

MINESWARFARE & DIVING

2001 edition



Editorial

Welcome to the 2001 edition of the MAD Magazine. If you are wondering whether you missed the 2000 edition, you didn't. Given the vagaries of printing contracts and distribution through Llangennech, this issue will not be circulated until the New Year, so cosmetic renumbering seemed to make sense.

Thank you to all those who have contributed articles, there are certainly not as many as I would have hoped, in particular from the ships, however I do appreciate that this magazine is not one of those items at the top of your in-trays! We do need your input to ensure its continued success.

My thanks to Cdre J F Rodley for writing the Foreword and the publishing and printing support from Bob Smith and Henry Sabini in the Graphics Section.

Please note in your diaries that the closing date for the next edition will be July 2001.

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Cover picture: MCM Task Group Gulf Deployment Ships (see page 31)

FOREWORD

*By Commodore J F RODLEY RN
(Commodore, School of Maritime Operations)*

I am delighted to write this Foreword to the Minewarfare and Diving Magazine. I am particularly pleased to see so many varied articles from the Minewarfare and Diving community. Among others, I am sure you will enjoy MCM2's article on the many successes of integrating MCM forces into the UK's Joint Rapid Reaction Force during the Gulf Deployment 2000. In many respects, it typifies the wider utility of MCM and is one of many areas in which exciting progress is being made.

Here in SMOPS, it has been a particularly busy year for the MW staff, who in addition to their instructional duties have also successfully implemented Stream Training which commenced last September. We are also investigating the provision of more MW classroom facilities within DRYAD, which will enable us to dispense with the unsatisfactory Portakabin facilities. Most importantly we all constantly learn from the front-line, and your feedback is imperative to ensure that we in SMOPS continue to improve course content, such that MW specialists receive the appropriate training and that MW modules are provided for other warfare disciplines right through to Command Team Training.

This is equally true in the field of International and Income Generation courses that we are regularly asked to provide. In the past year alone, Coniston Building has hosted Royal Saudi Naval Force sonar operators, minehunting directors, minewarfare officers and staff minewarfare officers. Additionally, following the sale of HMS BICESTER and BERKELEY to the Hellenic Navy, Greek students have been fully and successfully integrated into RN career courses. This led to the record number of 65 students involved in Sea Training last Summer, onboard HMS CATTISTOCK and MIDDLETON, in the Portsmouth Areas, and PENZANCE in the Clyde. I am very grateful to all involved with that.

Finally, I hope you enjoy reading the magazine. For my part, I am determined that the links between SMOPS and the front line remain as strong and effective as ever.



CDRE MFP WARFARE SHOP

CDR W – Cdr Simon Neil

A great deal has happened since my 'state of the nation' report in last year's magazine issue, and (unbelievable as it seems) my Warfare Team have been working *even harder* to support the ever increasing activity at the front line. The period began on a very sad note with the death of Lieutenant Commander Jim Acton. Our (then) latest arrival, Lieutenant Commander Paul Jones (SWO1), was dispatched immediately to support MCM1 during Exercise NORTHERN LIGHTS 99 and, although under sad circumstances, allowed the Warfare Team to successfully apply some UP TEMPO MCM techniques in support of amphibious operations. This provision of HQ staff to support major exercises was to be repeated and prove highly successful (more later). The last 12 months have witnessed a great deal of exciting front line activity, but I will begin by highlighting some of the essential 'backroom' work that has taken place which deserves a mention.

DIRECTORATE OF OPERATIONAL CAPABILITY AUDIT (EOD)

This was conducted during the early part of this year and was similar in scope and composition to the DOC Audit of our MCM force last June. On this occasion, the audit team, who report directly to the Secretary of State for Defence, examined the Tri-service EOD organisation. S of D (Commander David Hilton) and his team did an enormous amount of work and I do not intend to steal any of his thunder – needless to say the Royal Navy's EOD / IED organisation acquitted themselves extremely well and the unique capabilities that only the Navy possess, particularly from the high water mark to the 200 metre continental shelf, were held in high regard.

MILITARY CAPABILITY REPORT (MILCAP 00)

All three services have capability shortfalls, whether it is an obsolete air to air missile system, a rifle that under-performs in adverse conditions or an outdated AIO system. Although I would be delighted to report that everything in the MCM garden is rosy, this is not the case and capability gaps have to be continually targeted. Despite the excellent performance of our front line ships and diving units, many items of equipment need improving or replacing to meet the capability requirements of today and, of course, the future. We have to compete extremely hard against other warfare streams and indeed other services to snatch a piece of the defence budget to procure new equipment. A great deal of time and effort is spent by my Warfare Staff in developing robust arguments and producing detailed reports to submit to CinC FLEET against the backdrop of stiff competition and equally compelling arguments. Size for size, we do pretty well and many new projects and procurement schemes continue to be approved. I would love to say that this is all my own work, but a lot of unsung heroes are also working behind the scenes and include diving and minewarfare specialists who work in MOD London, Abbeywood, DERA, MWC Portsdown and so forth to ensure that MCM capability gaps are closed. Needless to say, feedback from the front line is essential to the procurement and development cause and helps me and my Warfare Team to target any shortfalls. There is a long list of MILCAP constraints that are undergoing staffing and are in various stages of the (often lengthy) procurement process – some of the ones at the top of the list include:

a. Sonar 2193 – the introduction of wide band sonar technology will dramatically improve UK capability, particularly with the detection of low target strength mines at range. I anticipate the first HUNTS to be fitted with this new sonar in 2003 (and possibly an AIO replacement for GAAIS).

b. Deltic Engine replacement – as HMS ATHERSTONE will testify during her recent Gulf deployment, Deltic engine changes are all too common and have threat-

ened to impact operations at sea. Trials are underway (literally) to target a replacement engine to improve reliability.

c. Very Shallow Water capability – although the long term (10-15 year) aspiration is to develop Unmanned Underwater Vehicles (UUVs), divers remain the only viable means of locating and disposing of ordnance and obstructions in the difficult VSW environment for the foreseeable future. Improved swimming sets, hand held sonars and underwater navigation systems are likely to improve capability within the next two years, although developments of low visibility insertion craft and secure communications will be needed to consolidate this improvement.

d. Command Support Systems – Ships, diving units and Squadron Staff continue to work hard at the front line during many important exercises and live operations, but the weak link has always been the transfer of information due to lack of real time, secure, long range, compatible data exchange systems. This is a fleet wide problem and a lot of work is currently underway to improve matters. MCM related bids include receive only link systems to provide the RAP/RSP to MMs and upgrading MCMTA communication modules to provide real time information transfer at the front line.

There are many other equipment improvements that are either about to enter service, are in the pipeline or on the drawing board. My desk officer updates will mention some of the developments and units at sea will be called upon to support trials. Watch this space. Now some news on the front line activity....

PROJECTING MCM WORLD WIDE

One of the more immediate actions resulting from the MCM Symposium last year was the endorsement from CinCFleet that MCM activity needs to be targeted regularly in likely 'hot spot' areas supporting COMUKTG/COMATG deployments. As a result, MCM2 and 3 MMs were directed to deploy to the Gulf earlier this year and there will now be a cycle of annual deployments, alternating between the Eastern Mediterranean and the Middle East. At this time, MCM3 plus 4 MMs are deployed in the Med and next year MCM2 will be leading a group to support a major amphibious exercise in Oman. The UK provides ships for MCMFORNORTH / MCMFORMED NATO groups and Fleet Diving Units continue to operate as far afield as the Eastern Med, Middle East and Malaysia. Not only does this have obvious benefits on operational capability, it means that UK MCM excellence is exposed to our allies abroad and continues to enhance our enviable reputation. Last, but not least, our ship's companies now have regular opportunities to visit some unusual places (just ask the lads and lasses who completed the last Gulf deployment!)

If further proof was required to confirm our recent world wide activity, two new medals announced this year will be worn by a number of MW and Diving rates who were lucky enough to be part of the Gulf '98 deployment ('Air Ops Iraq' General Service Medal) and Operation Allied Harvest last summer ('Kosovo' NATO Medal)

'UP TEMPO' MCM

Although this was mentioned in last year's issue, we have been able to put a lot of the theory into practice during some vital exercises over the last 12 months. As a quick reminder, we are trying to achieve the MCM mission quicker and more efficiently. Until new equipment is procured, this increase in tempo can only be achieved by developing new tactics and improving current procedures. Simple solutions, such as strictly controlling expansion of cleared routes through more detailed tasking, reducing the size of boxes within a mined area and better use of airborne MCM assets have been used to great effect during multi-national exercises off France and in the Middle East. More importantly, the UP TEMPO concept has been adopted by our French, Dutch, Belgian and American allies during these exercises and the UK will be taking the lead in proposing amendments to define the use of these simple measures.



Paul Jones and Tony Mulran supporting the US MCMTA in Bahrain earlier this year (as well as the UK camouflage fashion industry!)

EXERCISE ARABIAN GAUNTLET

One of the most important MCM-related exercises this year was a US sponsored coalition exercise in Bahrain. 25 warships representing 7 nations took part, with assets ranging from US CVNs and TICONDEROGA class to Saudi mine-sweepers and Bahraini diving dets. I see the Gulf as our number one priority training ground for live ops and we took every opportunity to support the Americans in progressing this important exercise. The UK contribution was significant – MCM2 Staff (embarked in HMS BEAGLE) plus HM Ships ATHERSTONE / BRIDPORT and INVERNESS. FDU3 provided the US CTG with an 80 metre diving capability (embarked in RFA SIR GERAINT). HMS MONMOUTH supported the US defending forces. CDRE MFP staff were fully inte-

grated into the US MCMTA and even I tracked down my No 4's and went to sea to directly support the US MCM Commander. In addition, the UK provided a mobile magnetic range with real time TMSS data and versatile exercise mines. The exercise was a huge success and many objectives were achieved. UP TEMPO techniques were adopted by the American and ABNL participants and used very effectively. US airborne MCM made a significant contribution to early MCM reconnaissance and the US-led defending forces did their best to prevent sneak attacks against the MCM units. As you would expect, the UK forces performed extremely well and the overall integration of the multi-national force was excellent. With many lessons learned, we intend to continue supporting this US exercise on an annual basis with diving units and warfare staff, and on a two yearly basis with deployed squadron staff and ships.

OTHER ISSUES

TACTICAL AND SOP DEVELOPMENT

Whilst we have been busy issuing new MOTI's and MOM's we accept that it is rare to be able to get a 100% fix first time and that is the reason why we ask for feedback from specific units. This does not preclude anyone forwarding a bright idea but before you start nugatory work, contact us. The combined imagination, intelligence and experience out in the Flotilla will undoubtedly enhance our efforts.

EVALUATIONS

Whilst the MMs enjoy the training and evaluation by FOST(MPV), the MCM Commanders and their staff do not escape an outsider looking in at how business is done. MCM1 was 'validated' successfully during Exercise MAUVE MARAUDER (1* Battle Manager CPEX) earlier this year, and MCM3 is likely to be validated during their current Mediterranean deployment. In case MCM2 feel left out, JMC 012 is earmarked for them.

There are many other issues that are worthy of appearing in this magazine issue, but space precludes this. Needless to say, my Warfare Team are there to support YOU and provide valuable 'one stop' waterfront assistance. Please continue to ask the questions – we will do our level best to provide the right answers...

STAFF WARFARE OFFICER MW AND CLEARANCE DIVING 2 (SWO(MCD2)) - LT CDR JOHN LAW

SWO(MCD2) provides the focus in CDRE MFP for MW Tactical Development, Operational Requirements and Future Projects. I am also the first POC for NATO matters and the UK co-ordinator for the NATO MW Working Group and the NATO MW Conference.

Tel: 26313

CHOTS: CMFP-WAR-SWO(MCD2)

(REMOTE)INFLUENCE MINE SWEEPING (R)IMS

This is the planned replacement for CIS with an In Service Date (ISD) of 2007. The brackets around the "Remote" reflect the fact that, at this early stage in the programme, organic and clip on options are also being assessed. The programme is currently in the Concept Assessment Phase which is being carried out by DERA with a deliverable date of Dec 00.

SONAR 2193

This is the planned hull mounted replacement for 193M with an ISD of 2003. Eight sets will be fitted to MMs with the last ship being fitted in 2005. Bids from the 2 tenders, Thomson Marconi and Lockheed Martin, are currently under assessment. There is a strong push to replace the ageing CAAIS command system at the same time as the new sonar is fitted as a 'spend to save' measure if the necessary funding can be found.

"UP TEMPO MCM" TASKING PACKAGE

"Up Tempo MCM" is the latest buzz phrase to describe the overarching aim of increasing the speed of MCM operations across the board but particularly in support of amphibious operations and the JRRF. MWC are in the process of collating and staffing a number of reports produced by DERA which are aimed at improving our speed of operations which include:

- Amphibious Area Dimensions
- Combined Influence Sweep Study
- MCM Environmental Study
- Surf Bridge Study - Concept for Bridging the Surf Zone
- MCM Guinea Pig Study
- MM Datalinks

In addition, SACLANTCEN (NATO's underwater research centre in Italy) have been tasked by the UK to conduct a study into a set of MCM systems and a CONOPS for these systems which will increase our speed of operations.

