, DGSM ex-DGUW(N), CNOCS, DRA, CDA, Cdre MFP ex-COMMW, SMOPS, and others. Everyone with a vested interest, including the user, has been able to contribute to the debate and we have achieved broad consensus. It is now apparent that the effect of weight growth on stability poses a considerable constraint on useful ship life and reduces the scope for major system changes. The PE will therefore recommend that 193M MOD1 is upgraded with a wide band capability, new transducer, improved processing and new Man machine Interface (MMI). Subject to endorsement, this will provide a low-risk but major improvement to the HUNT's minehunting capability until circa 2015 instead of 2030 as originally intended. Quick and inexpensive to implement, this upgrade should see service by the year 2000. Other parts of the combat system will remain relatively unchanged to allow maximum attention and resources to be concentrated on procuring a new MCM system which exploits the advance technology explored during FS.

Mine Avoidance Sonar - MMER 13/93. This modification to 193M Mod 1 has been in the HUNT for several years but the Sea Acceptance Trial (Fleet) (SAT(F)) has only just been completed in HMS QUORN off Falmouth. I was present at the time and urge you to explore the use of MAS features to enhance 193M's minehunting performance. The results are dramatic and rewarding.

Sonar 2093 - SR(S) 7697. The outstanding SAT(F) for Towed Body Location System (TBLS) tracking of RCMDS2 vehicles has just been completed in HMS WALNEY in Loch Fyne. The new MOD kit performance well and Fleet Weapons Acceptance (FWA) only awaits the completion of some support aspects and ARM trial operating hours. The project will continue to fund 2093 support including that required for out of area operations until FWA.

Remote Controlled Mine Disposal System Mk 2 (RCMDS2) - SR(S) 7545. Thanks to the efforts of COMCLYDE's SMCDO and HMS INVERNESS, the first deep live firing of an MDC was achieved in Nov 95 at BUTEC. This demonstration was organised to support the case for a permanent deep live firing area but simultaneously achieved a project acceptance milestone. Trials of the Remote Controlled Cutters (RCC) and manipulator are planned for late 96 with submission for FWA following shortly afterwards. Trials of an 'arrestor wire' recovery system have proved encouraging. Watch this space. Now, do *you* secure the fibre-optic cable to the restrictor properly to ensure the weight is not taken on the JB connection? And do *you* charge RCMDS2 batteries the same way as RCMDS1 batteries because you have not read the relevant BR since leaving your HUNT?

Minewarfare Tactical Support System (MTSS) - MER(S) 5.87. One of the most peculiar features of this project has been the need to move every one of the six supposedly fixed hard-wired system variants due to the relocation of maritime headquarters, Cdre MFP, SMOPS, the Hydrographer et al! On each occasion, a repeat Installation Inspection and HAT has been necessary. Anyway, a faster processor and in-built protection from power fluctuations are currently being trialled at the manufacturer. I can testify to the significant increase in speed now available. Software improvements for the signal toolkit, stateboards and chart toolkit are also being tested. A prioritised list of other modifications has been produced following consultation with Cdre MFP. Master databases

have been created in support of exercises in the BALTRAP, Mediterranean and WESTLANT areas. The MTSS project is particularly keen to receive operator feedback and proposed amendments to the handbook of which there have been few to date except from Cdre MFP and SMOPS. Please use the system and become familiar with its operation. It will only evolve and improve as a result of constructive suggestions based on experience.

Route Survey Data Base (RSDB) - MER(S) 7/90 ISD Dec 97. LOGICA UK Limited has been awarded the contract to produce RSDB and an initial project meeting has been held with the firm. Man Machine Interface (MMI) prototyping will begin in early 96. As I mentioned in the last issue, RSDB will be located at the Hydrographic Office and managed in conjunction with Cdre MFP's Route Survey officer. It will provide seabed contact and environmental data for MCMVs initially via MTSS. Eventually it is hoped to provide a more direct interface enabling ships to exploit the full range of information available including imagery.

Diving Project News

MCM/EOD Life Support Equipment - MER(S) ISD mid 97. Following a full competitive tender process involving exhaustive trials of the three main contending sets at Fort William, Carlton Technologies has been awarded the contract for this new diving set to be known as 'CDBA 96'. The 80m capable set is a variant of the US Mk 16 but has a completely independent secondary breathing system to comply with Health & Safety Executive (HSE) requirements. It will also include the means to plug into a tertiary breathing system using a short umbilical to the lazy shot called an XBS. Fleet Weapon Acceptance trials will commence shortly.

Two Compartment Compression Chambers - MER(S) 46/83.

Type A. All three of these fixed steel-construction chambers are now in service with Certificates of Clearance for Use (CCUs) at Faslane, Plymouth and Whale Island. Features include 14 man capacity, manual oxygen make-up, digital gas analysers and facilities for hyperbaric surgery.

Type B. Similar to the Type A but of aluminium construction, these chambers come in two variants. Two fixed variants are installed at Horsea Island and the SETT tank at HMS DOLPHIN. Most of the twelve ISO-containerised variants have been delivered to Diving Groups, Cdre MFP, DDS, etc. together with support packages. Features include 11 man capacity and C130 transportability. The FDG Type B recently deployed successfully to Cyprus in support of EOD operations. These chambers are valuable parts of the diving equipment inventory and deserve special care and attention but do not be afraid to use them.

Transportable Manned Compression Chamber (TMCC) - MER 4/91 ISD late 96. MSI of Weymouth has been awarded the contract to build 42 of these 1.84m diameter 2.3 tonne chambers, mainly as replacements for the Type 7A OMCCs and DUOCOMs by the year 2000. Features include aluminium construction, two compartments, manual and auto oxygen make-up, carbon dioxide scrubbers, environmental control and a 8m working depth. Ten chambers will be ISO containerised with dedicated support units. The requirement for closed loop BIBs to reduce gas stowage requirements has produced some hurdles which need to be overcome.

General. The next twelve months should also see the introduction of LEBA (Mixed Gas), Hybrid SDDE, new 500kg and 1000kg mine lifting bags, Buoyancy Control Aids and Divers' Communications as well as progress with several other equipments.

And Finally

Keep those S 2022s coming in. Members of the team are also available to answer specific queries on the following numbers:

Title	Name	Role	Tel. No.
WE123N	Lt Cdr Rob Hoole	MW & Diving Applicator	01305 863160
WE123N1	CCWEA Andy Cockram	MW Technical Support	01305 863044
WE123N2	WO(MW)(O) Pony Moore	Asst MW Applicator	01305 863840
WE128N1	CMEA Taff Owen	Diving Technical Support	01705 224118
WE128N2	CPO(D) Harry Harrison	Asst Diving Applicator	01305 863922

Where are they now?

Who are these reprobates and what chance a career in the Royal Navy? (Taken at Portland AUWE (Mine Sweeping Trials Team) in 1980) Turn to page 34 to find out!

THE NEW RNR MW BRANCHES

By Lt Cdr Mark Wyatt RNR

Having served for the last two years as an MCMTA Watchkeeper with MCM3, twice going to the furthest part of the Empire (Campbeltown) and once to Lorient, being twice stitched up by Kevin (I must go to a meeting or a wedding) Giles. Sadly leaving MCM3 I was appointed to COMUKTG as the MW Advisor. After having a week at sea in various MCMVS to update myself, I was instructed to join HMS Illustrious at sea for exercise Purple Star and that I was to join her via a COD and the USS Enterprise (thinking one was a fish and the other had an XO with pointed ears). The COD being a small airliner designed to land on a carrier and the first time round it missed the arrester wire but with my heart missing more than one beat I finally joined the COMUKTG flagship by Sea Knight helicopter off the Virginian Coast. All this is one of many new opportunities available to Reservists!

It is now three years since the tenth MCM Squadron was disbanded. The MSFs that remain in RN Service patrol the waters off N. Ireland and support BRNC with Young Officer Sea Training, others have been sold to Bangladesh (now with a crew of approximately 60!), and Brazil where they are serving as Buoy Tenders.

There has been a dramatic change in the role of the Naval Reserve and it has now become more flexible being tasked to give direct support to the Royal Navy both ashore and afloat. These changes have been painful with units closing, others amalgamating, new branches being formed and many Reservists having to rethink what to do with their leisure time.

It was sad to loose our sea-going identity, especially for junior officers and ratings who had aspirations for command and promotion to such jobs as Coxswain and Bosun. However, after two difficult years, the Reserve has now got an identified and more varied role with many opportunities that were not previously available. This will expand further once the new "Reserve Forces Act" completes its parliamentary passage.

With the demise of the MSF a new squadron was formed to look after the URNU training craft (Inshore Training Squadron) and was given the additional task of organising sea and shore training for the new RNR MW branches. An RNR officer serves with the squadron co-ordinating Reserve MW training (MWCo-ord (Reserves)).

Two MW branches have been established. Junior officers and ratings in the MW sea branch are allocated to an MCMV (two officers and four junior rates per MCMV). On promotion to Lt Cdr, which is now by selection, or petty officer, they automatically transfer to the MW HQ branch and after attending the RNR MW staff course at SMOPS, are allocated to MCM squadron staffs as MCMTA Watchkeepers, officers progressing to a MW Watchkeeper in a MHQ, then, if selected, becoming the SOO to one of the dormant MCM squadrons with the pinnacle being the MCM Commander of a dormant squadron.

Do not be surprised to find junior rates and officers at sea in MCMVs and senior rates and officers sitting in some drafty container looking perplexed as they fight with MTSS (Minewarefare Tactical Support System). The Reservists are now becoming an important part of the Navy's MW capability with regular weekend and evening training and longer periods at sea or in a TA. Officers and ratings are filling gaps allowing ship staff to go on leave or attend courses - with tight manning and small ships companies another pair of enthusiastic hands are always welcome.

Officers and ratings attend courses at SMOPS, and RALEIGH. All ABs should be qualified Gemini Coxswains; NILE and close range weapons courses are becoming available to Reservists.

The MCMTA with bulkheads of charts and stateboards, signal pads and books everywhere is now becoming a thing of the past. MTSS linked to the Route Survey Date Base (RSDB) has moved the TA into the computer era (there are still teething problems). With the RNR becoming the experts in using this new system, officers and senior rates in the MWHQ branch are still encouraged to go to sea at every opportunity.

So the RNR MW branches are alive and well playing their part both at sea and ashore. Recruiting has begun again so if you are leaving the RN, why not stay in touch and join the RNR?

Finally, there are some major hazards about being an RNR MW officer in a world dedicated to flying. USS Enterprise is good training for playing hide and seek - one remains permanently lost. I was given a most comfortable cabin in HMS Illustrious on 2 deck but nobody warned me that the flying brigade would do their version of sea harrier "Mechy Breaks" over my head at 0500 each morning.

LEAVING THE SERVICE?

1. Are you a Rating due to leave the service? If so, have you considered a part-time career in the Royal Navy Reserve (RNR) Diving Branch?

   Can you think of a better way of keeping in touch with your old shipmates once a year and being paid for doing it? At the present moment there are 30 "Ex" RN CD's on the books of the RNR with room for more, all rates are required, Senior and Juniors alike so come along and join us. You will be directly administered by the Superintendent of Diving's organisation and do not have to join an RNR unit.
2. If you are interested and would like to know more about the RNR, then please give us a ring or drop us a line.
3. Point of contact is, CPO(D) PATTINSON, Inspector Ship's Diving and RNR co-ordinator, on Portsmouth Naval Base Ext: 24538 or BT (01705) 753751. I look forward to hearing from you.

DIVING MUSEUM OPENS AT GOSPORT

By Colin Taylor

A 'Museum of Diving and Underwater Exploration' has opened at the Royal Navy Submarine Museum at Gosport and is being run as an educational charitable trust, fully registered with the Charities Commission. The museums Motto is 'Education through Preservation' The Project, called 'PROJECT VENUS - BORN FROM THE SEA' was started by Colin Taylor, a serving Detective Inspector in the Metropolitan Police in London, about 18 months ago. Colin has a passionate interest in the historical aspects of diving and is a keen scuba diver as well as being a member of the Historical Diving Society. With a small group of enthusiasts, Commander Jeff Tall at the Submarine museum was approached to house the museum, and he readily agreed recognising the obvious close connections between submarines and the development of diving.

The Museum has opened its first exhibition, albeit small, in an annex of the Submarine Museum and consists of a wonderful collection of standard Helmets and related equipment going back to the 1840s. A second display is being worked on at the present time which will consist of a short history of the development of naval diving.

There are a number of museums which have diving exhibits but none which deals solely with the subject in its entirety, from 300 years ago to the present day. The Museum hopes to create a public institution which will cover all aspects of diving, military, commercial and sport and is seeking to gather exhibits and archives from all over the world. Colin states "When you begin to consider the areas to be covered by the museum the concept is quite staggering. The areas, which will include everything from early diving equipment and drawings through to the development of dive computers, are huge and we are under no illusions as to the size of the task in hand. One small section of interest, such as the history of underwater photography, would fill a whole room and some! Everyone so far has been extremely sympathetic and helpful and we are very confident about the future of the museum. We hope to acquire a permanent home in Gosport in a few years time when we have built up the collection. So much has been lost already, in terms of equipment, I hope we can save what is left and present it in an interesting and educational form"

Items of interest have already been promised to the museum and the Royal Navy in co-operating with the supply of exhibits and archives to be preserved for future generations. If anyone has anything which they feel may be of interest to the museum they can contact Colin Taylor on Tel 0956 262858 or 0181 989 6575 or write to him at 46 Buckingham Road, Wanstead, London, E.11 2EB.

