



FACEPLATE

The Official Newsletter for the Divers and Salvors of the United States Navy

Volume 19, No. 1 / April 2015



In This Issue...

***UCT TWO Pacific Missile Range Facility Cable Inspection
New Cofferdam Used for USS FORREST SHERMAN Hub Change Out
U.S. Navy Diving Organization
SWRMC IX-548 Dive Barge***

FACEPLATE

FACEPLATE is published by the Supervisor of Salvage and Diving to make the latest and most informative news available to the Navy diving and salvage community. Discussions or illustrations of commercial products do not imply endorsement by the Supervisor of Salvage and Diving or the U.S. Navy.

Articles, letters, queries and comments should be directed to the Commander, Naval Sea Systems Command, NAVSEA 00C, 1333 Isaac Hull Ave. SE Stop 1070, Washington Navy Yard, DC 20376-1070. (Attn: FACEPLATE). Visit our website at <http://www.supsalv.org> to view/print Faceplate.

Editorial Staff

Captain Gregg Baumann, USN
Director of Ocean Engineering
Supervisor of Salvage and Diving

NDCM (MDV) Cliff Morin, USN
NDCM (MDV) Jon Sommers, USN
NDCM (MDV) Ryan Stewart, USN
CWO5 Eric MacDonald, USN
LTJG Jorth Connery, USN
Fleet Liaison Editors

Kelly Leizear
Production Manager

Otto Adams
Preflight (Graphic) Designer

In This Issue

SUPSALV Sends	3
NSWC, ONR, U of MT Conduct Heated Undergarment Evaluation	4
Mark V Monument Scholarship Project	5
Divers use New Cofferdam for USS FORREST SHERMAN	6
Dive Computers	8
UCT TWO PMRF Cable Inspection	8
NAVSEA 00C Conducts SAT FADS Dive Training	9
SWRMC IX 548 Dive Barge	10
Mark V Turns 100 During Year of Military Diver Celebration	12
Crossword Puzzle	13
Procedures for DoD Divers to earn PADI Credential	15
RADM White Conducts Underwater Awards Ceremony	15
Master Diver Wall	16
Advanced Diver Training	17
U.S. Navy Diving Organization	18
UCT TWO Work with HMA Program in Solomon Islands	19
Guam Dive Locker Provides Recompression Treatment	20
Sailor Continues Family Dive Legacy During YOMD	21
Crossword Puzzle Answers	22
Training Under Pressure	23
Seabee Divers Provide SCUBA Academy to RSIPF	25
Old Master	26
RADM White Conducts an Underwater Awards Ceremony	27
MDTC 2015 Announcement	28

Cover



Steelworker 2nd Class (SCW/DV) Calvin Huckabee, UCT TWO, is securing a zinc anode to an underwater cable at a depth of 102 feet of seawater (fsw) to ensure the cable has proper cathodic protection, at the Pacific Missile Range Facility (PMRF), Barking Sands, Kauai, HI. (Photo by Construction Mechanic 2nd Class Daniel Nichols (SCW/DV))





SUPSALV SENDS ...CAPT Gregg Baumann

In my first Faceplate article as SUPSALV, I have to tell you that it's great to be back in 00C again! From the time I first served in 00C as one of the Assistants for Salvage in 00C2, I always aspired to one day be "the SUPSALV". Well, back in October, that aspiration came to fruition. It's both an honor and a privilege to lead this one of a kind office and to serve and support you, the Fleet, with safe and reliable equipment, diving procedures, and infrastructure support services. I can't think of a better job to have than this one as I close out what will be a 30 year career. Captain Matthews, my predecessor, during his tour continued to build upon the successes and accomplishments of his predecessor and took Navy diving to an even higher level. During my tour at SUPSALV, I will strive to do the same and to fully leverage all of his herculean efforts, and the efforts of those that fall under the umbrella of NAVSEA 00C.

In looking forward, our diving community will continue to wrestle and work through numerous challenges. At the top of that list is implementing the directions and recommendations that resulted from the Diving Operations Accountability Integrated Project Team (DOA IPT). Unfortunately, it took losing four of our shipmates in the 2013 diving accidents to realize that we, working in an inherently dangerous profession, needed to take a step back and evaluate how we conduct our work, ask are we doing it safely, do we have safe equipment, do we have the necessary training in place to prevent future mishaps, and are we practicing effective ORM? This self review has received significant Flag Officer attention and support for implementing the outcomes. A lot of hard work, critical thinking, and frank discussion took place with numerous changes and improvements to implement this as an output.

We're now in the phase of reinforcing the 'quick wins' that have already been implemented, and to begin implementing the longer term recommendations. I encourage you to sit down with your dive locker, your dive teams, and your dive buddies and discuss the changes being implemented in the fleet. There is definitely some culture and day-to-day standards of doing business that need to change in order to keep our diving safe and prevent future mishaps. This will only come through continual reinforcement, and a thorough understanding of why some aspects of our work are being changed.