MINE JAMMING

Mine jamming is defined as any action that permanently or temporarily disables a mine and allows a target to pass over it safely. This concept was first trialled, successfully, in La Spezia, Italy, in Oct 98. A second trial is being planned for 2002 in the US during MCMFORNORTH's US deployment. The UK played a pivotal role in the first trial and we remain heavily committed to this novel use of existing technology and equipment through research support from DERA and the provision of assets from CDRE MFP.

NATO/MULTI-NATIONAL UPDATES

MCMFORMED has been up and running since May last year with the UK contributing on an opportunity basis. HMS BRIDPORT will join MCMFORMED in Jan 01. HMS PEMBROKE is our current unit in MCMFORNORTH. UK MMs continue to take part in a wide range of NATO, PFP, and Bilateral exercises and operations (NORTHERN LIGHT 99, OPLAT, LINKED SEAS, ALCUDRA, BLUE GAME, ARABIAN GAUNTLET, ALLIED HARVEST, ANGLER, etc.), a clear indication of our commitment in the international arena. The extent and quality of our participation gives us the necessary "street cred" to ensure that the UK's position on NATO MW issues is well received by our allies in important policy making forums such as the NATO MW Working Group and the NATO MW Conference.

The Fleet Diving Group continue to strengthen their ties with the GPD(A), their French counterparts in Brest, through common training periods. The most recent of these was during JMC 002 in which FDU2 and GPD(A) worked side by side on the MIE aspects of the exercise. Six-monthly meetings are held between CDRE MFP and ALFAN MINES (ALMINES new name) under the umbrella of a FR/UK Letter of Intent to foster a closer working relationship and identify potential bilateral training opportunities. FS PEGASE took part in a Thursday War, the first French MM to do so, in Jul 00. Hopefully she didn't find the experience too painful and will recommend further French participation in the future.

DEPUTY STAFF WARFARE OFFICER (DSWO(MCD1))

Lt Pete Dearling

By the time this edition of the MAD MAG hits the streets, I will have handed over to Lt Russ Perry and moved 4 desks to my right and taken up the position of SANO. However, an update on what I have been staffing over the past year is:

SIGNATURE REDUCTION

SFTM 35/2000 gives details of signature ranging booking facilities and should be read in conjunction with BR 2000(63) (Signature Reduction and Control) and DCI(RN) 38/2000 (Signature Ranging Policy for Surface Ships and Submarines). SFTM 76/99 gives details for the use of DG systems.

Radar Cross Section (RCS) - trying to get a Sandown ranged and possibly re-range a Hunt (looking particularly at missile head low level grazing angles).

SEAMANSHIP

FOSF Seamanship staff remain available to conduct visits alongside or at sea and should initially be contacted by phone on PNB ext 26579, confirming the visit dates by signal using SIC LAB.

Units are to include Cdre MFP as an info addressee on all signals involving MM/PP seamanship incidents/any matters of ship or personnel safety.

Procurement of new impact pneumatic fenders has commenced and the existing fenders will be totally replaced over the next 2 years. A priority list for MMs has been forwarded to ME221. Additionally, due to recent incidents highlighting the unsuitability of the Sandown Class and Coastal Survey Vessels to berth alongside one another, we recently requested that HM ships BULLDOG and BEAGLE be given a high priority in the issue of the replacement pneumatic fenders.

MOTIs/MOMs

There still remains a lack of suggested changes/amendments to extant MOTIs and MOMs. Please feel free to forward suggestions and help us to foresee problems / solutions, rather than having always to react to short notice 'fast balls'

RECOVERABLE MINEWARFARE TARGETS

As a result of savings in the ROV/MIE budgets, 30 replica Manta Targets have been produced and the production of Recoverable Manta targets will commence with a view to becoming available end of this year. Replica Manta targets are primarily for the mining team, but some can be issued to OCF deployed ships to provide an alternative lower target strength to the Mk14 dummy mine.

COMBINED INFLUENCE SWEEP (CIS)

A Working Group has been formed to investigate maximising CIS effectiveness by evaluating present capabilities and producing improved tasking and tactics. The fitting of the Mk3 TAG (with a much improved endurance) is now almost complete.

WARFARE DEPARTMENT STANDING ORDERS

Have now replaced Ops Standing Orders.

MDC MISFIRES

UWS conducted Trial on QUORN 6-10 Mar 00 to evaluate the problems with MDCs (included fuse burial/masking, sympathetic detonation of MDC, mains/battery powered FTU). Report indicated that Ex MDC (using Mains FTU) always fired first time and a range of 3,000 yds was achieved, however, it is believed that greater ranges could be achieved (trial stopped due to time constraints). UWS are to conduct a live firing trial of 2 MDCs in Sep 00.

SHIP's GENERAL ORDERS

SGOs have now been distributed. Squadron staff are currently producing Annexes where required.

OPS ROOM STATE BOARDS

Common silk printed Ops Room Stateboards for both the Sandown and Hunt Class were distributed April this year.

RCMDS MK 2 FIBRE OPTIC BOBBINS

Investigations continue regarding the recent failures with Fibre Optic Bobbins. (S2022A detailing the correct handling of the connectors has been issued by UWS).

MCD CONFERENCE

Last Conference was 29/30 Jun 00 (usually held every 2 years) and the comprehensive agenda gave us food for thought and will enable us to focus our thoughts for the future.

MIBS

As a result of the problems with the MIBs, a similar craft (but with aluminium Deck boards) has been identified and is being investigated as a replacement.

STAFF ANALYSIS OFFICER (SANO)

Lt Neil Holden

Weapon Practice Assessment (WPA) is an assessment of the overall capability of a unit's ability to conduct minehunting. It does not concentrate specifically on drills or operating procedures, but in the whole ship's proficiency. A minefield is precisely designed and laid, and the accuracy of the positions gauged against those of the ship, this along with cross track detection, SOA, Probability of Detection and Classification among other factors are used to determine the Figure of Merit.

Over the past twelve months WPA has been scheduled for 9 ships. Unfortunately due to OPDEF, ship re-tasking and exercise cancellation it has only been possible to conduct 5 WPAs.

This situation is improving and it is now standard routine that WPA is an integral part of JMC, with two new minefield areas recently established just off Stornaway. The Campbeltown area is still used when multi-ship OP PIKE or other exercises are programmed in the Clyde. Over the last few years, NATO ships have also utilised the option of WPA during Exercise ANGLER, providing an interesting insight into allied capabilities in comparison to our own - more often than not the capabilities are equally matched!

The policy of providing a 'Total Training Package', and catching ships on completion of BOST, COST and OCF pre-deployment training has gained support from all the Squadron and JMOTS staff. Not only does this provide an excellent vehicle for ship's teams to test themselves and their equipment (thus enhancing OC), the WPA provides Squadron Commanders and HQ Staff with a 'snapshot' of that particular ship's MCM capability. This allows CO's and staff to target any remedial training if required.

This WPA capability is not just restricted to UK waters. A training / assessment minefield can be established anywhere in the world. Plans are in place to deploy WPA to the Gulf region at the next opportunity.

Lt Peter Dearling assumes the post of SANO on 2 October, having spent 2 ½ years as DSWO(MCD1) in the Warfare Office. He is an SD(Minewarfare), so is an ideal candidate for this post, and will continue to be able to help and advise ship's staff in all aspects of MW.

STAFF MINING OFFICER

WO(MW) Simon Mansell

ROYAL NAVY MINELAYING

We've come a long way since the Butter Churn and Singer Mines. These were simple hand laid devices used prior to and during the American civil war. Operated by a simple flintlock mechanism, attached to an arm or plunger protruding from the top of the mine, they carried a charge of 10 - 20lbs of gunpowder and were simple and effective.

During the course of the 2 World Wars huge advances were made in mines, increased MDRs, magnetic, acoustic and galvanic action, along with pressure and contact mines all sought to destroy shipping in a more efficient way.

World War II saw over 263,000 British mines laid of which 77,000 were offensive. The kill rate was, on average, 48 mines per ship and with a buoyant mine costing in the region of £115 each they were cheap, and as effective as their simple predecessors. Mines were used in Korea with impressive results, not laid by the Americans as you might imagine but the Koreans. Vietnam saw some of the lessons learnt in Korea put into practice, though the threat was still underestimated, the Falklands, the Red Sea and the pre-war Gulf all saw mines that would have been familiar to sailors from the First World War causing havoc in the World's shipping lanes.

The Gulf war brought it home to any Navy that had assumed that mines were out of date or they no longer had a part in modern warfare. The USS Tripoli and Princetown were both severely damaged by mines and the MCM effort continued for many months after the war in an attempt to clear the ordnance from the sea around Kuwait. The damage caused and the cost of the MCM effort helped show the mine was still a viable and dangerous weapon.

For Royal Navy Minelaying the decision had already been made to scrap HMS ABDIEL and for the exercises where mines were planned the minelays would be conducted by TRV. The Royal Navy Minelaying Team was set up and on the closure of Rosyth, moved to offices with RNAD (now DM) Crombie.

The workload of the Team has steadily grown in line with the requirement for exercise mines. Over the past year the Team has visited Bahrain, France, Lisbon and Madeira along with the more exotic favourites such as Campbeltown and Ullapool. Over 250 mines have been laid by the TRV and with the trip to Lisbon and Madeira it was proven the Royal Navy still had the ability to deploy exercise mines away from the UK's shores.

Some of the mines used today are ex-WW II stock. All the Mk17 shells were manufactured circa 1943, even the clocks used are the same! Some 200 of these still exist and should last 2 to 3 more years yet. The AMk12 is the other large metal target, nearly 100 of these remain though stocks are dwindling due to failure of lifting eyes at test and other cracks appearing in the body of the mine.

VEM1s are now obsolete and the VEM2 came into service in January 2000. It is high tech and a huge step in the right direction for future exercise mines. Capable of supporting several emulations during multiple armed periods it is an excellent training tool. The information downloaded from the VEM2 can tell the analysis section exactly how the ship performed during its pass over the target or PAP run and whether it survived to fight another day. The use of the VEM2 will increase; the first Hunt to lay and recover one was the ATHERSTONE during Exercise Arabian Gauntlet, with the QUORN recovering several units at the end of Exercise Linked Seas. This kind of usage will increase with the Mining Team searching when required to give advice on the targets operation and recovery.

Mantas (caged and GRP) remain another option for exercise minefields, although some of the caged have not provided a true low target strength contact. However, the fault in these has been corrected and 30 plus caged mantas with the correct sonar signature are now on the shelf. The autumn of 2000 will see the delivery of the first of the recoverable mantas. The intention is to increase stocks of these and other, modern targets. The large metal targets have to be utilised while stocks exist but every effort will be made to ensure the greatest variety possible of replacement targets in the future.

The future will no doubt see an increase in the incorporation of stealth technology into the production of mines. Countries that have in the past laid metal targets that have been quickly found will learn their lessons as we have ours. They will not make the life of the Hunter or Sweeper as easy next time around and the more realistic and modern our training targets can be, the better trained our forces will be to cope.

STAFF WARFARE OFFICER (NAVIGATION)

Lt Cdr John Saunders

I have been in the appointment for 2 years now and have thoroughly enjoyed coming back to the small ship world after my stint as Navigating Officer of HMS MAXTON some 20 years ago, (it really doesn't seem that long). To assist with the busy seariding commitments, I am supported by SWO(N)2, Lt Andy Lamb, though some of you may have seen him in a green jacket recently after a short loan spell to FOST (MPV). He is due to be relieved by Lt Rene Balletta in November this year.

Although part of the Warfare Shop, the Navigation Desk has little direct involvement in MCM matters as SWO(PN) takes care of all aspects of MCM Navigation. The majority of our visits, therefore, are based around pure navigation and general training, particularly for those ships undertaking the SARC process and preparing for OST. Our reach is slightly more extensive than the rest of the Warfare Shop sea-riders because as well as the 3 MCM Squadrons we have a remit to cover the Fishery Protection Squadron, First Patrol Boat Squadron and the Coastal Survey Vessels. I have even had cause to visit the Fleet Diving Tender IXWORTH and experienced at first hand the delights of a Divers run ashore in Oban, as CPO Amery will attest to!

On the staffing side, the main thrust of my efforts is the dreaded S232 incidents, (Report of Collision or Grounding). On average there are about 1-2 per month though fortunately the majority of these are very minor, usually berthing incidents resulting from the effects of the wind. One thing I have learned is that although GRP ships do bounce off jetties etc. fairly serious damage can result from a seemingly innocuous bump, including fractures and delamination of the fibreglass, which is often hidden from immediate view. It is therefore very important to report such incidents and ensure that a proper survey is carried out at the earliest opportunity.

