



# FACEPLATE

The Official Newsletter for the Divers and Salvors of the United States Navy  
Volume 8, No. 2 / August 2004



**USS MOMSEN (DDG 92) Commemorative Issue**

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# SUPSALV SENDS

Forty years ago this month (I'm writing this in July), the U.S. Navy Diving Program embarked on an experiment that literally changed the world – SEALAB I. As the first of three Man-In-The-Sea experiments, SEALAB I is renowned for successfully achieving a dream — 4 Navy Divers actually lived and worked in the open ocean at a depth of 193 feet for 11 days continuously before resurfacing. Not only did it usher in the era of deep (1,000 feet or more) military diving capability, but it also provided commercial industry the means to tap into natural resources (particularly oil!) to support a growing world economy.

Sadly, over a number of years, though industry capitalized on saturation technology, the Navy's own ability to conduct saturation diving nearly atrophied to the point of near loss of capability. The great news is that our Chief of Naval Operations recently authorized the procurement of a portable (fly-away) saturation diving system for use by Navy Divers for a mix of deep ocean missions, including salvage, object recovery, and if necessary, support for submarine rescue operations. We expect to bring the system into full capability during late FY06 or FY07. The new saturation diving system will be stored and maintained in Panama City (quick access to Tyndall AFB for emergency air transport) and manned by a combination of Divers from NEDU and MDSU. The future is bright for exciting times in our Diving Navy!

Speaking of exciting times, almost all of you have now heard about the recent effort to develop a new Navy Diver rating as well as a new EOD Tech rating. This initiative is being led by the Learning Center for EOD and Diving (CENEODD) in Panama City. Captain Gary Windhorst and his team at CENEODD reached out to the Fleet, and working with inputs from a broad spectrum of senior members of both communities (Fleet Divers and EOD) are pursuing final approval for both new ratings. As I travel the waterfront and talk to many of our dive lockers, I get lots of questions about the career impacts of the new rating...and rightly so. Though nothing is yet finally approved, I can personally attest to the commitment of all who are working this up through the approval chain to make sure we maintain or improve both the war-fighting strength of the community as well as viable enlisted career paths. It is foremost in our mind, and I know it is in yours. We will keep you informed as decisions are reached.

Also — our April 2004 issue of FACEPLATE dedicated a lot of space to the ARS/T-ARS conversion question. As of the middle of July, no Navy decision on whether or not to transfer the four ARS 50 Class ships to Military Sealift Command has been announced, but we expect one in the next few weeks. Stay tuned!

**Capt Jim Wilkins**

The U.S. Navy Salvage Divers Reunion will take place at the Holiday Inn, 2001 North Cove Blvd. in Panama City, Florida on August 25 to 29. Please contact Buck Best at (941) 371-5070 to make arrangements or if you have any questions.

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# Get off the Bitts and Take Your Hits

By: Michael E. Moser

They are out there, the “armchair quarterbacks” of the Navy, the First Class Divers who sit in the background, critiquing the actions of others, while amazingly their watch management is always on the button.

Then, there are others who lead the team, overcoming the fear of criticism and failure.

Teddy Roosevelt described such get-it-done leaders when he said: “It’s not the critic who counts. It’s not the man who points out how the strong man stumbles, or where the doer of the deed could have done it better. The credit belongs to the man in the arena, whose face is marred by dust and sweat and blood, who spends himself in a worthy cause, who strives valiantly, who errs and comes up short again and again, who at best knows the high achievement of triumph, who at worst, fails while daring greatly for he knows his place shall never be with those cold and timid souls who know neither victory, nor defeat.”

The Master Diver Screening Course conducted twice yearly at MDSU ONE is designed to get aspiring candidates into the arena and experience the “high achievement of triumph” Roosevelt described so inspirationally.

The MDV Screener emulates as closely as possible the actual Master Diver evaluation process conducted at Naval Diving Salvage Training Center, Panama City, Florida, where a 50 percent attrition rate is the norm.

The two-week course begins with a written exam on the morning of the first day to gauge the knowledge the candidate brings to the course. In the afternoon, SCUBA diving operations begin, the first of several evolutions to assess the candidate’s experience, leadership, and technical abilities.

During the following nine days, candidates are challenged to lead a dive team under various scenarios using all rigs, incorporating various procedures and testing leadership ability to overcome adversities under stress.



This is a taxing course. It is not the place for those who fear failure or constructive criticism. It is home for those who want to achieve the coveted title of U.S. Navy Master Diver.

Here are some tips to prepare you for the challenge of the MDV Screener:

DO: Keep it real in your mind. You really are in the scenario.

DO: Know the procedures for picking the course of action available to you.

DO: Properly prepare by running “dry dives,” practice your neuro and brief.

DO: During the adverse scenario, place yourself in the Diver’s situation to assist you in picking the appropriate course of action.

DO: Be “large and in charge.” When you pick a course of action, stick with it and make it work.

DO: LISTEN TO YOUR PROJECT MASTER DIVER. (He wants you to succeed.)

DON’T: Be in “drill mode.” You cannot prevent the drill from happening. You plan to run a normal dive. You must brief the actual scope of the mission, not just what can go wrong.

DON’T: Assume. See what you see, hear what you hear, and say what needs to be said.

DON’T: Arrive unprepared expecting to be trained. The course is tailored for those who are ready to perform.

DON’T: Run the dive operations the way “the school house wants to see it.” The

MDV evaluators are scoring you, not the school house.

DON’T: Blame others for your mistakes. You cannot improve until you admit your mistake.

DON’T: Be timid and quiet, yet do not talk to hear yourself talk.

DON’T: Take everyone’s advice, especially those on the “bits of knowledge.”

Master Diver evaluation attrition rates should not trump ambition and discourage aspiring candidates. Instead, it is a challenge and an adventure. The course is the open door for those who want to become a member of the brotherhood of U.S. Navy Master Divers and lead America’s finest.

**MDV Michael E. Moser is currently a Master Diver at DET 5 of MDSU ONE based in Pearl Harbor, HI.**

## U.S. Navy Diving and the Historical Diving Society USA



The Historical Diving Society USA is a non-profit educational corporation formed in 1992. It has members in 37 countries and publishes the award-winning quarterly magazine HISTORICAL DIVER, which covers many aspects of diving history, including the U.S. Navy.

Among Society Advisory Board members are distinguished Divers such as Dr. Christian Lambertsen, Bob Barth, Scott Carpenter, Surgeon Vice Admiral Sir John Rawlins, Bev Morgan, Phil Nuytten and Andreas Rechnitzer.

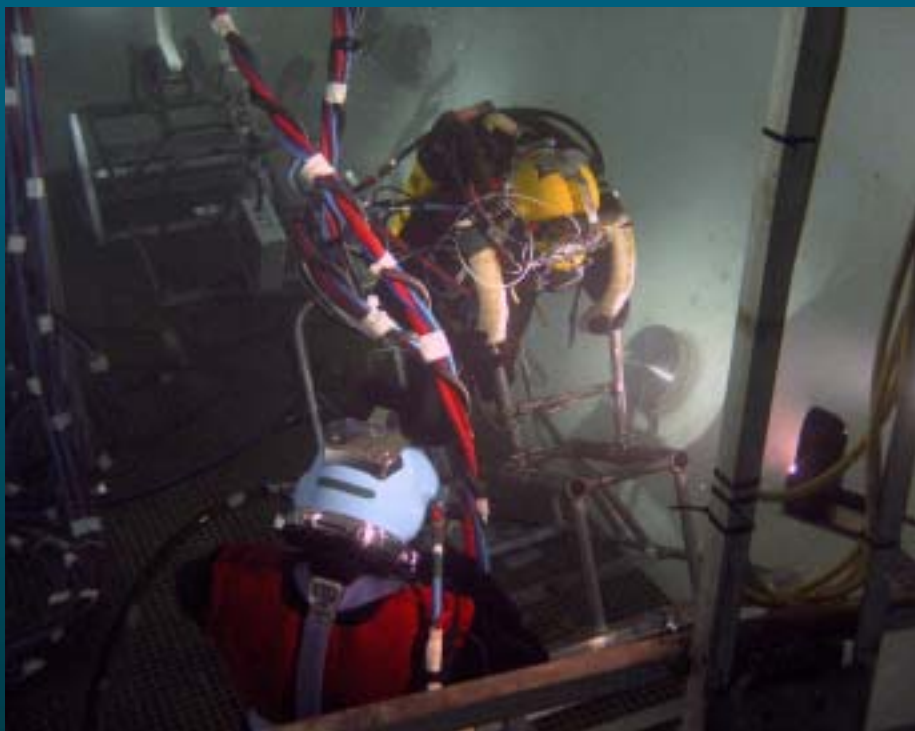
As a part of the HDS Educational Outreach Program, the Society is offering a complete set of back issues of HISTORICAL DIVER, along with a continuing subscription, free upon request to any U.S. Navy diving unit. For more information on this offer, please contact the Society at [hds@hds.org](mailto:hds@hds.org).

# The Pressure is On at NEDU

## Deep Dive 2004

By: CWO3 Rick Strynar

It is midnight at Navy Experimental Diving Unit (NEDU). Dive Watch Officer (DWO) HTCS(MDV) Becker and Dive Watch Supervisor (DWS) HTC Schlagenhaft are mustering Dive Watch Section TWO in preparation for Deep Saturation Dive 2004 (DD-04). The watch sections include the following watchstanders: the Gas King, who is responsible for running machinery (compressors and the reclaim system), lining up all the gases (helium, oxygen, mixed helium and oxygen [He/O<sub>2</sub>], mixed nitrogen and oxygen [N<sub>2</sub>/O<sub>2</sub>], nitrogen, and air), mixing gases, and executing emergency procedures (EPs); the Chamber Support Operator/Life Support Operator (CSO/LSO), who is responsible for compression and decompression, Diver hot water, chamber temperature, maintenance of proper constant chamber depth, and execution of EPs; the Control Technician (CT), who is responsible for the operation of all electrical systems, all communications systems, and the fire suppression system in the chamber complex; and the Atmosphere Analysis Operator (AAO), who is responsible for monitoring all gases in the complex's atmosphere.