YES!!! IT'S THE CLEARANCE DIVING BREATHING APPARATUS

By Warrant Officer Diver Mo Crang

Most divers dream of being responsible for the testing and evaluation of a major diving equipment. I as the nominated Trials Officer together with FDU 3 were given the responsibility of trialing the replacement Mine Countermeasures Explosive Ordnance Life Support Equipment, (MCM/EOD LSE). At the time I had no idea of the complexity of the task and the difficulties that lay ahead. This is a summary of probably the most extensive self contained diving equipment trial conducted by the RN. It included over 900 dives, 37000 minutes underwater and many exciting moments in order to assist in the procurement of the long awaited and modern Clearance Diving Breathing Apparatus, the CDBA! Yes! CDBA, the title of the new equipment. Some of us remember the good old days when you could name the clearance divers breathing apparatus without thinking and having to take two breaths whilst you recited the alphabet or indeed diving with an equipment held together with masking tape and string or should I say cordage!
The Minor Equipment Requirement (MER) 5/91 was raised in 1991 to replace the current MCM diving apparatus. DSSCCD has several significant operational shortfalls and does not comply with safety and legal requirements detailed in the Diving Operations at Work Regulations (DOWR). MOD policy is that, where practicable, service diving should comply with DOWR and HSE regulations and to this end the Minor Equipment Requirement was written, a Cardinal Point Specification (CPS) issued and the process of elimination and evaluation of tender responses instigated. This was divided into 7 phases.

Phase 1: Elimination of equipment that obviously did not comply with the CPS. Out of six contenders a series of Tender Assessment Panel (TAP) meetings reduced the contenders to 3:

SIVA +	- manufactured by Fullerton Sherwood
US MK 16	- manufactured by Carleton Technologies.
SDS 80	- manufactured by DIVEX

Phase 2: Unmanned testing at DRA Alverstoke: This phase took approximately 6 weeks for each set as each equipment was evaluated in differing conditions on a breathing machine at depths to 80m. This enabled the breathing performances, detailed by HSE. DOWR and the Norwegian Petroleum Directorate/Department of Energy (DEn) to be analysed and the operating constraints found at an early stage.

Phase 3: Manned testing at DRA Alverstoke: This involved ergonomic testing and diving in the pressurised underwater facility to 80m and took approximately 2 months to complete for each LSE. The dive depths were progressive and tested both the Primary and Secondary systems at work using a bike. Divers were instrumented. (Dressing the embarrassed diver took up to an hour! unless his name was Dunders) enabling scientific evaluation and monitoring of the diver's breathing performances, inspired CO2 levels, heart rates, skin and core temperatures and weight loss. Decompression tables were also evaluated. This important phase also allowed with relative safety the opportunity for the diver to surface, be it to approximately the same pressure as the wet dive, when things went wrong, this occurrence happened many times. This phase used 2 differing water temperatures, 5°C and 15°C. Eighty metre diving in water temperatures of 5°C is not the most enjoyable treat in the world particularly when it involves 3 hours worth of stops. Divers had to be removed on a number of occasions when their core temperatures reached hazardous levels.
Phase 3 was an interesting period and much was learned. One of the major problems found with the LSE's were the limited Secondary Breathing Systems endurance's which ranged from approximately 3 to 7 minutes. Without stops it would take 4 minutes to ascend from 80m and divers would be ill advised to surface direct from 80m particularly when using HEO2. Therefore at these depths the Secondary System was purely a last ditch effort for a troubled diver to surface without carrying out any decompression. It was obviously unacceptable and a system had to be found to allow a diver to surface safely. As a surface demand system was not acceptable I decided that the external gas connection already demanded by the CPS could be adapted to enable a troubled diver to connect to emergency cylinders conveniently placed at the 1st stop or deeper thus reducing the distance to travel and enabling a diver to complete his decompression penalty using his secondary System. FDU 3 and in particular AB Tonkinson put this idea to use and designed the prototype External Breathing System (the XBS) More on the XBS later.

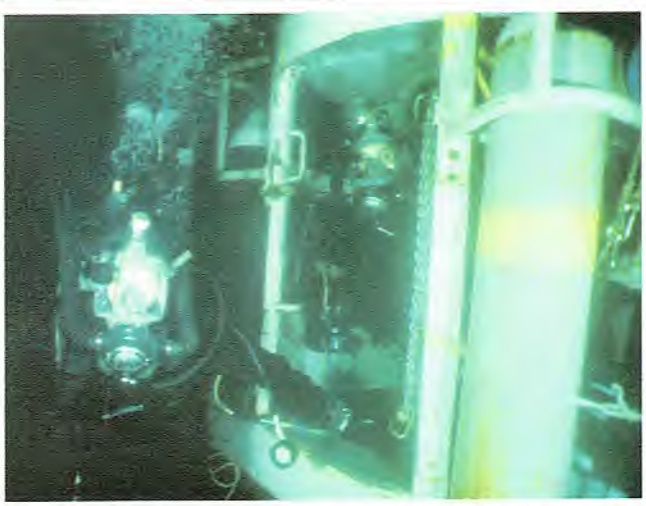
Phase 4: Open and shallow water phase (Horsea Island): This phase took 2 to 3 weeks for each set depending on the LSE and subjected the equipment to real diver handling, rigorous routines, constant maintenance and non stop diving day and night. Several FDU 3 members thought this period was worse than their "Horsea live-in Week", I could not agree! I was better paid!. This phase was not without significant incidents which could have resulted in fatalities, Equipment deficiencies learnt at this stage certainly averted catastrophes later in the trial. We also worked hard developing the XBS, a piece of safety equipment which will become second nature to all divers when the LSE is brought in to service.

Phase 5: Accoustic phase DRA Alverstoke: Each LSE was monitored acoustically in a ready made underwater box nicknamed "The Coffin"! Apart from the obvious sensors divers were asked to enter an underwater chamber by a series of tunnels, stay silent amidst rather black dirty water (from where the water came from I don't know and did not wish to ask) and operate the LSE controls. The silence was amazing and I can assure you any noise was not from the set but the diver. The sets were THAT silent.

Phase 6: Manned operational magnetic and acoustic testing: This phase was originally planned to take place at Horsea Island. Alas! someone did not do their homework as the magnetic influences at Horsea Island were so bad the venue had to be moved to the DRA Tank in Haslar which must be the biggest swimming pool in the world. A number of tests took place including divers operating against a rather sensitive mine. Room for thought; do not use "Q" lights or inappropriate fins (ask L/S Brearey) anywhere near a magnetic influence mechanism or it will be your last!

Phase 7: Open and Deep Water Trials Phase: The final practical stage of the trial was conducted at Fort William Dive Training Centre.
The objective of the 7th phase was to evaluate each candidate equipment against the specifications detailed in the CPS and the operational performance parameters required in the MCM role to a depth of 80m or the safe diving parameters recommended by DRA and the user for each LSE. This phase started 2 Oct 95 and took 7 weeks to complete.
Initially the most important facet to me for this phase was diver safety. No longer would we have the luxury we had at DRA or the comparative shallow water of Horsea Island to bail out when things went wrong. This was real depth, no surface monitoring system and potential life threatening incidents

YES!!! IT'S THE CDBA



requiring delicate and precise preparation. The first safety parameter I felt necessary was the use of a wet bell. Why not a saturation bell? Unfortunately the LSE's were too big to fit through a saturation systems hatch. However, considering we were going to 80m and wet bells in this country only operate to 50m this was not so clear cut either. It was decided to use Fort Williams Underwater Training Facilities bell and modify it. Once again careful planning and the CD's ability to utilise and fix enabled a working system to be rigged. The bell at times had 4 differing gas mixtures and 2 totally independent breathing systems together with the state of the ark recall communications system in the form of a £6.50 door bell from Woolworths. The charging of this complicated system was a nightmare until AB George Walters gave it some "Waltermods".

The bell was supported by a barge, rusty as steel can get and aptly named "Red Baron". The barge was supported by an 8 bar RCC, generators, compressors and a kitchen or was it galley. We were also self reliant, no Fort William Staff, no stokers, no Artificers and no chefs, until that is, Leading Divers Dunderdale and Brearey arrived: stokers extraordinaire!

Among other problems encountered with the future CDBA were the differing partial pressures of oxygen (PPO2) in the 3 breathing functions of the LSE. The Primary System basically remained constant at 1.3 bars, but because the Secondary System and XBS were open circuit the PPO2 would change dependent on depth. To add to this problem the only tables available were the US 0.7 bar and the Canadian 1 bar tables. These tables were used but caused unnecessary long decompression schedules. Considering that the trial LSE's Secondary System relied solely on the Primary Diluent cylinder (16/84 O2He) the PPO2 at 80m was acceptable at 1.44 bar. However, upon ascent the PPO2 would reduce, for example when the diver reached 30m (4 bar abs) his PPO2 would only be .64 bar, thus if the diver was forced to activate his Secondary System the constant PPO2 tables would not be adhered too. Our good friend at DRA Alverstoke Gavin Anthony overcome this problem by simplifying the US Navy 'Partial Pressure tables' which worked in reverse, calculating the inert gas partial pressure vice the PPO2. Dives became even more of a nightmare for supervisors as they now had 5 tables to work from.

Most of FDU 3 divers had never dived with a wet bell before and there were also differing ways of entering the bell with each equipment so the first few days were spent bell training with each LSE, After a few days we could recover divers into the bell, remove LSE's and carryout all emergencies quickly and efficiently, I can assure you that when 2 divers were in the bell and no lights were available (Dunders machy breaks) there was not much room inside, let alone space to operate valves and BIB systems. We then progressed to a depth of 30m using oxy-nitrogen mixtures and 50/60m using oxy-helium mixtures. We analysed the LSE's primary and secondary systems deliberately switching to the LSE's Secondary System at depth and utilising the XBS. This stage was not without incident and proved the use of the bell with an exit and re-entry moonpool invaluable. Firstly we found ourselves diving in weather conditions where diving from a Gemini or tender would have been impossible. Secondly the requirement to test the LSE's Secondary Systems, particularly in the case of one LSE where it was impractical and hazardous to revert back to the Primary system once the Secondary was actuated. And finally and more importantly, the safety side, the RN configuration of the LSE's meant that all diving was a first. The bell was used in anger 6 times and on 3 occasions I am sure the outcome would not have been favourable without it. On one occasion the LSE's electrical system turned itself off, on another the secondary system failed (you've got it, the LSE which will not revert back to the primary) and the worst of all, a total system failure resulting in a diver breathing from a set with a PO2 of 2.8 bars and rising. I particularly remember the incident well as it was myself and Leading Seaman Kasapi who spent rather a long time decompressing in the wet bell.

After a solid month diving, myself and Leading Seaman Kasapi finally reached and surpassed the CPS requirement on the 30 Oct 95 and achieved an RN deep record in self contained breathing apparatus by diving to 84m. By 1200 the next day all 10 members of FDU 3 had reached 80m without incident. In all 40 x 8Om dives were conducted including simulated stand-by diver drills (an 86m descent was achieved in 2 minutes 10 seconds). 20 minute endurance dives involving in excess of 2

continued overleaf

YES!!! IT'S THE CDBA

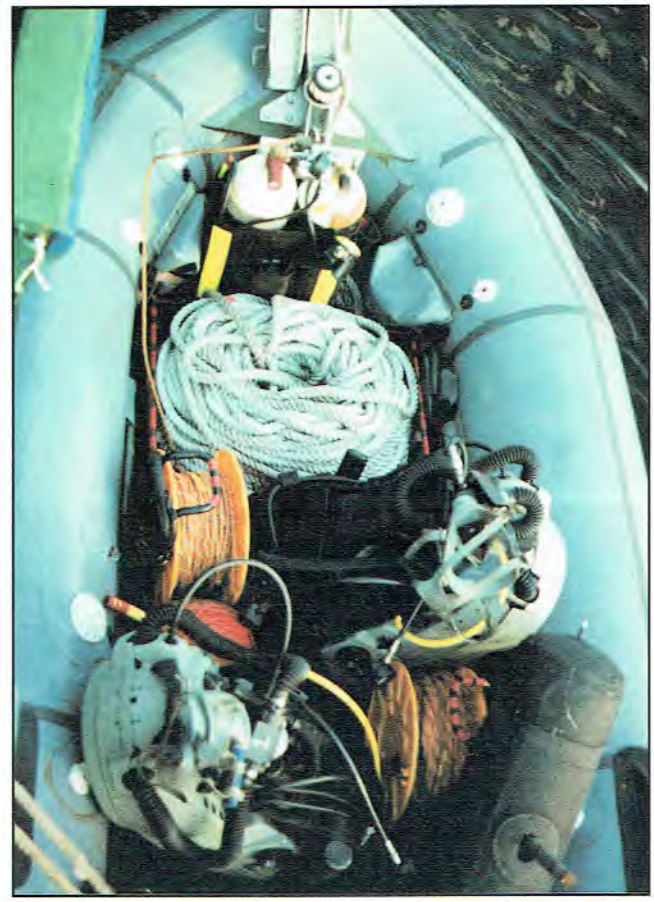
hour stops (thank you for volunteering PO(D) Haran and L(D) Marston). O2 stops utilising the XBS and full secondary system bailouts again using the new XBS system. A week later 10 dives without incident were conducted to 86m from a Gemini. This involved the total MCM capability using the XBS.

Finally swimming trials were conducted in Oban where the LSE's were tested for their swimming attributes both with and without a Jackstay. This is where the trial took a trip for the worse: the better up and down set (EOD and MCM diving) was not necessarily the best swimming set. It appears you can't have both. In fact for swimming, DSSCCD could not be beat, however the 3 modern LSE's endurance's trebled that of the DSSCCD; almost the story of the hare and the tortoise.

Before I go any further I would like to take the opportunity of thanking Commander MANSBRIDGE and Commander HILTON for first allowing me to undertake the trial and secondly their relentless support. I would also like to thank DRA Alverstoke and the Institute of Naval Medicine for their enormous help and for fulfilling their important role so professionally. It must be said that when you get older and reach the more administrative occupation of Warrant Officer Diver you sometimes forget the professional skills and determination of the modern diver, so much so that you tend to feel oldies did it better. How wrong these thoughts are. FDU 3, headed by CPO (D) Brunton demonstrated a magnificent professional attitude, smiling through problems and demonstrating a work rate, level of enthusiasm and sheer professionalism that is remarkably rare in any sphere of human endeavour, let alone the service, My sincere thanks.

