

It seems that progress on the two phases of the manual has slowed considerably. Here at the Unit, we're not sure of the cause for the delay in printing Part 3, the self contained section. Money and priorities, etc. seem involved. February or March for delivery seems to be the estimate now. The editing of Part 1 is taking longer than anticipated. Due to the demands of other projects, Dr. Lamphier is forced to work alone most of the time. The sections that have shaped up look good to us. We'll try to have more definite dope for the next issue.

PAY DIVES

The following appeared in "Disbursing Digest", an informal newsletter put out to the paymasters by the Comptroller of the Navy.

"DETERMINATION OF EXTRAORDINARILY HAZARDOUS CONDITIONS FOR DIVES LESS THAN 90 FEET"

In two on-site examinations conducted recently by a Navy Regional Accounts Office, over \$8,500 in improperly substantiated payments of extraordinarily hazardous duty diving pay were found. The BuPers Manual, art. 4202(a) through (f), clearly defines the six types of salvage or repair dives of less than 90 feet that are considered extraordinarily hazardous and entitle the diver to additional diving pay of \$5.50 per hour while so employed. Article 4202-3 just as clearly provides that "In other conditions considered by the officer in charge as equally hazardous as those mentioned in 2(a) through 2(f), the FACTS shall be presented to the Chief of Naval Personnel for DETERMINATION IN EACH CASE". However, the vouchers authorizing credit of the diving pay to which the examiners took exception did not indicate the existence of any of the hazardous conditions outlined in the BuPers Manual nor had any requests for determination that extraordinarily hazardous conditions existed been submitted to the Bureau of Naval Personnel. In some instances the pay vouchers indicated only "considered hazardous diving in accordance with BuPers Manual, art. 4202" and the diving records at the activity did not shed any more light on the subject. Unless some more explanatory records of the questioned dives are found, and the FACTS presented to the Chief of Naval Personnel and determined to constitute hazardous conditions, the entire amount of the above mentioned payments may be subject to checkage.

When any salvage or repair dive of less than 90 feet is performed, but does not conform to one of the conditions described in article 4202-2(a) to (f), credit of additional diving pay should not be made until a determination of the facts has been rendered by the Chief of Naval Personnel. The voucher authorizing and substantiating credit for such diving pay should always refer to the specific condition that was present, as stated in the BuPers Manual or to the BuPers determination that other equally hazardous duty was involved (NavCompt Manual, par. 044056).

Another area of diving pay about which there has been misunderstanding is that involving concurrent credit of diving pay and hazardous duty pay. Paragraph 044055-3 NavCompt Manual very clearly states that enlisted members are NOT entitled to diving pay, or additional pay of \$.05 per foot for dives over 120 feet, while drawing hazardous duty pay described in paragraphs 044080 and 044113, but both officers and enlisted members CAN

be paid the \$5.50 per hour pay for diving in actual salvage or repair operations concurrently with hazardous duty pay, if all qualifications are met.

LT. POPLIN REPORTING

LT. POPLIN

Just recently relieved Lt. Ken Ploff as Asst. Officer in Charge, E.D.U. I find the Unit a new and interesting experience. The wheels are really "churning", with several projects under development by the E.D.U. divers.

As administrative Ass't here at E.D.U., I am available for any inquiries you might have pertaining to Diving matters, and/or will lend an attentive ear for any suggestions concerning Diving you care to offer us.

To close this brief note - The "Welcome Mat" is always out for any of you Ship mates passing through or visiting Washington.

DSDS NEWS

LCDR ULLRICH

Class 1-57 which consisted of 17 enlisted men and 1 officer completed the course of instruction on 12 January 1957. All graduates were assigned to billets involving diving.