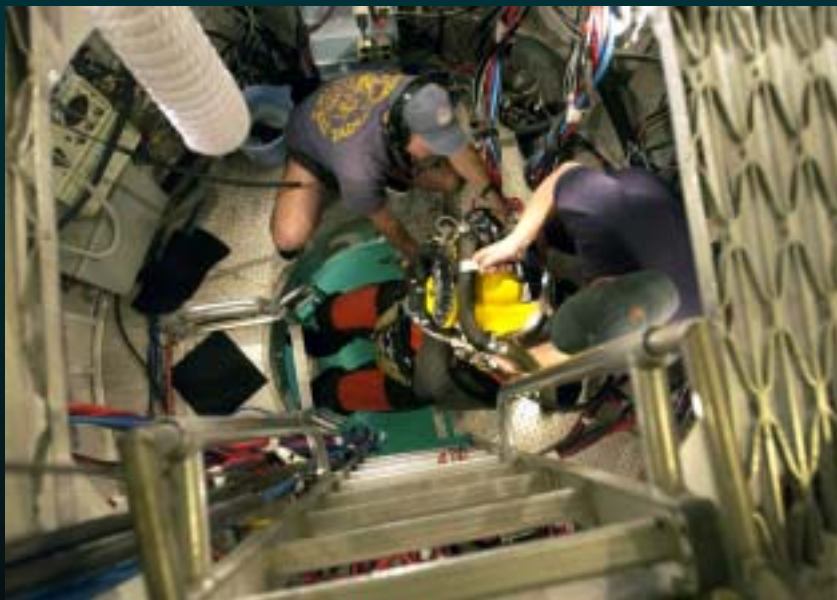
*A safety observer, DC1 Jorge Guillen (blue helmet) keeps a close eye on HMC Steve Allain as he performs the steps of Deep Dive 2004 protocol to collect data points.*

The Watch Section performs approximately five hours of operating procedures (OPs) intended to fully shut down and restart the Ocean Simulation

Facility (OSF) — the upper portion of which is a dry, five-chamber living complex complete with heads, showers, and racks that is part of the most complex diving system in the world. Below the center chamber is a transfer trunk connecting the five dry chambers to a 55,000-gallon “wet pot” chamber.

For DD-04, a 14-day saturation dive employing eight saturation Divers to a maximum depth of 723 feet of seawater (FSW), the goals were to exercise the GASMIZER helium reclaim system and test the secondary life-support (SLS) MK-IV backpack (an emergency gas source that allows a Diver to return to the bell), fitted to the ULTRAJEWEL 601 helium reclaim helmet.

The saturation dive team included Team Leader DC1(DSW) Jorge Guillen, Assistant Team Leader DC1(DSW) Jeremy Mullis, HMC(DSW) Steve Allain, HT1(DSW) John Valentine, GM1(DSW) Jim Urban, BU1(DSW) Josh Ross, DC1(DSW) Buddy King, and HM2(DSW) Tim Kerr.



*GM1 Jim Urban and HM2 Tim Kerr help DC1 Buddy King don the instrumented 17C Superlite prior to a dive in the Ocean Simulation Facility wet chamber.*





*Members of the 2004 Deep Dive Team (left to right): HMC Steve Allain, GM1 Jim Urban, DC1 Jorge Guillen, DC1 Jeremy Mullis, HM2 Tim Kerr, HT1 Valentine, DC1 Buddy King, and BU1 Josh Ross.*

After the OSF had been compressed to storage depth of 600 fsw, these Divers performed repeated wet downward excursions to 723 fsw, where their umbilical gas was secured and they were required to go on their SLS MK-IV backpacks. During these excursions, each Diver pedaled a test cycle at a rate of 60 watts until he reached the termination criteria set for the protocol. Then, to be recovered into the trunk, he went back on his umbilical and the next Diver began to perform the same test. This testing routine was performed 12 times.

NEDU leased two SLS MK-IV backpacks and one ULTRAJEWEL helmet that attached to the SLS MK-IV backpack from Divex, Ltd. This leased dive apparatus and the Divers were instrumented to record inhaled and exhaled carbon dioxide (CO<sub>2</sub>), oxygen partial pressure, temperature, and heartbeat. Data from this instrumentation were read and recorded on the Medical Deck, which was manned by Diving Medical Officers (DMOs) and Diving Medical Technicians (DMTs) who monitor all readings, collect data, and direct exercise rates and durations.

One of the DMOs, the Dive Watch Medical Officer (DWMO), monitors all data for Diver safety and conducts twice-daily

Diver sick calls. The DWMOs for DD-04 were CAPT David Southerland, LT Vic Ruterbusch, and LT Fernando Leyva. The other DMO on watch was the Principal Investigator (PI), LT Jeffrey Chao, who monitored, collected, and interpreted data to ensure that the equipment was performing as designed and/or advertised. The DMTs stand watch as Medical Deck Technicians and Medical Deck Supervisors: as Supervisors, they direct the Divers and supervise data collection; as technicians, they operate the varied data collection equipment.

DD-04 involved two commands and one private company besides NEDU: Mobile Diving and Salvage Unit TWO provided two qualified saturation Divers, NAVSEA 00C provided funding for the dive, and Divex, LTD provided a technical representative as well as the equipment for testing.

DD-04 was a 100% success, bringing NEDU together with outside organizations to achieve a common goal. This project would not have succeeded without Task Leader ENCS(DSW) Vern Geyman, BMCMD(MDV) Kent Johnson, and ENCM(MDV) James Carolan, the last two of whom also provided the benefits of their wisdom throughout the dive.

If you are interested in walking on the ocean floor and becoming a saturation Diver, please contact the diving detailer. If you would like additional information about the saturation diving program, please contact one of the Master Divers or the Command Diving Officer at NEDU.

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**CWO3 Rick Strynar is a Fleet Project Officer and a Command Diving Officer at NEDU.**

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### FROM MANAGING EDITOR

As you can see from our latest editions, FACEPLATE has evolved into an attractive and informative publication. The April 2004 cover photograph is particularly eye-catching. On that note, I would like to encourage competition for the photographs to be used on the covers of future editions. The winning cover photograph will be acknowledged by recognizing the photographer, Divers depicted, and the Command or Diving Locker. Photographs must be high resolution with a Windows compatible format (TIFF or JPG). Please send the photographs to our Production Editor, Zoya Gorbunova at [zgorbunova@roh-inc.com](mailto:zgorbunova@roh-inc.com) and our Graphic Designer, Otto C. Adams at [oadams@roh-inc.com](mailto:oadams@roh-inc.com).

On page 21 is an article by Lee Wolford regarding the First Class Diving School and Experimental Diving Unit, located in Building 214 at the Washington Navy Yard years ago. On the same page is a picture of my graduation certificate from 1st Class Diving School in 1954. I know that there is no one on active duty that predates that time. However, there are many retired Divers who do and have interesting stories. FACEPLATE would like to hear from you and perhaps publish some of your experiences in our Hard Hat History section.

**Jim Bladh**  
Managing Editor

# Fleet Diving Detailer

By: MDV Gordo Westbrook

Hello from your Fleet Diving Detailer, Millington, Tennessee. First off, for anybody interested in relieving me, the diving is great up here! The skills used at this job set you up for a smooth transition into CIVLANT, i.e. AT&T operator or one finger computer ninja. Seriously, there is a lot of satisfaction helping each individual Diver and supporting community needs. One big issue at present is our community manning. For the Divers in the Fleet there are a lot of changes coming. Although some may appear to be "not so good" at first glance, have faith, stay focused, the end result will benefit us all and carry our community into the future. For those interested in becoming Navy Divers, there is no better time than now. Listed below are the requirements for becoming a Navy Diver.

The U.S. Navy Diver Program is a challenging and rewarding training program which requires an individual to be self-motivated and physically fit. The opportunities offered by the program have never been greater. As we continue to expand our quest into the ocean depths, the possibilities are limitless. During the course of any given day, Navy Divers are on the job around the world performing underwater repairs, recoveries, salvage missions, or research and development, which all fall into the realm of today's Navy Diver.

The U.S. Navy is the leader in the development of modern diving and underwater operations. The general requirements of national defense and the specific requirements of underwater reconnaissance, demolition, ordnance disposal, construction, ship maintenance, search, rescue, and salvage operations repeatedly give impetus to training and development.

## Entry Requirements

The U.S. Navy Diver program requires top physical condition and mental attitude that is found in only a small percentage of military men and women. The requirements

are outlined in the following documents. A short recap of these requirements follows the references:

## References:

- Navy Military Personnel Manual (NMPC) 1220-100;
- NAVMEDMAN P-117, Manual of the Medical Department, Ch. 15, Art. 66-Diving Duty;
- ENLTRANSMAN (NAVPERS 15909E) Art. 4.02.

## Requirements:

- Male or female, 30 years of age or less.
- Be classified in or a designated striker for a source rating for the program.
- Meet a minimum ASVAB score of AR+WK\*=104\*\*, MC=50. \*For ASVAB test numbers 5,6, and 7, use WK score. \*\* All HM NEC applicants must have a minimum score of 110.
- Meet the minimum obligated service (OBLISERV) of 36 months, as of the class convening date of initial training.
- Have a clear record (no NJP or Courts Martial) for the previous twelve months.
- Pass the Diving Physical Examination.
- Successfully complete the Physical Screening Test.
- Complete a personal interview with a Diving Officer or Master Diver.
- Pass the Hyperbaric Pressure Tolerance Test.
- Waivers will be considered on a case by case basis.

## Course Description - U.S. Navy Diver Second Class (A-433-0022)

The mission of a Second Class Diver brings the Diver to various diving commands throughout the world, where they are expected to perform as underwater diving experts in direct support of Fleet salvage operations, underwater maintenance of ships and submarines, and the recovery of sunken or submerged

objects. A Second Class Diver performs as an integral member of a diving team and as a hyperbaric chamber operator when treating diving related casualties.

The Second Class Diver course develops a confident and capable Diver. The course was designed by experienced Fleet Divers for the purpose of providing the Navy with the best Divers to support the various diving communities. Students are trained using current procedures and equipment, emphasizing the development of skills required to successfully serve the Fleet.

The course consists of twenty weeks of intense academic and physical training. Trainees are introduced to basic diving physics and diving medicine. As training progresses, they find themselves in "confidence training" and a practical evaluation of SCUBA operations. Confidence training is the practice of ditch and don of scuba equipment with various problems imposed upon the student by the instructor. In addition, trainees receive instruction on Surface Supplied Diving, Chamber Operations and Underwater Ship Husbandry (UWSH).

Physical training is conducted daily. Morning PT consists of calisthenics and running, with increasing difficulty imposed as the weeks progress.

With the proven ability to overcome the rigorous mental and physical challenges, the end result is a qualified Second Class Diver who is an effective member of any diving team.

All that sounds pretty easy. It is if you are motivated. Time to cowboy up. Give us a call here at NPC if you have any questions.

BMCM(SW/MDV) Westbrook, Fleet Diving Detailer (901) 874-3561, DSN 882-3561.

BMC(SW/DV) Bartholomew, Schools Coordinator (901) 874-4261, DSN 882-4261.

HMCS(SW/DMT) Whitmire, Medical Officer (901) 874-3557, DSN 882-3557.



## USS LASSEN CPP Hub Modification

**...completed in a record 9 days**

By: LCDR Dave Ince, RN

In the past twelve months a number of LDDG 51 Class ships have developed oil leaks from their CPP hubs. Early investigations in dry dock identified the Blade Seal Base Ring (BSBR) as the apparent smoking gun. The BSBR sits on the outer diameter of the hub blade port and is held in place by a large O-ring seal on its outer diameter. Uneven loading of the BSBR may cause the ring to move in its recess creating an oil leak path.