One current issue, which is hopefully coming to fruition very soon, is the lifting of the ban on Sandown Class Replenishment operations. Several trials have taken place over the last 3 years, which coupled with BAe's dynamic modelling results have identified a way forward in this important area. The resumption of the RAS(L) capability will restore the Sandown Class' ability to remain at sea for longer periods, with tanker support, which is a welcome boost. The priority now will be to build the experience level back up in these ships.

On a final note, MM/PP navigators are encouraged to visit my desk (or telephone) to ask for advice or assistance. Your ships do tend to go into places that would cause an FF/DD navigator's hair to turn white - use the top cover available if in any doubt.

SWO(N) - PNB 26681 (023 9272 6681), SWO(N)2 - PNB 26310 (023 9272 6310).

NEWS FROM THE COMMUNICATIONS DESK

Lt Geoff Elsom

I am now in my second year in the post of SWO(C) and am now ably assisted by RS (Russ) ASHMORE as ASWO(C). Responsible for all aspects of MWV communications, my primary concern is to ensure that all MM/PP units are fitted with the necessary communications enhancements to enable them to be interoperable with different elements of the task group. As a pre-cursor to Fleet-First (the programme aimed at rationalising CinCFleet and FOSF staffs), I now have a second staff title (SO3 N6/N7 (CIS) (MFP)) and desk within the newly established FOSF Communication Information Systems (CIS) cell in the Jago Road HQ. As a result, Russ ASHMORE is now solely responsible for the day-to-day management of the MCM Commanders Communications Manpower Pool and OXP, and is also involved heavily in the HF communication modernisation programme and the introduction of NAVYLINK into ships and units.

HF MODERNIZATION

HMS BROCKLESBY is the first MM to receive the equipment being introduced to meet the 1st phase of the HF modernization programme (Outfit SEZ). The MCO has been fitted with 3 new modems and an Intelligent Message Terminal (IMT), and has undergone a full DC conversion, which enables the ship to receive and transmit messages at 300 bauds minimum as opposed to the existing 75 bauds. As a result, B11B will be increased to 600 bauds on 14 Aug and a new high-speed multiplexed broadcast (B41C) will soon be introduced. In addition, the outstanding success of a minor trial conducted in HMS' CHIDDINGFOLD and PENZANCE during Argonaut 99 identified a low-cost solution that could provide high-speed HF Ship to Shore via the same platform equipment fit. It is hoped that the shore infrastructure will be available in May 2001.

NAVYLINK

NAVYLINK is now widely fitted allowing the exchange of e-mails plus attachments, news and weather information and Family-Mail via INMARSAT at sea and the BT/MOD networks whilst alongside. NAVYLINK also acts as the bearer for NOMIS OC (CAPES replacement).

The next step for NAVYLINK is to introduce the dedicated laptops into the MCO of all ships along with a separate hard drive and printer to enable the comms team to manage the transfer of e-mail more formally than at present. NAVYLINK training is also being addressed and Cdre MFP will soon be in a position to offer front line training to all Cdre MFP NAVYLINK authorities.

COMMAND SUPPORT SYSTEM

The Command Support System (CSS) is now fitted in Cdre MFP Headquarters providing the Ops Room team with a recognised maritime picture. The MCM Tasking Authorities are each scaled to receive 1 fixed system, to be sited in the Minewarfare Tactical Support System (MTSS) ISO container, and 1 deployable system to be transported for use as required. Whilst funding issues may delay the delivery of the fixed system, the deployable systems are expected to be available before the end of the year.

Further information on these or any other communication matters can be obtained from SWO(C)/ASWO(C) on PNB 26318/26436.

PRISM (OC)

PLANNING, REPORTING & INFORMATION SYSTEM for the MANAGEMENT of OPERATIONAL CAPABILITY

WO(MW)(O) Tony Mulrain BEM

Hi Folks, OCIM (Operational Capability Information Manager) here, just thought I would put pen to paper and give a short dit on how things are getting on in the weird world of PRISM. Like all new systems it will take time to 'bed in', but the feedback has been very encouraging so far. It is much more user friendly than CAPES ever was and the units are also realising the 'add-back value as a very good management tool assisting with not only Operational Capability but aiding the COXN with managing IIP issues. The new user guide is almost complete and should be on the streets early Sep 00.

For all the OC managers out there don't forget that Jacqui and myself are only a phone call away. If you can't decide on what colour 'nicks' to wear when you are doing PRISM, then phone us and we will tell you. The message is don't struggle, help is at hand.

Finally I am on my way to sunny Saudi this year and Pete Cawsey has been found and will be dragged kicking and screaming from Northwood to relieve me.



FLEET DIVING HEADQUARTERS – Superintendent of Diving's Viewpoint

By Commander David Hilton MNI Royal Navy

Having been in post as Superintendent of Diving for almost 3 years, I am pleased to report enormous change – all for the good – with the formation of the Fleet Diving Squadron in Mar 98, reflecting its updated organisation and roles, and the introduction of a lot of new diving, Explosive Ordnance Disposal and Underwater Engineering equipment – with more over the horizon. It seems timely to recount some of our success over the past year and our goals for the forthcoming one.



ORGANISATION

FLEET DIVING SQUADRON (FDS)

The Command and Control of the Fleet Diving Squadron works well and the ability to move personnel within the Groups to meet the aim has been very successful in achieving directed tasks despite manpower shortages. The manpower situation is improving and in particular the approval from Commodore MFP and CinC Fleet for a 12 man uplift within the Fleet Diving Squadron – and to include FDS divers in the manning DCI – for Naval Manning Agency (Drafty) to man the Diving Squadron to 100% is welcomed. We will not see the benefit immediately due to lead in time for recruitment and training but I am sure you agree the manpower plot and promotion is improving. Since the formation of the Squadron in 98 it has given me the flexibility in the deployment of assets, equipment and manpower in order to meet our commitments and improve Operational Effectiveness whilst making best use of limited financial resources.

OPERATIONS, EXERCISES AND TRIALS

KURSK Rescue Mission

Elements of FDU 2 were deployed with the UK SUBRESCUE organisation to support Russian authorities in rescue attempts from the stricken submarine KURSK. Regrettably, the UK option was not called upon but Unit divers were ready to assist with LR5 support (launch/recovery), LR5 chamber operation and decompression support from embarked CC. The rapid deployability has been robustly tested but it was disappointing for all involved that the system was not used.

JMC 001

Mine Identification and Exploitation exercise during JMC 001, first time conducted against fully instrumented mines – elements from the French Navy combined with FDU 3 to conduct MIE. Very successful with the aim to develop further concepts and procedures needed to bring all aspects together. The exercise included the initial chance find by a minehunter, investigation by ROV, first attack to neutralise, as well as lifting, raising and towing the mine. Over pressure case entry and flooding techniques were all conducted and transfer of digital information to outstations achieved.



EQUIPMENT

CDBA

Now fully integrated into service, CDBA has enhanced our Military Capability by increasing the operational envelope to 80 metres and provides the diver with better life support facilities than ever before – with primary, secondary, and tertiary back ups! CDBA conversion courses at DDS created a considerable strain on spares but I am pleased to

report that the situation continues to improve. Additionally, the controlled supply of the new 1.3 bar electronic pods will at last give us a 1.3 secondary reading to match the gas we are actually breathing. HMS PEMBROKE was the first Minehunter to achieve detached 80 metre diving last year. The serial took place in Loch Long in excellent benign conditions and all divers achieved maximum depth with ease. The dive serials were supported with the new Type C CC, now fitted in five Sandown Class vessels and progressively being fitted to all minehunters. It is good to see how so few people are involved in achieving 80 metres, (5) especially in comparison to the previous manpower

intensive 75 metre capability using surface supplied Heliox KMB. The next benchmark with CDBA is to implement the long awaited PP02 decompression tables. The in water trials at DERA Alverstoke are now complete where a number of dives were conducted in 5 degrees C, with open water trials recently completed by FDU 3 in the Kyles. We are leading the world with the development of these tables and owe a lot to the collaboration of our NATO Allies, particularly from the USA and Canada.

There is still a lot more decompression table work to be done with repetitive dive tables to be reduced from the current 18 / 24 hour interval – probably down to 4 – 6 hours, Oxygen stops, surface decompression and flying restrictions after diving. We now have a workable algorithm to further develop these tables and to exploit the operational envelope – worthy of note: we have the ability to dive to 100 metres provided operationally necessary. Support for these trials has come from across the whole Diver Branch and their efforts are to be congratulated.

MCM Ancillary Equipment

The MCM Ancillary equipment is being introduced to carry out the complete range of interrelated MCM/EOD operations, these being Minehunting diving, Mine Investigation and Exploitation, Area search and Underwater EOD. It is hoped to achieve an "In Service Date" in Nov 01, with an interface with RSDB – Route Survey DataBase. The following components make up the Ancillary Equipment - this equipment will provide the following facilities:

Communications - Between divers and diving supervisor

Camera, light, and data link - To allow transmission of underwater images to the supervisor for viewing, recording, and analysis.

Hand Held Sonar - To aid diver searches underwater with obvious uses for FDU 2 in the VSW role.



Head Up Display - This will be capable of providing mine intelligence data - via the ASH EOD data base as well as a search plan, sonar and navigation information to the diver.

Heated Gloves - Hand heating for use during long in water decompression stops. It is emphasised that we are still in the design phase with a lot of work still to be done.

Type C CC

The new 2 compartment Type C compression chamber fitted in the Sandown has significantly increased the diving capabilities of these ships and is necessary to support safe detached minehunting diving to 80 metres. The success of its setting to work was the result of a lot of hard work from all areas of project, and user. In diving terms these ships can operate unsupported anywhere in the world to 80 metres. The advantage of the Type C is the electronic closed circuit breathing system which automatically mixes the therapeutic gases from initial 100% oxygen and 16/84 oxy helium supply (the same gases CDBA is charged with) - making it logistically friendly, and the ability to provide the full range of therapeutic gasses for Table 62 and 67.

Following on from this achievement, the On Call Force Task Group achieved 80-metre diving weapon training near Crete including Type C Training during their recent deployment. A total of 16 out of 19 divers in the deployed force achieved maximum depth in one day diving from Sir Geraint using a Squadron Type B CC on site.

Long Endurance Breathing Apparatus (Mixed Gas) - LEBA (MG). This equipment is currently in service with the SBS for Special Forces (SF) operations. To further enhance interoperability with SF and FDU 2's Very Shallow Water swimming capability I am pleased to report that an order has been placed to procure 10 DIVEX LEBA (MG) low magnetic variants with a 1.3 Ppo2. This and the hand held sonar and navigation system from the MCM Ancillary procurement would significantly improve FDU 2's capability.

ESDS

The Enclosed Space Diving System has now completed trials and the Certificate of Clearance for Use issued. The equipment is a surface supplied system capable of supporting a diving operation within a confined space, the requirement being for specialist use in support of the Trident Fleet. Three outfits have been procured, two will be positioned at NDG HQ with the third at SDG HQ. Training will be conducted at either location as 'On Job Training' following the acceptance of the six part documentation being produced by DDS. The equipment offers a lightweight diving outfit incorporating light, camera for survey and QA requirements associated with UW Engineering tasks.

DIVERS THROUGH WATER COMMS (DTWC)

Another major advance in diver safety is the introduction this year of Divers Through Water Communications for use with SABA (air). The equipment will provide communications between the surface support team and divers up to a distance of 1000 metres, this was introduced primarily to meet HSE guidelines on safety, - it also has operational benefits. Transfer to the DTWC system for SABA has commenced. As the system requires an AGA mask, the transfer will have considerable implications to all diver and maintainer training. Transfer to the Fleet will be staged, and issued to those Units having qualified personnel for its maintenance. Co-ordination will be through the Inspectorate CPO (D) Bob Hayter (Insp ShD). The ME 414G(maintainers course) started at DDS in Jul 00, with conversion courses scheduled to start this Autumn at continuation centres - the introduction will be similar in the way Buoyancy Jackets were introduced but a reminder - before the equipment is issued the Ship or Unit has to have a qualified maintainer.

IMPROVISED EXPLOSIVE DEVICE DISPOSAL (IEDD)

The success rate at re-licensing continues to be high due mainly to the effort, which goes in to Exercise Resurgent and in-house local training at Unit level. The time invested in prior training is invaluable giving operators a better chance of success at licensing. The number of places on the Advanced Course has been increased from 9 to 12 per year and liaison and co-operation with the Army has never been better. It is intended to slightly modify Resurgent with regard to location and organisation from HQ. In essence, Units will have a greater participation and contribution in providing the real estate and logistic requirements with Insp EOD organising timeframes and DS's.

EOD TOOLS

EOD Toolkits have been in need of an update for a very long time. Lt Cdr Jon Chapple worked hard and pre-production toolkits are undergoing trials at present with FDU3 in their MIE role. There will be three types, Toolkit A, B, and C. A and B provide comprehensive tools including spanners, sockets, wrenches and screwdrivers/chisels. Toolkit C is the castelated nut/extender removing T bar kit. All are Copper Beryllium non-magnetic and come in high quality storage boxes.