During the calendar year 1956, a total of 77 enlisted men completed the full 21 week course of instruction. A survey was conducted, based on the total number of enlisted graduates during calendar year 1956, to determine: (a) The "Coast" from which the students came (Atlantic Coast Units) (Pacific Coast Units); (b) the "Coast" to which the students returned (Atlantic Coast Units) (Pacific Coast Units); (c) Breakdown of students by rating groups; (d) The number assigned to diving and non-diving billets. The results of the survey are listed below:

a. Students received from:

Atlantic Coast Units	46
Pacific Coast Units	<u>31</u>

b. Students returned to:

Atlantic Coast Units	46
Pacific Coast Units	<u>31</u>

c. Breakdown of students by rating groups:

GM - 8	MM - 4
BM - 26	MR - 1
FP - 4	BT - 1
DC - 4	MN - 1
ME - 11	HM - 14
EN - 2	TM - 1

d. Students assigned to diving billets	76
Assigned to non-diving billets	<u>1</u>

During the calendar year 1956, 17 officers completed the full 26 week course of instruction. With exception of 2 officers, who were assigned to the Deep Sea Diving School Staff, all officer graduates were assigned to ASR's. Ten officers were assigned to Sublant ASR's and 5 were assigned to SubPac ASR's.

In addition to USN personnel, officers and enlisted men of the following foreign navies received the long course of instruction:

	<u>OFFICERS</u>	<u>ENLISTED</u>
DENMARK	1	
SPAIN	1	2
KOREA	2	
TURKEY	1	14
THAILAND	2	
JAPAN	2	

CWO A. C. VON BEHREN, has developed a promising modification to the Aqua-lung regulator. This modification is currently undergoing tests at the Experimental Diving Unit. Mr. VON BEHREN will attend a course of instruction at the Underwater Swimmers School convening 18 February 1957. He'll be basking in that Florida sunshine while the rest of us "sweat out" the Washington winter.

CWO R. E. HILLIARD was detached on 7 January 1957 to report to the U.S.S. GENERAL RANDALL (T-AP 115). CWO W. J. DONAGATA has relieved him as training officer.

"J" P. "DOC" DONAHUE, HM1(DV), USN has completed his tour of duty here at the school and is enroute to his new duty station, U.S.S. BUTTERNUT (AN-9). Best of luck DOC on that new "sea duty". WILLIAMSON, WH. HM1(DV), USN, a recent graduate, has relieved DONAHUE.

Orders are on board for four (4) new instructors. All are due to report in May or June after completion of the Instructors School. Those ordered are:

CARPENTER, C. M., ME1(DV)	(USS NIPMUC (ATF-157))
MATTOX, H. L., ME1(DV)	(USS NEREUS (AS-17))
LUKE, J. C., ME1(DV)	(USS TRINCA (ASR-16))
KENNEDY, J. H., FPC(DV)	(USS GREENLET (ASR-10))

Congratulations were extended to V. C. "Rock" EVANS, when he put on the billed hat on 16 January 1957. EVANS was duly initiated at the CPO Mess, RECSTA, and as the crystal clear Anacostia River was iced over, was dunked in one of the open tanks.

Cigars were distributed by L. G. RENEGAR, CNC, when Mrs. RENEGAR presented him with another income tax exemption, a fine boy, on 27 December 1956.

HM3's NOW ELIGIBLE FOR DSDS

DR. ALVIS, BUMED

BumEd Instruction 1510.4B indicates that Deep Sea Diving School is now open to the HM3 rating. This does not mean that the "independent duty qualified" requirement has been dropped for corpsmen assigned smaller diving vessels. The facts of life are that there have been vacancies in most DSDS corpsmen quotas for some time. The number of diving corpsmen has dropped off. When there are not enough HM1 and HM2 applicants to fill the quotas at DSDS the vacancies can be filled with HM3's who then can be assigned in billets when they can be sent to independent duty school. It would be pointless to attempt reading any concealed significance into this move. It is simply a mechanism to increase the overall number of diver corpsmen by utilizing outstanding HM3's to fill gaps.

A 29 year old student in training in deep sea diving making a dive to 105 feet for 22 minutes on a 79 - 21% HeO₂ mixture had lost his descending line while going down. He was brought up to free to the first stop, when he became light at 70 feet and ascended to 30 feet before he could regain control of his ascent. He was lowered to 40 feet, his first stop, where he ventilated and went on oxygen for 35 minutes. At this stop he thrashed around trying to find his descending line. After completion of this stop, before surfacing, he started to have severe shaking and was unable to answer his tender. He was unconscious on surfacing.