*Swimming BSBR to surface.*

The initial “quick fix” on the first ships identified with the problem, USS MILUIS (DDG 69) and USS CARNEY (DDG 64), involved the insertion of a stainless steel .025-inch shim between the inner diameter of the BSBR and the outer diameter of the bearing ring on all ten blades. This method appeared to work on the ships in question, but a more permanent fix was required.

In November 2003 this “quick fix” was applied to USS MCCAMPBELL (DDG 85). There was a great deal of interest and, in addition to the team of Divers from CDU, “A” teams from NAVSEA 00C5, PMS 400, Rolls Royce, and Bath Iron Works were on the pierside. “Forensic evidence” was gathered at every juncture of the operation

as part of the ongoing investigation into the cause of the leaks. This involved a complete underwater strip down of both hubs (as far as is possible in the wet), with component analysis on the surface and was the first time this type of repair had been conducted by Navy Divers. The task took 20 days, but many valuable lessons were learned and with pierside 00C5 support, new tools, procedures, and techniques were developed and applied on the spot.

Since then, a NAVSEA approved modification has been developed by Rolls Royce Naval Marine to prevent the BSBR from moving in its recess. This involves the insertion of a second anti-rotation dowel pin into the ring, 180 degrees from the original.

The anti-rotation dowel pin stops the BSBR from rotating as the CPP blade is put through its paces during maneuvering. The second pin is intended to stop the BSBR from twisting in its recess when load is applied from the turning blade.

At the beginning of March 2004, CDU was called into action to effect this modification to USS LASSEN (DDG 82). The procedure involved the removal of all ten blades and the strip down of the associated blade ports. One at a time the blades were removed and shifted back to the aft lift tunnels. As there was nothing wrong with the blades there was no need to bring them to the surface. The propeller was then rotated 180 degrees so that the open port work could be conducted at the 6 o'clock position. Although working in the overhead made aspects of the task awkward for the Divers, it was necessary to ensure that as much CPP oil as possible was contained in the hub. Using the tools and procedures developed during the USS MCCAMPBELL operation, CDU's



*Divers Removing BSBR.*

BRAVO Team, under the supervision of seasoned veteran BMI Tim Roff, began the painstaking and potentially time-consuming task of removing the port cover, BSBR, removing/replacing all the ‘soft wear’ and putting it all back together in the right order. Previous experience paid off and the team of Divers soon had this procedure down to 30 minutes.

There is always room for improvement during these types of operations and once again, with onsite NAVSEA 00C5 support, tools and procedures were further refined and applied. As a result, the USS LASSEN hub modification evolution took only 9 days to complete even with time for a weekend break in the middle.

Consolidated Divers Unit has set the standard for this type of underwater CPP hub modification operation.

*LCDR David Ince is attached to the Underwater Ship Husbandry Division at NAVSEA 00C. He is a Clearance Diving Officer on exchange from the Royal Navy.*

# Diving is the Love of Munk's Life

By: David Hackett

Venice, Florida — Elmer Munk has spent so much time under water, it is amazing he does not have fins.

Since becoming one of the first certified SCUBA Divers in the United States more than a half century ago, Munk estimated that he has spent 5,000 hours (more than 200 days) hanging out with grouper, sharks, and morays.

He is recognized by SCUBA Schools International, a training company based in Colorado, as one of only 1,300 SCUBA Divers in the world to make more than 5,000 career dives.

"We call it 'Platinum Pro,' and it is a remarkable and rare thing to make the list," said Gary Clark of SCUBA Schools International. "Elmer Munk and the Divers like him have taken the sport to another level."

This is just part of the 72-year-old Venice resident's story.

As a diving teacher, he claims to have certified 3,500 students. As an underwater photographer, he boasts a collection of more than 5,000 photographs, including one taken inches away from the gaping jaw of a 9-foot green moray.

"Diving has been the great love of my life," Munk said.

Now he says he is ready to write the closing chapters of his career. When he retires after ten years as an administrative specialist at the Venice Fire Department, Munk plans to write a book about his life under water.

"I've seen so much," he said. "You have to remember that when I started diving it was literally just getting started in this country. People had been helmet diving for a long, long time. But SCUBA diving came out of technology developed in World War II."

A love of fishing is what first hooked Munk. He was working in Chicago in 1956 when he read a column in the Chicago Tribune in which an outdoors reporter confessed he had learned more about fish in two hours under water than from years casting a line.

When Munk showed up at the Evanston, Illinois YMCA seeking instruction, he was asked to develop a class. By today's standards, SCUBA diving was primitive, just a steel tank, a canvas strap, a mask, and fins.

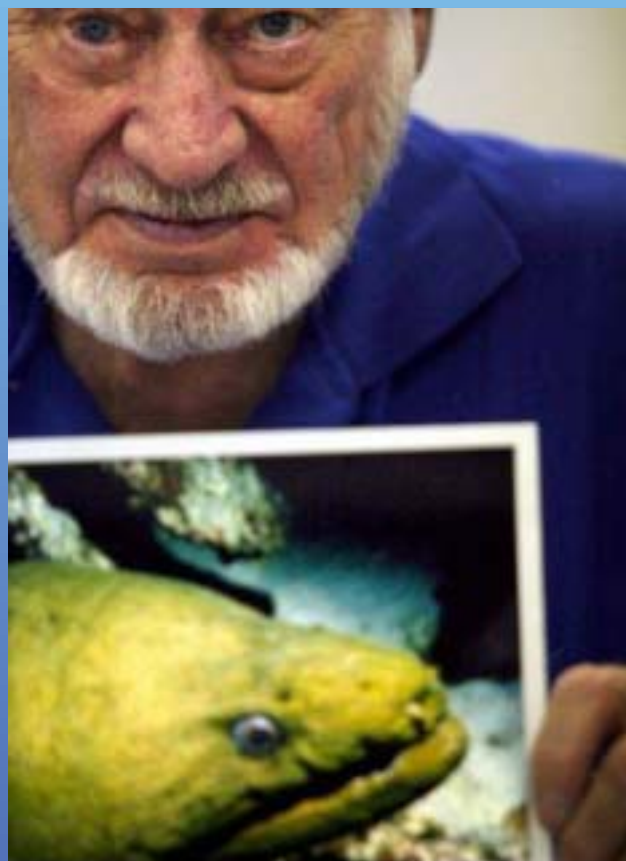
Over the next few years Munk cut his own wet suit and in 1959 became one of the first class of Divers to be nationally certified by the YMCA. He opened a dive shop in Chicago in 1971.

The sea became his life. During the winter when business was slow, Munk began organizing more than 300 diving trips to the Caribbean, including the annual Turkey Dive, held for more than 30 years on the Saturday after Thanksgiving. He says he even has a dive site named after him off the island of Bonaire.

In all his time under water, Munk said that he never suffered an equipment failure or other life-threatening calamity. He brushed against sharks and rubbed the sides of a spotted moray without ever being bitten. He fed table scraps to grouper "like they were big, old puppy dogs."

"I have always felt that if you don't show them fear, they're not going to attack," he said. "They're not looking for human flesh. We're not on their menu."

But increasingly in the late 1980s, Munk found himself "breathing like a steam engine." Doctors diagnosed severe asthma. Munk stopped leading dives "because you can't take any chances when you are responsible for someone's life."



*Elmer Munk, 72, retires from his job as administrative assistant with the Venice Fire Department, after more than 6,000 dives.*

In 1991, he made his last dive. "Sure, I miss it. It's an amazing world down there."

But these days, Munk said, he is content to live vicariously. He still travels on diving trips to the Caribbean. He is a resource for the Venice Fire Department's dive rescue team. And he is pleased to see how big diving has become, with half a dozen diving schools advertising in the local Yellow Pages.

"My only regret is that for some people it has become more about selling equipment than teaching," he said. "Anyone who wants to dive should be a comfortable swimmer, find a good instructor, and take at least five lessons."

*This article was originally published in the Venice, Florida Herald Tribune.*



# MASTER DIVER LIST

<i><b>Rate</b></i>	<i><b>Last Name</b></i>	<i><b>First</b></i>	<i><b>Command</b></i>	<i><b>Rate</b></i>	<i><b>Last Name</b></i>	<i><b>First</b></i>	<i><b>Command</b></i>
BMCS	Allred	Duncan	SIMA INGLESIDE	EMCS	Lepore	Joe	NRL PT HUE
ENCS	Babin	Mike	MDSU 2	MMCM	Mallet	Russ	MDSU 2
BMCS	Balesi	Pascal	CNSWG2	EMC	Malone	Vern	DSU
HTCS	Barker	Bob	CDU	BMCS	Mariano	Jim	EOD TRA/EVAL
ENCS	Becker	Lyle	NEDU	CEC	Menzie	Timothy	UCT 1
BMC	Bell	Hugh	4MDIV	MMCM	Morris	Bill	EODMU 11
BMCM	Bettua	Rick	TRIREFAC	HTC	Moser	Mike	MDSU 1
QMCM	Boyd	Danny	EODMU 8	MMC	Mulholland	Steve	NSWG-1
HTCM	Bradford	Brick	NSCOLEOD	BMCM	Myers	Phillip	SDVT 2
ENCM	Briggs	Dan	NUWES	MMC	Neely	Robert	EODMU 5
BMCM	Brown	Ken	SIMA NORFOLK	MMCM	Nichols	James	USS SALVOR
HTC	Buckley	Mike	NSWC	BMCM	Orns	Fred	NSSC
ENCM	Carolan	Jim	NEDU	HTCS	Overbeck	Al	NSUBSUPP
MMCS	Clark	Duane	MDSU 1	MMC	Perkins	Tom	MDSU 1
HTCM	Crider	Bill	MDSU 1	MMCS	Clark	Duane	VSW MCM
BMCM	Daniels	Jim	SURFLANT	ETCS	Phillips	Arne	III MEF
CUCM	Daniels	Dave	UCT 1	ENCS	Pratschner	Brian	NAVMAR
ENCM	Davidson	Dave	NSWU-1	CECS	Ramsey	Al	CEODD
BMCM	Dennis	Donny	NDSTC	ENCM	Reiss	John	II MEF
EMCS	Dryden	Ed	CEODD	BMCS	Robarts	Kent	EODMU 2
HTCM	Ervin	Ron	EODMU 6	BMCS	Roberson	Doug	CNSC
ENCM	Evans	Jimmy	NSWC	TMCM	Romas	Bill	SDR 5
BMCM	Frank	Eric	SIMA MAYPORT	ENCM	Rood	Todd	CNSWC
HTCM	Furr	Gary	MDSU 2	BMC	Rotan	Matt	SDVT 1
BMCM	Gaillard	Kyle	NDSTC	HTCM	Royse	Jeff	SPECWAR
ENC	Garcia	Rosendo	AS 39	ENC	Rubow	William	SIMA NORFOLK
HTCM	Gorham	Franc	SUBSCOL	BMCS	Sackman	Mike	EODMU 6
ITC	Gove	Dave	MDSU 1	BMC	Sampson	Jeffrey	MDSU 1
HTC	Gardina	Paul	SURFPAC	BMCS	Scully	Hugh	MDSU 1
EOCS	Green	John	UCT 2	ENCM	Skala	Ron	SPAWAR
ENCM	Grimm	Guy	SDVT 2	BMCM	Smith	Steve	NSSC
BMC	Grubbs	Don	MDSU 2	BMCS	Stanton	Jim	CDU
BUC	Hargaray	Bill	UCT 2 SEA	CEC	Stark	Henry	UCT 1
BMCS	Heater	Doug	SIMA NORFOLK	QMCM	Stock	Tom	LOGRON 2
MMCM	Holiday	Eric (Dean)	EODMU4	MMCM	Stogdale	Tom	USS CABLE
BMC	Horvath	Dan	SRF SASEBO	BMCM	Storment	Rick	SURFPAC
ENCS	Hove	Dominic	SRF YOKO	HTCM	Trautman	Pat	SIMA NORFOLK
BMCM	Johnson	Kent	NEDU	QMCS	Troedel	Mike	EODMU 3
ENC	Jones	Kevin	SDVT 1	HTCM	Van Horn	Bryon	NDSTC
HTCS	Kayona	Ray	EODMU 11	BMCM	Westbrook	Gordo	PERSCOM
HTCM	King	Lemont	DEVGRU	ENCS	Westfall	Don	NDSTC
ENC	Knudson	James	SDR 5	BMCS	Westling	Doug	NSTC
SWC	Koelbel	Leonard	NFESC PT HUE	ENCS	White	Terry	USS SAFEGUARD
HTCS	Kordich	Dan	USS GRASP	ENCM	Wiggins	Steve	CEODD
BMC	Lechner	Chris	EODTECHD	ENCS	Winter	Mike	NIMF
BMCS	Leet	Mark	USS GRAPPLE				