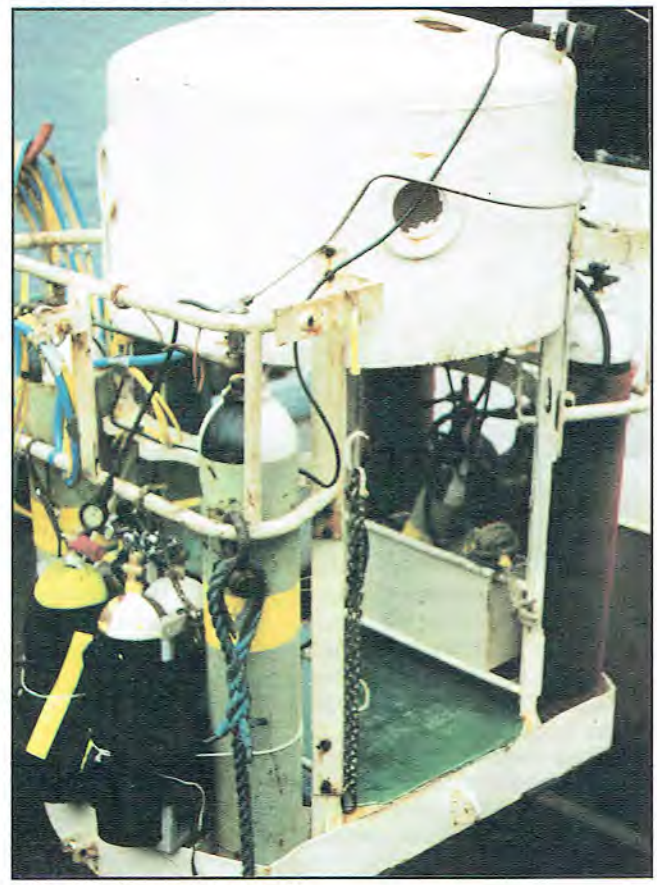
Last but not least my thanks to M0D PE. Personnel on the "coal face" sometimes forget that there are other M0D agencies who work extremely hard in order for us uniform types to fight (in our case to dive) with the best equipment available and with a wallet of limited funds. M0D (PE) are no exception and have been constantly omitted from the glory or any true professional recognition. Chris Chapman, drinking buddy Alan Noonan and Phil Clarke worked extremely hard and kept FDU 3 on the straight and narrow and actioned most of my whims.

At the end of the trial only one LSE reached 80m in the open water, 2 sets had the potential for the RN operational requirement, but only one was capable of going into service immediately. The rigorous and complex trial format basically decided the choice of the new CDBA without personal choice or favour. In fact the equipment almost chose itself. It has been unanimously decided that with a number of modifications Carlton Technologies US MK 16 will become the RN's new CDBA.



Now fit in the people!

The XBS



The Waltermod Wet Bell

YES!!! IT'S THE CDBA

The New Clearance Divers Breathing Apparatus (CDBA) - Modified US MK 16

The first thing to remember when diving the new CDBA is not to compare it with DSSCCD. Having dived with first the old CDBA and DSSCCD for 25 years I initially found it difficult to accept a piece of equipment which relied on electrical gadgetry which seemed content on giving me an almost Christmas tree array of coloured flashing lights (Light Emitting Diode (LED)) and a computer display (Secondary Indicating Display (SID)) rapidly transposing all sorts of figures. FDU 3 and I quickly accepted and trusted this major turn in technology and realised it was good safe diving practice to know what gas one is breathing and certainly advantageous to be able to act and respond to bad gas or partial equipment failure. The advantages of a constant oxygen partial pressure is also invaluable.

The CDBA's Primary System is an electronically controlled, mixed gas, closed circuit rebreather. The rebreather has been designed for silent operation with low magnetic influence. The CDBA operates with 2 cylindrical pressure vessels made of inconel; one oxygen cylinder and the other a breathable gas mixture charged to 345 bars, (called the Diluent Cylinder) which is either filled with air or HEO2 dependent upon depth. The equipment mixes the 2 gases enabling the oxygen partial pressure (PP02) of the counterlung to be maintained at a constant PP02 of 0.7 bars to depths of 1Om and 1.3 bars at all other depths. This is achieved by a micro-electronic control system that analyses the input from three O2 sensors and signals a piezo electric valve to add the precise amount of O2 into the breathing loop. This is not unlike an automatic saturation diving system whereby the 02 content of the gas in the chamber, (in the case of the CDBA in the counterlung) is kept constant by the automatic make-up of 02. When the PP02 content falls outside set parameters 02 is automatically or manually added to make that diluent gas breathable. The removal of CO2 is accomplished by passing the exhaled gas over a bed of CO2 absorbent. The Primary system has an LED situated in the mask. This primary display will indicate by means of lights the state of the divers breathing gas The Primary System also has a Secondary indicating display (SID) which will accurately display the PPO2 levels as seen by the 3 sensors. It also displays the equipment's battery state.

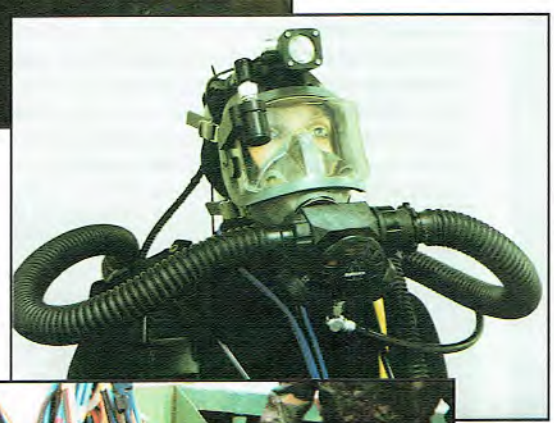
The Primary System has a number of its own secondary systems whereby drills and operating procedures may enable a diver to complete a dive, surface safely or ascend to his XBS depth when part of the equipment has malfunctioned. In fact a diver could surface or ascend to his XBS with both the main cylinders empty of gas.

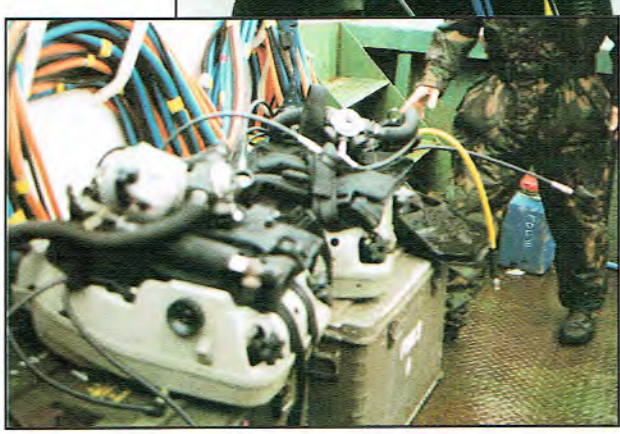
The CDBA has an independent Secondary System. This is an open circuit system with one independent cylinder and a means of tapping into the Primary Systems unused gas. This is achieved by switching diverter valve to the relevant position and pushing the Dual Mode Mouthpiece situated in the facemask to the Secondary system. Breathable gas is instantaneous. The Secondary System also has an external gas quick fit connection point which will enable a diver to connect to an external gas supply.

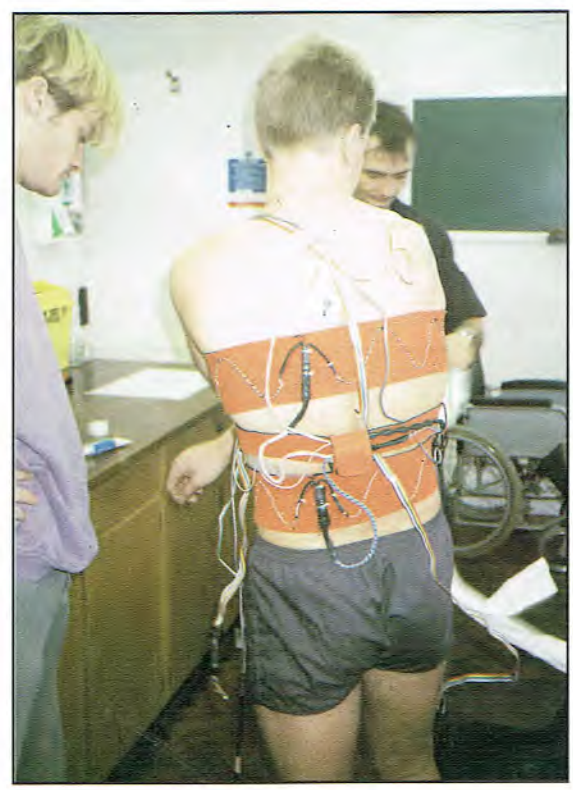
Other features include a full oral nasal facemask (Aga) with a nose clearing device (no nose clips!) an independent light, stabilising jacket and a depth time recorder. The depth time recorder will display the divers present and maximum depths achieved, elapsed times and the water temperature. It will also allow the previous 6 dives depths and times to be analysed.

Each LSE outfit (4 sets) is supported by an External Breathing System, (XBS). This system will enable divers to complete their decompression should they have a total Primary System failure, enable 02 stops to be carried out, and give limited support to a foul diver. The XBS utilises the LSE's Secondary

YES!!! IT'S THE CDBA







YES!!! IT'S THE CDBA

System and is connected to the LSE by means of a quick fit external gas connection . It has 2 cylinders, one filled with HE02 and the other pure 02. It carries its own demand valve and mask allowing a diver to breath directly from the cylinders should the divers Secondary system fail, (not his day if that happens!). The XBS will have communications and eventually a hand heater system. In simple terms the XBS is used as the Lazy Shot and the diver connects to the system on reaching his stop, breaths from the HE02 until he reaches his O2 stops and switches to O2

The LSE equipment is secured in one heavy duty plastic carrying case and a small aluminium box. Logistically the equipment requires little space. A simple tool box and 2 equipments measure 27 x 47 x 3 inches and can be stowed in an EOD Landrover and trailer or EOD Transit and could support dives to 80m (not including an RCC). HE02 and 02 cylinder gas charging is carried out by the familiar Haskel booster pump while the air cylinder is charged by normal air systems. Of note the HE02 cylinder is charged to 345 bar.

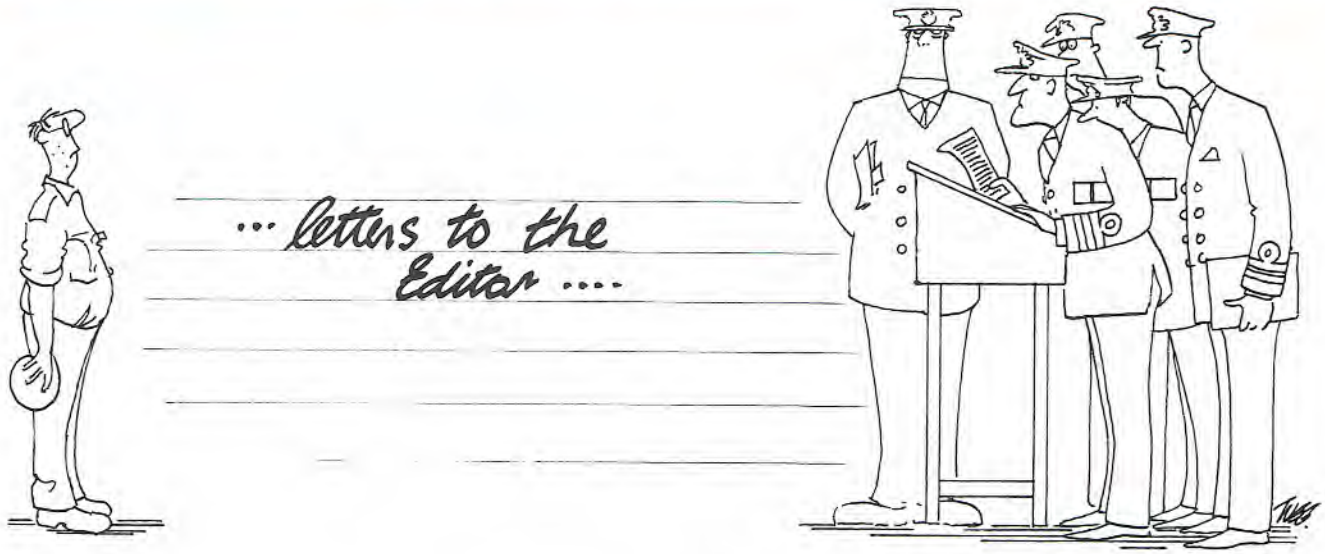
Training: Clearance Divers will probably undergo a 3 week conversion course undertaken by the Defence Diving School (DDS). The first week will include diving theory, user maintenance and initial equipment training. The remaining 2 weeks will be spent in possibly colder climates in open water to a maximum depth of 60 meters which will initially be the normal operating parameter of the equipment. Deep diving depths of greater then 60 meters will only be carried out by FDU 2 and a small number of MCMV's. Of note routine deep diving (below 60m) using in service life support equipment attracts Grade 2 Deep Diving Pay! £50 a dive and £5 an hour. The slightest mention of diving theory sometimes puts the fear of God in divers. This equipment does not require a scientific brain to work it, the standard knowledge already practised in the RN is not greatly effected. I would however advise divers to fully understand partial pressures before entering the DDS conversion course. Until recently Acute CNS Oxygen Toxicity was thought to take place when PPO2's exceeded 2 bar. It is now believed, particularly in a mixture, that this figure is too high and that a level of 1.5 bar is more appropriate and it should therefore not be exceeded for long periods. Hence the 1.5 bar limit required in the CPS. A quick reminder the CDBA averages 1.3 bar. Unfortunately on descent this figure is regularly exceeded. Divers must constantly monitor their equipment and understand the limits and what is causing the PP02 to change. Unfortunately there are a number of incidences where PP02's of the equipment changes:

a. Low O2 usage on descent.
b. Slow initial descents.
c. Prolonged descent halts between 0 and 20m.
d. Fast descents.
e. Any descent.
f. Any ascent.
g. Respiratory and work rate

These problems should not frighten divers as similar problems exist with DSSCCD. However, unlike DSSCCD the new CDBA informs or warns the diver of these changes through the electronic monitoring displays, whereas with the DSSCCD divers have to suffer from a symptom before they know something is wrong, I know which I prefer!. I feel with the recommended modifications to the trials set, CDBA is safe, efficient, modern and is designed to accept the stretch potential required to take the diving branch well into the next century. It is worthy of note that the CDBA, though similar to, is far superior and safer to use than the US Mk 16 variant and must now set world standards in Self-contained Re-breather systems.