ENCLOSED MINE LIFTING BAG (EMLB)

Now in service. We are getting a very capable piece of equipment which has the capability to raise and subsequently lower ordnance under control with pre-set timings where required. There will be two variants, 1000 kg, and 500 kg.

PROJECT ASH

Continues to develop with DEODS "boundary-cooling" PC Keyboards to populate the database. The system is much improved from the original version and includes over 90% of the US 60 Series information. Field trials have been underway in Bosnia and more recently in Kosovo receiving very positive feedback.

ANDREX 300 (WHALE)

The replacement for Mine Radiographic Outfit is likely to be Andrex 300 (the Army call it Whale) which will give a near real time imaging facility (dry) for Mine Identification and Exploitation purposes. In Service date late 00. The good news is that replacement film and processor for Inspector is on the horizon and should ensure that the IED Operators have some hair left on completion of licensing! Andrex 300 will also use the same processor and film giving integration and commonality across the radiographic spectrum.



REPLACEMENT EOD VEHICLE

Last but not least is the replacement EOD vehicle issue. The introduction of new equipment including CDBA, EMLB, UXO Monitor and others will increase the load - out manifest of the current CMD Vehicle (Landrover 110) which is already loaded to maximum with no spare capacity.

The replacement will be subject to final budgetary approval but is looking good commencing April 01. The vehicle we are proposing to replace the Landrover is the Pinzgauer 6x6 (a NATO stock vehicle)(shown on the left). Its NATO down-time figure is a mere 1.5% and lifed at 20 years, it is built to last.

SUMMARY

This is a gallop through just some of the diving and EOD issues. A lot going on. We have recently been EOD Audited by the Department of Operational Capability and EOD studied. A manpower increase to help alleviate all the PJT's and soft gapping within the Fleet Diving Squadron. Underwater engineering continues apace. There is lot of equipment coming into service – with the next major procurement issue being the replacement of our aged diving tenders, currently being staffed by MOD (Director Equipment Capability).

The Squadron continues to hone their warfare skills with:

FDU 1 committed to MCT in support of SF.

FDU 2 responsible for MCM, VSW, SUBMISS, tasks world-wide

With FDU 3 giving MCM support with emphasis in deep water and MIE and special weapon recovery.

The Area Groups, North and South, continue to provide MACP support dealing with EOD and IEDD in a Joint Service arena and the provision of underwater engineering to the Fleet.

The Fleet Diving Squadron including MM Flotilla diving elements have entered the millennium with the most highly trained personnel and advanced diving techniques in its history. With new equipment enhancements being introduced, the Clearance Diving Branch is in a very good position to meet the demands of the future.

Safe Diving.



OPERATION DEPLETION

Background

Over the past 17 years Depleted Uranium (DU) projectiles have been fired into the Solway Firth from Kirkcudbright Ranges as part of a munitions development programme. Laboratory studies have been undertaken over a number of years to determine the rate at which DU corrodes in seawater but with the ever present sensitivity to the presence of DU in the sea areas in the Solway Firth and concerns raised by the anti-pollutant lobby, the Defence Evaluation and Research Agency took the decision to validate their laboratory studies and commission a programme of sea trials. Therefore early in June 2000 a series of meetings took place between DERA and the Northern Diving Group which would shape the way in which a series of sea trials were to take place.

Introduction

Just mention the word 'uranium' to most people and they take a sharp intake of breath along with a discerning shake of the head. It projects an uncomfortable image of radiation sickness, glowing in the dark and impotency! In reality DU is far more user friendly than you might at first think so standby for a very quick chemistry lesson.

Uranium is a heavy metal with a chemical toxicity similar to that of lead and in an 'enriched' form is used in nuclear reactors and nuclear weapons. It is called enriched because the concentration of the uranium 235 isotope (^{235}U) has been artificially enhanced over that of naturally occurring uranium. The by-product of the enrichment process is depleted uranium which has a correspondingly reduced concentration of ^{235}U . You will not be surprised to learn that DU has a slightly reduced radioactive content compared with enriched or natural uranium but because of its strength, high density and other desirable metallurgical properties, it is used by the Armed Forces in the form of armour piercing ammunition. It also has civil applications including counter-balance weights for aircraft, shielding for radiotherapy sources and in yacht keels. Despite all this propaganda I can still hear your concerns about dose rates and personal safety, so with that in mind I thought you might now want to read about these issues before we discuss the trial itself.

External Radiation Hazard

DU emits alpha, beta and gamma radiations. Maximum dose rates associated with kilogram quantities of DU are:

Beta/gamma dose rate in contact with surface of DU	1.0mSv/h (millisieverts)
Worst case beta/gamma dose rate in air at 0.5metres	10.0µSv/h (microsieverts)
Worst case beta/gamma dose rate in water at 0.5 metres	1.00µSv/h (microsieverts)

Internal Radiation Hazard

If DU enters the body it will deliver a radiation dose proportional to the intake. Under the conditions of the trial, we were told that the chance of a diver ingesting a significant quantity of DU was considered to be close to zero. Oddly enough though there was very little disappointment amongst the lads when they were told that the baked beans, cream crackers and DU eating contest at the hotel that night would now not be going ahead.

Dose Assessment

In their calculations for dose rate assessments, the scientists worked it out for themselves that the divers would be wearing diving suits (including gloves) and using self-contained breathing apparatus. From this assumption they assessed that the air set would effectively eliminate the possibility of any DU being ingested and that the suit and gloves would absorb about one third of the beta radiation. The scientists went on to explain that assuming that gloves were worn whenever DU was being handled, the beta/gamma

dose rate to the hands would be approximately 700 $\mu\text{Sv/h}$. Therefore in any one dive the diver was to hold the DU in his gloved hand for a maximum period of 15 minutes the radiation dose to the hands would be in the order of 175 μSv per dive. The dose to the divers body would be due to gamma exposure only as beta radiation is effectively absorbed by water. So, according to the experts, during an estimated duration of dive of approximately 1 hour to a maximum depth of 18 metres, the dose to the body would not exceed 1.0 $\mu\text{Sv/h}$. As it happened the samples were not handled during the dive but things were already starting to look up for the cynics amongst us. As the current national annual dose limit for the hands is 500 mSv it would be necessary for a single diver to undertake nearly 3000 dives under worst conditions to reach this limit. Furthermore, the current MOD annual dose limit for the whole body is 20mSv, so under the proposed dive conditions it would be necessary for a single diver to conduct 20,000 dives to reach this limit. Now not even the most hardened divers amongst you would care to take on the paperwork required to record 20,000 dives in your new style Personal Diving Log and then complete the Master Dive Record Sheets for this many dives I'm sure! We were finally briefed that as no single diver would be expected to make no more than 20 dives in support of the trial in any one year, the annual dose rate to the hands was estimated at 3.5 mSv and the annual dose rate to the body was approximately 20 mSv. The uranium monster was beginning to look less and less aggressive and so it was with the risk assessment in our back pocket that NDG agreed to take on the trial.

The Trial

And so it was that FDT IRONBRIDGE deployed to the Solway Firth in support of OPERATION DEPLETION. This was to be the first time in a very long time that YOYO had not only made an overnight passage but had entered English Territorial Waters! Based at Whitehaven and running daily to and from the Kirkcudbright Ranges, the deployment could not have been achieved without this fine old lady. Fine weather and the lifting capabilities of YOYO ensured that a total of 78 samples of DU with a total mass of approximately 23.4Kg were fixed to a custom made frame apparatus which was then lowered to the seabed in approximately 18 MSW. The frame, now weighing in excess of 200 Kg, was then positively secured to the seabed with an arrangement of anchors and chain which was to prevent any possibility of migration in the 5knot plus spring tides prevalent in the area. The whole rig was then marked at the surface with a yellow danger mark buoy.



Most of the hard work was completed on Day 1 and with the rig in place on the seabed it just meant that on Day 2 all we had to do was lay out the anchors and chain cable to secure it to the seabed and then place the buoy. Day 3 was used to swim the whole rig again to

make sure that everything was in place and to make any last minute adjustments. Finally we deployed the ROV to provide the necessary video footage to demonstrate to the scientists that their little baby was where it was supposed to be and configured in accordance with their wishes.

The trial is expected to last for 3 years and 3 months during which there will be timed retrievals of 6 samples from the frame every 3 or 6 months until all are recovered. For ease of recovery the samples are arranged on an inert rod in groups of 6 so that the divers are in proximity to the DU for the minimum time. The first time that an element will deploy to Kirkcudbright will be in October this year and we all look forward to the results of this trial in due course.



UWE

By Lt. Nick Hughes SEO(D)

The benefits of Underwater Engineering (UWE) have been widely known to the Diving Branch for many years, however in the last 5 years a centralised effort has been made to formally include UWE options into mainstream operations. The purpose of this article is to give an updated view on the current applications of UWE within the RN

UWE in the RN is coming of age, the pioneering CPP blade changes are now well established and CPP blades are now routinely changed in a dry habitat with full quality control recorded on video within 48 hrs. The Fleet Diving Squadron maintains a "fly away" capability and has had a number of notable successes in this field. In addition to this, high profile UWE task, FDS divers are employed every day by Captain Fleet Maintenance (CFM) Faslane, Portsmouth and Devonport to conduct various types of hull inspection, fit blanking plates, secure rope guards and repair anodes on ships and submarines. The increased volume of UWE related work and the limited assets of the FDS means that approximately 70% of the work has to be passed on to contractors.

The previously fragmented approach to the support of UWE has been recognised and firmly addressed by the formation of TS310 within the Technical Directorate of the Ship Support Agency (SSA). This organisation is now the single point of contact within the SSA for all UWE matters. Regular meetings are held as a forum for the development of UWE. The Underwater Engineering Committee (UWEC) forms UWE policy and is made up of representatives from TS 310, Platform IPTs, Equipment IPTs, CFM staff, Fleet Diving Squadron and Sea Technology Group specialists from the Defence Procurement Agency (DPA). A series of smaller groups meet separately to discuss the detailed implementation of policy and to co-ordinate resources.

Although the Diving Branch has been conducting UWE for many years the training was ad hoc and inconsistent. The lack of specific UWE training was leading to a skill shortage within the Diving Branch and did little to promote the efficiency of UWE procedures. A Training Needs Analysis (TNA) was conducted by the Naval Training and Recruitment Agency (NRTA) with assistance from the Fleet Diving Squadron and the Defence Diving School. This has formally established the requirement for training and has made a number of recommendations as to how best to proceed. The implementation phase is now underway which forms the specifications for the training simulators and focuses on exactly how training will be delivered.

The Engineering staff within the Fleet Diving Squadron and the staff of the Underwater Systems IPT have been busy rationalising the tools that are already held and defining those that need to be procured. A pneumatic drill and grinder are in the process of being brought into service with underwater cameras next on the list. Underwater welding is high on the agenda but is hampered by the state of current technology that entails a huge training and certification burden. Friction welding technology however, looks promising as it does not need welding consumables or cause hydrogen embrittlement of the parent material. Plasma Arc Cutting is being evaluated as a high capacity cutting tool to replace Broco. A trial is scheduled towards the end of this year which is likely to be the first application of this technology underwater. If successful, the equipment will allow high speed cutting and produce a far superior finish to methods already available. Safety is an important factor however, as up to 300 Volts will be produced underwater and systems to protect the diver are being carefully reviewed!

UWE is now an essential and everyday aspect of supporting the Fleet. Military Divers, supported by the SSA and DPA are now making a significant contribution to improving Platform Availability and reducing Support costs. New equipment and training programmes are in place that will provide excellent foundations for the future development of this fundamental diving capability.

LIFE AS A FOSTIE – OR HOW TO LOSE FRIENDS AND INFLUENCE PEOPLE

By Lt J.A Graig

Rather than print the usual 'Common Shortcomings' in this issue of MAD Magazine, because no-one ever reads them until 2 days before they start OST anyway, the Mine Warfare and Diving FOSTIE's from North of the border have decided to present a more lightweight article this year. It may be hard for people undertaking OST to believe but, under that cold, heartless exterior is a real person (except for the NBCD team – who have a cold, heartless interior as well!)

(Disclaimer- This article is intended to be light-hearted. Just in case any readers have any doubts, the text shown below is not actually a reflection of FOST policy!)