# Building A Warship

USS MOMSEN (DDG 92)

On September 19, 2000, Secretary of the Navy Richard Danzig announced the forty-second Arleigh Burke Class Guided Missile Destroyer (DDG 92) would be named MOMSEN, in honor of Vice Admiral Charles Bowers Momsen. Momsen's Naval career was highlighted by several technological achievements and an unyielding determination to improve the safety and survival of Navy Divers and submariners. A pioneer of early diving and salvage equipment, a leader among the submarine community, and a visionary of future submarine design, it was fitting to name one of the nation's most complex and technologically advanced warships in his honor.

The keel was laid for MOMSEN on November 16, 2001, at Bath Iron Works in Bath, Maine. The Keel Laying Ceremony was the first of five ceremonies that would mark the progress of the ship's construction. At that time, the ship was referred to as "Hull 475." The name MOMSEN would come later. In recent years, BIW invested in the most advanced shipbuilding process and built a Land Level Transfer Facility. Ships are no longer built on an inclined ways and slid into the Kennebec River. Instead, large segments of hull are assembled inside buildings and then maneuvered on rails and craned into position on the shipway. A ship is assembled entirely on level land and is put into the water only when a desired level of completion is achieved. This production

technique is more efficient and MOMSEN is the second Bath-built ship from this new facility.

As Charles Momsen challenged twentieth-century technological barriers and introduced revolutionary equipment, the twenty-first century MOMSEN introduces some of the Navy's most advanced surface combatant technology and design. MOMSEN is a ship of firsts for Bath Iron Works - the first vessel with a completely commercial grade 60hz power distribution system and the first Baseline 7 Phase 1 AEGIS weapon system that runs entirely on commercial computers. There is not a single military specification (MILSPEC) computer on the entire ship. MOMSEN is equipped with the SPY-1D(V) three-dimensional phased array radar that is a generational leap in capability over previous SPY radars in the Fleet. Finally, MOMSEN is built with the Remote Minehunting System (RMS), the surface Navy's first organic mine warfare systems to reach fleet production. RMS is a long range, over-the-horizon, semi-submersible system capable of detecting, identifying, and relaying the location of underwater mines.

LT Brad Stallings, the Chief Engineer and first MOMSEN crewmember, reported to the Pre-Commissioning Unit in Bath, Maine during the summer of 2002. "Hull 475" was 61% complete and the shipyard was focused on completing the construction of the segments that would ultimately be assembled into a complete hull. The priority for LT Stallings was starting the long complex task of establishing a command organization and administrative architecture. Assisted by a superb Northrop Grumman Pre-Commissioning support staff, he "laid the keel" for Pre-Commissioning Unit MOMSEN, or more commonly referred to as the PCU. PCU MOMSEN was the name of the command the crew belonged to until the date when the Navy



*Land Level Ship Construction.*

officially accepted the ship. Crewmembers arrived in four phases throughout the Pre-Commissioning process. Phase One was the first 15 crewmembers and the core of senior officer and enlisted expertise, who established the priorities that guided the organization through the remaining phases. Phases Two and Three filled out the organization with mid-grade officers and enlisted, allowing divisions and work centers to be formed. PCU MOMSEN's Phase Three was completed in December of 2003 with just under 100 crewmembers on site in Bath. Phase Four, the largest of all phases, was the addition of the most junior crewmembers, those that had recently graduated from Recruit Training Center and follow-on schools. Phase Four was completed in May of 2004 with MOMSEN's crew just short of three hundred personnel. By the time the ship leaves the shipyard and is augmented by an SH-60 helicopter detachment, the crew size will be 350 personnel.

MOMSEN crewmembers first reported to PCU MOMSEN's Training Detachment in San Diego, California. Under the supervision of the MOMSEN's Command Master Chief, CMDCM(SW)(AW) Mark Baker, they attended rate or job specific schools before reporting to the Pre-



*MOMSEN Keel Laying Ceremony.*



Commissioning Unit in Maine. Bath Iron Works offered many additional courses to prepare crewmembers to work and live on a DDG. Finally, well-trained individual Sailors were organized and trained as teams: watch teams, duty section teams, and damage control teams.

Building a command from scratch offers the unique opportunity to establish priorities that will endure for the lifetime of the vessel. For MOMSEN, those priorities are training, innovation, and force protection. Training is the backbone of any successful Navy organization and is the reason the Pre-Commissioning Unit exists. The PCU ensures crewmembers receive proper individual training and then organizes the crew into a trained team before moving aboard the ship. The Pre-



*USS MOMSEN before undocking.*

Commissioning process is also a rare opportunity to incorporate innovation into the command's organizational structure, policies, and procedures. MOMSEN created a new department in response to the proliferation of fiber optic data networking technology built into the ship's weapons and control systems. The Systems Integration (SI) Department was formed by consolidating all the rates with responsibility for equipment that utilizes fiber optic data management. The synergy of consolidating similarly trained technicians, without regard to source rating, proved valuable during the systems start-up testing phase of construction. Anti-terrorism force protection was

MOMSEN's third priority and the command addressed this mission area by creating an innovative full-time Force Protection Division.

By the spring of 2003, all of the functional segments of the hull were built and a complete ship was assembled on the Land Level Transfer Facility. Production was 76% complete and it was time to celebrate the stepping of the mast. The Mast Stepping Ceremony is the second of five ceremonies in the shipbuilding process. Traditionally when a mast is stepped, or affixed to the keel, coins are placed under the base of the mast to commemorate the event. This centuries-old tradition is linked to mythology. If the ship goes down at sea, the coins are placed to pay the ferryman's toll across the river Styx. The MOMSEN crew had grown to 68 by April 15, 2003 when the Mast Stepping Ceremony was held. Ninety-two coins were gathered, one from each member of the crew and several from the Momsen family representing significant dates in VADM Momsen's life. The coins were welded in a time capsule at the base of the mast and will stay with the ship until the day she is stricken from the Navy rolls.

Charles Momsen III, VADM Momsen's grandson, spoke on behalf of the Momsen family and read a passage about Midshipman Momsen from his U.S. Naval Academy Class of 1920 yearbook. In the short paragraph, Momsen was referred to as the "Lucky Swede." Swede was a nickname he retained his entire Naval career. Charles Momsen III offered that "Lucky Swede" might be a possible nickname for the ship, an idea that was quickly adopted by both the crew and the shipyard.

The Land Level Transfer Facility has two shipbuilding ways. Two vessels, in various stages of construction, occupy those ways at all times with completed segments of additional hulls placed in



*Charles Momsen III.*

holding areas throughout the yard. A large blue floating dry dock sits moored at the end of the ways awaiting the delivery of the next hull ready to be launched in the Kennebec River. The dry dock has permanent mooring chains that extend into the center of the river and surround a deep hole dredged in mid-channel. The dock can move under its own power between the two building ways and out to the center of the river. By July of 2003, "Hull 475" was 85% complete and ready to be launched in advance of the Christening Ceremony. The "float off" is a slow and controlled process. The dock detached from the end of the building ways just after sunset and the ship floated free from the dock structure just after sunrise. A great deal of production work still remained to be done, but "Hull 475" was now in position to be christened.

Five hundred people gathered to watch the ship's christening on August 19, 2003. Evelyn Momsen Hailey, VADM Momsen's daughter, was the ship's sponsor. After several speeches including Momsen's grandson, Christopher Hailey, and VADM Albert Konetzni as the principal speaker, Evelyn Hailey proclaimed, "I christen thee Momsen, the lucky Swede", and with the swing of a champagne bottle "Hull 475" officially became USS MOMSEN.

Building and outfitting an Arleigh Burke Class destroyer is one of the most complex processes in the industrialized

*(Building a Warship... continued on page 14.)*



# USS MOMSEN (DDG 92)



## **Commissioning Ceremony**

**Panama City, Florida**

**28 August 2004**

Courtesy of William R. Schmidt  
Angel, Incorporated





(Building a Warship... continued from page 11.)



*The Christening Ceremony!*

world. Only two shipyards in the United States have the capacity and workforce capable of the task. At Bath Iron Works, a large sign sits over the main entrance to the shipyard, "Through these gates pass the finest shipbuilders in the world." It is not just a sign; it is a work ethic evident in every facet of the company. The shipbuilding process begins with the 6,200 tons of steel and 406,000 pounds of welding rods. Forty-eight miles of pipe and 254 miles of electrical cable are installed, all by hand! Three hundred and fifty-seven doors/hatches/scuttles, 6,500 light fixtures, 8,000 valves, and 69,000 gallons of paint complete the process. Each step worked with meticulous attention to detail befitting BIW's other slogan, "Bath built is best built!"



*Evelyn Momsen Hailey breaks champagne bottle on the hull of USS MOMSEN.*

As the shipyard pressed on with its construction schedule, so did the crew. Well-trained individuals were forged into efficient teams through Land Based Engineering Simulators in Philadelphia, Combat Information Center Team Training in Wallops Island, Virginia and innovative Fire Fighting Team Training in Newport, Rhode Island and Bath, Maine. By March of 2004, MOMSEN was 98%

complete and ready for sea trials. Just four days at sea were needed to test every major system, fire two standard missiles, the 5-inch 62 caliber gun, run the engineering plant up to full power, and complete hundreds of other system tests. The ship performed magnificently and even had the opportunity to display good sea-keeping ability when some New



*CDR Ed Kenyon, Commanding Officer, and LCDR Bill Bullard, Executive Officer, on an icy bridge wing during sea trials.*

England weather rolled through the Gulf of Maine!