Finally congratulations to the trials team in raising £1,575 for charity. Good diving and I hope you enjoy diving with this exciting and modern diving set.

Letters to the Editor



A FAIRY STORY

Once upon a time there was a fortress at the edge of darkest DEODS, which opened anew, where a demi-monde of knights of high esteem gathered in various garb. These knights were a friendly, polite, over-worked and under-estimated group, trained in many aspects of EOD and consumption of rain forest materials. Their aim in life; to wrench the fair maiden "Int" from the clutches of the great god "MOD" and offer her in sacrifice to their new leader "ASH".

The knights included Wedgies, Crabs and Bubbleheads too, capable of many varied feats in their crusade to gain possession of "Int". Their travels took them to many corners of darkened rooms, burdened by the demi-gods, with validation, paperwork aplenty and Ordnance Inerting too. Through thin and thick, the intrepid bunch battled with that other God "Budget" who threw "lack of funds" against them, but their many talents allowed the knights to circumnavigate or purloin what was needed in their crusade.

There were bombs, fuzes, mines and missiles too, that were placed in their way but with relish these were dealt with and passed to darkest DEODS to train the knights of the new order. Tantalizing glimpses of "Int" were gained as the group approached their goal, their sheer professionalism and determination, steadying their hand in the face of "Budget" and the demi-gods, but above all the new knights from DEODS were being given a better start in their crusade against the hordes of EO and RLC coming over the hill.

"MOD", the great god, still has hold of the fair maiden "Int", but the fight goes on with ever determined effort by the knights in their thirst for possession of "Int" led on by a single thought....

THIS AIN'T NO FAIRY TALE!

The Knights of the Trials, Data and Validation Section of DEODS

Dear Ed:

As part of the RN Divers Association weekend in October we visited the new Combined Services Diving School at Horsea Island in Portsmouth. It is a very impressive complex of training facilities and obviously a lot of planning and thought has gone into it. Yet I have certain reservations about the method of turning out embryo divers to earn their living in the cold, hard, uncomfortable world of diving. We saw plush changing rooms, spacious classrooms and heard of the training tank for using underwater tools where the water is heated, filtered and fitted with lights. Well, during my diving career I had to train NDT technicians to adapt their skills underwater and my aim always was to make the diving training as near to actual working conditions as possible. In fact ideally so that when they finally went 'operational' they found that generally conditions were no harder than in training and on the rare occasion found them easier. I must confess that was my own personal experience. You cannot beat on the job experience for mastering a technique, no amount of simulation will have the same rewarding effect.

I would be pleased to hear the views of others on this subject and am ready to be educated in the modern methods of diver training.

Your sincerely

Doug Bruce-Jones

ex RN and Commercial Diver (Rtd)

Dear Jon,

I was scanning the MAD (as one does) for old times sake and was pleased to see that the 'happy H' got a mention even if MCM 3 ensured that the photo only showed a 'paint cat' (actually, I can't be too rude about them as my NO, Rufus Redman, navigated one and his opportunities for revenge are legion!). THe standard of articles was pretty good this time (shock/horror), and I suspect that a lot of people will identify with both LED's PIKE and the muppet clankie!

More of a shock was the Big Badge challenge because the knees on the right look suspiciously like my late, highly esteemed leader in MCM2, Uggy Douggy, - could they be his? Somewhat difficult to tell as when exposed in H, we attempted to draw a veil over them as fast as possible to prevent public panic. The body and youthful features are obviously underhand tricks by the photo to throw people off the scent - he was never that shape! If not him, I owe him a beer; although with the amount of my booze cupboard that disappeared during his visits I am probably still in credit for many years.

I trust that life in your new abode is treating you well; it must be a shock for Horsea to have something smart that doesn't get burnt several times a day! As you will tell from this letter, life at Yarrow is quiet for the CO even though I have only been here a short while - come back PIKE, all is forgiven. Keep up the good work.

Commander MW Westwood RN

Letters to the Editor

Dear Sir,

THE OVERSEERS VIEW

I have just finished reading the November 95 edition of the MAD magazine and thoroughly enjoyed it. I thought Charlie Wilson looked very smart in his Commanders uniform. He was driving Inverness the last time he was here. Where is here you say? - Here is the Naval Overseers office in Vosper Thornycroft's yard at Woolston, where so many of the ships you and your colleagues write about in the MAD magazine, were born - or more precisely laid (up)! The small team that is here today have had the privilege of helping to build virtually all the GRP vessels from Wilton onwards, as well as meeting many of the MW personnel who currently serve in the 'Tupperware Navy'.

Though after 30 years here, Mike Pople, the engineer overseer, will come to his final mooring in December this year when he leaves us to become a full time professional bowler on the Costa del Southsea!

We have just commenced work on the first of 7 follow - on SRMH's - Penzance. Roger Meakin and Steve Pullen, the 2 hull overseers are again up to their ..... in glass cloth (miles of it) and resin. A significant change in build methodology this time, is in the use, in certain parts of the ship, of a vacuum forming process in moulding the GRP. It is stronger, lighter and gives a better surface finish to the panel.

A significant number of design improvements are being introduced into these follow-on ships: among which is the provision of female accommodation, differently configured and larger Voith units, an improved RCMDS recovery system, a 2 man compression chamber and measures to allow for tropical operations - all to make them a better ship for you to work in and with.

As yet we are only dealing with panels and modules, the moulding of the hull will commence in March, once that happens, they will really start to take shape. She is due for launch in March 97, sea trials in September and handover in December.

This all assumes that Les Smith, the Weapons/Electrical overseer can get the 2093 installed in time - but that's another story! (the author of the letter of P23 understands all too well!).

We look forward to seeing some of the familiar MW faces on the follow-ons.

Yours faithfully

AB Bates

Senior Overseer

PS. For those of you who know us very well - our title has been changed to Warship Project Representative - Single Role Minehunter. Though like the term STOKER, I suspect the term OVERSEER will servive for some years yet!!!

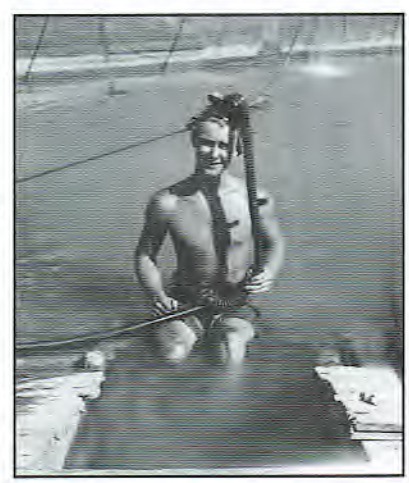
MORE RECOLLECTIONS

Having read the article by Spike W about his diving experiences on the "Mauritious" in the E. Indies it brought back my own fond memories of the good old gas-mask diving days. I wonder if there are any senior readers out there who served aboard, or knew of, the Admiralty Salvage vessels. There were about 4 of them, I believe, purpose built for marine salvage work anywhere in the world. I was 2nd Diver on the A.S.V. "Salviola." RFA. She had a reinforced bow for ice breaking so naturally she performed very well in the tropical waters of the Persian Gulf! Yes, we did have a bibs ring main on deck, power take off air compressor and a 4 man recompression chamber but our rig of the diving day was the regulation service respirator. For the Health and Safety bods who have strong stomachs this is how we perfected ours - take out the standard diaphragm from the front of the mask and insert one made of diving suit twill. This mysteriously performed as a non-return valve, (don't ask me how - I was only the 2nd Diver!) The exhaust air of course all roared out of the sides of the mask around the face and ears and the diver was completely Mutt & Jeff after a dive of any duration. He could just about hear "what are you having to drink old mate." Tragic! We would don a suit of engine room overalls, put a shackle or two in the pocket (ballast), pull on boots made from cut off legs of an old standard diving suit - (canvas rope soled boots indeed!) and there we were, you tiddly terrors of the deep rarin' to go down to the wreck for a spot of air-lifting, blasting, cofferdamming, parbuckling, wire cradling, hole plugging, or whatever else the Salvage Officer in his unquestioning wisdom so decreed!

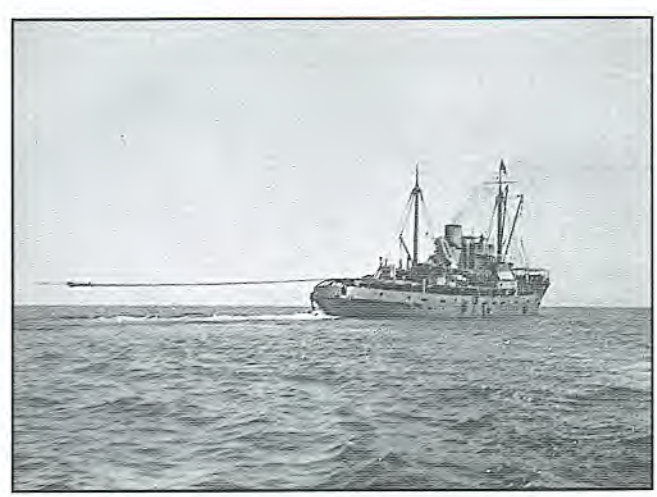
I spent 16 months from November 1946 to 1948 on the "Sally" in the Gulf and Indian Ocean. She had sisters by the name of "Salvalour", "Salvigil", and "Sal-something or other", they were approximately 1050 tons gross. On one salvage operation we took on passage CPO Divers Diamond and Clements towing L.C.'s 26 and 27 to Abadan. The senior diver was Ken Johnson from Hull, a civilian trained shipwright and for part of one job we were assisted by PO Diver Stan Stanley. Do any of these names ring any bells? The skipper of "Salviola" was Captain Ritty RNR, a bearded ex WW1 diver and our Salvage Officer was Commander Griffiths RNR.

Yes, looking back on it all it was a dangerous, crazy, way of earning a crust - but then I survived didn't I, I'm still here I think - am I?!

Doug Bruce-Jones



The Author
Doug Bruce-Jones.



ASV "SALVIOLA".

Letters to the Editor

Dear Editor,

In today's hard pressed and strapped for cash Navy, I find the cost of such "glossies" as this as obscene and an insult to front line units that have to go without due to our "many recent savings". If you must produce such a document try:-

a. Black and white.
b. Relevant info - no chit chat.
c. Vastly reduce your dist to one per ship.

CCWEA(ADC) D NEWMAN, HMS SUTHERLAND

Dear Charge Chief Newman,

Thank you very much for your views on the MAD Magazine. Needless to say we do value any feedback we receive so that we can change or modify the magazine style and content. As you appear to be in a minority of one, and we are unlikely to satisfy all of our readers, we happily accept that we have probably lost you to the Naval Electrical Review! - Ed

Scientists try to establish why CCWEA Newman objected to the MAD Mag.

Dear Editor,

I read with great interest the letter from Tom Mahoney in the November issue. Having had a similar type of experience, I thought that a brief account might help anybody faced with large and dead whales.

At the time I was Marine Director of an Oceanographic Station in Corsica, about three miles by sea from the port of Calvi. One fine Saturday morning (these things always occur at the weekend) the harbour master of the commercial port rang me up and said will you come and identify a whale which has appeared in the harbour. On arrival, I found a very large and very dead fin whale, secured alongside the car-ferry jetty. The formal identification completed, I asked him what was his next move, having explained (a) being the weekend, I was very shorthanded, and (b) very soon the whale would start to pong. He said, for the benefit of the Press, that he had organised the whole thing, as the ferry was due very early the following day. His master-plan was for the French Foreign Legion to stuff the beast with explosives, tow it into deep water and 'BANG', end of whale. I made no comment, other than to wish them luck, it being not my part of ship.

About 2100 that night there was an impressive explosion out to sea, and that was that. Or was it? The following morning I was aware of a commotion in our little harbour, and on investigation found a headless whale alongside our jetty. The harbour was already foul with blubber and THINGS, so I rang the harbour master at the Commercial port and asked him to remove his whale. Instant gloom. I was asked on no account to tell the Press, as this would mean that he, the Foreign Legion, and all concerned would lose a great deal of face, most important in Corsica. In no time flat, our little harbour was graced with the presence of the Sous-Prefet of the region, the harbourmaster, the Colonel of the Legion and assorted hangers-on. Just to jolly things along I asked them most politely to make haste, as my wife was due to return from a week in UK that afternoon, and I did not really want her to find this object in her back garden, so to speak. Besides, the forecast pong had now materialised in a big way.

To cut a very long story short, just after lunch a squadron of local fishing boats took the beast in tow and disappeared down the coast. At a deserted beach, the Legion had mustered a collection of heavy lorries and tracked vehicles, with which they dragged the monster as far up the beach as they could. Round it they piled all the old motor tyres they could find, and it was quite a lot. The whole thing was then doused with many, many litres of diesel fuel, They lit the fuse and stood back. The pyre burned for a couple of days, happily down-wind from us.

