

# The FACEPLATE

October 1959



EXPERIMENTAL DIVING UNIT  
and DEEP SEA DIVING SCHOOL

Diving Manual

This may be the last report concerning the Diving Manual. Distribution of Part 1 (the big part including the tables) has commenced and the two remaining parts have been promised in a month or two. When your manual arrives I would appreciate hearing about any changes you would like made. And the same goes for the new Diving Log Book and the various new diving forms. Changes can be made quite easily.

Pay Raise

This item has been shelved until Congress returns. It was approved all the way up the line until it got stopped in the Bureau of the Budget for further study. I presume that they will have it ready for presentation when Congress comes back early next year.

Mixed-Gas Instruction

EOD and UDT personnel are being offered various courses in mixed-gas scuba by the Bureaus of Ships and Personnel, to commence in November. My guess is that it will boil down to one course to train instructor personnel from the various activities in the Mark 5 and the British C.D.B.A.. Those instructors can then return to their units and train the other men. The Diving School and Swimmers School will add mixed-gas training to their courses as equipment becomes available.

Diving Hose

GSSO Instruction 10440.1B of 7 July 1959 concerns procurement and life of diver's air hose. The instruction should be available at all diving activities and is important enough for all divers to read.

Equipment Troubles

USS WINDLASS (ARSD-4) recently had an aqua-lung tank valve failure which shut off the diver's air. A letter to the Bureau of Ships set the wheels rolling toward a possible redesign of the valve. The point is that this same casualty has been experienced by many diving activities, but they haven't bothered to report it. A letter to BuShips or to EDU is all that is required to report a casualty or equipment failure. Perhaps a weakness may be found and cured which might otherwise have ultimately resulted in a fatality.

Scuba Training

There has been some question about the scuba training given at the Diving School. It consists of about three weeks of the 26 week course and is designed to add another tool to the first class diver's capability. Although 60 foot dives and 500 yard compass swims are included, there is no attempt made to train a "frogman". BuPers manuals will be changed to remove the misunderstanding that a "diver/scuba" must be trained in all the requirements of a "scuba diver". However, I will put the graduates of our swims in cold, murky water against the graduates of other courses, insofar as the underwater utilization of scuba goes.

## Letters from the Public

We receive many letters concerning diving, but the one partially quoted below is one of the gems. I thought you might enjoy it.

Gentlemen I -----would like very much for you to send me full details concerning Deep Sea Diving.

Such as pressure at working under various depths. No doubt you have a scale of pressure Coordinates.

I have read that it also is possible in the new diving gear to descend to approximately 125 fathoms but the time one can work at that depth is limited to about 2 hours. What is the mean depth at which one can work at in a aqua lung at skinn diving?

Those two Italian Officers set a world record at submerging a couple of years ago in their bathysphere. Between 15 or 16,000 FOOT. I believe one of em was named Umberto St. Umberto or something like that. Well send me what you can an I will be deeply appreciated.

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P.S. there is no pressure in fresh water to speak of is there?

## DEEP SEA DIVING SCHOOL

The training picture is now looking much better after the completion of 4 Deep Sea Classes on the new curriculum and schedule. The school has undergone a hard period of growing pains accompanied by many organizational and technical problems as the result of the recent combining of the U.S. Naval Salvage School, Bayonne, New Jersey with the DSDS, Washington, D.C. These difficulties are rapidly being eliminated with the result of a constant improvement in the training cycle. The school staff feels confident that continual improvements will be forthcoming and will enable us to send to the fleet new First Class Divers who can readily fill any billet at any time, whether it be salvage or submarine rescue.

The school is again assuming the U.N. Look with 7 Nationalist Chinese, 2 Thai, 1 Netherland, and 1 Burmese Naval Officer enrolled for instruction

Since the last printing of the "FACEPLATE" LT W. E. WISE, USN has been detached as Training Officer and now has command of the USS PETREL (ASR-14). "Good luck Captain WISE."

The big rush on Cross Training appears to be rapidly dwindling with the onset of winter just around the corner. The summer months saw an extremely large number of Cross Trainees enrolled and at one time closely outnumbering the long course trainees. Some of the old time divers checking in for C.T. have a hard time realizing this to be the same place, for at times the student enrollment pushes the 140 mark and all diving stations and craft operate full scale. We shall soon have the services of another diving boat available. The LCM received from Bayonne is being converted into a diving boat and will be a valuable asset to an already strained diving fleet.

Welcome aboard to the following new instructors:

DAW, A.N., HM1(DV) from the USS NEREUS (AS-17)  
BENNETT, T.J., HM1(DV) from the USS GREENLET (ASR-10)  
WILLIAMS, V., BM1(DV) from the USS BUSHNELL (AS-15)  
THOMAS, D.E., BM1(DV) from the USS TRINGA (ASR-16)

### "OLD DIVER" RETIRES

Edward W. HALLEY, SFC(MDV), USN informs us that he has transferred to the Fleet Reserve, as of the last of April 1959. Chief HALLEY graduated from DSDS on 30 November 1942 and has served in many ships. His last duty station was Commander, U.S. Atlantic Reserve Fleet, Florida Group, Green Cove Springs, Florida.

The "Old Diver", as he was known by his friends, says "Good-by and Thanks" to all those that helped him along the way, and to the eventual elevation to Master Diver. Also, please stop and swap "sea stories" with him when passing through Illinois. He is presently employed in a Midas Muffler Shop in Berwyn, but will be managing a shop in Elmhurst, Illinois in about two months.

We at the school send our regards to the "Old Diver" and our best wishes for you to eventually become an "Old Civilian".

