

# The FACEPLATE

October 1957



EXPERIMENTAL DIVING UNIT  
and DEEP SEA DIVING SCHOOL

Several projects of great interest to you divers are in the planning stages, and this is your chance to send me your views. They could well influence what happens next.

(1) **DIVERS PAY** - This one is a little complicated in that hard times are at the Treasury's door, but at least we can get proposals ready for next year when things may be better. It is generally agreed that divers rate more pay and it is also generally agreed that the present system of computing diving pay is too involved; what with basic pay, 2¢/minute, 5¢/foot, \$5.50/hour, etc.. If you have any ideas for simplifying things, I will include them with those already received. One suggestion is to give each class of diver a substantially higher basic pay and eliminate the extras. "Equivalent pressure" will probably end up as being a thing of the past. There is no reason why dives shouldn't be made in the water - which leads to the next item.

(2) BuPers is still receiving requests for paperwork requalifications, which are no longer authorized in the manual. These requests must result from one of three things:

- (a) Commands not trying hard enough to get their divers requalified.
- (b) Group operations are not giving the ships an opportunity to conduct requalifications.
- (c) Requirements are unrealistic for the dives required.

The first of these is up to you. The second will be attacked by asking higher commands to cooperate. The third is another of those items which we are thinking about. Since most diving ships have only a 100 p.s.i. rated air supply, the 150 foot requirement may be far too much - especially when a standby diver is considered. The manual may be in line for a change, so let me know what your ideas are.

(3) We have gotten far enough along with our salvage training so that the idea of deep sea/salvage diver cross-training no longer looks so good. I have proposed to BuPers that we drop the deep sea and salvage courses and train the "new type" first class divers. This would eliminate cross-training (except for present first class and salvage divers) and would gradually eliminate the salvage diver except for mobilization requirements. Of course, all activities presently rating salvage divers would be getting first class divers (who would have had the complete salvage course).

(4) Part II of the Diving Manual (**SURFACE-SUPPLIED DIVING**) is now completed except for final editing and will soon be submitted. Then it will join Part I in the approval-printing processes which should be completed for Part I about May 1958. Part IV is being put together by LCDR ULLRICH

(5) The attached forms are tied in with Part I of the Manual and will be used if and when approved. The small one is a page of the Activity Diving Log which each command will keep (instead of the present form) as a record and later send to us. The Record of Dive form will be made up from the log and will serve two new purposes:

- (a) The diver will keep a copy in his permanent log.

- (b) The C.O.'s signature will authorize extra pay with no action required of the disbursing officer except to put out the money.

The SALVAGER (ARSD-3) visited D.C. last weekend and the SUNBIRD (ASR-15) is due on the 12th to give us a look at her new rescue chamber.

#### MEDICAL

CAPT. G. J. DUFFNER

During the past few months a number of interesting reports of diving accidents have reached the Unit. The cases which contain valuable lessons are listed below:

#### NO DECOMPRESSION DIVES CAN ADD UP TO TROUBLE

A 40 year old civilian SCUBA diver on the West Coast made three consecutive dives to 100, 70, and 50 feet. Each dive lasted until his air supply was exhausted which forced him to make fairly rapid ascents with essentially no decompression - only 20 min. interval between dives. By the next morning he was in the chamber on a Table III because of numbness and tingling that developed in one leg during the night. He was relieved without incident but the moral is clear - that "no decompression" dives shortly followed by MORE "no decompression" dives may soon accumulate enough inert gas to REQUIRE DECOMPRESSION. USE THE PROPER TABLES.

#### LUCKY HOSPITAL CORPSMAN GAMBLES ON A RECURRENCE AND WINS

A recent simple "pain only" case might easily have been turned into a serious recurrence except for good luck in the face of poor judgment. The diver on an East Coast AN made a 43 min. dive in 75 feet doing moderate work. Four hours after standard decompression on 80 ft. 50 min. tables he developed left knee pain that was completely relieved at 6 1/2 ft. in the treatment chamber. Treatment table I-A was chosen correctly enough, but instead of being taken to 100 ft. as called for in tables I or I-A as minimum treatment depth for any decompression sickness (except recurrences), he was decompressed from the depth of relief. While such a departure from standard practice may occasionally or even frequently get by, the chance of doing the patient serious harm makes it unjustifiable.

#### AGE CATCHES UP WITH CIVILIAN DIVER

In Southern California last month a civilian SCUBA diver completed a 370 ft HeO2 dive attempting depth records. He required recompression treatment within several hours of surfacing. His dizziness and pain were thereby successfully relieved although not until a recurrence on Table III forced him to a Table IV and over 38 hours of treatment. His tender, a 52 year old civilian, rode through the entire session only to require treatment himself to cure the knee pain that followed his first emergence from the chamber. This does not mean that the treatment tables are not long enough. The inert gas exchange in men over 40 years of age is unpredictable. Never neglect the value of Helium-Oxygen inhalation during the treatment of older men with decompression sickness. Older divers should not be exposed to extremes of pressure neither in depth or time. Divers over 50 should be limited to "60 ft and hard bottom".