On the whole, I think Mahoney's solution was neater, if a bit messy

Yours
Mike Chapman (Lieut Col Rtd)

Dear Sir,

I was interested to see that you have moved up to Horsea as in WW2 as a hard hat diver I was the guinea-pig when we carried out trials there to try to find out the effective range of pusser's 11/4 lb. demolition charges as used against the Italians who were raiding our ships at Gibraltar. Hanging from a jackstay slung across the canal with the detonations being brought steadily closer was not everyone's idea of fun - least of all mine.

Following the item from me which you published in the last Magazine I wonder if a little light relief from those early days might be of some interest. So herewith a few more recollections.

Yours,
Norman Smith

RECOLLECTION (2) Lighter Moments

It was no doubt fortunate that even through the turmoil of War-torn Britain in the early Forties some snatches of light relief managed to lift the gloom a little. Such breaks were welcome just as much in the world of RMS as elsewhere as I well recall. Seeing on page 26 of your last issue the picture of John Miller with a Type C mine from Roding river brought back to me another similar mine in the same area with which I dealt in, I think, the late forties at a time when I was as a young leading seaman diver working without an Officer. The rest of my team were A.B.Tawn DSM, A.B.Wharton and A.B.Nelson (later BEM and subsequently killed in HMS Campbeltown at St. Nazaire). The mine in question was well and truly jammed in rocks so it was decided to detonate it since it was behind a high wall against the river bank which afforded protection for the large asbestos factory nearby. At high water the mine was exploded safely with no damage to property and no injuries to personnel and we began to wash down the diving suits we had used in which to slither down the muddy bank.

Just as we were stowing the gear in to the lorry a well dressed man in middle age enquired if I was in charge of the party and getting an affirmative reply he introduced himself as the Managing Director of the asbestos factory whose staff had been laid off until we had dealt with the mine. He praised us for the job and said he could now get his people back to work to "help Mr. Churchill win the war". He then took out a large and well filled wallet from which he extracted a solitary one pound note and invited us all to have a drink as a token of his appreciation. As a matter of principle we never accepted gifts of money but on this occasion I duly knuckled my forehead, thanked him for his generosity and pocketed the note. In fact we had with us at this time three young sappers of the R.E.s BDS and even in 1940 one pound wouldn't go far among seven thirsty servicemen.

Letters to the Editor

Just as we left the site a policeman came up and told us that there was another mine about half a mile away so we went along to where we were met by a police superintendent who pointed out the mine some quarter of a mile down the road. He was accompanied by a large fellow who must have been everyone's popular idea of Colonel Blimp in those days and who in a somewhat bombastic manner told me that he would have the parachute to hang up in his ARP Headquarters when we had dealt with the mine. The mine in question had dropped half on the Tarmac of the road and half on the grass verge and as a result had split badly. It therefore became a somewhat dicey job to get at the bomb fuse but, of course, it did get done. By this time we had gathered another two or three sappers and all of them expressed much interest in the parachute material and asked if they could have some pieces of the panels and of the ropes. Well, by the time they had finished there was only about a few inches of each rope left on the shackle and on seeing this the Chief Warden (Colonel) ranted and raved, blaring, "I told you I was going to have that parachute" etc. etc. Whereupon I found it necessary to remind him that the mine was the property of The Admiralty, to be disposed of as the Admiralty, or its representatives, deemed fit. As its representative I had disposed of it as I saw fit, the parachute going to the lads who had helped shift it after it was rendered safe. Whereupon he stormed off, after threatening me that he would report me to my superiors and so on. Meantime the police superintendent looked at me with something like awe and finally managed to say, "Young man, do me the honour of letting me shake you by the hand. You may be interested to know that that was the Chairman of our local bench of Magistrates and I have been wanting to tell the silly old bastard off for years. I shall dine out on this yarn for a long time."

One last point I would like to make, just in case anyone reading this should have any connection with the firm concerned. Just opposite the gates of the asbestos factory were the premises of the Ibbotson brothers, makers of disinfectants, heavy duty soaps, candles, nightlights etc. They had been very badly bombed and only their canteen and a store were left standing. Despite this, the brothers took us under their wing, gave us all a hot lunch in the canteen and sent us away each with a package of their products. They said that they were going to move to Thetford, taking their staff with them which I believe they did. They must have been good employers to take their people out of London, which is more than Hitler could do.

FOOTNOTE One Sunday afternoon some ten years after the end of WW2 I happened to be in the same area and entering the wicket gate of the asbestos factory I saw the rather elderly watchman. He seemed delighted to meet one of the team who had dealt with the mine and said that it was even then a constant subject of conversation. I told him of the incident of the one pound note to which he replied in an inimitable Scottish accent, "Eh, they were aye a generous firrrrm!".

AB (Diver) professional qualifying course

The first AB (D) (PQC) for 2 years has just completed its right of passage, only 2 out of 7 starters completed the course.

Cdr Gale, WO Hughes (Course Officer), PO(D) Wall (Course Instructor), AB(D) Dickson (on Cdr's left) AB(D) Sirs (on Cdr's right).

GUNWHARF DIVERS FOOTBALL TEAM

As your football rep for the DDS I would like to thank you for your dedication throughout the football season. Although a difficult and testing time, I believe we have managed a creditable result, 4th in the league! With scratch teams and diverse weather conditions, the team still held together and managed not to disintegrate before my eyes; so well done team.

Rex Turnball is the player with the highest score, 9 goals to his credit for the Divers. Pete Younger with all his effort still did not score!! And has won the nomination of "JIGSAW" good effort Pete!!

Lots of players with varying levels of skill came and went, we thank them for their sterling efforts.

SSGT Jordan RE (right) recieving his Player of Year Trophy from CPO(D) Rogers RN.

IN THE S-H-(ONE)-T (AGAIN)

By Cpl Steve Andrews

It was another bleak day in Antrim (normal) and the Diving Team at 33 Independent Field Squadron was on 'stand by' to assist the U.D.R. in the search of a farm and its surrounding lands.

After the usual hurry up and wait the call came and soon we were on our way covertly to our task site. We obviously blended in well with the locals for as we drew closer to our destination we were flagged down by a local to warn us about the Army cordon further along the road. He was answered by Cpl Steve Hewings in his best Irish come Devon accent (sort of OOOOHH AAAARRRRR!!!!) For some reason the do gooder drove on without further comment.

We arrived on site and, after the compulsory brew, set up the kit near a clean(ish) slurry pit, which was empty except for some 2 feet of rain water, 5 or 6 strange floating balls and half of an old bucket. On closer examination, it turned out that the strange balls were floating, bloated dead mice and the half bucket was the remains of a decomposing rat (glad it was clean).

We searched a couple more pits without success and had just started to pack the kit away when the RESA came to let us know that 2 more pits had been found and one was full (oh joy).

When we saw the full pit it looked more like a compo stew that any ACC chef would be proud of. Resisting the temptation to sample the stew (I'd already eaten) I jumped into the pit and sank to my knees. This was a surprise for according to our recce the pit was meant to be 8 feet deep. I started to mark time and slowly sank deeper and deeper. It took 2-3 minutes to gradually get my head near the sludge and finally, with a lot of slurping and strange bubbling noises, beneath it.

After a few minutes acclimatising myself to the cold, dark surroundings and strange noises I began the search. All movement was slow and very laborious due to the suction of the muck which made travelling toward the other end of the pit, some 30 feet away, very hard and was done more by will power than force as there was nothing to push against.

About halfway through I surfaced out of the sludge for a breather. Even though I was on the surface I still couldn't see much as large pieces of excrement had attached itself to my face mask. Steve Hewings exercising once again his excellent diver welfare capability poured some disinfecting liquid on by exposed head in a feeble attempt to dislodge the offending objects and was rewarded with a string of abuse due to the low temperature of the liquid. I then asked if there was anything warm he could pour instead. After a short pause I was rewarded with a strange warm golden shower (so thats who drunk all of the tea). After my short break I resumed my search and finally completed the task, the return journey to my exit point was as short as my outward one with the added disadvantage of my lifeline causing drag as it was laid in the slop in the direction of my outward bound journey and as I changed direction it didn't follow as it normally would.

After a lot of hard work and lots of slurping and slopping I came to my exit point. Totally exhausted I reached up my arm, which weighed a bit heavier due to all of the attachments I'd picked up along the way, expecting to be assisted out of the pit. For some strange reason the rest of the team had retreated away (which gave me a bit of a complex) but after promising to buy a beer, tea, coffee and change my deodorant I was helped out by my attendant LCpl Dean Hallworth. I then laid there while the rest of the team gave me a scrub down enough to unmask at least and then finish off down at the farm house with a hose (which was not appreciated by the farmers wife).

Then it was time to pack the kit back into our vehicle and head for camp and the end of another day.

THE LAST TWO's COURSE FROM HELL

By LS(D) Andy Marrow

It was 27th November 1995 and here we were at the new Defence Diving School, lovely new buildings, but Pongo's everywhere. We congregated in the allocated classroom ready for the Big Event. We had all been waiting about 6½ years for it. Apprehension had set in as some of us couldn't even remember who Archimedes was let alone what babies course he was on. Introductions were made and acquaintances re-made there was George (Do you want to buy a Berghaus Jacket) Walters, Kev (I can climb anything) Amaira, Tony (When are they going to include swimming in the BFT) Candler, Steve (It wasn't like this on the Fleet Team) Boyd, Scott (I've always been in Scotland) Weatherly, Phil (Boat, School, Boat, School) Moon, Andy (Whatever goes) Marrow and Bob (My dogs bigger than me) Hope.

Straight into two weeks of theory, guaranteed to scramble your brains, especially with the new PowerPoint System, that's surely been designed to confuse. On top of the theory came the shock of the divers Physical Fitness Test, a new torture designed to counteract all the socialising and public relations that we were all accustomed to in out meteoric climb up the career ladder from threesie. To make matters worse it's now pass or fail, needless to say we'd incurred compulsory PT. After finally coming to terms with Newton's, and Boyles Law it was into the first exam of the course which we all struggle through with flying colours.

Great! Bin the notes and get in the water, NOT!, it was about now our course instructor CPO Pete Younger surprised us with the allocation of various lectures and the need for a 1000 word essay on the Duties Of A L/S(D). Boo!! More paperwork.

With all the help of our Second Dickies Russ Russel and Tim Hall we're now moving to Whale Island, Nice Place, problem is the compulsory PT has now got the added bonus of a hill in the middle. At last we're getting in the water, but first let's load the boat, it was at this point we heard the immortal phrase "we didn't have this much gear on the Guz Team". And so up harbour and onto the 'Exeter' for search scheme alpha, then search scheme alpha again and again and again. By the time we finished it was dark so we did it again. They quickly became long days with the only thing keeping us going being our need for excellence and our highly nutritious Whale Island Bag Rats. By the end of our first week in the water we could all proficiently supervise ship bottom searches and we were reasonably confident that the Exeter's hull was clear. With this behind us it was time to go into open water, namely the tides and tribulations of the Solent where we were allocated out first team task, but unfortunately due to adverse weather conditions a member of course had to make his first command decision and deemed it marginal. So it was back to shot dives and drill stops, where the omitted decompression rule became second nature. By Friday of this air supervisor's week morale suddenly became unnaturally high, it could only be explained by thoughts of impending Christmas Leave which after a couple of pints of Christmas Cheer in the Mermaid, we departed in great haste, for a well deserved break.

On return to Horsea it was straight into 0_2 swims on compass, not a recommended way to get over leave especially with the 'Walrus' Candler driving the dive! At the end of the week the truck was loaded for Portland. On Monday the truck finally arrived after breaking down, was rapidly unloaded, equipment prepped and the 1st pair splashed by midday, which we considered a good achievement, but alas not good enough, low and behold compulsory PT recommenced and the hills were even bigger in Portland. The week progressed well with seabed searches, culminating in a covert beach survey at which DTO seemed visibly impressed. Friday morning we loaded up and returned back to Pompey for some tool training.

Tool training progressed well even though the water temperature had dropped enough for ice to form in the lake, however the vis was unusually good which proved a redeeming factor. But then the good "Ole Course Boss" Wo Bob Oulds, turned up one bright morning and said "morning campers, all ready for the second DBFT then", this produced some gloomy faces and yes, you guessed it, compulsory PT recommended! Two weeks in the tools, crucial to our underwater engineering capability, including hammers and chisels.

Now we were off to the land of the Loch and the Glen (and snow) for the deep work up phase and the comforts of Balmacarra House, which apart from the fact that the heating had failed wasn't too bad and of course the compulsory PT had now come into it's own as we had to get to work in the mornings somehow. This phase turned out to be the most enjoyable diving of course, with good vis, good diving and a variety of underwater life for us to OBSERVE!!! The weather stayed in our favour for the duration and a more attractive form of nightlife was discovered, thanks to the new Skye bridge being open and the solitary Kyle's taxi driver being intent on making as much money as possible out of us. Fortunately on completion of the final diving exam and one major party, we had all passed the diving phase and British Airways were eager to transport us south to sunny Portsmouth where it was snowing. There then followed a week of multiple guess exams which saw us moving between Dryad and Whale Island to further improve our understanding of big ship NBCD and to give us an insight to the intricacies and mentally challenging world of the Mine Warfare Branch.

Then came the part of the course that everyone dreads, 'DEODS', where the fear of what was to come were compounded by the standard of accommodation in Kitchener Barracks and the 5.30 am shakes. However the allocated four week period spent at DEODS was surprisingly relaxed and informative with the staff being extremely helpful and friendly. They were even smiling as we struggled through a theory exam and eight pass or fail practical exams in one forenoon. We were now into the final week of course, underwater ordnance and mine ID at the new improved mine ID lake where the vis was rumoured to be good, but hard to tell with blacked out face masks! But due to the experience of the students this barrier was successfully overcome. Then onto the ship EOD module, both, wet and dry, where all tasks allocated were carried out with professionalism and speed. After a celebratory weekend we arrived back at the DDS Horsea Island 16 weeks from commencing course, to be officially made 'Toosies' and commence drafting routined.