He was immediately recompressed in the chamber to 165 feet, where he regained consciousness in 10 minutes, but was not entirely normal for 35 minutes. He was therefore put on table four as the diving hospital corpsman attending him could not know that this was not a case of air embolism resulting from ascent during a convulsive episode. It would be impossible to know that the period of mental confusion following an oxygen convulsion was not due to residual symptoms of air embolism and thus must be treated as such. Treatment was uneventful, and subject and tender emerged from the chamber in good condition.

This case also emphasizes the importance of remaining at rest during the oxygen phase of decompression. This subject has passed the oxygen tolerance test breathing 100% oxygen at 60 feet for 30 minutes at rest. However, a period of exertion on the dive, and further exertion trying to find his descending line was sufficient to bring about an oxygen convulsion after breathing oxygen at 40 feet for 35 minutes.

CARBON DIOXIDE BUILDUP IN A WORKING DIVER AT SHALLOW DEPTH

Another interesting recent diving accident worthy of note occurred to a student salvage diving officer diving in New York Harbor. The working depth was 8 to 10 feet in 50 degree water. He was working on an overhead patch in the standard deep sea diving suit. The subject had spontaneous leg cramping which he had been trying to exercise out for over 20 minutes, after which he stood upright on the stage. He became dizzy, reported to his tender that he was having difficulty breathing, then lost consciousness. He was brought to the surface immediately where his exhaust valve and spit-cock were fully opened, and he was ventilated by the instructor. He was then lifted by his lifeline to the pier, a distance of twelve feet, where his faceplate was opened and his suit cut from his limp person. The subject was pale, lifeless and not breathing, but not cyanotic.

Immediate mechanical artificial respiration with oxygen was started with the intermittent positive-negative type resuscitator. Following twenty minutes of resuscitation, he started infrequent voluntary respiration of four breaths per minute. Intravenous caramine and caffeine sodium benzoate was given to support his falling blood pressure. After 36 minutes of artificial respiration, his breathing became more normal and blood pressure returned to normal.

He was confined to bed in the dispensary until the next day at which time he was discharged in normal condition. He returned to diving operations two days later.

This appears to be a case of carbon dioxide toxicity resulting from inadequate ventilation of the helmet. The diver had cut down his air supply to reduce inflation of his gloves while working over his head. The onset of symptoms was without warning and progressed so rapidly that the respiratory center was depressed to such an extent that it did not respond to artificial respiration by the resuscitator for 20 minutes. The importance of adequate ventilation of the helmet by a sufficient air supply is stressed. Only immediate action by his tenders to maintain normal respiration for him during this period resulted in his being alive at this time.

PROJECT NEWS

LT. W. P. SEARLE, Jr.

In the September 1956 FACEPLATE, the abstract and summary from two evaluation reports covering the Northhill Air Lung were published. At the request of BuShips, an additional test of the Northhill regulator (fourth field change) has been made to specifically investigate the operation of the unit at high (3000 psi) bottle pressures. The valve's characteristics at high supply pressures were found to be essentially the same as at the lower (1800 psi) test pressures.

DIVERS AIR HOSE

There has recently been discussion at the Unit and DSDS regarding the method of placing the hose clamps on divers' air hose couplings. Military specification "HOSE, RUBBER, DIVER'S AIR SUPPLY", MIL-H-2815B, paragraph 3.6 is quoted in part as follows:

"Couplings shall be well secured in place by three metal clamps and a suitable cement. When using couplings in accordance with drawing 244942, the first clamp shall be located one-quarter inch from the end of the hose, the distance between the clamps shall be five-eighths inch \pm 1/16 inch, and ends of clamps shall be staggered at 120 degrees."

The comment has been voiced in some quarters that the ends of the clamps should be placed in line in order that the hose will run over rollers or bulwarks with more facility. This argument loses much of its merit when it is realized that the chances of the clamps on a female coupling lining up with the clamps on the mated male coupling are very slim.