The Staff

The FOST team has remained unchanged for slightly over a year, although 'new-blood' has now started to arrive and more relief's are expected shortly. Given that most ships undertake an OST approximately every 18 months, the majority of sea-going Mine Warfare and Diving personnel will have seen the following staff at some point during the last year or so:

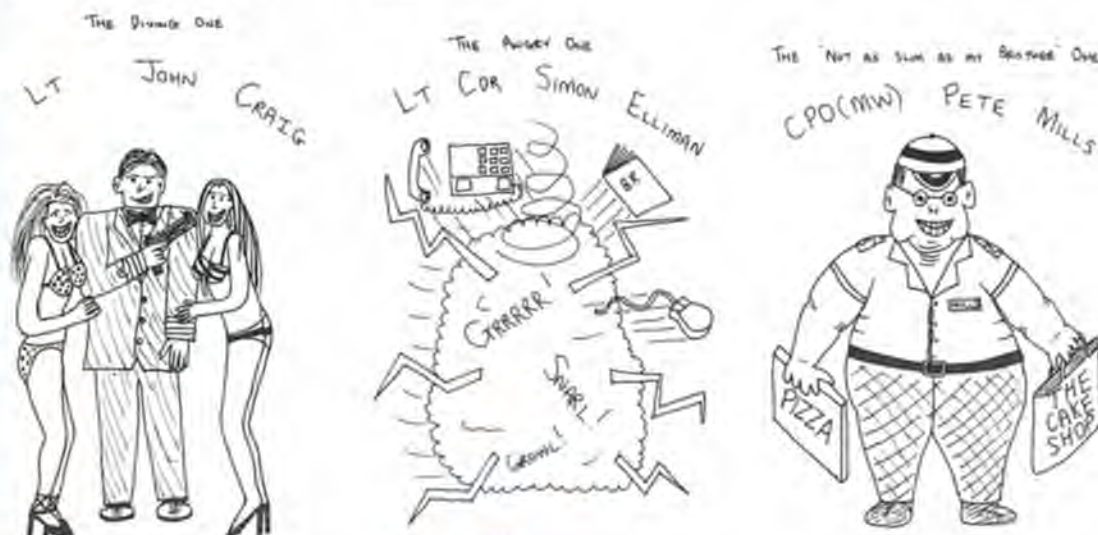
Current Staff-

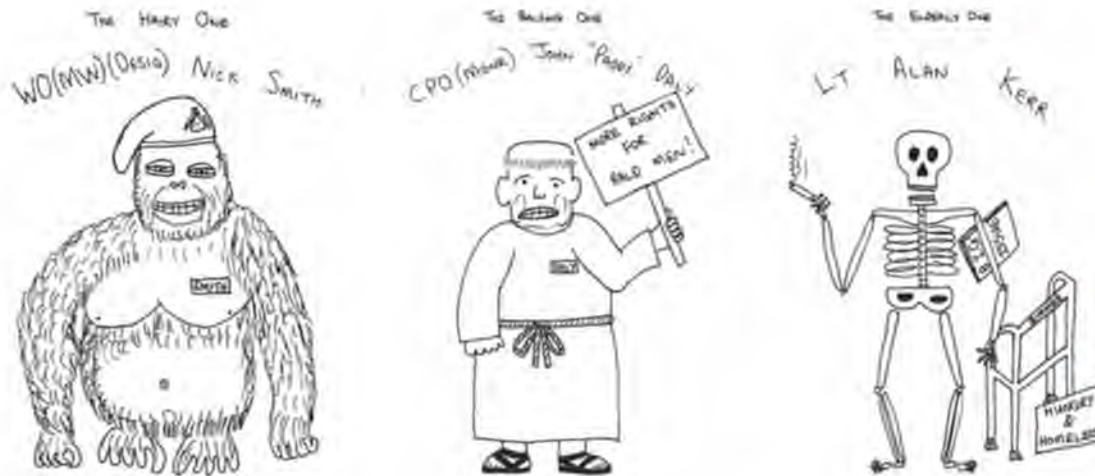
SOO-	Lt Cdr Simon 'Angry' Elliman RN
SWO(MW)2-	Lt Colin 'New Boy' Downes RN
SWO(MW)3-	Lt John 'Damp Squib' Craig RN
	Tbrb- Lt Dave 'Big Orange Fella' Welch RN
MW's-	CPO Pete 'The Chubby One' Mills
	CPO John 'Brother' Daly
	CPO (Soon to be WO) Nick 'Tricky' Smith
	Tbrb- CPO George Venterman

Recent Leavers-

SWO(MW)2-	Lt Alan 'Skeletor' Kerr RN
MW-	CPO Jan 'My real name's Jeremy' Takel

All those who have undertaken OST in the last 18 months, or are due to undertake OST within the next 18 months, may find the following cartoons of staff particularly useful. Either to pin up in the Ops Room / Diving Store, as a motivational tool, or to glue onto a punch-bag to help release aggression.





Phrases OST Staff don't want to hear (but have heard in the past)

From a diver recently returned from a Mine Hunting Dive on a possible Magnetic Actuation Mine- "I couldn't really identify it because, although I had a torch with me, the batteries didn't work".

From an MWO whose ship had just transited through a Mine Danger Area with the Sonar in the stowed position (i.e. not on)- "Do many people fall into that trap?"

From a MW Senior Rate when asked how the Sweep was calibrated- "We put it all out overnight and used the Night-sight to see how it was doing".

From the OOD of an inboard vessel, slipping an OST ship, whose Duty Watch are wearing pirate rig and smoking- "Why should we be properly dressed? We're not on OST".

From the OOD of an MCMV, to a member of staff in a green jacket- "Who did you say you worked for?"

Criteria that FOST Staff believe they fulfil to be selected

1. Consummate professionals in their own branch.
2. Skilled instructors.
3. Approachable and friendly.

Criteria that people who do well at OST believe FOST Staff need to be selected

1. Gullible enough to believe that an appointment / draft in Scotland is a good thing.
2. Harmless.

Criteria that people who don't do well at OST believe FOST staff need to be selected

1. Gullible enough to believe that an appointment / draft in Scotland is a good thing.
2. Vicious Sadists.

Phrases that CPO Mills wishes he'd heard but hasn't

1. Pete drags HMS ***** through by it's boot-laces.
2. Pete saves the day.
3. Pete turns down MBE for services to FOST (MPV).
4. Pete looks good in a green jacket.
5. Pete spots something every-one else misses.

Decode / Encode Table for FOST Assessments

<u>What the Staff say</u>	<u>What the staff mean</u>
Some important training points were highlighted during that serial	You're rubbish
An unrelated incident, at about the same time as that Scare Charge exploded, appears to have damaged the sonar	Keep this little faux-pas quiet, and I'll make sure you get a VSAT
That was an interesting decision	You're rubbish
We deliberately injected that extra challenging serial to keep you on your toes	We meant to turn on the light switch, but isolated power to the steering motors in the narrow shipping channel by mistake
Yes, that's one interpretation	You're rubbish
The ship's company were polite and attentive hosts	We couldn't eat another chocolate Hobnob if our lives depended on it (CPO Mills excepted)
I haven't heard that one before	You're rubbish
I believe that reference is in the process of being updated	I've just told you some incorrect information, but I'll be submitting a change to the BR as soon as I get back to the office
I used to do something very similar when I did the job myself	We're both rubbish- but I was clever enough not to get caught by FOST Staff
I think that we'll give you a little time on your own to regroup and consolidate	We're tired and we're going to bed now
Allow me to show you how I'd do it	Get out of the way and let me do it. If we wait for you we'll never get home
Yes, that is a confusing reference, isn't it?	No I don't understand it either
The Executive Department appears fragile	The staff have just been to the heads and found out there is no toilet paper left
That's how I would have done it myself. I can see that you don't need any more close supervision	Blimey, you're better at this job than I ever was. I'm going away now before you realise I don't know what I'm talking about

Diving Inspection Assessments – A muppets Interpretation

Very Good- Cup of Colombian Coffee and Black Forest Gateaux available in Wardroom. Soft chair to sit in. Paperwork completed and draft report compiled by a muscular Leading Diver with lovely blonde-flecked hair. Did not have to stay very long and managed to get back to office in time for afternoon siesta.

Good- Nescafe Gold Blend and Jaffa Cakes available. Cushion covers on chair clashed with wardroom curtains. Draft report compiled by Leading Diver, but had to find someone to type it up for him. Muscle magazine available.

Very Satisfactory- Ordinary Nescafe and Chocolate Digestives available. Had to stay on the ship, albeit in the wardroom, for (nearly) a whole hour. Leading Diver informed me of assessment required- fully agree as he is considerably bigger than I am. LS (D) clearly needs to visit Hair Salon in near future as his roots have started to show.

Satisfactory - Lukewarm Nescafe and Custard Creams provided. Had to leave the wardroom to visit the Diving Store but luckily, one of the CPO (MW)'s was on hand to show me where it is. XO informed me that Leading Diver was on a Forenoon make & mend, although paperwork had been completed.

Just Satisfactory- 'Pusser's Dust' and soggy Digestives. CPO (MW) not available to take me to the diving store, but he drew me a map so I didn't get too lost. Paperwork completed in Crayon.

Below Standard- Leading Diver made some pathetic excuse about food and drink not being O2 compatible, and refused to make me a cup of coffee. Had to find Diving Store without any help; it took me several hours and I nearly had an embarrassing incident in the Wrens Mess. Had to type my own report. Leading Diver had embarked all necessary Diving equipment, thus cluttering up the floor-space that I had intended to use for a little snooze. Not only did the LS (D) know more than me, he kept asking me difficult questions which I couldn't answer (my normal technique of mumbling my way out of trouble failed to impress him). His hair colour was disappointingly natural. Clearly a candidate for a BS assessment to remind him who's Boss!

Unsatisfactory- (Note- This assessment is not applicable for Diving Department inspections, as the NBCD Office currently hold the only operating license.)

Not Assessed- Absolutely pathetic, but Leading Diver is a talented SUY candidate and the assessment can't look too bad in case he gets promoted past me and I end up working for him one day.

The Serious Bit

On a more serious note, the FOST (MPV) Warfare Shop exists to help you and your ship get the best from training. The new common Shortcomings are on the streets, Change One to the OST Guide is due out in October 2000, and we always welcome a visit or telephone call for advice and guidance. OST is what you make of it and a positive attitude goes a long way to an enjoyable and successful training period.

So You Want To Be An MCDO Then! or How I avoided Little N's Course

Lieutenant Ben Stait

Whilst on X Course I realised the question I had to ask myself was 'where after?' Fortunately a week in AMETHYST convinced me to avoid navigation and that I really did not want to be an aviator. It wasn't until I had completed Ship's Divers Aptitude and had a strangely misguided belief of a long and fruitful career in diving, that I realised that rubber was to be my preferred choice of clothing and sea sickness a good dietary method.

June 1999 and HMS MARLBOROUGH was on her way back from the Caribbean. The opportunities to dive in clear, blue water where 24°C was considered cold, were rapidly drawing to a close. PWO(A), Lt Cdr Chris Baldwin definitely had his own ideas on what makes a MCD, circuits and chin ups were the order of the day, everyday if not twice - a sign of commitment and dedication to the branch. When told that my MCDO Course Instructor was Chris's ex Diving Team Chief, my apprehension only increased!

DDS

After a hectic bank holiday Monday packing ample sports kit, warm clothing and towels (good old Pussers dry bags), Tuesday 31 August came around all too quickly. Was I fit enough, was I brave enough and was I good enough! Maybe FNO's course was not such a bad idea after all...!

Eight of us assembled at 0800 in DDS; four RN, Three Internationals and Paddy. Most of the course appeared to have spent their summer leave running marathons, tabbing across hills and in the case of one particular foreign student, shooting down the neighbour's helicopter! Except Paddy. He had been for one swim two weeks ago and then spent the remainder of his leave on the 'pop' in London (having heard that live-in week was tough, he would be sure to lose a few pounds!) A quick welcome to CDO 99 Charlie and the course were left in the very capable hands of the POMA for a weeks instruction in first aid.

The following Monday, Week 2 we met the Boss, Lt Cdr Rich Cowley, the Staff CPO(D) Kev Barratt, L(D) Yorkie Tudor, L(D) Steve Boyd and said a big hello to Mr Boyle, Mr Charles, Mr Dalton and their acquaintance Mr Haldane. As if the maths was not enough. A visit to INM confirmed any suspicions we might have had as to how dangerous diving was - lectures fully supported by medical evidence.

The DPFT came and went in a blur, for some more than others. I had strangely noticed how my knowledge of his previous boss seemed to earn me extra chin-ups. Nevertheless we left to the Chiefs immortal words of how 'we would get better'..

Week 3 and the course really started. It has changed quite significantly since the introduction of CDBA. SABA first, but not before an introduction to dry suits for Najeeb from Oman and Tan, a Lt Colonel from the Singapore (who at 36 was beginning to wonder what he was letting himself in for). Then in all the best traditions a demonstration of a proper circuit by the Leading Diver, leading to the inevitable morning's greeting of "awkward" and "just the three to start with". By Thursday the sight of fins thrashing around on the surface by the Fire Ground and motivational strolls back from the Tool Hut jetty were becoming a popular event.

The following weeks saw an introduction to KMB and underwater engineering. Then onto CDBA, with our drills providing moments of amusement for the staff and hours of pain for us! The balls came thick and fast, even Denis Chawira could not fight off the surprise Imran Rana had just as he was about to enter the water, when the 9 O'Clock

News broadcasted that his Country's government has been overthrown in a military coup. All too soon it was Live-In Week. Now many of you may well be thinking what affect has Health and Safety had on the course; how did we cope with the limited battery life and how did the shape of CDBA fit into the demanding requirements of Live-In Week? No, the real questions were, how would Rugby World Cup be integrated and could we really convince the staff that we should have a lie-in on Friday!