So ended sixteen weeks of gruelling purgatory, but if you tell that to the new shortened Two's course "THEY WON'T BELIEVE IT" After all they will only do "THREE WEEKS" air diving now!!!!!

WADI BASHING IN NORTH WALES

By Sgt Cliff Dunn

The following article was written by Sgt Cliff Dunn, one of our crab colleagues on the UKMOD(Air) Team here in Saudi Arabia. As the Senior Service myself and Lt Cdr Topsy Turner were obliged to go along and make sure the RAF did not call in one of their SAR choppers to help them achieve the aim. The exped was one of the most testing experiences of my naval career (or was it trying to get Dickie Wardrobe to buy a wet on exercise in Falmouth??) and I felt a great sense of achievement once we had 'conquered' the peaks.
Anyway I'll let Cliff (apt name for this dit) tell the story . . .

The Team at Lyneham prior to leaving for Snowdonia. Bob Ballinger, Neil Clark, Topsy Turner, Mark Smith, Cliff Dunn and Dixie Dean.

UKMOD WELSH 3000 CHALLENGE

In May 1995, several members of the UKMOD Team based at Dhahran and Jubail were sitting around a table and discussing, among other things, their interest back in the UK. One activity which several had in common was hillwalking. As a result of this common interest, the UKMOD Welsh 3000 Challenge was born. Initially, it was just a trip to Wales to walk the hills and possibly climb some mountains. It was suggested that, to add a bit of interest to the idea, we raise money for a specific charity or deserving cause. After some thought and discussion, we chose the Hope House Childrens' Respite Hospice in Oswestry on the Welsh border. The expedition was sanctioned by the Team Commander in Riyadh, and it did not take too long to sort out all the logistical problems - transport to and from UK, transport whilst in UK and accommodation to name just three!! Sponsorship forms were handed out liberally in Dhahran, Jubail and Riyadh and we soon had a great deal of money pledged to us. All we had to do was scale the fifteen 3000' peaks of Snowdonia!!
The six expedition members - Cliff Dunn, Topsy Turner, Dixie Dean, Neil Clark, Mark Smith and Bob Ballinger all met at RAF Lyneham on the night of Tuesday 26 September. The Advance Party had flown in early to pick up the vehicles and the remainder had flown from Dhahran by C130. After a well deserved suitable gifts from the Team.
We finally arrived at Capel Curig Training Camp late in the afternoon and moved into our accommodation, which turned out to be a dix berth wooden hut with all mod cons - fully fitted kitchen, washing machine, WC and shower and drying room. Even the catering had been contracted out and we were able to enjoy two wholesome meals and an excellent packed lunch each day for the duration of our stay.
Thursday 28 September dawned bright, but the forecast was not encouraging. On the advice of the Camp Commandant, it was decided that we would attempt to complete the fifteen 3000' peaks while the weather held. Our first objective was to be the Snowdon massif - three peaks in all - Yr Wyddfa the highest of all the fifteen at 3560', Grib y Ddysgl and Crib Goch. The walk to the summit of Snowdon via the Pyg Track started in bright sunshine, but as we ascended the mist and cloud came down and the wind increased to Gale force. The summit of Yr Wyddfa was reached in good time, but the weather had deteriorated so much that visibility was down to about ten metres. We spent an hour at the summit cafe before deciding to walk down to Crib y Ddysgl before making a final decision regarding the descent of Crib Goch. On the way to the second summit, we learned that a Royal Marine had been blown 30 feet off Crib Goch an hour before and had been rescued by SAR from RAF Valley. The decision had been made for us and we descended to Llanberis by the railway track with the wind blowing to gale force. By the following morning, the wind had decreased and there was a fair amount of sunshine. It was decided that the best option would be to attempt the Carneddau, a massif of seven 3000'+ peaks. The vehicles were parked at opposite ends of the range and our trek commenced with the ascent of Pen Yr Ole Wen. It was a difficult ascent with a lot of very wet rock and a Grade 2 scramble thrown in for good measure. Once we had reached the peak, the going became much easier and the remaining peaks were reached in good time. The undulating ridge took us on to Carnedd Dafydd Llewelyn, Foel Grach, Garnedd Uchaf and Foel Fras. The outlying Yr Elen was also scaled to complete the day's walk. Our decent took us into the upper reaches of the Ogwen Valley in time to watch a wonderful sunset and drive back to Capel Curig. It had been a memorable day with outstanding views in all directions over Snowdonia, Anglesey and Clwyd.
Saturday was wet, windy and miserable. We spent the morning on some crags near our base practising basic rock climbing techniques until the rain became unbearable and we retired to camp for a rethink. All our gear was placed in the drying room and we went to the local town of Llanrwst to enjoy the facilities at the local swimming pool. It was respited which the majority of the team needed to allow their aching limbs to rest prior to the next day's objective - the Glyders. The evening was spent at a local hostelry discussing tactics for the next day.
Sunday October 1, was the best day so far from a meteorological point of view. The forecast from RAF Valley was for high winds but only isolated showers. With this in mind we set off on our ascent of the Glyders, a massif of five peaks, including the magnificent Tryfan which is the lowest of the fifteen peaks but by no means the easiest to climb. As things turned out, the wind stayed high, the showers were frequent and very heavy and the going tough. Regretfully, the day had to be cut short due to the severity of the weather and the party came off the hill at Pen y Pass with Tryfan unconquered. We were just in time to see a SAR helicopter taking a fatally ill climber to hospital in Bangor. It transpired that he had fallen over 250' off Crib Goch! We wondered if we would ever be able to 'bag' it.

WADI BASHING IN NORTH WALES

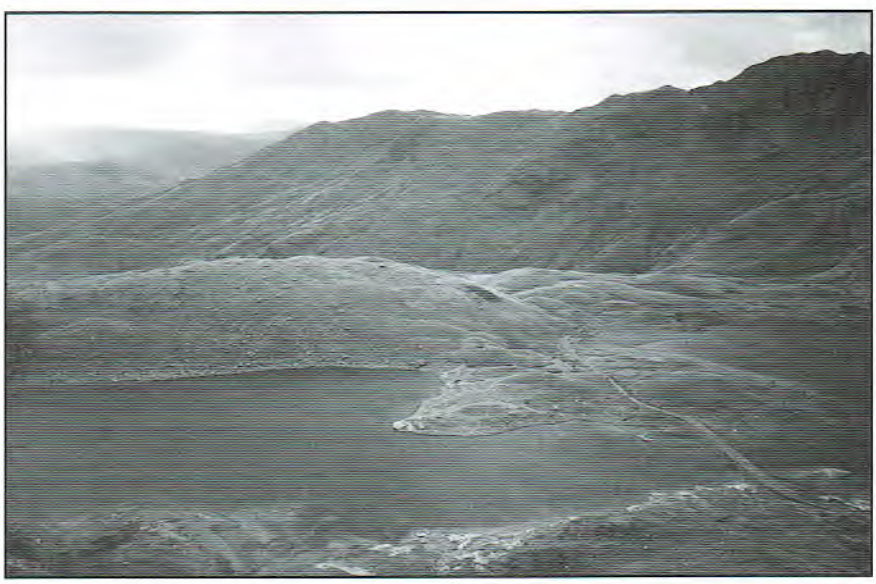
Overnight, the weather deteriorated and Monday was grey, wet and extremely windy. It was also the coldest day we had encountered so far on the trip, with overnight temperatures down to 4°C. The Camp Sergeant Major, himself a very experienced and well known climber, advised against anything but the simplest of routes. We took his advise and in the morning visited the Dinorwic Power Station. The break proved to be informative and enlightening to the whole party. When we emerged into the daylight, the weather had improved sufficiently for an attempt on Crib Goch. Alas, the winds above the 2000' mark made walking impossible and the attempt was aborted. Tuesday, 3 October, dawned bright but windy. This was our final chance to achieve our primary goal and we decided to split up into two parties. One would attempt Crib Goch and the other Tryfan. As things turned out, both parties were successful and we all met back at Capel Curig in the afternoon to celebrate our success. It had taken a lot longer than expected, and some of our secondary aims had not been met, but the whole party felt the long journey from Saudi was worthwhile and we would all participate again if the opportunity arose. In the evening we had a farewell dinner at a local hotel and were treated to some fantastic renditions by the Moelwyn Male Voice Choir, who saluted our efforts in song. They also offered to hold a concert in aid of the Hospice - free of charge.

Wednesday saw us rise late to tidy our bungalow ready for handover to the Commandant. This completed, we drove both vehicles back to RAF Uxbridge prior to our departure from Dhahran. On the way, we once again visited the Hospice and told them of our achievements. Naturally they were extremely pleased and wished us bon voyage with tea and cakes.

The whole team would like to take this opportunity to thank all the personnel at Dhahran, Jubail and Riyadh who sponsored them on the expedition. The visit to the Hospice brought home to us the fact that we are lucky to be alive and able to participate in such activities. To date almost £2000 has been raised and this was enough to purchase a television for each child's room and the remaining money spent on books and audio tapes. Once again, our heartfelt thanks to all who made this trip so successful.

Footnote by Dixie:- We are still collecting for the hospice by way of strategically placed collection boxes and miscellaneous donations. If you are looking for a good cause to support I would recommend Hope House Hospice, they are a bunch of special people who deserve a lot of credit for what they do. I can supply the address if so required.

Hope House Hospice.



A view from the Pyg Track on the way up Snowdon.

At the top of Snowdon.

A 21st CENTURY SHORT STORY

By Lt Cdr Rob Hoole

A Watch Begins

Taking over his watch, Defence Systems Manager (Underwater)(Grade 3) Keanu Smith, EMDF slid into the vacant right hand seat in the Unit management Centre (UMC). Some people still called it the bridge but the new term had been introduced once it had been demonstrated that combining the bridge (which by that time was almost a one-man operation) and the ops room resulted in greater efficiency all round. He plugged his personal Biophysical Preservation Equipment (BPE) umbilical into the receptor under his seat, strapped himself in and lowered his Environmental Visualiser Array (EVA) over his head together with its integrated induction loop communications. He flipped down the view screen and instantly, his eyes were presented with a clear electronically enhanced view of the night-darkened sea around his 'ship', the European Maritime Defence Unit (EMDU) TRITON.

The European Maritime Defence Force (EMDF) possessed 25 such Minewarfare EMDUs and TRITON (Pendant No. 2701) had been the First of Class built at Kiel in 2026 after a long collaborative research and development programme. Kiel and Brest now contained the only two major shipbuilding yards in the whole of the Confederation of European nations (CEN) since the demise of GEC-VT-Vickers in 2012. Most new ships, including the latest 1 million tonne articulated semi-submersible bulk and liquid carriers, were built in Chinese and Korean yards nowadays. Japan still had the cash but lacked a cheap source of raw materials.

TRITON displaced 500 tonnes and was constructed mostly of pre-ionised carbon fibre. This gave her stealth attributes when required. Her ultra-low emission CODAG power system drove water pumps to propel the ship via several vectored water jets distributed across the twin transoms of her surface effect catamaran hull whilst powering the vertical fans keeping her aloft on her semi-rigid skirt. The main power system could also drive the four aerial propulsors of fans which could be erected at each quarter. Operationally, these were used for hovering in position or precise manoeuvring. Currently, they were being used to keep her stationary whilst her two remote-operated submersible drones were deployed on their missions. Between the twin hulls was a pneumatically cushioned module containing the accommodation and control compartments for the crew of 10. The 'smart' cantilevered calliper mountings fitted to transverse beams under the hull on each side of the pod were empty whilst the drones they normally held during transit were away on their mission. Thin high tensile fibre-optic command cables led out through the bottom of retractable faired conduits protruding vertically beneath the vessel, passing data to and from the two vehicles roaming up to 10 nm away. These cables were paid out from self-tensioning winches onboard the mother ship and the drone. This meant in theory that both were free to manoeuvre but in fact, it had been found advisable for the mother shop to remain stationary to reduce the risk of breaking the cable. Since the implementation of more stringent MARPOL regulations governing maritime pollution, each cable contained a thin strand of mini detonating cord or insensitive explosive similar to that found in aircraft cockpit canopies. When necessary, this cord could be terminated then detonated from each end, instantaneously transforming the command cable into millions of atomised particles no more hazardous than grains of sand.

Turning his head, DSM(UW)(3) Smith made a 360 degree sweep of the horizon and was reassured to see no surface or above water objects of any significance with 50 nm. The declaration of an exclusion zone was working, then. Turning forward again, he detected the slight movement of a surface object at Green 30 range 5.3 nm and zoomed in on it only for the combined electro-optical (and optional centimetric radar) enhanced picture to show a large seabird resting on the water bobbing up and down with the swell. He moved the joystick on the side console of his marinised ejector seat and cursored the image of the bird. When he pressed a button on the top of the joystick to acquire the contact, a synthetically produced white rectangle appeared around it. He then pressed the button on his side console labelled 'IDENTIFY.' This interrogated the central database stored on multi-layer Compact Drum ROM for a match and nanoseconds later, a window on the Individual Data Processor (IDP) window (known to everyone as the 'Scratch Pad') of the large flat-screened main monitor in front of him flashed up a colour image of an impressive looking bird above the text 'ARTIC SKUA...MORE?'. He pressed the 'CANCEL' button on his console pad and the window cleared.

SMITH had been interested in marine fauna even before entering the EMDF Academy at Greenwich, resurrected for the training of British EURODEF Maritime Defence personnel with an injection of Euro funds. Of course, there were no officers and rating these days. Today's EURODEF was a complete technocracy and everyone started at the same baseline and graduated through the grade system according to their individual ability and experience. Good technical skills could get you through as a System Manager on completion of initial training to degree standard (Grade 1), to where he now was at the age of 28 as a Grade 3 UW specialist of 4 years standing. He was hoping to take his Grade 4 exams (written and practical operations simulation) later that year.