Informal comments are invited from any or all diving activities. If there is sufficient interest to warrant, steps will be taken to have the MILSPEC changed and the revised Diving Manual will include pertinent instructions.

T. V. NOTES

CPO RAKOSKIE

The Underwater Television Section has just received three new commercial underwater T.V. units that are to be "wrung out" by field use. These new units are close in design to what is believed to be good all-around underwater cameras. They can be used in fixed mounts by a conventional diver or scuba swimmer.

The rapid advance in Electronics points up new gear that will be smaller in size, easier to maintain and simple to operate.

We still have the usual question. The outstanding MISUNDERSTANDING is that T.V. equipment is to "spy" on the divers. All that can be said at the moment is that the diving "fraternity" can put their "phlegmatic" minds to rest on that score because that phase is low on the list.

For now, keep your eyes open to spot any gear that may show up near you for test.

WELCOME ABOARD TO:

BMI SUGLIA

TRIPP, J. E., BMI(DV)	(USS WINDLASS (ARSD-4))
HANGER, G. W., BMI(DV)	(USS HOIST (ARS-40))
DIMMICK, J. N., BMI(DV)	USS SIRAGO (SS-485)

We also welcome aboard Lt. G. O. POPLIN, our new exec, who is Mr. Ploof's relief.

Congratulations to Mr. and Mrs. Paul G. PHIFER on the arrival of a new daughter.

The new "saturation run series" has been taking its toll of divers. The new saturation run series is increasing the hours spent on bends watches. Many of the divers have been losing their virginity to this new series of runs. January's runs got three. Oh well, maybe it grows back after a few months.

We note (with pleasure) from the "Navy Times" that R. B. CLINE, ME1, diver first class, has been selected as "Man-of-the-Month" at the U.S. Naval Base, Subic Bay, Philippines Islands. Congratulations. Cline is in the Diving and Salvage Unit of Ship Repair Facility, Subic.

ROSTER OF ASR's OFFICERS

USS SUNBIRD (ASR-15)

E. B. BROCKETT	LCDR	C.O.
T. L. SUTTON	LT	Exec., Rescue
D. ROBERTS	LTJG	Op., Nav., Comm.
J. C. KALTENBORN	LTJG	DCA, A. Rescue
D. J. KEANE, Jr.	CHBOS*N	A. Rescue, 1st Lt.
A. CASE	CHGUN	Gun., Supply
N. P. STROM	CHMACH	P. Eng.

USS KITTIWAKE (ASR-13)

W. D. BUCKBEE	LCDR	C.O.
W. A. HIBBS	LCDR	P.Co.
A. B. CRABTREE	LT	Exec.
C. A. HOLLAND	LTJG	Nav., Op.
H. GARDNER, Jr.	LTJG	Comm.
J. L. GREGORIO	ENS	Comsy, Stores
G. W. BUTEHL	ENS	
M. J. HAMEL	CHMACH	Eng., DCO, Repair
A. W. ROSTER	CHMACH	
R. L. SCHLICHENMAYER	CHBOS*N	1st Lt., Diving & Rescue, Gun.

USS SKYLARK (ASR-20)

P. E. HURRMAN	LCDR	C.O.
S. HECKER	LT	Exec., Nav.
R. B. ZIEGLER	LTJG	Supply, Op.
B. P. MILLER	CHBOS'N	Rescue, 1st Lt.
W. D. SHIPMAN	CHMACH	Eng.
W. J. DONLAN	ENS	

USS PENGUIN (ASR-12)

F. W. DUCKWORTH	LCDR	C.O.
C. J. REIDI	LCDR	P. Co
W. P. CHINE	LT	
R. E. JOHNSON	LT	Ex., Nav.
R. J. BLAND	LTJG	Op., Comm., A.Nav., Elect.
R. P. STERKOVICH	LTJG	
G. F. KRANSKE	CHMACH	Eng., DCO
W. A. MOHNR	CHBOS'N	

USS TRINGA (ASR-16)