In May, the crew had grown to 290, 70% of whom had never served a tour of duty aboard ship. Production was 100% complete and on May 6, 2004, the Navy officially accepted MOMSEN in a brief but important Ship Custody Transfer Ceremony. The ship now belonged to the Navy and the crew was charged with its maintenance, training, and upkeep.

All the functions necessary to support a shipboard routine started that day. The crew moved aboard, ate their first galley prepared meal, and stood the first set of shipboard watches.

At the end of July, MOMSEN will sail down the Kennebec River and start the transit to her homeport, Everett, Washington. At the end of August, the Commissioning Ceremony will be held in Panama City, Florida. It is fitting that the ship named after the father of Navy diving will be commissioned in the home of Navy diving and salvage.

In the early part of the twentieth century, Charles "Swede" Momsen started

a legacy that lives through Navy Divers - past, present, and future. USS MOMSEN will bring the Momsen legacy to a new generation of Sailors not involved with diving or salvage and well into the twenty-first century.

The life cycle of a warship is thirty years. During that time, 3,500 Sailors will cross the brow and call MOMSEN "their ship."

The commissioning crew of MOMSEN welcomes all Divers into this new fraternity and hopes Navy Divers everywhere consider USS MOMSEN "their ship", too.

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***This article was written by the Pre-Commissioning Crew of USS MOMSEN (DDG 92).***

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## VICE ADMIRAL CHARLES "SWEDE" MOMSEN

### U.S. Navy Diving and Submarine Pioneer



*Vice Admiral Charles B. Momsen, USN (1896 - 1967).*

Vice Admiral Charles Momsen was a major contributor to diving research, submarine rescue, diving equipment development, deep diving operations, and operations with military submarines. During his long and distinguished career in the U.S. Navy, he contributed many diving innovations, developed some very advanced diving techniques, and was instrumental in numerous progressive, life-saving operations.

Charles Bowers Momsen was born on June 21, 1896 in Flushing, Long Island, New York. He attended public schools in Washington, D.C. and St. Paul, Minnesota before his appointment in 1916 to the U.S. Naval Academy. He graduated from Annapolis with the Class of 1920, was commissioned an Ensign on June 7, 1920, and served aboard the battleships USS OKLAHOMA and USS MARYLAND before reporting for submarine training at the Navy Submarine Base, New London, Connecticut in 1921. He served as Executive Officer of the submarine USS O-13 and commanded the submarines USS O-1 and USS R-24.

He was then transferred to the Bureau of Construction and Repair where he helped develop the famous submarine escape device known as the Momsen Lung.

After the submarine USS S-4 sank off the coast of Provincetown in December of 1927 with the loss of forty lives, the U.S. Congress appropriated money for the Navy to develop effective submarine safety and rescue systems. Just a few months before the USS S-4 sank, LT Momsen had been in command of her sister ship, the USS S-1.

Momsen and his team started from scratch in developing a submarine escape breathing system. Momsen was given a submarine to use as a floating laboratory - none other than the salvaged and reconditioned USS S-4, which served as a constant reminder of the importance of success by the research team. The result of their hard and dedicated work looked like a hot water bottle with a gas mask. It had a capacity equal to that of the human lungs. One tube carried air from the mouth to the bag. Another tube enclosed a container of soda lime to purify the air of carbon dioxide and carried the air from the bag to the mouth.

On February 5, 1929, the submarine USS S-4 was submerged in 40 feet of water at Smith Shoals, 11 miles off the coast of Key West, Florida. Lieutenant Momsen and Chief Torpedoman Edward Kalinowski were the first to successfully test the Momsen Lung. The test team continued to test the Momsen Lung, going deeper and making refinements. Finally, on March 7, 1929, Momsen and Kalinowski escaped from 204 feet. For this development he was awarded the Distinguished Service Medal.

LCDR Momsen became Officer-In-Charge of the U.S. Navy Experimental Diving Unit (NEDU) in Washington, D.C. in August of 1937. He became a qualified deep sea Diver himself. Two surgeons from the Navy Medical Corps were assigned to work with Momsen to find a substitute for nitrogen in the Diver's breathing gas for deep diving. Under Momsen's leadership, the NEDU Team perfected new helium-oxygen mixtures and new decompression tables to allow Divers to safely work at depths over 300 feet.

On May 23, 1939, the submarine USS SQUALUS sank off the coast of Portsmouth, New Hampshire during sea trials. The submarine was stranded on the bottom 243 feet down. Since the submarine was below the safe limit to use the Momsen Lung, the SQUALUS captain decided to wait for possible rescue.

Momsen and the NEDU Divers, their new mixed-gas diving equipment, and the McCann Rescue Chamber were quickly loaded aboard the salvage ship USS FALCON. Some years earlier, Momsen had worked with CDR Allan McCann in development of the McCann Rescue Chamber. LCDR Momsen directed the NEDU Divers in descending to the stricken submarine, making contact with the crewmen inside, attaching the rescue chamber haul-down line and assisting in the rescue. The McCann Chamber successfully rescued 33 of the 50 crewmen aboard the submarine USS SQUALUS. Following Momsen's direction, the NEDU Divers made 640 additional mixed-gas dives over the next few months to salvage the sunken SQUALUS, bringing the submarine to the surface under the most severe weather and water conditions. Four of the Divers on the rescue and salvage operations were awarded the Congressional Medal of Honor by President Roosevelt.



*Crewman A.L. Rosenkotter of USS V-5 (SC 1) demonstrates the use of the submarine's after escape hatch and the emergency escape "lung" during V-5's trials in July of 1930.*



LCDR Momsen and 44 of his men were awarded the Navy Cross. Momsen was promoted to Commander and assumed command of the cargo ship USS SIRIUS in September of 1939, where he remained until October of 1941 when he was detached for duty in the Fourteenth Naval District, Pearl Harbor. He remained there in connection with war operations after the Japanese attack on December 7, 1941. In July of 1942 Momsen was designated as Assistant Chief of Staff and War Plans Officer to the Commander Hawaiian Sea Frontier.

He was promoted to Captain and served as Commander of Submarine Squadron Two, and subsequently Submarine Squadron Four. Captain Momsen personally took over the investigation into the alarming number of "dud" torpedoes that were not exploding when hitting their target. An improved exploder was developed which increased the effectiveness of American submarine attacks. For his special contributions to submarine warfare from February of 1943 to June of 1944, he was awarded the Navy Cross (his second), the Legion of Merit, and a Gold Star in lieu of a second Legion of Merit, with Combat "V."



Several variations of the "Momsen Lung" apparatus. Left to right: TM1(DV) Edward Kalinowski in an experimental metal canister, SF1(DV) John Iben in an experimental rubber canister, and LT Charles Momsen in a circular tube around shoulders, March 1928.



USS WANDANK (AT 26) and USS FALCON (ASR 2) moored over the sunken SQUALUS during rescue operations in May of 1939. The McCann Rescue Chamber is visible on FALCON's afterdeck.

Between June and December of 1944, he had duty in the Office of the Chief of Naval Operations, Navy Department, before he assumed command of battleship USS SOUTH DAKOTA. Under his command, that battleship took part in operations against Japan, attacking enemy installations in the area of Tokyo. He was awarded a Gold Star in lieu of the third Legion of Merit, with Combat "V." He also received a letter of commendation from the Commander Fifth Fleet, with authorization to wear the Commendation Ribbon and Combat "V," for outstanding service while in command of USS SOUTH DAKOTA during the support of the assault operations on Okinawa from March 14 to May 14, 1945.

When relieved of the command of the USS SOUTH DAKOTA in July of 1945, he was assigned to Headquarters, Commander in Chief, United States Fleet, at the Navy Department in Washington, D.C. to prepare for the invasion of Japan, scheduled for April of 1946.

After the Japanese surrender on September 2, 1945, Momsen was ordered to duty as Administrator, U.S. Naval Shipping Control Authority for Japanese Merchant Marine, concerned

with repatriation of Japanese civilian and military personnel.

He was promoted to Rear Admiral and on October 15, 1946, he became Commandant of the Naval Operating Base, Guam, Marianas Islands, continuing to serve as such until January of 1947, when he joined the staff of Commander, Marianas Islands as Chief of Staff and Aide.

After his return to the United States, he was a member of the General Board from June 1947 to May of 1948 and for three years thereafter served as Assistant Chief of Naval Operations for Undersea Warfare.

On May 21, 1951, he reported as Commander Submarine Force, Pacific Fleet. On June 2, 1953, he became Commandant of the First Naval District, with additional duty as Commander Naval Base, Boston, and Commander Naval Base, Portsmouth, New Hampshire.

In April of 1955 he was designated Commander Joint Task Force Seven and continued to serve as such until relieved of all active duty upon his retirement on September 1, 1955, when he was advanced to the rank of Vice Admiral.

The U.S. Naval Diving and Salvage Training Center (NDSTC) in Panama City, Florida named its main building after VADM Charles Bowers Momsen.

In honor of Momsen's many contributions to the U.S. Navy, an Arleigh Burke Class destroyer was named USS MOMSEN (DDG 92).

VADM Momsen contributed greatly to the safety of submariners and Divers through diving research, and extension of the time and depth limits for diving. His leadership and bravery in many at-sea operations are legends in Naval history.

On May 25, 1967, Vice Admiral Charles B. Momsen died of cancer at the age of 70, in Bay Pine Veterans Hospital in St. Petersburg, Florida.

*This article is from the book, **Pioneers In Diving**, by Edward C. Cargile. For more information, contact [ecargile@cox.net](mailto:ecargile@cox.net).*

# DDG 51 Class In-Water Sonar Installation

By: LT Mark Williamson

In an effort to improve the search capabilities of the DDG 51 Class against the submarine threat and reduce costs of installation, PEO IWS asked SEA 00C5 whether it would be possible to install a new sonar array pierside on Arleigh Burke Class guided missile destroyers. The Sparsely Populated Volumetric Array (SPVA) provides surface combatants with superior acoustic intercept detection, greatly expanding detection bandwidth and is similar to the unit that is currently available to the submarine fleet. Two Spruance Class destroyers were previously equipped with a prior generation SPVA; all completed in drydock at a significant expense in time and money.

NAVSEA 00C5, in conjunction with its diving services contractor, Phoenix International Incorporated, was tasked to provide concept, design, and installation of the SPVA on a DDG 51 Class ship. It was immediately apparent that major hurdles would include establishing two perfectly aligned hull cuts in which to install the SPVA, obtaining access to the worksite, and ensuring double hull protection at all times when personnel were not immediately present.

The SPVA was to be installed forward in the same approximate area as the sonar dome rubber window directly beneath the sonar room to where data collected by the SPVA would be transmitted. The area

provided was the "Banjo," a structure encompassing the sonar dome rubber window inclusive of a cylindrical rotunda in the center. Cramped access to the rotunda was provided through seven frames of lightening holes, transducer cables, degaussing equipment, and an airlock.