A short message appeared: 'POSITION RECEIVED & VERIFIED.' This was a regular satellite transmission from HQ EURODEF in Brussels to indicate that they

A 21st CENTURY SHORT STORY

were still happy with his whereabouts from their monitoring systems. It saved him sending out the old-style NAVPIMs. He pressed the 'ACKNO' button followed by the 'CANCEL' button and the message disappeared. It, and his acknowledgement, had been logged onboard automatically.

SMITH's eyes roamed over the Mission Status Display (MSD) window of the main monitor and absorbed the information. Threat states were all white. ESM was lower than normal and showed nothing of significance. Drones 1 and 2 were 53% and 58% through their missions respectively. These involved swath searches of the seabed, and beneath it, using acoustic, magnetic, laser line-scan and video sensors. The drones were also conducting sub bottom profiling and sediment analysis. Their data bases were already loaded with historical environmental and seabed contact information against which to check their findings for anomalies. All their gleanings were being transmitted in real time back to the mother ship in constant stream of digital pulses through their umbilical cables.

SMITH was relieved to see the Systems Status Display (SSD) indicators showing green against all systems for once. Fuel was at 68% and there were ample quantities of other stores to complete the mission. He switched EVA to UW mode and noted the local bathymetric and bathythermal data. The VOS profile, provided by a string of sensors suspended beneath the vessel, showed a layer some 25m above the seabed. This differed only slightly from the data relayed at half hour intervals from the drones and meant reasonable ranges could be achieved within 20 metres of the seabed. The acoustic propagation software also calculated the multi-path coefficients for various ranges and, by analysing the temperature profiles and measuring the particulate matter suspended in the water, worked out the amount of attenuation and scattering to be expected. Using this information, the software continuously optimised and focused the multi-frequency variable bandwidth sonars for the best performance at various ranges of interest. All seemed normal for the area and time of year and conformed with the electronic chart data shown in the Navigation Data section of the MSD.

Smith scrolled through the ranges from 500m to 10nm. For the shorter ranges, his view screen provided an almost photographic aerial view of the seabed via the active VDS suspended far beneath his vessel but when he focused on longer ranges, he could only see the blurred streaks of a few shoals of fish detected in the water volume by the integrated active/passive LF arrays in the bows of the twin hulls.

After a brief exchange of words with the offgoing watchkeeper, DSM(UW)3 Pierre Deschamps, Smith acknowledged responsibility for the watch and pushed his 'smart' Personal Identity Device (PID) into the reader on his console. He stated "I have unit control" for the benefit of the Authority Allocation System which was currently in voice recognition mode. He was now alone in the UMC although, if things got busy, the left hand seat, where all his systems were duplicated, would be occupied by another of the crew. If things got really busy, then the Boss's seat, between and slightly aft of the others, would also be occupied. There was no room for anyone else.

The Action Starts

A double bleep sounded in his left earphone which meant Underwater Intervention Vehicle (UIV) number 2, one of the drones, had detected something which did not comply with the data base it carried onboard. He called up the appropriate remote sensor display on the flat-screen multi-function console and dialled in his EVA for a 3 dimensional image of what the drone was seeing.

Both drones were following a pre-set pattern in a suspected minefield and navigated themselves by using hydrosonic beacons laid by air some days previously. The beacons had anchored themselves before launching fine laser-gyro stabilised rockets which streaked to the surface where they instantly transmitted a brief coded pulse to signal their individual arrivals to the circling aircraft before sinking once more to the seabed. The aircraft had then plotted their positions using its own satellite navigation system and reported the geographical coordinates to TRITON en route to the area. The positions had been injected into the NAV processors of the drones together with the required search pattern and it only awaited a command from TRITON for them to start their hunting once they had been deployed to the search area. If all else failed, e.g. their umbilical links were severed, the drones could navigate themselves with a modicum of accuracy using their inertial navigation systems and combined Doppler/seabed correlation log and return to a pre-programmed position for recovery.

As an alternative weapons system, the ship could control up to four remote minesweeping drones but these were too large to be carried to an area as payloads and had to transit separately. On this occasion urgency and the need for covertness had prevented their use although their capabilities were impressive against most threat mines, particularly where environmental conditions made hunting difficult for the sensors.

In his view screen, SMITH's eyes were immediately drawn to a highlighted contact being relayed from the drone some 6 nm away. The contact itself had been detected by magnetic means about 20 metres beneath

continued overleaf

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the drone which was now hovering above it awaiting his command. Engaging master over-ride, SMITH made the drone descended to 10 metres above the seabed directly over the contact and flicked through the individual sensors in turn. Although Computer Aided Detection and Classification were better than human senses, he preferred the personal touch to keep his skills fresh. He came up with a big fat zero on video seeing nothing but undulating sand and mud with isolated patches of gravel. The Magnetic Anomaly Detector (MAD) showed something small, but with computer enhancement, a fairly sharply defined metallic structure of some sort could be seen. The sub-bottom profiler also showed something anomalous interrupting the normal seabed strata.

Contact

Apprehensively, Smith activated the vertical VHF sonar and saw a smudgy outline with some internal resonance. It was enough for the system to hold so he cursored the object and punched the 'ACQUIRE' button on his side console. A white-coloured synthetic graphic rectangle appeared around the smudgy object. By moving the drone horizontally whilst keeping the thin pencil beams of the parametric sonar ranged on the contact, computer wizardry built up a three-dimensional image of a tubular form some 2 metres in length and the best part of a metre in diameter. It was lying horizontally with its upper surface buried about half a metre beneath the surface of the seabed. He scrolled through the MSD for burial prediction information and discovered that there was a localised patch of soft sand and mud allowing 50% burial in 24 hrs and 95% plus burial in 5 days. The item here looked suspiciously minelike and had probably lain undisturbed for at least a week. As a final check, he laid his cursor on the contact and pressed the 'ACQUIRE' button on his joystick again. The white rectangle turned red. Just one thing remained. He pressed the 'IDENTIFY' button and a graphic image with text flashed across his IPD.

METALLIC CYLINDER SG: 3.6

CONTENTS SG: 1.35

LENGTH: 2.05M

HEIGHT: 0.68M

STRUCTURE COMPLIES WITH 8 KNOWN MINE TYPES MORE...?

He scrolled down through the familiar list of threat ground mines. None were sophisticated enough to cause a threat to his drone. *"Now we're cooking on gas,"* he thought to himself. *"Time to call the Boss."* He punched the button for communications with his unit's Management Team Leader.

"MTL," came the drowsy response from his Boss, DSM(UW)5 Anna Maier, woken by the comms buzzer beside her bunk.

"Boss. Drone 2's holding a probable buried ground mine 6 miles to the northeast. Request permission to neutralise or would you like me to call for the MIE Team?"

"Time's too short," replied the Boss, suddenly alert, *"Carry on and blow but we'll send a TELEDAT off to HQ with the news first. Pack all the sensor data with it. Pass it to me for scrutiny and release. I'll monitor everything from down here,"*

By that, the Boss meant she would watch everything as it happened on the personal display in her quarters. She could even drive the ship from her cabin if she wanted.

Smith scrolled through the TELEDAT formats and selected MINEFIND. He cursored on the 'POPULATE' command and the empty data fields were filled automatically with the appropriate data from his screens. He also called up Drone 2's sensor data for the past 10 minutes and appended it to the TELEDAT. He checked over the finished product then remoted it to the Boss' IDP. Soon, it would be compressed and on its way to EURODEF HQ in a quick burst transmission bounced of a satellite. There had been talk of a continuous link passing all real-time sensor information between EMDF units and EURODEF but the quantity of data and the burden of processing information had been considered too great to handle. It was far better to be selective at grass roots level and only pass the useful stuff. Still, nothing was lost and at the end of the mission, all the information would be downloaded to the central electronic archives for possible use later.

Disposal

The drones were highly capable vehicles. If necessary, they could settle on the seabed on their retractable skids and use their manipulators to perform quite complicated tasks. They were loaded with specific payloads, including their batteries, for each mission. These modular intervention packs, similar to aircraft cargo modules, could be exchanged whilst the drones were suspended in their mountings under the ship. They were top loaded into bays in the midships section of each vehicle. Munitions could include standard blast charge, expendable mini ROVs like torpedoes but with a hovering capability and specialised warhead, and the explosive harpoon. A non-explosive harpoon could also be delivered to fire an eyebolt or compressed air hose connector into a sunken hull for salvage purposes.

A 21st CENTURY SHORT STORY

Reviewing his options for disposal, SMITH settled on using the explosive harpoon, four of which were loaded in each drone and ready for action according to his SSD. Each unit consisted of a bottom ballasted cylindrical pod about 1 metre long and 300 mm in diameter. The pod had wide splaying spring-out tripod legs supporting it in a vertical position once deployed on the seabed where it formed a sort of thick gun barrel pointed downwards. It was pre-loaded with a long thin metal bolt, barbed along its length and tipped with a tapered warhead containing a delayed action charge of insensitive explosive.

SMITH carefully manoeuvred the drone until its centre payload section was two metres directly over the PROBMINE. Although he was actually 12,000 metres away, he felt as if he was sitting on top of the 1000 kg charge of murderous explosive himself. He would have liked to have lowered the drone's skids to settle it on the seabed but he knew the seismic pulse could be registered by the mine's anti-intervention system. Instead, he activated auto hover and the drone maintained its position delicately above the sea floor. He gently deployed the harpoon pod using its telescoping placement rod. The pod slid out of its bay and the tripod legs sprang out before it alighted on the soft floor of the ocean. It maintained its position and SMITH was relieved he would not have to use the explosive bolt anchoring system contained in the tripod assembly. He regained control of the drone and carefully manoeuvred clear of the site without entangling the command cable. When the vehicle was at a safe distance, he buzzed the Boss.

"Boss, I've deployed an explosive harpoon. It's well positioned and holding steady. Bottom's soft. We should get a high order. Drone is clear and we are at 12,000 metres. All ranges clear. Request approval to fire."

"Approved," came the brief reply.

SMITH checked all round clear range once more then commanded the drone to send the firing pulse. He hardly felt the explosion but his systems monitored a Class 1 underwater explosion on the right range and bearing. Having informed the Boss (who knew anyway), he selected the MINEXREP TELEDAT format and auto-filled the necessary fields. As a final remark, he typed 'CONTINUING OPERATIONS' before remoting it to the Boss for release and transmission. *"Only another five hours to go"*, he thought to himself.

THE FUTURE IS OUT THERE.....NOW!

THE MINEWARFARE & CLEARANCE DIVING OFFICERS' ASSOCIATION

By Lt Cdr Rob Hoole

The Minewarfare & Clearance Diving Officers' Association (MCDOA) was founded five years ago. Far from being another club for 'old fogies,' its membership numbers 140 serving officers and 88 retired but extremely energetic officers from the MCD, MW and QDD sub-specialisations. The membership also includes several officers from foreign navies who have undertaken the appropriate RN courses. Associate membership is also offered to exchange officers serving in RN Minewarfare and Diving billets, REDE officers on the staff of the Defence Diving School and other individuals deemed to have made a particular contribution to the benefit of Minewarfare and Diving.

The association's objectives are to promote the interests of the Minewarfare and Diving community and to foster the ésprit de corps of its membership. Whilst there is an active social programme which includes the annual party or ladies night normally held in March/April and the annual dinner held in November, the association also looks after its own by providing a ready response where there is hardship, illness or bereavement. As another example, the association has joined forces with the Association of First Class Divers in the refurbishment and care of the diving helmet font in which many a 'paddler' has been christened over the years. A regular newsletter of activities is published.

The association's president is Richard Moore, recently retired from the Navy as Commodore MFP. Activities are organised by a committee of the following officers elected at the AGM for 1995/96:

Cdr John Arrow	Chairman
Lt Cdr Rob Hoole	Vice Chairman
Lt Cdr Martyn Holloway	Serving Officers' Representative (1)
Lt Cdr Bob Hawkins	Service Officers' Representative (2)
Cdr David Edwards	Retired Officers' Representatives (1)
Cdr Mike Kooner MBE	Retired Officers' Representative (2)
Commander Frank Ward	Honorary Secretary
Lt Cdr Chris Baldwin	Honorary Treasurer

If you are a member and have an item to raise, please contact the appropriate representative. If you are not yet a member but feel you are entitled and wish to join, please contact: The Honorary Treasurer, MCD Officers' Association, Castlewood House, 77-91 New Oxford Street, LONDON WC1A 1DS, or telephone him on 0171 829 8536. The privileges of membership cost only £10 per year, which also entitles retired members to a regular copy of the Minewarfare & Diving Magazine. Association ties costing £5, and other memorabilia are also available from the Hon Secretary or Hon Treasurer.

A MCDO ON FISH

By Lt Sean Millar

It took about two weeks for my fellow course members (Derrick 'Del' Mcknight, Mike 'hair dresser' Howgill and John 'have you seen my car' Goodfellow) to forgive me after I had secretly visited our appointer to secure the only Portsmouth based Hunt three weeks before we were all meeting him together. However, to quote another course member (ex PO(D)) "nothing is fair in love and getting the right draft".

My cunning plan of deceit back fired though when 2 weeks later I found out the ship I was going to was on 'Fish'. No chocolate buttons for guessing which 3 people found this bit of news exceedingly funny. The only reassuring factor coming from this piece of news was that Del, Mike and John had forgiven me and were not going to pull my weight release at 54 meters. Having only served on larger ships previously, my knowledge of fishery protection was limited but Del very generously filled in the missing details with stacks of sea time not even experienced by Columbus and stand offs in places not deemed significant enough to put on ordnance survey maps. During the next 8 months I resigned myself to the fact I was going to HMS COTTESMORE and at least I was not going on fish course so I would not have to actually measure the dead fish.