The following week we still remained eight, then Gordon Brockington abruptly left due to a temporary medical condition (temporary in a waiting list fashion - as it turned out to be misdiagnosis). Off to Portland for a week of seabed searches and supervising. It also started a trend - whenever the staff dived they always seemed to be involved in an incident! There were many student moments spent staring blankly at a S288 looking for inspiration.

Scotland and we were privileged to be the first MDCO's Course run from Kyles of Lochalsh instead of Oban, how excited we all were! The following four weeks proved to be demanding and testing in a way I had never experienced before. The first week we were back in KMB and remembering air diving rules. From then on it was CDBA, working up to a very deep, dark and scary 60m from the Tender and then from the Gemini. The staff threw just about as much as they could at us and then some more; to ensure we really had taken it all in. Fortunately the now remaining six of us had and after one last time of sampling the sights and sounds of Kyles we headed South, confident in our abilities, where the credit can only lie with dedication and patience of the Staff. We left DDS for Christmas and Chatham, but not without more of the Chiefs infamous words ringing in our ears, "... If you think this was hard, wait to until you get to DEODS".

DEODS

3rd January, Bank Holiday Monday the Army were on leave, but now fully dressed in purple we were not. 0730 with the Camp still in darkness we hungrily waited for transport to take us across the Medway and to DEODS. The Advanced EOD Course is a seven week, Joint Services Course run by the Army and RAF. 16 Officers and SNCOs started the course, 4 RN, 3 RAF and 9 RE. After grappling with Army speak and a continuously aching arm from asking questions we were now faced with the unenviable task of convincing them that the Navy really did not run up hills in IPE, whilst dodging land mines.

The Course did include some excellent training, three days at Shoeburyness Range disposing of Milans, LAWs and motars - though I was sure it would have been more fun to have fired them. Then onto the big boys toys, 1000lb bombs and missile booster rockets. There was also a three day introduction to IED, but all of a sudden those butterflies had returned with four long days of assessments to focus the mind.





The moment of reckoning came and went and out came the black felt tip pen, nine of us were left. Apparently 30% failure rate is average.

Three of us moved down the hill to the purpose built Royal Navy facility with its own fresh water lake, chilled for the occasion. WO(D) Graham Petrie, CPO(D) Windy Gale and his team have an excellent set-up which they are continuously trying to improve, not to mention a considerable amount of EOD experience to impart. The following three weeks covered all aspects of CD EOD, with a slant towards MIE. We eventually got to Yantlet Range and had quality hands-on time, mixing tried and tested EOD methods with new ideas. But of course the coup de grace came about all too quickly. The Chiefs eyes lit up as he disappeared off to uncover one of

the dozens of mines residing around the lake - here we go again! Something must have sunk in though, as that night we were all celebrating.

DRYAD

Two out three complete, MWO's Course last, now some might say that this is not as challenging as the others however as an OPS Officer it will fill most of your time. Choice words to bear in mind as the Appointer told me how pleasant Faslane was at this time of year. The light at the end of the tunnel had been lit and HMS BROCKLESBY awaited an OPS Officer. As I steadily forget all about CDBA and EOD I began to learn whole paragraphs of ATP24 and the MIP became my new friend.



Nine of us started the course (although the on going contest between Gordon Brockington and Matt Cordon as to who could fit in the most shore time, saw Matt ease ahead with his long awaited shoulder operation) Lt Cdr Nigel Hill and CPO(MW)(O) Jumbo Hallisey were the backbone of the course, taking us under their wing and ensuring the high standard of training remained constant. We had use of the excellent minesweeping training facilities in Ostend despite the arduous working conditions and a surprise visit from CINCFLEET. CPO(MW)(O) Max Coffey kept us on our toes in the trainer whilst the two sea weeks reminded us how easier it is when the OPS Room is not moving! Still we all somehow managed to pass even without the help of Henry the Hamster our new mascot.

LMCDOs Course has changed considerably recently with the introduction of new equipment, policy and personnel. Lt Cdr Nigel Hill toils to start students with the Diving Phase which is more tailored towards MCMV Clearance Diving and CDBA. DEODS is equally challenging with specialist RN training oriented towards the modern threat mine, though still recognising the importance of historic ordnance. MWO course is also about to change as well with the introduction of stream training from September. The standards remain high requiring full commitment, though I am sure it is - not as difficult as it used to be.

MINE CLEARANCE SERVICE 1918-?

PO(MW) D. Baker

Whenever anyone used to ask me if I had any family connections to the Royal navy, I used to inform them quite proudly that no there were no connections, and I was never quite sure what made me join up.

So when rummaging around my mothers attic one day I was mildly surprised to find an old photograph of a person in a sailors suit. This person, it turned out, was my grandfather who I never knew. Further searching through the attic produced a badge. A metal badge of a mine with the words mine clearance service underneath. So not only am I not the first of my family to join the navy, it turns out I'm not even the first one to have served in the minewarfare branch.

But it got me thinking; the photo dates from the first world war, and I was under the impression that the minewarfare branch was not formed until the second world war. So how come old grandad Baker was serving in a mine clearance service with its own branch badge as early as the first world war.

I thought I would try and unravel the mystery of this branch badge. The person I contacted was the curator of the naval museum in Portsmouth dockyard. He didn't have any references to the mine clearance service, but he did have a book of badges for the Royal navy which included the badge. This gave the information that at the end of the first world war a number of national servicemen were given the opportunity to stay in the navy and sweep mines rather than return to civvy street. This was the mine clearance service, and for this they were given a badge. Then on closer study of the photograph I noticed a name on the cap tally. This read HMS PENARTH, which tied in with what I had already found out, as HMS PENARTH was a minesweeper commissioned around July 1918. But PENARTH didn't have a very successful life as in February 1919 it struck a mine in the north sea off the north of England. Giving it a commissioned life of about six months.

About there the trail starts to tail off. PENARTH's commissioned time being so short there are very few references to it. As for the mine clearance service I do not know how long it lasted until it was disbanded. So, I am appealing to readers of MAD magazine. Does anyone out there know anything about the mine clearance service that was formed in 1918, the ships that were used, how long this service lasted, and how successful it was?

If anyone has any stories I would like to here about them please : PO(MW) Baker, c/o The Editor, MW Section, SMOPS



THE JOHN MUNNINGS MEMORIAL NOVICE TRIATHLON 2000 - SUNDAY 26 JUNE 2000 - HMS DRYAD

Billy Holman FDU1

Morning 'standeasy' 5 May 2000. "So lads, who fancies doing a triathlon?", "Come on Jas and you Frank, you do a bit of cycling!"

"So how far is it?"

SWIM	-	400M
CYCLE	-	12 MILES
RUN	-	3 MILES

With a bit more coaxing, we had a team:

LS(D) 'Billy' HOLMAN
LS(D) 'Jas' DAWSON
ALS(D) 'Frank' SPENCER

All novices, myself just qualifying as a novice vet (age 35). My next task was to locate a decent road racing bike. PO(D) 'Pony' Moore agreed to lend me his. Training began! Before we knew it the big day arrived.

I awoke a bit bleary eyed and hungover, the CPO(D)'s fault as he had his wedding reception the previous night, not good for a man in training! A quick peek out of the curtains, a fine day, not too hot and fortunately not raining. We arrived at HMS DRYAD for registration at 0930, a short brief on safety was given and they also told us that the cycle route was 15 miles not 12!

We found our start times and went off to prep our gear, tyres pumped, talc in shoes and not forgetting to vaseline those vulnerable bits! Before I knew it I was at the poolside, 5,4,3,2,1 GO. Jas and Frank starting shortly after me.

16 lengths of the pool then I was out for the cycle, twice round the circuit on roads outside HMS DRYAD, slightly up and down hill all the way. Back in the gate for the start of the run, dismounting the bike was an experience! However, you soon find your stride, only 3 miles to go! Something they forgot to mention was the length of the hill on the way out!

Back into HMS DRYAD main gate and the finishing line looms, last burst of energy and its finally over. Time now to catch your breath.



A quick shower, then when the final competitors arrive, a well earned shandy and hot buffet laid on in the Sports Bar. The presentation began shortly after and to our amazement but with great delight we were awarded First for the Men's Ships Team category.

Frank -	1 hour 23minutes
Billy -	1 hour 25minutes
Jas -	1 hour 27minutes

A great day out for competitors, friends and family, why not give it a go next year!

MINE COUNTERMEASURES TASK GROUP GULF DEPLOYMENT 2000

Cdr Gary Sutton RN (MCM2)

There is nothing new in the sight of a group of Royal Navy minehunters operating East of Suez, as demonstrated by their presence off Kuwait in 1991. However, what is new in this key maritime region, is the shift away from an historically reactionary presence, to a fully programmed, peace-time deployment cycle for self-sufficient mine counter-measures (MCM) task groups.

Such a policy, of course, merely reflects the tenets of the 1998 Strategic Defence Review, which called for Britain's Armed Forces in the 21st Century to be inherently mobile, equipped and trained for immediate tasking and capable of sustained operations far from home. The MCM community has a key role to play in this expeditionary environment and it was quickly challenged to prove its capability. In December 1999, the Commander-in-Chief Fleet ordered the UK's high readiness MCM force to deploy, at short notice, to the Arabian Gulf, where it was to operate as an integrated task unit in support of Commander UK Task Group (COMUKTG), embarked in HMS ILLUSTRIOUS. Participation in several combined exercises was also planned, including ARABIAN GAUNTLET, with American, Belgian, Dutch and Saudi Arabian assets also taking part.

HM Ships ATHERSTONE, BRIDPORT and INVERNESS formed the core of the UK MCM force, with invaluable oceanographic data provided by HMS BEAGLE. RFA SIR GERAINT played host to members of a specialist Fleet Diving Unit as well as an engineering Forward Support Unit, the latter undertaking 3 main engine changes during the 5 month period and working hard to maintain high levels of asset availability. Tactical control of the force was vested in the MCM Tasking Authority (MCMTA), based around an enhanced 2nd MCM Squadron Staff, under Commander Gary Sutton Royal Navy. Both BEAGLE and SIR GERAINT acted as the command platform during the deployment, although neither was specifically designed for the task. It is therefore good to see that the plans for the new Echo class survey vessels have incorporated this role from the outset.

This, then, is the RN's MCM contribution to the UK's Joint Rapid Reaction Force. By deploying together, the force was able to follow a coherent training programme, which included a full 145nm seabed and oceanographic survey off Oman, in preparation for EXERCISE SAIF SAREEA 2001. In addition, the majority of the embarked clearance divers achieved the maximum 80m diving capability and mobile noise ranging equipment was used successfully for the first time, prior to committing the MCMVs to the exercise mine threat area.

The force therefore arrived at a high state of readiness, allowing the MCM Commander to concentrate on other issues, such as the integration of his force within the UK and US maritime groups. Crucially, this deployment took the Joint Maritime Course scenario a stage further, proving that MCMVs can operate in the van of a CVS task group, in complex, littoral settings some 6000nm from home. Much practice is still required, however, with command and control considerations always uppermost in the MCM Commander's mind, due to the limited communications suites in his ships.

In conclusion, the Gulf 2000 deployment was highly successful: it proved the viability of an integrated MCM group, tasked with conducting lengthy operations far from the UK base. Lessons certainly need to be learned, but it is clear that the UK's ability to deploy such a capable and self-contained force is viewed with respect by the Gulf States and others. More importantly perhaps, it demonstrates the added benefit that an MCM force offers a prospective Joint Force Commander in his efforts to outwit an enemy and so win for himself the freedom for decisive Manoeuvre from the Sea.

THE SAILOR'S FUND AND FLEET AMENITIES GRANTS COMMITTEE

CPO (MW) 'TAFF DAVIES' FLEET REP 2 (MM/PPs)

Yes I know this isn't a Minewarfare subject, however this advertisement is an attempt to make the 'Small Ship Navy' aware of the funds available. This money is available for use to enhance your welfare. Last year most of the bids for grants came from shore establishments with only 3 ship's applying. Let's get the bids in from ships and not from 'rich' shore establishments who have traditionally been granted the monies. The fund welcomes any bids from Senior/Junior rates messes. The days of applying to the various Dockyards for mess refurbishment's when your vessels are in Refit/AMP/BMP are gone, there is little or no money available to carryout the work you've requested.

What can we apply for?

On a vessel the following can be bid for:

Mess improvements	Last year HMS SUTHERLAND applied for £17,606
Expeditions	HMS ENDURANCE - £7,654
Fitness /Sports Equipment	

Items not funded by SF/FAF: Minibuses, Washing machines/dryers

How do I apply for the grant?

Procedure for inputting an Application to the SF/FAF

1. Instructions on how to apply for a grant are contained in BR 8588 and on the application Form NHC 66. Fleet Rep 2 (me) has the relevant forms and I am available to help process your application. The procedure set out below provides a checklist of requirements although it may not suit every application. If the Sailors' Fund representative is unable to advise on any aspect, DNSC staff should be consulted.