N. E. NICKERSON	LCDR	P. CO
H. E. STEINKE	LTJG	Op.
R. R. MULL	ENS	A. Comm.
I. M. WILLIAMS	CHBOS'N	1st Lt.
A. K. GORRE	CHMACH	
P. D. ANTHONY	ENS	

USS PETREL (ASR-14)

W. A. DUNN	LCDR	P. CO
D. R. FREYTAG	LT	Exec.
J. J. O'ROURKE	LTJG	Comm., Nav., Op.
J. A. JONES	LTJG	
T. H. MOSS	CHBOS'N	
C. R. DAVIS	CHMACH	
M. KARABELL	LTJG	

USS COUCAL (ASR-8)

J. H. PERLANO	LCDR	C.O.
W. M. SCOTT	LT	Exec., Rescue Diving Op Elect
C. H. SMETTER	LTJG	Op., Comm., Elect., 1st Lt., Gun
M. COLLINS	LTJG	Comsy
R. D. PEAL	CHBOS'N	
D. J. SCHWICHTENBERG	CHMACH	Eng., Nav.

USS GREENLET (ASR-10)

C. P. HOOVER	LCDR	C.O.
W. E. WISE	LT	Exec., Nav.
R. E. LANPHEAR	LTJG	Op., Deck & Rescue
W. E. HANSON	LTJG	Sup. Comm
D. J. MC CARRERTY	CHBOS'N	1st Lt.
G. P. CLEMANS	CHMACH	Eng., DC

USS CHANTICLEER (ASR-7)

W. H. CHAPMAN	LCDR	C.O.
H. W. LATHAN	LCDR	
D. G. MC MILLAN	LT	Exec., Op., Comm.
L. R. CLARK	LTJG	Nav., Sup., Comay.
S. F. WHISESAND	ENS	
W. A. CRACOLICE	CHBOS'N	Gun., 1st Lt., Diving
R. J. ZEER	CHMACH	Eng.

USS FLORIKAN (ASR-9)

R. J. KILCOYNE	LCDR	C.O.
K. (n) FLOOF	LT	Exec., Diving
R. T. FLEMING	LTJG	Comm., Op., Nav.
H. H. DUDLEY	ENS	AOP
W. E. WARE	CHMACH	Eng., DC
R. C. UPCHURCH Jr.	BOS'N	1st Lt., DCA., Sup Gun.

MASTER DIVER LIST AS OF 10 DECEMBER 1956

<u>NAME</u>	<u>SERVICE NO</u>	<u>RATE</u>	<u>DUTY STATION</u>
ALCORN, William B.	268 51 75	BMC	USS TRINGA (ASR-16)
BANASKY, Albert J.	402 88 12	TMC	EOD, INDIAN HEAD, MD.
BLOODSWORTH, Homer S.	268 41 30	DCC	USS TRINGA (ASR-16)
BOHLINE, John C.	329 04 72	MEC	USS KITTIWAKE (ASR-13)
CAREW, Lester H.	201 76 50	DCC	USS SKYLARK (ASR-20)
CATES, Benneth "F"	342 08 89	NEC	NAS, SAN DIEGO
CAREY, William R.	382 04 05	BMC	USS SKYLARK (ASR-20)
CHRISTOFFERSEN, Lester J.	299 90 00	MEC	USS FULTON (AS-11)
CONNERY, Robert C.	201 59 95	BMC	TORPEDO STATION, NEWPORT, R.I.
CORNELL, Anthony	223 26 15	TMC	USS CHANTICLEER (ASR-7)
COXWELL, Harry W.	266 08 10	BMC	USS SUNBIRD (ASR-15)
CRESSEY, Otho R.	208 75 17	MEC	DSDS, WASH., D.C.
DE CATERINA, Frank A.	223 56 33	BMC	USS ORION (AS-18)
DOVER, Nelson H.	299 94 16	GMC	USS KITTIWAKE (ASR-13)
DUNCAN, Floyd A.	368 59 92	DCC	SUBMARINE BASE, NEW LONDON
FARLEY, Roger T.	234 24 73	BMC	NOLTF, SOLOMONS