The hull structure near the "Banjo" consists of both an internal and external  $\frac{3}{4}$ -inch hull plate, separated by approximately 30 inches of acoustic foam and tile. The two hull plates were rigidly supported by internal stiffeners installed 12 inches on center. The bend radius of the fiber optic cable utilized by the SPVA sensor required that a seachest be utilized that allowed only a maximum  $\frac{1}{4}$ -inch clearance between the forward and aft sides and the respective support member. Precise layout and cutting techniques were required to accomplish this.

NAVSEA 00C5 commissioned the design and development of a hydraulic drill that could both access the rotunda through the cramped passage and also ensure a perfectly aligned cut with relation to the interior and exterior hull plates. Proper alignment was crucial in order to prevent binding of the seachest/SPVA assembly as it was inserted through both hull cuts into the rotunda. The seachest was fabricated with a doubler plate that had been pre-fitted to the curvature of the hull and did not allow alteration due to previous weld certification. A slight misalignment of the two cuts could either damage the seachest and



*Divers inserting seachest into hull.*

internal stiffeners or not allow fit up tolerances to be met.

The drill was comprised of the motor assembly, centering shaft, support bridge, alignment guides, cutting arm, and cutting heads. After layout and drilling of pilot holes, the hydraulic drill arrived in the rotunda in ten pieces via a "daisy chain" of personnel. The support bridge was welded in place ensuring consistent placement of the drill for both cuts. The drill was installed and cut the internal hull plate in 35 minutes. Removal of the drill allowed personnel to excavate large portions of foam and tile, leaving only outer circumference edges remaining for a close fit between seachest and acoustic foam; easy work for an improvised lawn mower blade installed on the drill. The centering shaft was fabricated with a tip inserted into a bushing drilled into the exterior hull plate. The centering tip ensured precise alignment between interior and exterior hull cuts, the second of which was completed in four hours of cutting. Double hull protection was ensured during the cutting process by the use of an eductor box on the exterior and a Tooker patch covering the interior hull plate cut.

With the hull cuts ready to receive the seachest from the wet side, the eductor box and the Tooker patch were replaced with a cofferdam and custom designed drybox.



*Creating second of two hull cuts.*

*(Sonar Installation....continued on page 20.)*





# Command in the Spotlight

## Mobile Diving and Salvage Unit ONE Detachment THREE

By: LT Todd Ochsner

In mid-January of 2004, Mobile Diving and Salvage Unit ONE Detachment THREE (MDSU ONE Det 3), stationed in Pearl Harbor, Hawaii, was tasked to provide diving, salvage, and recovery operations for a stranded Torpedo Retriever (TR-73) located in Port Allen, Kauai. In the early morning of January 14, severe weather had caused TR-73 to break loose from her moor, eventually drifting and stranding herself on nearby rocks. MDSU ONE was able to rapidly mobilize, deploy, assess, salvage, and recover TR-73 in just twelve days.

MDSU ONE was notified of the vessel stranding on the afternoon of January 14. Within hours of the notification, Command deployed one of its Master Divers to conduct the initial assessment and survey. MMC(SW/MDV) Thomas Perkins arrived on the island and completed the initial survey to determine what support assets and equipment was required to salvage the TR-73. The storm had not completely passed Kauai so the weather and rough seas presented a significant challenge, but not one too difficult for Team MDSU to conquer. The next morning, eight MDSU ONE Det 3 personnel, along with their SCUBA equipment and rigging gear, were flown via H-3 Sea King helicopter to the Pacific Missile Range Facility (PMRF) located approximately 30 miles from Port Allen.

On January 16, MDSU ONE Det 3 conducted the initial in-water survey of TR-73 utilizing their SCUBA gear. The results of the initial survey revealed the 65-foot aluminum craft to be stranded with its keel aground in a sand bottom and starboard side pinned against the rocks. Apparently, the heavy surf had caused the vessel to surge

off the sand bottom and settle directly onto the rocks. One particularly large rock pinned the vessel's superstructure against the shore. Three of the TR-73's compartments were open to the sea and a hole, measuring 4.5' by 2.5', was discovered on the port side. The Divers noted the starboard aft side to be damaged as well, but could not conduct a thorough assessment due to the severe swells and adverse weather. The initial attempt to recover the vessel utilizing bellybands (attached by SCUBA Divers) was unsuccessful because of the various metal obstructions located on the hull, as well as the challenge posed by the rough seas. Realizing a more aggressive recovery procedure utilizing surface supplied diving and lift bags would be required, MDSU ONE Det 3 requested a MK III system with MK20 and EGS. This



*Storm conditions at Port Allen upon arrival.*

equipment was promptly transported from Pearl Harbor to Kauai the next morning via a U.S. Coast Guard C-130.

The next morning, the Team commenced diving with MK 20 and MK III systems. A more thorough survey revealed a 6-inch vertical tear at a forward compartment and a 7-foot gash in the keel. With TR-73 stranded in shallow water just off the shoreline, the Team quickly realized the 10-ton lift bags that were intended to

lift the hulk would be useless if used in the traditional manner (attached alongside, outside the vessel). Instead, the Team used some ingenuity and inserted four of the 10-ton lift bags inside the TR-73 superstructure. Lift bags were placed inside the aft machinery room, the forward cabin, and two within the central internal compartments of the TR-73. Divers literally stuffed the lift bags through hatches into the boat's internal compartments.



*TR-73 beached at high tide.*



*BMCS(DSW/SS) Bingham coming up through TR-73's pilothouse after conducting first internal inspection.*

Once inside, the lift bags were inflated. Four mooring buoys were rigged outside the TR-73 for added lift. Additionally, cofferdams were placed on various fuel fittings to prevent leakage of an estimated 500 gallons of DFM.

On January 19, the TR-73 was successfully lifted and towed 200 feet from the rocks to her safe haven - a mooring buoy. The starboard had massive damage to its aft portion. Several tons of sand were found within the aft compartment. The Divers began removing sand using trash pumps and hand buckets which improved TR-73's buoyancy. Although successfully lifted, damage was too extensive to safely tow the craft to Oahu, some 100 miles away. The decision was made by PMRF to use

performed multiple in-water repairs on the lift bags inside TR-73 and re-rigged the craft for retraction.

On January 25, the excavator arrived on site and the Team set up the retraction and recovery gear on a ridge near the Port Allen harbor. Though several wire pennants broke during the beaching process, the TR-73 was successfully retracted onto shore on the evening of January 27. The next morning, the Team retrieved lift bags and rigging from TR-73, packed their gear, and prepared for redeployment to Oahu. TR-73, totally beyond repair, was eventually sold for scrap.

"As my first salvage job at MDSU ONE, I

would say this was a very frustrating and challenging job because it required lots of rethinking and looking at different ways of doing things to get that boat out of the water," said BM2 Joseph Theodorou, a MDSU ONE Det 3 Diver. "It took a lot to get the TR-73 out of there, but the team work was great and the support we received from the PMRF personnel was the best."

Team MDSU displayed the mobility and flexibility often needed in salvage operations to successfully recover the TR-73. Being able to deploy a rapid response dive team and its equipment via helicopter exhibited a new level of mobility previously unheard of in the salvage Navy and further validated MDSU's role in Expeditionary Diving and Salvage. Indeed, MDSU ONE Det 3 was able to successfully complete its mission in spite of short notice of tasking, rough seas, and damaged equipment.

MDSU ONE Det 3 Officer-in-Charge, BMCS(DSW/SS) Wade Bingham, stated that: "All branches of the dive Navy make plans and implement them. Usually though, if an obstacle presents, the inclination for most is to turn back and re-



*After putting in internal flotation devices and with the amount of sand retained while aground on rocks, more external flotation devices were required for the port aft corner.*

think or re-plan. On the salvage side of the house though, turning back is not an option, the job has to get done. Re-thought strategies, onsite ingenuity, and relentless persistence are necessary to do that job. Obstacles do not show up on the planning board, so we have to overcome them out there on the side."

Team MDSU adds another successful operation to their report card. HOO YAH - Go Navy Divers!

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***LT Todd Ochsner is currently the DMO/PAO at MDSU ONE.***

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*A view of the damage to the starboard aft engine room during the initial grounding.*





# Rapture of The DEEP

*"Service to the Fleet"*



*This page is designed to give the readers the latest "Buzz" on various topics to USN diving and its systems.  
Compiled and written by MDV Steve Smith (smithss@navsea.navy.mil)*

## Stretchers

MDV Pratschner was asked to compare a Miller Board to a non-rigid stretcher. His trial runs indicate that using the non-rigid litter offers a few advantages over using the Miller Board. The flexible litter is much easier to use when getting a man out of the water. This litter should not be used when spinal injury is suspected, but if this is the only stretcher available, slide a boat hook through the handle on each side to make a somewhat rigid stretcher. In addition, the non-rigid litter folds up and is easily put into an O<sub>2</sub> kit or dive supplies briefcase, and takes up a lot less room than a Miller Board.

## U/W Paint

The wave piercing sealift catamarans HSV-X1 Joint Venture (INCAT hull 60) and HSV-X2 SWIFT (INCAT hull 50) were built in Hobart-Tasmania, Australia. The 327' length, 87' beam, and 13' draft vessels are based on a commercial ferry design modified for military operations. The underwater hull coating systems on these vessels pose serious health risks to diving personnel and special precautions must be taken to avoid contact with the coating systems. For further information, see AIG 239 Diving Advisory 04-06.

## Zeagle BCs

Several reports indicate the potential for the fabric cover to fray and expose the inflation bladder of Zeagle BCs manufactured from 1996 to 2003. This was caused by a spring rated at 4 PSID located

in the overpressurization valve and the remote exhaust valve. Zeagle has lessened the tension on the spring to 2 PSID to alleviate the potential problem. Please see AIG 239 Diving Advisory 04-04 for further details and resolution of problem. MK-11 BCD is not affected by this AIG and no further action is required.

## Carbon Fiber Flasks

Hydrostatic testing requirements for carbon fiber composite flasks do not call for a 5% permanent expansion as acceptance criteria as is done on the Kevlar flasks. Per the DOT exemption (DOT-E-10945 (SCI) and DOT-E-10915 (Luxfer)), there is a Rejection Elastic Expansion (REE) number stamped on the flask which is the acceptance criteria for these flasks. Carbon fiber flasks must be hydrostatically tested every five years. There is no documentation of a hydrostatic test when delivered new. Documentation provided lists the autofrettage date, which is effectively the initial hydrostatic test. This date will also be on the label attached to the flask. There is no requirement in DOT for the facility performing subsequent hydrostatic testing to provide any documentation of the test beyond the label attached to the flask, but a copy of the test report should be requested for inclusion in the certification package.

The exemptions for the Kevlar wrapped composite flasks used on the LWDS, TRCS, and FADS III are DOT-E-8162 (SCI) and DOT-E-10970 (Luxfer). These flasks still have the 5% permanent

expansion criteria and they still need to be hydrostatically tested every three years.