There is little news from the Unit this report. The work is pretty much routine in the way of projects. We have completed several HeO2 runs 80%-20% up to 225' using 60' a minute ascent rate with no stops to the surface. This was extremely interesting to most all the divers. The only casualty was treated on treatment Table I.

There are seventeen (17) divers here at the Unit now, Strickland, GMC, is the Master. We received from the U.S.S. COUCAL, STEPHENS, PMC(MD) who is to relieve Jack Ockerhausen, BMC(MD) in the T.V. department. There is also another Master Diver to report this month, POWELL, TMC reporting from the U.S.S. SUNBIRD for duty.

The C.O. of the USS ABWAKI (ATF-96) reported receiving several faulty face masks (Jack Brown type) through the supply system. Inspection of the masks indicated the presence of identical cracks in the brass castings above the upper left harness fastening. In view of this report by the ABWAKI, it is recommended that activities make a similar inspection for cracked castings in any new face mask they may have recently received through supply requisitions.

Information on SCUBA Diving. (Ref. OPNAV Instruction 9940.1B)

1. There are certain inherent physical and physiological dangers peculiar to the practice on underwater free swimming which could result in the death of a swimmer working alone, regardless of his skill. Therefore, Commanding Officers and Officers in Charge of diving operations will insure that personnel using SCUBA in diving work, training and qualifications exercises, or for recreational purposes:

- a. Always operate in pairs;
- b. Are indoctrinated in the "BUDDY SYSTEM", wherein each swimmer of a pair, assumes the responsibility for the welfare of the other at all times while in the water; and
- c. Are graduates of the Underwater Demolition Team Replacement Courses conducted by COMHIBTRALANT or COMHIBTRAPAC or of the Underwater Swimmers (SCUBA) Courses conducted by those activities which are authorized by the Chief of Naval Personnel or are directly under his management control.

"HELIUM EQUIPMENT DOPE"

LCDR POPLIN

In addition to the standard equipment used for deep sea air diving, the following special equipment is used for Helium, Oxygen diving.

<u>COMPONENT</u>	<u>STOCK NO.</u>	<u>PAGE NO.</u>
Helmet, with cannister	G4220-293-7382	F-1 & P-2
Injector assy. consists of:		
**High pressure nozzle fitting**		
**High pressure nozzle	**G4220-151-7719	P-1
**Venturi discharge nozzle		

COMPONENT	STOCK NO.	PAGE NO.
Control valve adapter	GC4220-300-3018	P-3
Hoke valve	GC4220-221-1603	P-3
Valves, rubber, exhaust	GC4220-369-4549	
Screws for rubber valves		
Gaskets for secondary exhaust valve		
No. 72 Drill	G3455-266-9244	
Vise, Pin, for No. 72 drill	GM5120-243-1348	
Underwear, electric	523-U-53118-110	BUSHIP. SPEC. MAT.
Shell Natron	GM6850-290-8101	
Cable, ele. underwear		
Oxygen elbow and screen assy	GC4220-300-9644	P-1
Washers, cannister, neoprene		P-2
Inhalator, oxygen, divers	GC4220-240-7150	
Gas mixing outfit	GC4220-376-1387	
HEO2 adapters (Bureau)	GM-8120-527-2411	
Bastian Flessing Co. Chicago, Ill. N 1405-470858 (B)		

The following taken from Disbursing Digest, Vol. VII. No. 10, October 1957:

Subj: Effective Date for Additional Diving Pay of 2¢ Per Minute

1. Inquiries have been made to the Comptroller of the Navy, requesting information as to the effective date of the revised diving pay instructions and also, clarification thereof. The revised diving pay instructions were promulgated by Change 24 to BuPers Manual and Change 66 to NavCompt Manual, and were mailed almost simultaneously. Therefore, disbursing officers are advised that the revised diving pay instructions are effective upon receipt of Change 24 to BuPers Manual.
2. Additional pay of \$.02 per minute of total time for any dive not compensated for at \$5.50 per hour, and of \$.05 per foot for dives over 120 feet, is authorized by NavCompt Manual, par. 044055-2c, for deep sea divers, divers first class, divers second class, and salvage divers. Only divers first class are entitled to additional pay for "Equivalent pressure" footage dives. However, the combined total of such pay will not exceed the amount shown in paragraph 044055-2c. (NOTE THAT THE ADDITIONAL PAY FOR FOOTAGE AND MINUTE DIVES PLUS THE REGULAR MONTHLY DIVING PAY CAN AT NO TIME EXCEED \$33.00 PER MONTH).
3. When a diver any class is compensated at \$5.50 per hour in accordance with NavCompt Manual, par. 044055-2d, the additional pay of \$.02 per minute is not authorized. However, the additional pay of \$.05 per foot for the total depth when the dive exceeds 120 feet, is payable to deep sea divers, divers first class, salvage divers, and divers second class, and is subject to the monthly maximum amounts prescribed in paragraph 044055-2c.
4. The following examples are illustrative of entitlement to, and limitations on, amounts of special pay for diving duty:

FOOTAGE DIVES: A diver first class performs one dive to a depth of 135 feet, with a total submersion time of 1 hour and 30 minutes on 9/12/57, and one dive to a depth of 125 feet, with total submersion time of 1 hour and 15 minutes on 9/25/57:

Diver first class		\$20.00
9/12/57	1 hour & 30 minutes @ \$.02	1.80
9/25/57	1 hour & 15 minutes @ \$.02	1.50

9/12/57	135 feet	@\$.05	6.75
9/25/57	125 feet	@\$.05	6.25
			* \$36.30

\*NOTE: The member would only be entitled to the maximum of \$33.00 since the combined amount of special pay for diving, cannot exceed that amount, except where additional pay for actual salvage or repair operations is involved.