FENTON, James J.	337 29 72	GMC	
FRENCH, Frank J.	368 40 28	BMC	USS WAXSAW (AN-91)
FRINK, Walter H.	321 33 15	BMC	MB, SAN DIEGO (NOW BOS'N)
GUICE, Louis K.	722 02 15	MBC	USS FORIKAN (ASR-9)
HANFORD, L. G.	311 60 15	BMC	USS KITTIWAKE (ASR-13)
HANEY, William C.	295 72 14	BMC	USS NEREUS (AS-17)
HARRINGTON, Paul G.	201 59 52	MEC	DSOS, WASH., D.C.
HENNING, Henry C.	316 55 99	BMC	USS HOIST (ARS-40)
HOLECEK, Milo E.	321 14 15	BMC	SUBMARINE BASE, NAVY 128
IZZO, Pete R.	283 40 19	GMC	USS PETREL (ASR-14)
JOHNSTON, John (n)	243 89 45	BMC	MINE HUNTING UNIT, NY, NY
KING, Rupert C.	272 24 37	MEC	WTF SOLOMONS, MD.
LANAR, Leslie C.	243 63 43	BMC	USS GRAPPLE (ARS-7)
LINGG, Henry J.	393 33 06	BMC	USS RECLAIMER (ARS-42)
LYNCH, Howard E.	268 46 31	GMC	USS HECTOR (AR-7)
MC NIFF, Eugene E.	234 38 56	BMC	NEWPORT, R.I. (NOW BOS'N)
MILHOLEN, Keith R.	234 13 41	MEC	SUBMARINE BASE, NEW LONDON
MILLER, George (n)	283 27 31	BMC	USS SPERRY (AS-12)
MOGIS, Eugene H.	316 47 03	BMC	KEYPORT, WASH.
MORRISSEY, George R.	223 35 75	ENC	NEWPORT, R.I.
MOSCOFFIAN, John (n)	212 73 80	PNC	FLAG UNIT, COMSERVANT
MURPHY, Michael A.	223 44 29	FPC	SALVAGE SCL, BAYONNE, N.J.
MC CULLOUGH, George W.	375 79 47	GMC	NAVORD TEST STA, INYOKERN CL CALIF.
MC ENEANEY, James T.	368 34 06	MBC	USS FLORIKAN (ASR-9)
OCKERHAUSEN, Jack M.	291 35 79	BMC	DSOS, WASH., D.C.
PETERS, Christian R.	380 81 31	MEC	NAS., JAX., FLA.
PETERSON, John K.	311 30 82	MEC	TANK, NEW LONDON
PHILLIPS, George B.	256 49 78	BMC	COCO-SOLO, PANAMA
PLEMEL, Lawrence M.	328 35 47	MEC	USS COUGAL (ASR-8)

POWELL, Burton D.	360 10 18	TMC	USS SUNBIRD (ASR-15)
RAINEY, William E.	274 27 16	GMC	USS SPERRY (AS-12)
REID, Alton E.	295 91 47	GMC	USS ORION (AS-18)
ROCHE, John J.	223 52 52	DCC	DSDS, WASH., D.C.
SMYTHE, John H.	287 21 72	BMC	NOLTF, SOLOMONS
SOLTESZ, George J.	283 46 47	BMC	DSDS, WASH., D.C.
STEPHENS, E. J.	274 46 65	BMC	USS SPERRY (AS-12)
STRICKLAND, Frank T.	268 64 25	GMC	EDU, WASH., D.C.
STOUT, John R.	382 72 25	MEC	NAS NORTH ISLE, SAN DIEGO
THOMASON, Delbert E.	382 69 29	MEC	USS GREENLET (ASR-10)
WALKOWSKI, Andrew J.	311 31 82	MEC	USS GILMORE (AS-26)
WILKINSON, John P.	658 39 06	PFC	PANAMA CITY, FLA.
WILSON, Arthur F.	311 93 75	PFC	DSDS, WASH., D.C.
WOODALL, Jere W.	224 44 68	BMC	USS SKYLARK (ASR-20)