The exemptions for carbon fiber flasks, which we use on the LWDS, TRCS, and FADS III must be carried with the system any time they are in transit. The manufacturer renews these exemptions every three years, so it is necessary to go to the DOT website periodically to get the most recent update of exemption. These can be found at [http://hazmat.dot.gov/exemptions\\_index.htm](http://hazmat.dot.gov/exemptions_index.htm).

## If You Did Not Know

Biodegradable hydraulic fluid is authorized for use in all Hydraulic Power Units. Envirollogic 132 manufactured by Terresolve Technologies, LTD may be used in lieu of Houghton PR1192 Mil Spec-C-81309 TY2 CLII. The fluids shall not be mixed together. You must thoroughly clean power unit and all tools when switching from one fluid to the other. MIPS 5921/013, 5971/004, 5971/005, and 5971/068 will reflect the use of this fluid or the PR 1192.

If interested, you can contact Terresolve Technologies, LTD at (800)661-3558.

## ESSM Phone Numbers

Recently the phone numbers at ESSM have changed. Diving Manager, Paul Schadow can be reached at (757) 637-9044. Diving Coordinator, Jeff Washburn can be reached at (757) 637-9061. Quality Assurance, Eric Cress can be reached at (757) 637-9060.

*(Sonar Installation... continued from page 17.)*

The prefabricated seachest with doubler plate was modeled from Bath Iron Works structural drawings and inserted into the hull openings, allowing Divers to perform a dry chamber weld on the hull of the "Banjo."

All that remained of the operation was the running of the fiber optic cable from the rotunda along the same route utilized

by the existing transducer cables to a termination in Sonar Room 3. Diagnostics conducted by Advanced Acoustic Concepts, the SPVA's manufacturer, demonstrated complete operational capability.

The full capabilities of the SPVA system will not be known for many months. Testing at this year's RIMPAC exercise will

start to show the capabilities of the system. Once again the Underwater Ship Husbandry program has demonstrated its value to the Navy by reducing costs and increasing ship operational availability.

***LT Mark B. Williamson is currently a Program Manager at the Underwater Ship Husbandry Division of 00C.***

# Hard Hat History

By: Lee Wolford

## Dive School at the Washington Navy Yard

An Experimental Diving Organization was established at the New York Naval Shipyard in 1913 under the Command of Chief Gunner George D. Stillson. The organization was formally designated as the Navy Experimental Diving Unit (NEDU) in 1927 and was relocated to the Washington Navy Yard (WNY) to centralize all Navy research that related to diving. Relocating NEDU to close proximity with the Navy Diving School ensured that the latest NEDU technology could be rapidly incorporated into the training procedures.

The first Navy Diving School was established in 1926 in Building 146 at the Washington Navy Yard. The name was changed to Deep Sea Diving School (DSDS) in 1928. The Navy Salvage School was moved to the WNY from Bayonne, NJ in 1957 and combined with the DSDS. NEDU and DSDS were a joint command until 1966 when they were separated, with NEDU commanded by an Engineering Duty Officer and DSDS under a Diving and Salvage Officer. In 1970, Deep Sea Diving School's name was changed to the Naval School of Diving and Salvage (NSDS) to reflect its combined mission.

The records indicate that Building 214 was constructed in 1943 as the "U.S. Navy Experimental Diving Unit and Deep Sea

Divers School." The building was outfitted with multiple air and gas systems, four pressure complexes, and two open tanks to support NEDU and DSDS. The diving barge TOM O'MALLEY and various support craft were moored to the quay wall on the Anacostia River in front of the school. NEDU relocated to the Naval Coastal Systems Center in Panama City, Florida in 1975 and the Diving School followed in 1980.

During the 37 years of operation in Building 214 at the Washington Navy Yard, the school trained the Navy's helium-oxygen mixed gas Diving Officers, Salvage Officers, Diving Engineering Duty Officers, Diving Medical Officers, Master Divers, First Class Divers, and Diving Medical Technicians. The school also trained Divers from other branches of the American Armed Forces, numerous foreign countries, Department of Defense civilians, and civilian law enforcement agencies.

The school side of Building 214 contained two pressure complexes for deep air and mixed-gas dives, and the open tanks for other underwater projects. The majority



Barge TOM O'MALLEY at NEDU/NSDS at "The Yard."

of the training projects were accomplished in the Anacostia River diving from the barge TOM O'MALLEY. The river bottom mud varied in depth from mid-thigh to helmet, and visibility was nonexistent. The saying was: "If you can dive in the Anacostia, you can dive anywhere in the world." This was especially true in February. The practical portion of the Salvage Course consisted of surveying, patching, pumping, and raising a sunken ship located near the Woodrow Wilson Bridge in Oxon Cove. Open water air and mixed-gas dives were supported by an YDT moored over a 110-foot deep hole in the Potomac River off Popes Creek, Maryland.

After NSDS moved to Panama City, Building 214 was demolished and replaced with a parking lot. The quayside where the TOM O'MALLEY was moored was refurbished and now has a railing, trees, and benches, but nothing acknowledging NSDS or NEDU on this site.

In recognition of the accomplishments of all those who worked and trained at NSDS and the numerous advancements in diving that were perfected at NEDU, it is fitting that a suitable marker be erected here. The Commandant Naval District Washington is agreeable to this, if certain conditions are met. A design would have to be developed and submitted for approval and the project would have to be completed at no cost to the Navy.

*Lee Wolford was until recently a Salvage Operations Specialist at NAVSEA 00C.*





# The Old Master

Let me tell you a little story about how the Master Diver Evaluation process began. Legend tells us it has been in existence for many moons, as far back as the 1930's, and even today the core principles are intact and well preserved. The tale goes like this. In the 1930's a First Class Diver, First Class Petty Officer was in charge of some major salvage projects and was being recognized by the CNO at the time. CNO asked the Sailor why he was not a Master Diver yet? The young man replied: "Because I've not been selected for Chief yet." That very day, this Sailor was spot-promoted to Chief and Master Diver by the CNO. Soon after, the Master Diver Evaluation process was born.

Today's Master Diver community still covets hungry Chiefs and Senior Chief

Petty Officers who have the skills and drive to be in charge. The process has been massaged over the years to what we have now. Retired MDV Don Curtis loved to tell about the time he was going through Master evaluations. Don's stories were always funny and entertaining, and got better as the years passed. Some 35 MDVs and Diving Officers evaluated MDV Curtis throughout the week. They would watch one or two days of the evaluation process and leave, some would leave their vote with the Project Master, thumbs up or thumbs down. It was the class of '87 that began the transformation to what we have today.

Today's process is tough but fair. Most Candidates spend a career preparing for the gut-wrenching two weeks to prove



MDV Bryon Van Horn.

they are the man. The Candidate is evaluated on his ability to correct a series of problems that could quickly unravel and paralyze most diving supervisors. I call these problems "bears" and "rabbits." Most Candidates come hunting the big "bear", they do not worry about or even notice the "rabbits" that leave them with limited options that produce poor results.

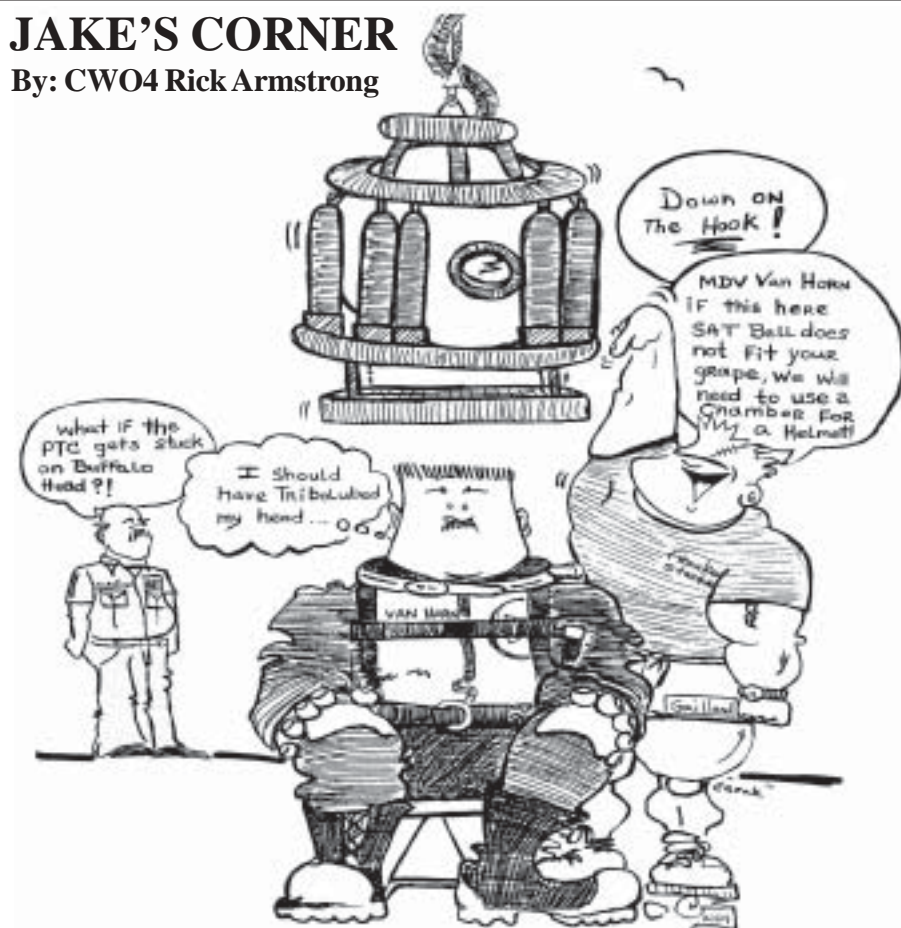
When the dive is debriefed, Candidates are asked a series of questions such as: "What were your options at this point in the dive?", "Did you consider this or that?", "Why did you choose this option?", "What does the dive manual say?", "Can you justify your actions and stand on firm ground?" Then we talk about "the good, better, best rule." It starts to become clear what is expected of them and the level of accountability and responsibility they will take on. The Master Candidate must be prepared to hunt both "bears" and "rabbits."

Many that came before me set my foundation. I have learned something from each one that is part of my daily routine. The recipe is not a secret nor do we hide it, it is within the one that will seek it. Like MDV Kyle Gaillard would say: "Can't score if you don't shoot."

I would like to thank all the evaluators for 04-40-MDV and say congratulations to the newest MDVs: ENC Brodner, BMC Costin, and BMC Shank.

## JAKE'S CORNER

By: CWO4 Rick Armstrong



The Real Reason NAVSEA Brought Back Saturation Diving Bells...