Stage 1 Identify the Requirement/Nominate a Sponsor;

Stage 2 Consult Sailors' Fund Area Representative

Stage 3 Produce a Statement of Requirement (SOR);

Stage 4 Complete NHC Form 66 having:

Consulted (if necessary)
Property Manager;
Other establishments;

DNPTS (by 15 January and 15 July for fitness equipment)

Command Supply Officer
Command Quatering Consultant;

Obtained 2 estimates costed against the SOR;

Obtained necessary financial information from Service Fund Accountant;

Stage 5 Obtain Welfare Fund (or equivalent) approval to the Application including requirement to provide (minimum 20%) contribution. Exceptionally and, where a good cause is made, small units and small ships may receive a grant where the contribution is less than 20%

Stage 6 Obtain Commanding Officers approval and signature;

Stage 7 Forward to Senior Administrative Officer.
Application should contain

- a) Covering letter;
- b) NHC Form 66 signed by the Commanding Officer;
- c) Justification
- d) Statement of Requirement;
- e) 2 estimates (costed against SOR);
- f) Any other supporting documentation.

2 Applications should reach the appropriate Senior Administrative Officer as indicated in time for all bids to be prioritised and WITH DNSC.DNPFS BY 1 MARCH FOR THE JUNE MEETINGS AND BY 1 SEPTEMBER FOR THE NOVEMBER MEETING

3. Good luck with all your applications, I can be contacted at the following addresses:

1 PBS, Ext.: 26372.

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A DITTY ABOUT DIVERS

By Anon

I found this in the memory of someones computer and thought I would share it with you all.

A CLEARANCE DIVER

As seen by the Royal Navy An overpaid insufferable tax burden. Who is indispensible because he has volunteered to go anywhere, and do anything as long as he can drink, brawl, steal cars, corrupt women, lie and wear a ROLEX DIVERS WATCH AND A STANDARD DIVERS KNIFE.

As seen by his Commanding Officer A fine upstanding specimen of an honest, loving, athletic, provident, women appreciating, improvising sailor. Completely misunderstood by the Royal Navy, Shore patrol, Civil Police and his wife. But has however signed the temporary loan book for his ROLEX DIVERS WATCH AND STANDARD DIVERS KNIFE.

As seen by his Shipmates A whining, moaning, complaining, overpaid excuse for a sailor who works less than his ROLEX DIVERS WATCH and is about as witty and sharp as the handle of his STANDARD DIVERS KNIFE.

As seen by the Shore Patrol A drunken, brawling, car stealing, women courting, liar who wears a ROLEX DIVERS WATCH AND STANDARD DIVERS KNIFE.

As seen by his Wife A little known, hungover member of the family, who comes home once every six months with a rucksack full of dirty washing and a hard on. Wearing a rusty STANDARD DIVERS KNIFE and not on time because he has pawned his ROLEX DIVERS WATCH.

As seen by Himself A tall, handsome, highly trained, deep diving, double crimping, bomb disposal expert, professional killer, disco dancer, bare knuckle fighter. Who is a world renowned female idol, easily identified by his exquisitely designed extremely accurate ROLEX DIVERS WATCH AND STANDARD DIVERS KNIFE.

UPDATE FROM THE RNR

By Lt Cdr D.G. Fearnley RNR

The synthesis of the present RNR Minewarfare branch training has its origins in the best practice of the former Tenth MCM Squadron, and has evolved into its current state. Acknowledged as efficient and ever increasingly successful, this training has been lead over the last six years, predominantly by officers who had previously served on that staff and in that squadron. The RN are regularly updating their equipment, procedures and techniques, thus the need for the RNR to be able to maintain their current efficiency and worth as perceived by their counterparts, it is of vital importance that the RNR Minewarfare Branch has to develop accordingly and maintain operational credibility.

Previously training was organised and delivered by RTO1PBS with a loyal band of RNR instructors. The planning and delivery of weekend branch training is now the responsibility of the Minewarfare Training Group. The emphasis is to improve the training delivered thus reducing the time the young reservist is on the untrained strength. The MW Training Group's TOR's have been approved and promulgated as a Reserves Memorandum by DNRes emphasising the importance of their task.

MW1(R)- Responsible for weekend training, and training development.

MW2(R)- Responsible for MWC2 training and Ex Special Reserve

MW3(R)- Responsible for MTSS training

CDRE MFP considers that sea training is vital for the RNR MW branch, and has agreed to provide a number of sea weekends per term. Due to operational and exercise commitments, planning these weekends is difficult but he has agreed that three ship weekends per term will be the norm. These weekends normally run from either Portsmouth or Faslane, and it is hoped that a weekend during each OP PIKE will be allocated to RNR training. This excellent training opportunity will be made available to members of the OPSSEA Branch as availability permits. The training for the weekend is planned and co-ordinated by RTO1PBS, who has established excellent working relationships with the allocated MM. The weekends to date have been over subscribed and produced outstanding training opportunities, greatly enjoyed by all. This sea time is very important and having RN ships running for the sole benefit of the RNR allows officers and ratings to complete their task books much more quickly, resulting in better motivated people. The Commanding Officers of the MM's have been most impressed with the enthusiasm and skills displayed by the reservists.

The Mine Warfare Group is seeking to improve opportunities for training the Seagoing MW Officers and Ratings, and has established very close links with both the functional employer, CDRE MFP through RTO and the MW section in HMS DRYAD. The MW training group have been working hard to produce an outline programme, parts of this programme are in conjunction with the OPSEA branch.

SMOPS have agreed to organise one weekend per term, using the HUNT and SANDOWN simulators, and dates will be published by RTO early in the new year. The MW training team are currently working on a project to enhance the role of the MW ratings at sea, with the aim that RNR POMW's, can, after a period of supervised training, act as the Ops Room Supervisor. Once again, the MW team are working very closely with CDRE MFP's staff and the MW section HMS Dryad, who will validate the new proposals and provide the very vital resources to train the RNR up to the necessary TPS.

Amethyst and the BRNC simulator weekends are in the compendium of weekend training and it is hoped that the branches will soon be able to use the wider facilities available at BRNC (including the river). Fleetwork is an important skill for bridge watch

keeping officers and during a recent visit to a MERWEX weekend it was agreed that MW, OPS(SEA) and AW officers should attend regular MERWEX weekends and in principle it has been agreed that one MERWEX per term would have a specific module for officers, fleetwork training and the dates will be published in the near future. Building on the success of the two weekends last year, one weekend per term has been programmed for MW Seagoing Officers and Ratings. Held at SCOTIA and KING ALFRED concentrating on Minewarfare, seamanship and NBCD, and where appropriate include a visit to an MM, boatwork and a visit to the mining/sweepdeck at SMOPS. In addition a visit to the NATO Mine Warfare School at Eguermin has been arranged for June. The first time that the school has welcomed the RNR over a weekend.

The requirement for MW Staff Officers and Senior Rates is likely to grow over the next few years and therefore the MW Training Group's first task was to review this training. The importance of MTSS and MCM Expert as MW tasking and planning tools was confirmed by CDRE MFP and the new MTSS Core Competency Training will consist of four sequential training weekends commencing Jan 00. It is essential by using the MTSS Containers at SCOTIA and KING ALFRED, that all the Staff Officers(ORO's) and Senior Rates (ORS's) complete this course during the next twelve months. MTSS CBT package should be in the RTC's in the new year.

The well established MW staff training weekends will continue at HMS KING ALFRED and will include MCM Expert training as well as, broadening warfare and planning training. There will be normally two MW weekends per term. The Training is being based in Portsmouth with access to facilities at SMOPS and alongside MM.

Team work and planning in an exercise environment is vital training therefore the Tacex weekend will be held during the winter term, and other branches with an interest in MW such as AWNIS and AW will be invited to send representatives to this important weekend. A preparatory Tacex initial planning weekend will be organised for the key players a month or so prior to the actual Tacex weekend. OPSHQ run a weekend to bring their officers and ratings up to date with doctrine and concepts of operations, and have agreed to allow five MW Officers to attend, it is especially useful for officers who have dormant appointments on battle staff's or at MHQ's. In conjunction with CDRE MFP's staff, MW1(R) has designed standard MW state boards for use by both the RN and the RNR. CDRE MFP has identified a requirement for an RNR MCM Squadron staff, and the RNR under the overall control of MCM1 manned PIKE 2/00 in FEB/MAR 00 and PIKE 3/00 in NOV 00.

DDSEA(R) has set the RNR Mine warfare Branch Priorities for 2000/01 :

- a. Consolidate the role of the MW Training Group.
- b. MTSS Core Competency Training.
- c. Comprehensive training programme for seagoing officers and ratings.
- d. Shorten the time reservists are on the untrained strength.
- e. Seagoing officers and ratings to be small arms trained.
- f. Increase the numbers in the branch.
- g. Man in accordance with CDRE MFP's priorities.
- h. Consolidate the position of the RNR MCM Squadron Staff.

MINEWARFARE TRAINING AT SMOPS

Lt Cdr Jonathan Lee (MWTAC)

Stream Training Update

Stream Training formally started September 2000 and is now well under way. The natural progression to this is that officer and senior rating cross trainees will now join the appropriate career course for the 7-week Sandown or Hunt Adqual course. LOMs & OMs will return for a 5-week module. Consequently, Hunt and Sandown PJTs are now only provided for CO, NO & GO designate.

MW Sea Training



LS Wellings (PO/MW/03 Course) instructs OM2/MW/39 students in RCMDV preparations

In July, the Minewarfare Section embarked on its largest sea training week in the last 3 years. The 5-day sea-package involved HMS MIDDLETON and HMS CATTISTOCK running from Portsmouth and HMS PENZANCE operating from Faslane. A total of 65 students including OM2(MW), LOM(MW), PO(MW), MWO and CO desigs were embarked. Included in the 65 were 14 students from the Hellenic Navy, who were training alongside their RN counterparts before taking over HMS BICESTER and HMS BERKELEY. The training onboard was conducted by 10 staff from the MW section and apart from some initial confusion during the sweeping phase, as the Greek for 'heave in' is 'veere', all training serials were completed to a high standard in favourable weather conditions.



Cdr Richard Bell Davies (Cdr(U), MW staff and students at the end of Sea Training.

Saudi Training

The MW Section was very pleased to welcome the second batch of follow on crew for the RSNF Al Jawf Class (Saudi Sandown Class). Nearly 30 students were trained throughout the year. Sonar Operators, Minehunting Directors and Minewarfare Officers all completed their courses with the MWOs and MHDs combining for their final assessments. They are shown here under instruction from CPO(MW)(O) Max Coffey.



St. Marys Hospital Rest Room Refurbishment by OM(MW)37

After a request to HMS DRYAD for assistance in decorating the Care of the Elderly Rest Room in Kingsclere Ward at St Marys Hospital in Portsmouth, WO(MW) Pete Whitehead volunteered the services of OM(MW) 37 currently on holdover. Armed with materials funded by the hospital,

the 10 trainees under the leadership of PO(MW) Larry Lamph, spent 5 days preparing and decorating the room. The DRYAD Central Amenities Fund kindly donated funds for some prints to provide the finishing touches. Commodore Rodley can be seen here presenting a DRYAD crest to Bev Vaughan, the Ward Sister, accompanied by some of the patients and course members.

MCD Conference 2000

Commodore Goldman (Cdre MFP) hosted the biennial MCD Conference in HMS DRYAD in June. An excellent cross section of the Minewarfare and Diving community attended the 2-day conference. The briefings from representatives of DERA and the Integrated Project Teams were particularly appreciated and MCM2's presentation on the Gulf Deployment 2000 was very well received. Thank you all for your involvement.

Minewarfare Reunion

The annual Minewarfare reunion was held at the Royal Sailors Home Club, Portsmouth on July 21st attended by 100 serving and past members of the Branch and their partners. CPO(MW) Taff Reader and WO(MW) Pete Whitehead kindly made all the arrangements and are keen to receive any feedback on both the suitability of the venue and format of the evening. If you have any recommendations or missed out on an invitation, please contact them on extension 4790/4789.

Humorous Dits

Needless to say we hear or see many humorous answers to questions both on paper and in the classroom. Some of the better ones are repeated below!

Answers seen on OM2(MW) module exams:

Question: State the purpose of Sonar 193M Mod 1?

Answer: *To detect mines that can't be seen on radar.*

Question: Using the diagram, name the parts of Sonar 193M?

- Relative bearing readout

Answer: *True wind indicator*

- Poss Mine/Non Mine/In contact buttons

Answer: *Left/Middle/Right button*

- HF button

Answer: *Green button*

- CAAIS/Local button

Answer: *Spring loaded button*

Question: State the 6 stages of a search?

Answer: *Search, Classify, Look at it, Check it out, Put a bomb on it, Blow it up!*

Question: State the length & construction of a Kite Wire?

Answer: *600 metres of polypropylene*

Answer seen on OM1(MW) PPE exam.