I have now been on fish for 10 months and have another 6 to go. During that time I have rarely used many of the skills I spent 11 months learning. The most dedicated period of MCM I have done was a 5 day Route Survey with only 30 hours on task as it developed into a catalogue of defects. The DWEO actually earned his keep and spent 47 hours out of the first 48 fixing what felt like the whole WE department. If the DWEO had had any hair left to pull out I am sure he would have. After 3 days of the OOWs using the bow thrust control stick like they were playing space invaders it understandably decided to wrap its hand in and off we went to Portsmouth for some serious defect rectification. I have done several 1 day WT serials but by the time we get set up and everything working it is usually time to go back alongside. I would hardly consider myself to be value for money to the discerning tax payer who, depending upon who you speak to and how many beers he has had at the time, has spent somewhere between £200,000 and £750,000 training me to be a MCDO. I am only 1 of 4 Ops Officers who finds themselves in this position so I am certainly not alone in my frustrations.

So apart from being professionally frustrating what is fishery protection like for a MCDO? Quite simply it is good fun - although in the winter if you suffer from sea sickness you might not agree. In the 10 months I have been on fish I have visited Portimao, Gib, Amsters, Antwerp, Rotterdam, Newcastle(3), Harwich, Dover(2), Weymouth, Jersey(2), Guernsey(2), Swansea(2) and Newhaven. On top of that there has been the regular LSPs and BMPs and the Navy has seen fit to give me leave as well. 'More time off than Rip Van Winkle's bunk light' I hear you cry but there is also the other side of the coin. Boardings through to the early hours of the morning, cramming in as much operational training in between boardings, at sea no matter what the wind and sea state are doing and 3 patrols back to back without getting home to name but a few of the harder aspects of fishery protection. However, there is also a certain amount of operational satisfaction when catching fishermen illegally fishing and seeing them being fined. HMS DULVERTON has achieved £180,000 so far and has 6 months to go on Fishery Protection. (I changed ships from COTT to DUL in October 1995).

Life on Fish is as varied as any other job in the RN and has its fair share of incidents. There is one in particular which I will remember for some time to come which happened early one morning off Guernsey (Dit on - I did learn something on diving course you know). I had been woken at 0750 after the middle watch and found myself onboard a French stern trawler by 0805 (anybody who knows me will find this difficult to believe as normally it takes a small thermo nuclear device to get me out of bed even without having done the middle watch). Not being a qualified boarding officer myself and with the XO on another Frenchman in the process of detaining him, the CO had told me to go over, pretend to do a routine boarding and on his word detain him for fishing illegally inside Guernsey's fishing limits. Armed only with some translation cards, the Bosun and two others I headed off to face 6 hairy Frenchmen. When I got the word from the CO I pointed at the relevant section of the translation card and showed the French skipper to which he burst out laughing and said "non". I spent the next 2½ hours trying to explain to him why he was being detained to which he kept replying "non" - he even had the audacity to give me a dictionary claiming he could not understand me, I can assure you there is nothing wrong with my English! Just as I thought he would not relent another 4 of Dulverton's largest sailors burst on to the bridge ably led by POMEM JOSSYLN who informed me that the Ministry of Agriculture, Fisheries and Food (MAFF) had given us permission to take the fishing vessel using force (I am sure the words "minimum amount" and "if necessary" were in his brief somewhere but I can not remember) - suddenly things were brightening up. To my disappointment when I turned around the skipper had his hands in the air and agreed to come quietly - amazing how his English had improved when gently encouraged. The ship got 4 days in Guernsey and the fishermen an £88,000 fine.

To summarise, being a MCDO on fish is not really very professionally satisfying but the runs ashore are varied and very enjoyable. Also seeing various fishermen fined for illegally fishing in our waters is very satisfying.

Where are they now?

16 years on from the infamous AUWE(MSTT), Warrant Officer (Minewarfare) Pawl STOCKLEY hands over the duties of MW4 to his successor Warrant Officer (Minewarfare) Dave SMITH, at the MW School, SMOPS, HMS DRYAD.

Readers Response Page

Your Name .....

Your Rank/Rate .....

Your Job Title .....

Your Unit .....

Your Address .....

.....

.....

Your Tel No .....

Your FAX No .....

The Editor
"Minewarfare and Diving" Magazine
Defence Diving School
Horsea Island
Cosham
PO6 4TT
Tel: 01705 224049

Dear Editor,

1. I have read this edition from cover to cover and I think:

   (a) It's terrific—keep up the good work ❑

   (b) It's OK—but you need more ❑

   (c) It's no good—because ❑

2. Please find attached my contribution towards the continued success of "Minewarfare And Diving" Magazine. It is:

   (a) a written article/Letter To The Editor, typed, double spaced and word-counted. ❑

   (b) a photograph ❑ /slide ❑ /diagram ❑ No. of items: ▭

   of.....

   (c) less than RESTRICTED in classification ❑

3. I realise that the Magazine publication dates are 1 Jan/1 Jul of each year, and that by sending my article in today it will arrive at least six weeks before the next edition is due.

4. I would/would not like my material/contribution returned on completion of printing.

5. I understand that inclusion of my contribution, in whole or in part, is at the discretion of the Editorial Committee.

Yours.....

Signed.....

Challenge And Reply

Dear Pat, (Cdr Pat Gale)

I think you will agree that the mine displayed in Minewarfare and Diving, Big Mine Challenge XI, November 1995 edition, just received, is the one documented in the enclosure. Some of the "Old Guard" may have already identified it.

I understand the protrusions around the front of the mine were there to give it some form of anchorage and to prevent it rolling around on the sea bed away from its intended position.

When I commanded the Mediterranean Fleet Clearance Diving Team, 1955-1958 at Malta, we disposed of some 200 Bombs, Mines and sundry bits of unexploded ordnance a year around Malta and along the North Africa coast. Two notable operations were the disposal of a German "Hermann" 2120lb bomb found during an excavation outside the Cathedral in Valletta. It was really a job for our rival, a Royal Engineers Captain, but he was on leave at the time and we were covering for him. He was not amused when he heard that the Royal Navy had disposed of one of the biggest bombs dropped on Malta during WW2.

The other operation of possible interest was the disposal of a successor to the magnetic mine in question, a C-Type magnetic acoustic, containing 1,536lbs of explosive, that was lodged against the Shell jetty in 18ft of water in Benghazi harbour. Countermining was out of the question because of the close proximity of huge petrol storage tanks. So we had to render it safe underwater. Everything came apart, after two and a half hours work, as it said it would in the book. Phew!! It was probably the last time such a mine has been rendered safe underwater. I'm not aware of any since.

I have black and white photographs of both operations - somewhere - we still have boxes to unpack after our move from New Zealand.

Drop me a line if you think an article covering the two incidents would be worthy of your excellent magazine. I'd be happy to submit it. Great to see "The Mermaid Factor" in print again. Thank you. And so it goes on. Do I detect a hint of professional disapproval from the INM?

The new Defence Diving School looks most impressive. Congratulations on being selected to command. A far cry from when Bill Filer, Peter Messervy, Alan Sagar and I qualified CDO in 1953. Then we just had a tin hut and a galley where the fire was put out at High Water Springs. Sea boots for the cook - time and tides wait for no diver.

Greetings from sunny Florida where the temperature around our pool is in the high 70s. Come see us anytime!

Yours aye

Commander Philip Balink-White MBE

MCDO ASSOCIATION TIES

Minewarfare and Clearance Diving Officers' Association ties have been manufactured and are now ready for purchase. They are to a design agreed by the committee and are good value for money. The cost has yet to be determined but will be in the region of £5.00. These most desirable items of personal attire can be purchased from OIC, FDU1, HQFDG, West Bond Road, Horsea Island, Cosham, PO6 4TT.

BIG BADGE CHALLENGE X

Dear Lt Cdr Lee,

I write with regard to the note on the 'Big Badge Challenge X' at the end of Volume 6 Number 2 in November 1995.

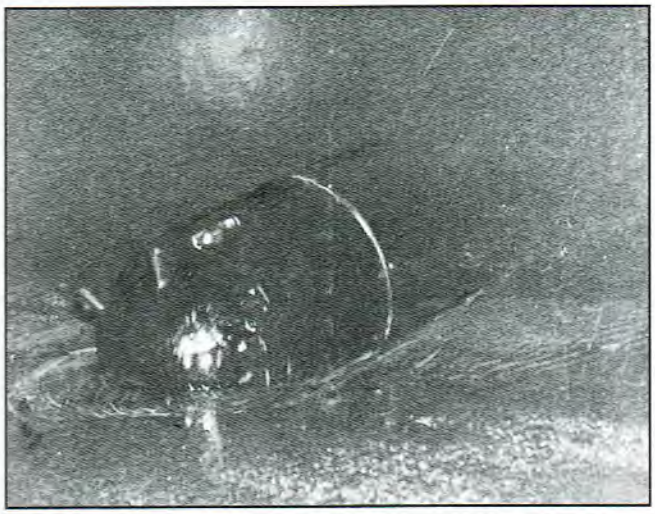
The enclosed photos were staged when SNFC visited the Glasgow garden festival on the orders of CINCHAN. They show my brother and I, partners in a kilt-making business, sporting a tartan designed for the festival. I am obviously the one with 2 1/2 stripes, my brother the other and clearly the man in your photo. As he is not a MCD perhaps that is why you have had no replies!

By the way, I would be very grateful for the name of the supplier of the 'potentially libellous photo' in order that I may speak with him/her...!! You may consider it in your best interest to release this information as it will prevent a photo of your good self....(There then followed a feeble attempt at blackmail which is now in the hands of my solicitor! - Ed)

Cdr D H L MacDonald, Royal Navy

(Then MCM2)

BIG BADGE CHALLENGE XI

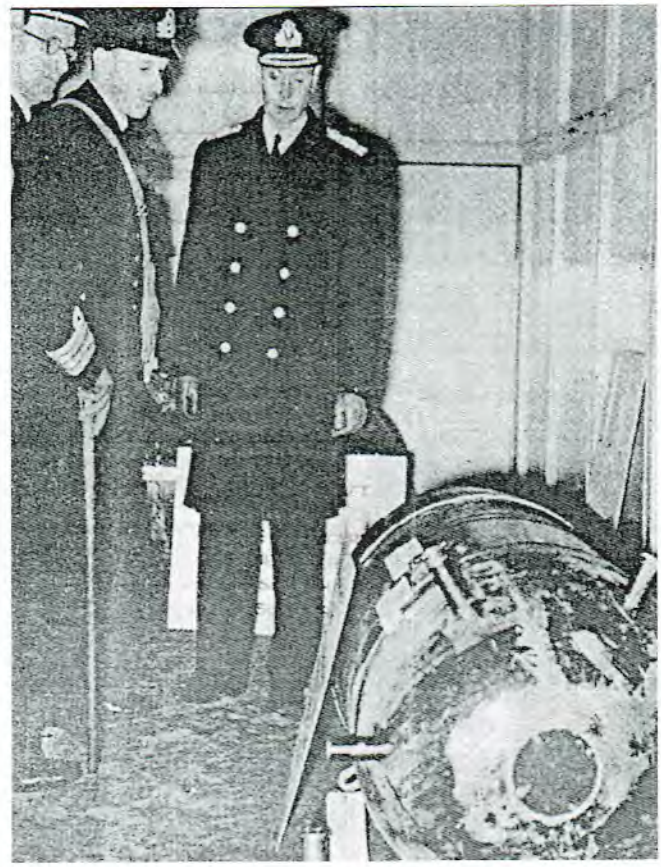


Dear Cdr. Lee,

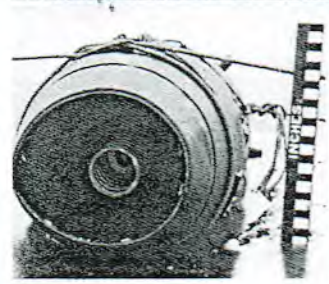
With reference to the Big Mine Challenge XI in the November 95 Magazine, I believe this could be an original photograph of the first Magnetic Mine rendered safe by Commander J.G.D. Ouvry, DSO. in November 1939 at Shoeburyness.

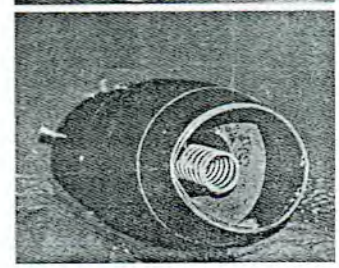
Herewith some more pictures of what I think may be the same mine. If I am correct in this then in the early forties in HMS Vernon, I, as a young Leading Seaman Diver, and my team actually re-painted it black for the visit of a V.I.P. to whom it was to be displayed.

Yours sincerely,
Norman Smith
Lieutenant Commander



George VI inspects the first German magnetic mine to be recovered in the Second World War, which Ouvry (centre) has disarmed, 1939.





Equally terrible from all angles - Four views of the first German magnetic mine to be recovered and made safe–one of the most hazardous and vital operations of the whole war. Photos H.M.S. "Vernon".

OXYGEN THERAPY

(This item comes from "Disability Now" the monthly newspaper for people with disabilities published by SCOPE. Previously available on subscription only, "Disability Now" has been on sale in most large newsagents since January 1996, price £1.40.)

"A high-pressure oxygen treatment used by deep sea divers with the bends is helping people with cerebral palsy (cp), brain damage or spinal injuries.

"Hyperbaric oxygenation therapy (HBT) has already helped people who have had stokes. Now Dr Philip James of the University of Dundee has carried out a pilot study on children with cp.

" 'If the brain is injured, some of the damaged tissue is not dead, it is sleeping', he said. In effect, he wakes it up again. Up to 40 sessions of HBT are needed to repair damaged tissue and blood vessels. The treatment works best when combined with exercises, he said.

" 'This is a historic breakthrough', said Linda Scotson, of the Hyperbaric Oxygen Trust (HOT). Her son has cp and benefited from the treatment.

If you would like more information, please send a SAE to:
Linda Scotson, HOT, Ryton House, Primrose Lane, Forest Row, RH18 5LT.

BIG SHIP CHALLENGE

This is one for all you ship spotters.
What is the ship and where did it operate?

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