# Topside; Red Diver...

## From the Supervisor of Diving Captain Mark Helmkamp, USN



### *Computer-Based Air Diving...*

In the last issue of FACEPLATE, I discussed our efforts to bring computer-based diving into the U.S. Navy diving program. At the Working Divers Conference in Little Creek, a group of Master Divers was selected to act as "change agents" and to provide developmental and implementation guidance for Fleet introduction. Recall that our plan is to maximize diving efficiency by using computers to control decompression. Accurate tracking of the Diver's exact depth/time profile will reduce unwarranted decompression obligation that accrues from assuming that all dives are "square" dives. In addition, we plan to introduce a capability for oxygen decompression in the water for air dives. Prototype computer and oxygen delivery systems will be evaluated at sea this summer. A plan of actions and milestones for the full development program has been signed out. We expect full capability by October of 2007.

I introduced those at NEDU and 00C who are responsible for development in the last issue. The following Master Divers, or "elders", are responsible to me for implementation guidance: BMCM(MDV) Fred Orns, BMCM(MDV) Ken Brown, ENCM (MDV) Dave Davidson, ENCS(MDV) Brian Pratschner, and HTCM(MDV) Bryon Van Horn.

Control of decompression will remain topside - as it should be - the Diver's only concern will remain focused only on getting the job completed, thus making development of a topside computer a priority. We will modify the current Cochran Navy dive computer by disabling the shift to a constant 0.7 ata PPO<sub>2</sub> mix at 77fsw for SCUBA.

The POA&M calls for initial programming of the topside computer with the VVAL-18 algorithm until NEDU develops the next generation probabilistic model - our desired end-state for this effort. Version 1.0 of the computer will support two Divers and one standby Diver, both in a no-decompression and a decompression mode to 190 fsw on air, giving the decom-

pression requirements for the three Divers independently. The display will show current depth, maximum depth, remaining no-decompression time (for no-stop dives), depth and required time at decompression stops on air and oxygen (for decompression dives), and the number of Sur-D O<sub>2</sub> periods. An alarm will be included in the display to notify Supervisors of ascent rates faster than 30 fsw/min and the system will support repetitive diving. A depth sensor to support extremely accurate digitized input to the topside computer is in development. Technicians recently visited MDSU TWO to observe how we work and abuse our equipment. For those of you who enjoy ballast tank work, the sensor will work in a dry environment. These criteria were suggested, discussed, and agreed to by the MDV "elders" at the conclusion of the Working Divers Conference.

BMCM(MDV) Ken Brown of SIMA, Norfolk will test the prototype computer over a 3-month period and provide detailed feedback to NEDU. The output of the prototype computer will be used only for information during this period; current USN decompression procedures will be used for the dives. I expect they will see they have lost BT as the USN-57 tables/procedures cannot account for multi-level diving.

### *Long Term Effects of Saturation Diving...*

Captain Chris Murray, Deputy Director Deep Submergence Systems and Submarine Rescue and Diving Programs, reports that at the request of NAVSEA PMS 395, OPNAV N773 is working with BUMED and 00C to conduct an evaluation and documentation of the effects of saturation diving. The goal is to better understand the long term effects of saturation diving and how to best document and care for our Divers. In some cases, a medical re-evaluation may be required of retired saturation Divers with physical ailments that could be attributed to saturation diving. Ultimately, we hope to work with the Veterans Administration to have these documented

ailments covered as service related disabilities. We are just getting started, but there is strong support within the Navy to do the right thing and take care of our Divers.

### *Curley Lawrence and Bob Hamilton, 4-4-4...*

Our Salvage Division Director, Mr. Tom Salmon, reports that we lost a couple of great Salvors last spring. In April, Earl Lawrence (better known as Curly) passed away. Curly was a Diver at Puget Sound Naval Shipyard from 1941 to 1966 and joined SUPSALV as a Salvage Master from 1966 to 1974. Curly had a great success record, completing seemingly impossible operations in a way that made them look like a walk in the park. When the SIDNEY SMITH went down blocking the St. Lawrence Seaway, Curly came up with an ingenious plan that allowed Divers to work in the heavy currents. Large cofferdams were installed on the side of the hull, allowing the Divers access to the bottom unfettered by the swift current where they could enter the hull to do their work. This proved to be crucial to the successful salvage and re-opening of this critical seaway. Another notable operation was the rescue of Pisces III, a manned submersible, entangled on the seafloor off the coast of Ireland. Mobilizing the CURV III from San Diego and installing it on a commercial ship, Curly directed the operation and successfully rescued the two-man crew 74 hours into their 72-hour life support system.

In May, Robert Hamilton, CWO4 (Ret.), passed away. Bob was one of those old school Boatswains who could rig anything. (Tom tells me Bob could rig lemongeringue pie and yard, and stay it between two lightly loaded ships 100 feet apart up to sea state six, really.) He graduated from the Dive School in Bayonne as a Salvage Diver in 1956. Although Bob was no longer actively diving when he retired, his knowledge of rigging and salvage made him one of the best ARS Boatswains ever within our community. Bob had a way with his



## Topside; Red Diver... (continued)

crew, training a host of salvage Divers and Boatswain Mates to do it the right way the first time. After retirement, Bob worked for Alcoa Marine Corp, supporting the NAVSEA search and recovery contract. As the first project manager for the ROV DEEP DRONE, Bob led the way for the Navy's entry into the use of Remotely Operated Vehicles for deep ocean salvage work.

### *Sir Father Time...*

Retired Master Diver MRCM(MDV/PJ) Dennis Morse, related to me that some USN Master Divers were qualified before

the oceans were filled. One of them, the third "Sir Father Time" - the earliest so qualified retired MDV - passed away last spring. MDV Daniel Boone Crawford entered the Navy in 1933 and was an instructor at Pier 88, died on May 22, 2003. With MDV Boone's passing, the fourth "Sir Father Time" was designated and is now in receipt and has custody of the perpetual "Sir Father Time" timepiece. His name is CDR Arthur "Art" Webb, USN (Ret.) and he is now the earliest qualified (NOT the oldest) MDV amongst us ambient air

breathers still living. Art's first Navy dive in MK V dress was in 1937 and, for kicks, he claims he helped establish the Salvage Divers School at Pier 88 in New York City by helping to sink SS NORMANDIE there. He contributed to the firefighting effort in February of 1942. For those of you that do not know, the firefighting water collected high in the vessel causing NORMANDIE to capsize at the pier. Here is his letter:



Good morning. I received the "Sir Father Time" clock in yesterday's mail. Thanks to all that were involved with this project. It just goes to show you there are some advantages to just being "old." It also shows that if you drink the right stuff, breath enough compressed air, and turn your diving dress inside out to dry after a "wet dress" dive, you too will live to a ripe old age and can hang the clock in your house.

It seems to me that you should know a little bit about me. For your information, my first dives were made as a GM 3/C to qualify as a Diver 2/C in 1937. As a GM 2/C, I went to Diving School in D.C. and qualified as Diver 1/C in 1939. In 1942 - from Sub Base Pearl to EDU in D.C. for upgrade to helium. Dove on the wrecks in Pearl until late '42, (Kenny Ploof was frequently my dive partner), made CGM in '43, then to ARS 35. I was designated Master while I was on her. A long trip to Africa/Italy - diving on scuttled ships in Africa and Italy. My gang did a lot of diving - damn short dives - between air raids during the invasion at Anzio - we used a LCI, diving off the infantry landing ramps so we could work on the landing craft that were beached and had fouled their screws. We also placed a temporary patch on a mined British DD, placed a couple of pumps on her, were their "guests", and kept her afloat during the slow tow to Leghorn repair facilities. I was transferred in '44 to be an instructor at DSDS in D.C. where I reluctantly (4 months after selection) accepted the rank of Ensign. I say "reluctantly" because I was a Chief Petty Officer and a Master Diver - the top of the heap - and all the 90-day wonder Ensigns were 20 or 21 - and here I was - a grizzled "old" 26 years of age. I was a plank owner on the HOIST and X/O on the CABLE, SAFEGUARD, CONSERVER, all ARS vessels. Finally, as LCDR, CO of the USS DELIVER, ARS 23. I left her in March of 1957 for shore duty, was selected for CDR, and finally retired due to loss of an eye while on duty at the Naval Weapons Laboratory, Dahlgren, VA. I now have leukemia - I believe a result of diving on and working in the Bikini Atomic Fleet.

I hope I haven't bored you with my spiel - just thought you should know a little bit about me. My family knows how to contact you and return "Father Time" when my faceplate is closed for the last time and I give two tugs on my life-line. Take care, all of you.

Respectfully, Art.

A great letter, yes? Thanks for writing, Art.

### *Old Copperhead...*

The senior active duty MDV "Old Copperhead" is ENCM(MDV) Jimmy Evans. MDV Evans was born in November of 1954 in Queens, NY. He enlisted in the Navy on November 5, 1974 and was promptly assigned to USS HUNLEY (AS 31). In 1976, MDV Evans attended 2/C Dive School followed by 1/C Dive School in 1978 and Saturation School in 1980. MDV Evans successfully conquered the formidable MDV evaluation in 1986. He has 18 years of sea duty, including a tour in the great submarine rescue ship USS PETREL (ASR 14), and will conclude his 30 years of service on August 27, at the base marina in Panama City. All are invited to attend.

Since MDV Evans is one of the last MK V trained MDVs on active duty, a new name for the senior active MDV will have to be coined (unless you all like to keep it as it is). I await your suggestions. "Old Tupperware Head" will NOT be selected... so don't bother.

### *WNY EDU & Dive School Memorial...*

In the last issue of FACEPLATE, I mentioned the idea of erecting a bronze "Jake" to mark the location of the NSDS. A recent letter from retired Diver Edson Whitaker of Fairhope, Alabama (who spent 6 of his 27 Navy years at the Yard) points out my not mentioning EDU along with NSDS being memorialized by the bronze "Jake." Sorry Ed, and thanks, while it was part of the plan, I failed to mention the "Jake" was intended to commemorate both commands.

Meanwhile, Bob Barth at NEDU has been circulating e-mails among the retired diving community regarding the monument and has received uniformly positive responses. There is much more to follow on this project, but in the meantime, see Lee Wolford's "Hard Hat History" article about the School and EDU at "The Yard."

CAPT Mike Herb reports that NDW "...enthusiastically embraces..." the idea.

### *Historical Diving Society...*

Lacking a good reason to support the Historical Diving Society? Here is one. As we prepare to celebrate the commissioning of USS MOMSEN, a warship named for a great leader in the development of our craft VADM "Swede" Momsen, we received from the Society's President, Mr. Leslie Leaney, a Momsen Lung for presentation to the ship. The "Lung" will be presented to the ship's Commanding Officer, CDR Ed Kenyon, on behalf of all USN Divers, active and retired, the evening before commissioning. I encourage you to look into Leslie's offer on page 3. CDR Kenyon has told me that MOMSEN commemorates not only the Admiral but also "...all Divers - I want it to be thought of as your [Divers'] ship..." Note the hard hat on the ship's seal in this issue's centerfold. While MOMSEN does not have an air system, stage, or chamber, we at FACEPLATE/00C wish this warship and crew the very best as they enter the Fleet and engage in the business of this Nation's defense.