Question: State and list the personnel required for recovery of a Short Scope Buoy?

Answer: *7*

PO(MW) Career Course during lecture on Armed Team Sweep Recovery.

Question to instructor from one of the students – *"When are the floats recovered?"*

Hellenic student in Sandown Trainer

"The starboard vehicle is now ready for lunch!"

If anyone has witnessed any similar funnies, please send them to the editor – all submissions will remain anonymous.

Leavers

Whenever personnel leave the Royal Navy from the MW section, we traditionally present them with a glass mine. Over the past year these have included three CPO (MW)(O)'s, Simmo Simmonds, Taff Reader and Max Coffey. We wish them all well in their future careers although Taff did not go very far...after one month as an Office Angel employee, he returned to his previous billet as Minewarfare Training Office Manager as a Full Time Reserve Service (FTRS) Chief.

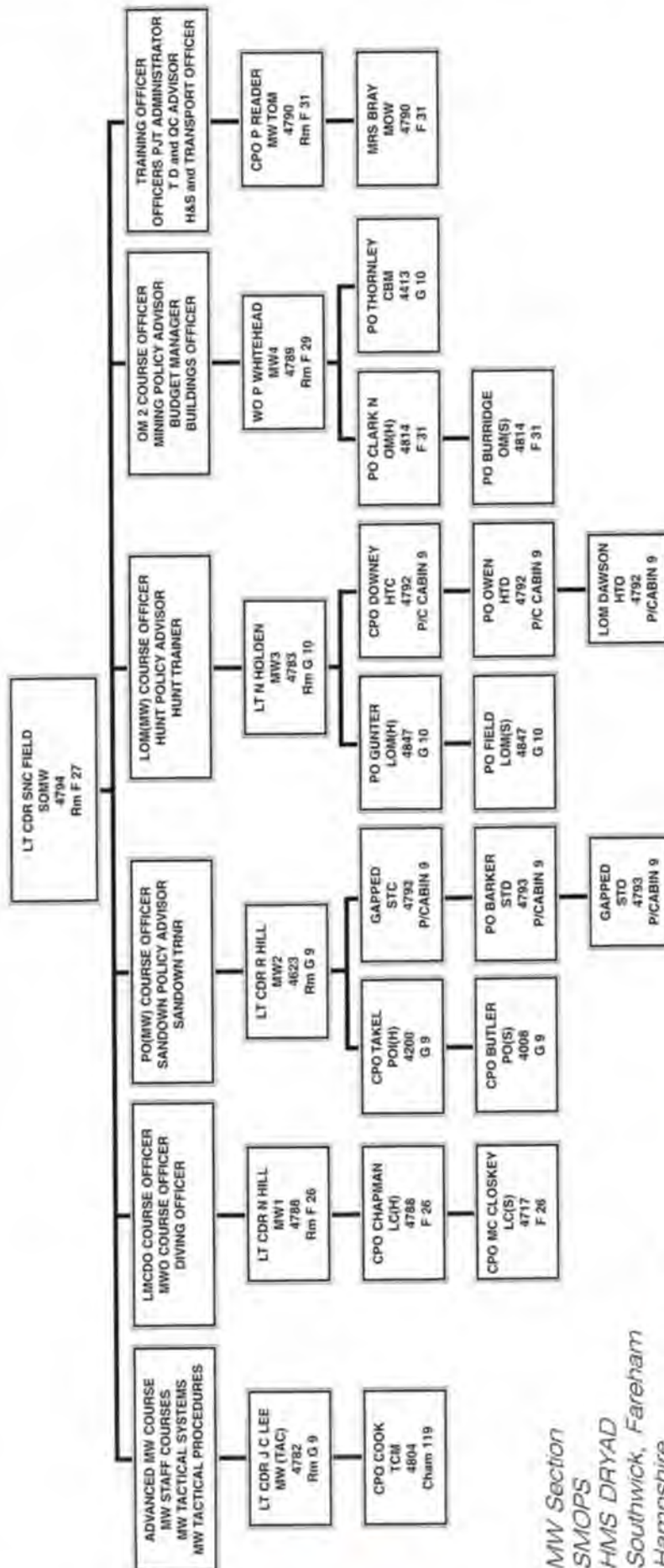
Max Coffey retires

CPO(MW)(O) Max Coffey (left) retired from the navy on the 3rd August 2000 after serving 23 years. His last job in the navy was as 'head' of the Hunt trainer at HMS DRYAD, where many a student going through the trainer for the

assessments trembled at the thought of having to reach Max's high standards. On his last day at Coniston Bldg, Dryad he was presented with a glass mine by Lt Cdr Johnathan Lee R.N. He leaves the navy to become a sales manager for Southern Electric and improve on his golf game.



SMOPS Minewarfare Section (November 2000)



MW Section
SMOPS
HMS DRYAD
Southwick, Fareham
Hampshire
MOD Network: 93835...(ext)
Direct Dial: (023) 9228 (ext)
Fax: (023) 9228 4895

LETTERS TO THE EDITOR

Dear Editor

I have read the last edition, and thoroughly enjoyed it. Living in Annapolis, Maryland in the U.S.A. it is great to keep up with what is going on with the branch. The new millennium format is excellent.

I am still involved with Sonar systems design through my company in the states, and I am really interested to follow progress with 2093 / 2193 etc.

Keep up the great work – it is greatly appreciated by this (long) retired MCDO (CD Course 1965, MCM1 in 1979-80).

From Bryan Barrett
Cdr (MCD) Retd
607 Monterey Avenue
Annapolis
Maryland, 21401
USA

Dear Editor

I have read this edition from cover to cover and I think it was a most interesting read. My 5 year old son was fascinated by LS Fullen's account of diving with Leopard Seals.

From C. Redstone
Cdr RN

Dear Editor

Having just read the excellent article in the 99th issue of the MAD Magazine concerning the 'birth' of H.M.S. PENZANCE I am reminded that my first ship, having qualified as a diver in 1937 was H.M.S. PENZANCE. To join her, at Simonstown, I was given passage in the old DURHAM CASTLE, together with 8 other matelots and 170 tourist class passengers. For my sins, in spite of being a mere young AB I was elected social secretary! 7 weeks later we arrived in Cape Town and having disembarked somewhat reluctantly, proceeded to join the ship at Simonstown. She looked, and was, a grand little ship to serve in, under independent command of a 4 striper captain we visited all the smaller ports that the larger ships couldn't get into. My reception was somewhat exciting when I was turned out of my hammock roundabout midnight to assist in fighting fires up table mountain.

Although we did not do much diving during the short time I served in 'PENZANCE' we did play our part in the first Navy Days to take place on the South African station. An amusing incident occurred when the flag ships senior Diver was being interviewed by a Cape Radio presenter. When the diver was asked the inevitable question as to what his most dangerous experience had been he related a real blood curdling incident and ended up by stating that "when he woke up he found that he was unconscious". Another amusing comment was heard after two ladies who had been watching our activities for some time, one said to the other "that diver must have been a very long way down because it's taking them a hell of a long time to wind him back up to the surface again". Good old pattern 3 pump!

Due to an AFO which said that sailors could become flyers I left 'PENZANCE' somewhat prematurely for UK and became, what I believe to have been our first 'Flying Diver'.

By the way the BBC2 programme 'Journeys to the bottom of the sea' shown on Monday 13th March, gave the distinct impression that the submarine had only recently been located whereas diving from 'RECLAIM' we dived on her in the early fifties just prior to the 'Affray' saga. The intention was to cut M1's prop off and give it to the Submarine Museum. Unfortunately we failed due to lack of time, approaching springs and the fact that the old Oxy Hydrogen torch wasn't really good enough at that depth. With all best wishes to you and the continued success of the magazine.

*From Mr W.B Filer
"Five Bells"
13 Grove Road
Lee-on-the Solent
Hants.*

Dear Editor

I read with great interest the article on explosive shock trials, in the MAD Magazine. In the 1960's I had the job of carrying out similar trials, in the Mining grounds in the Solent. The object was to test each class of ship, so that tests were relatively frequent. In those days the charges used were mostly A Mk 12 mines, so that a considerable shock used to be felt in the Isle of Wight, and in Portsmouth and Southsea. This led to all sorts of complaints from the general public. One of these was from Ryde council, who complained that the shock was responsible for damaging the Loo's on Ryde pier. On the occasion of the next of the next trial therefore, the officer i/c Mining Trials had to pay his penny and solemnly sit thereon while the charge was fired. He lived to tell the tale.

On another occasion, there was a most solemn service in Portsmouth Cathedral and during a silence the whole building shook, as our charge was fired. I was told later that one of my acquaintances was heard by all around her to remark "There goes Miles again, up to his trick's". but the one nearest home was when my wife was in the china and glass department in one of Southsea's large department stores. Of course, I had to choose this moment to fire the charge. A glass shelf carrying crystal goblets shattered. My wife decided that this was not a good day for buying wedding presents. These are a few personal memories of those days, I have no doubt that my predecessors and successors in the job have equally amusing memories. But keep the good work, to us oldies the MAD Magazine comes like a breath of fresh air.

*From Miles Chapman
46, Blenheim Road
Horndean
Hants.
PO8 9TQ*

The Minewarfare & Clearance Diving Officers' Association

By Lt Cdr Rob Hoole

It's our birthday!

In 2001, we celebrate the 10th birthday of the Minewarfare & Clearance Diving Officers' Association (MCDOA). Coincidentally, 2001 also marks the 35th anniversary of the formation of the MCD Branch (25 Feb 1966) and in 2002 we will see the 50th anniversary of the Clearance Diving Branch (7 Mar 1952).

Aim and eligibility for membership

The aim of the MCDOA is to perpetuate the Esprit de Corps and comradeship amongst Minewarfare and Clearance Diving Officers in the Royal Navy through the regular exchange of information and meetings on both a social and formal basis. Full membership is automatic for all serving and retired MCDOs, MW Officers, CD Officers and officers who have qualified in Deep Diving (QDD) as well as officers of foreign navies who have similar qualifications and have served with the RN. Associate membership is open to persons who have made a marked contribution to the MCD community and the welfare of its members if nominated by a full member and endorsed by the committee. Currently, we have 130 serving officers, 116 retired officers, 2 honorary life members and 14 associate members in our ranks.

Activities

Each year, the association holds a guest night in the Spring and an AGM and mess dinner in the Autumn. It also supports and subsidises local gatherings of members by arrangement with the committee. A regular newsletter is published entitled '5 Bells' and copies of the Minewarfare & Diving magazine are provided to retired members. When required, the association provides support to members in need and operates a link system for promulgating news. Sadly, this sometimes includes injury or the death of a member in which case the association ensures that the branch is suitably represented at the funeral if appropriate.

President and committee

The President of the association is Captain Chris Massey-Taylor OBE RN. The committee for 2000/2001 comprises:

Chairman:	<i>Cdr David Hilton</i>
Vice-Chairman:	<i>Lt Cdr Rob Hoole</i>
Honorary Secretary:	<i>Cdr Frank Ward</i>
Honorary Treasurer:	<i>Lt Cdr Dave Ince</i>
Southern Rep:	<i>Lt Cdr Nigel Hill</i>
Northern Rep:	<i>Lt Cdr Topsy Turner</i>
Rtd Officers' Rep 1:	<i>Cdr David Edwards</i>
Rtd Officers' Rep 2:	<i>Cdr Mike Kooner MBE</i>

Applications for membership

Annual membership costs £10, payable by standing order. If you would like to join and believe you are qualified, please contact:

Cdr F S Ward Royal Navy
Honorary Secretary
MCDOA
Castlewood House
77-91 New Oxford Street
London WC1A 1DS

Tel: 020 7829 8584
Fax: 020 7829 8536
E-mail: fward@deso.dpa.mod.uk
Mobile: 07801 027502



LEAVING THE REGULAR SERVICE?

If the answer is yes, have you considered a part time career serving in the MINEWARFARE BRANCH of the Royal Naval Reserve?

The commitment is two weeks continuous training per year plus an evening most weeks and the occasional weekend. Reservists receive naval pay and travelling expenses plus an annual tax free bonus which is currently up to £1,050.

Entry into the RNR is up to 45 years for both ex-RN Officers and Ratings. For further information, contact your nearest Reserve Training Centre or the Directorate of Naval Reserves, Room 028, South Terrace, HM Naval Base, PORTSMOUTH, PO1 3LS.

FEEDBACK

Here is your chance to tell us what you think of this years MAD mag and to contribute to the next issue...

Dear Editor,

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

Please find attached my contribution towards Minewarfare and Diving 2002 .

All text submissions should be single spaced typed, preferably in Microsoft Word, and supplied on disk with a hard copy. Any accompanying pictures should also be sent as hard copy, scans cannot be accepted.

Name Rank / Rate
Unit / Address Job title
..... Tel / Fax
..... Signed

Can you identify these people?



This smiling sea cadet can blame his brother for supplying this photograph.

Taken in 1971. He was the original "coracle coxswain" and currently works in DRYAD



Answers available from the Editor