The matter of improper handling of claims for diving conducted under extraordinary hazardous conditions is once again under close scrutiny by the Chief of Naval Personnel. Unfortunately, the proposed new pay legislation for divers did not pass the Bureau of Budget. This legislation would have solved the problem by increasing the basic pay of all divers and cancelling the provisions for special pay. Until such time as new pay legislation is approved, the diving organization of the Navy must live with present pay legislation.

In any case, the basic fact remains that honesty and integrity cannot be legislated. Irrespective of how individual divers, diving officers, and commanding officers feel, the administration of diving pay must be conducted in accordance with the spirit and letter of current pay legislation.

There has been a definite change in policy regarding the adjustment of obviously fraudulent claims. In the past, the matter was usually resolved by pay checkages. Recently, as a result of an investigation into the improper disbursing of public funds for special pay, disciplinary action was taken as well. This policy will be followed in the future.

All commanding officers, diving officers, masters, and divers should review Article A-4202, BuPers Manual, to ensure that they have a complete understanding of the provisions therein. In addition, officers scheduling or in charge of diving operations should ensure that the diving conditions reported are exactly as existing.

A guide to determining whether extraordinary hazardous conditions exist or not is in preparation and will be distributed as soon as completed. In the meantime, be certain that your diving records and pay vouchers can stand a very close inspection.

If you have any pressing problems in this area, LCDR R.A. BOWLING, Rm 3723, Navy Annex, Washington 25, D.C. will answer all queries.

Oxygen Transfer Compressor

The evaluation of a small, compact oxygen transfer compressor was recently completed. The compressor is suitable for use with any oil-free gases such as oxygen, helium, and nitrogen. It is diaphragm operated; insuring that the gases will not be contaminated by the compressor lubricant. The compressor will be great aid for any activity engaged in mixed gas diving operations.

Mixed Gas Scuba Safety Devices

Mixed gas scuba diving is inherently more dangerous than other types of diving since the diver is completely dependent on the performance of his equipment. Malfunction of the gas injection system will allow the oxygen content of the breathing mixture to drop to an anoxic level without warning to the diver.

To correct this situation, a number of warning devices are presently being developed. The function of these devices will be to provide a warning to the diver whenever the gas injection system is not functioning properly.

MEDICAL NEWSENS R.J. KIESSLING, MSC, USNR

Presently EDU has been performing studies in the areas of decompression sickness and nitrogen narcosis. The study concerning decompression sickness is aimed at developing a test to determine the adequacy of decompression following a dive. In an attempt to eliminate subjective bends symptoms and to hasten the occurrence of symptoms, divers have been taken to 18,000 feet following no-decompression air dives of 90, 110 and 125 ft. After 44 dives it has been established that symptoms reported on the three depths were significantly different in their relation to time of onset. This technique appears then to be both valid and reliable, thus establishing a measuring instrument which can determine the adequacy of decompression in any depth-time and decompression-time relationship. In like manner HeO<sub>2</sub> mixtures are now under investigation.

The purpose of the second study was to formulate a test sensitive enough to measure performance impairment under conditions of nitrogen narcosis at shallow depths. Five air dives have been completed to a depth of 100 ft. Subjects demonstrated a significant decrease in performance on three psychometric measuring instruments, i.e. choice reaction time, mechanical dexterity, and conceptual reasoning. This was the first objectively reported decrement of performance at a depth as shallow as 100 ft. On a simple percentage basis the choice reaction time score decreased 17% over sea level performance, the mechanical dexterity decreased 9%, while the conceptual reasoning score decreased 35%.

More dives at varying depths and breathing mediums will be performed. The anticipated results will provide quantitatively measured curves of performance decrement which will establish a basis to investigate the effects of such variables as drug administration, over-learning, changes in breathing rhythm, exercise, and CO<sub>2</sub> on performance under narcosis.

## EDU PERSONNEL NEWS

Captain Moffitt K. HOLLER, MC, USN reported on 31 August for duty as the Senior Medical Officer from Commander Submarine Squadron ONE. Welcome aboard Captain!

LCDR John L. GREENE, USN reported on 20 September for duty as the Research Engineer-Project Officer. Welcome aboard!

Welcome aboard is in store for the following personnel who have reported aboard recently:

GEDDES, G.C., ET1, USN from the USS BOXER.  
JOSEPHANS, F.E., SFP2(DV), USN from the USS PENGUIN  
SIROTNIAK, J.J., BM2(DV), USN from the USS RECOVERY

Orders have been received on the following personnel for transfer:

ZAMPERINI, A.L., SFC(MDV), USNR to the USS SALVAGER on 30 November.  
COX, A.H., SFC, USN to the USS HORNET on 31 December.  
DIMMICK, J.M., MM1(DV) made available to EPDOPAC in December.  
HUDEK, F.R., PHG3(DV) to Camera Repair Sch, Pensacola in January 60.

WHITAKER, C., GMC(DV) will depart 15 October for the Explosive Ordnance Disposal School, Indian Head, Md., his swap with MALLDER, SF1(DV) having been approved. MALLDER will report shortly.

## SPORTS:

The Experimental Diving Unit Softball Team won the American League title of the U.S. Naval Station Intramural Softball League but lost the championship to the winner of the National League (BuPers Data Processing). The EDU team was managed by our No. 1 pitcher, Burton Lee POWELL, TMC, the Master at the Unit. EDU has a 15-5 record with Powell winning 14 of them. A team trophy was presented to Powell on 22 September at the Annual Sports Awards Banquet by Captain LUCAS, USN, Commanding Officer, U.S. Naval Station, Washington, D.C.