ACTUAL SALVAGE OR REPAIR OPERATIONS: A diver first class performs one dive in a depth of 140 feet, with total submersion time of 1 hour and 30 minutes during the month of September 1957. He would be entitled to the following:

Diver first class		\$20.00
1 hour and 30 minutes	@\$5.50	11.00 *
140 feet	@\$ .05	7.00 **
		<u>\$38.00</u>

NOTE: \*The additional pay of \$5.50 is not limited to a monthly amount.

\*\*The additional pay of \$.05 is subject to a limitation of \$13.00 per month.

E.D.U. NEWS

SUGLIA, HMI

Recent departures:

ADAMS, T. E., FP1 was transferred to the ATF-160 in the Norfolk area.

KOHL, O. A., ME1 was transferred to the U.S.S. SKYLARK ASR-20, Squadron 10, New London, Conn.

Jack Wheat, MEC went out on twenty and is now employed as a sheet metal worker in the D.C. area.

Munger, F. H., HMC goes out on twenty this month. Frank plans to go into the Insurance business.

KIRK, B. E., ME1 received notice of orders. Destination is indefinite at this time.

The unit has quite a few projects in the fire in which we are grinding away, and CAPT DUFFNER is working on Phase #2 of mixed gas scuba in which the ascent will be tried at 75 ft. a minute in this particular phase.

The merger of the deep sea and salvage diving training has been completed and all courses of instruction are in full swing. The average on-board count of students is now up to about 125. With 17 different courses being offered, scheduling has become a real problem. The acquisition and conversion of a YFN to a diving barge has greatly increased the classroom and shop space. The old wooden diving floats have been surveyed, and eight diving stations are in operation on the new diving barge.

Two ICI hulls are in use for training in ship salvage and underwater demolition. The first underwater demolition class successfully removed the screws and cut off the shafts and struts of one of the ICI's. Future classes will continue to remove designated portions of the hull until the entire hull has been removed.

The other ICI hull has been successfully patched, dewatered and raised by two salvage classes. Both hulls provide for excellent training in diving around and inside sunken vessels.

Scuba training continues despite chilly weather. The fresh water "cove" recently leased has worked out well as an open water scuba training site. A range 2000 yards long with an average depth of 26 feet has been set up for distance swims. A submerged ICI hull is used for underwater inspection projects, underwater repair work and bottom search. Eighty hours of scuba training will also be included in the 10 week air refresher course. The ability to use and maintain scuba is now included as a qualification requirement for diver, first class, deep sea diver and salvage diver. Students failing to successfully complete the two weeks of scuba training will be dropped from the course of instruction. This ruling has resulted in a considerable rise in the attrition rate, and the loss of some potentially good "hard hat" divers. The end result though, will be a diver qualified to use the "diving tools of the trade".

Attention of all diving activities is invited to Change 24 and Change 25 to the BuPers Manual. It is to be noted that the provision for "requalifying by letter request" to BuPers no longer exists. Requalification dives must be actual dives "on a real job". (C-7408(4)).

Article A-1202(3) (Change 25) now allows the Commanding Officer to certify for payment, at the rate of \$5.50 per hour, certain dives made under "equally hazardous conditions."

Class 1-58 graduated on 28 October. All 17 graduates were assigned diving billets, with 7 going to ASR's and 4 to ARS's. All graduates were certified to be "qualified in the operational use of self-contained-underwater-breathing-apparatus."

This activity continues to receive requests for quotas for diving training. All commands are reminded that forces afloat request quotas from appropriate Service Force Commanders (EPDOPAC or SERVLANT), while shore based activities obtain quotas from BuPers (Pers-B2253). Many students and requalifiers continue to report with improperly prepared orders. All students and requalifiers should be directed to report to the Commanding Officer, U.S. Naval Receiving Station, Washington 25, D.C. for the appropriate course of instruction at the U.S. Naval School, Deep Sea Divers. Health records MUST accompany all students and requalifiers.

The Diving School will "secure" during the Christmas holiday period 21 December through 5 January 1958. "Business as usual" will resume on 6 January. The pressure tanks and recompression chambers will be undergoing overhaul during this period and will not be available for requalification divers or pressure tests.

PERSONNEL NOTES

On 6 December 1957, Jack (Captain Video) OCKERHAUSEN, BMC(DV), USN will retire and enter the ranks of the Fleet Reserve. During the past three years Jack has been a key figure in the Underwater Television Development Program. The loss of his technical "know how" will be keenly felt, and the Navy will lose one of its most competent Master Divers. Good luck Jack on the tour of "Civilian Duty".