The first and most tangible long term change you should see hitting the fleet is the overhaul of the Navy Diving Program instruction, OPNAVINST 3150.27. SUPDIVE, CDR DeBuse, and the 00C3 staff have worked tirelessly over recent months to collaborate across the fleet, with our SOF brethren, and OPNAV N97 to solicit input and recommendations on how to make the 3150 a more usable, and understandable instruction. I believe that what has come together in this new revision will dramatically improve the current outdated version. The final draft is with OPNAV for review and signature. You should see this promulgated later this year.

Not far behind the revision to the OPNAVINST 3150.27 is the revision to the Dive Manual. This is the next tangible change you'll see coming out. Like the revision to the 3150.27, changes to the Dive Manual were the result of a lot of tireless work by many, from significant collaboration across the fleet, and from numerous lessons learned. I can't stress enough, the importance of that last piece, promulgating your lessons learned, even at the possible expense of putting yourself in the "spotlight". Your lesson learned could save a shipmate's life. Without the thousands of lessons learned over many decades, the U.S. Diving Manual wouldn't have evolved into what it is today. You should see this latest revision hitting the fleet later this year as well.

The next big change and improvement you will see is a change to our mishap reporting and our means for collecting and disseminating lessons learned. This won't

be as easy as signing out a revision to an instruction or manual. Rather this will be a much longer effort as we'll need to change some culture among making changes to the administrative process. It tends to be human nature to not want bad or potentially embarrassing news to be publicized about ones' self. However, if we're to effectively collaborate and exchange important issues, we need to change this culture. Odds are that if a mishap happened to you, it has probably happened to someone else as well.

The last issue I want to address is the reality of budget implications on our diving and salvage. I'm dating myself when I say this, but when I went to dive school in 1991, we had a much larger and more robust diving and salvage capability. We were coming off the Cold War and the build up to a 600 ship navy. Sadly, since that time I've continued to witness our diving and salvage budgets and our organic capability get shaved year after year as the rest of the Navy downsized. This upcoming budget appears to be no different. There's a lot of discussion about making changes to the number of active ARS's and ATF's. I don't know what the final number will be in 2016, but I can assure you the number isn't going to increase. The question always being asked by the budget folks is "why can't we contract out that mission at a cheaper cost to the Navy?" Also in the mix of budget discussions is what do we do with our Saturation Fly-Away Diving System (SAT FADS)? The jury is still out on this one. The bottom line with our diving and salvage budgets is that we have to continue to be very mindful of where and how we spend the precious resources that we're provided. Continue to focus on maintaining and sharpening your core competencies. Don't spend time and resources on the 'nice to have'. We just don't have that luxury. And when you have to turn down a mission requirement because you don't have the resources, make it known and document it.

Despite budget realities, the fleet can't fully conduct its' missions without Navy Divers. We're the Navy's underwater specialists in Underwater Ships Husbandry, EOD, SOF and SOF Support, Salvage, Underwater Construction, and R & D for Diving Procedures and Equipment. Keep training, honing your skills, and getting in the water. Be safe out there!

Hoo-Yah!

Naval Surface Warfare Center Panama City Division, Office of Naval Research and the University of Montana Conduct Heated Undergarment Technology Evaluation Program

By John P. Klose

Naval Surface Warfare Center Panama City Division (NSWC PCD) researchers have demonstrated a breakthrough diver thermal protection technology that can warm divers indefinitely in very cold water using four to six times less power than previously designed systems.

The Office of Naval Research (ONR) funded research primarily conducted at NSWC in Panama City, Florida this past year, which identified the safe and highly-efficient, electrically-heated, diver thermal undergarments using Carbon Nano Core fibers (CNC). The next step is to transition this technology into both dry and wet cold environment applications and develop mission-specific prototype garments for further testing.

The technology was developed through a collaborative ONR “Swamp-works” research effort between NSWC PCD, the University of Montana’s Center for Work Physiology and Exercise Metabolism (WPEM), and defense contractors SAIC and Coliant Corporation.

The U.S. Navy in Panama City, Florida has been investigating diver thermal protection technologies since the SEALAB experiments in the 1960s. Since salt water freezes at a lower temperature than fresh water, ocean temperatures in winter can reach as low as 29° F creating a very challenging environment in which Navy divers must operate. Cold skin temperatures lead to a loss of muscle strength and the ability to manipulate tools. Continued exposure to cold water can lead to the loss of core body temperature, called hypothermia, which can cause death in extreme situations. Navy divers are consistently challenged when working in cold water whether the



Naval Surface Warfare Center Panama City Division (NSWC PCD) Project Engineer John Klose relaxes in a test tank during initial thermal protection pilot studies at University of Montana’s Center for Work Physiology and Exercise Metabolism (WPEM). (Courtesy photo).

mission is neutralizing mines, changing out the propeller of a ship, or riding in a SEAL Delivery Vehicle.

“We are very excited about the initial results of our investigation,” said NSWC PCD Project Engineer John Klose. “Coliant’s CNC fibers have the right combination of physical, thermal, and electrical properties that allow us to build an electrically-heated undergarment, which would not be possible using traditional technologies. The biggest risk from previous designs of electrically-heated diver thermal protection suits has been the potential for hot spots within the suit that could burn the diver. These new fibers use less power and generate heat at a lower overall temperature than traditional technologies. This allows us to design a diver heated undergarment that is much safer and much more energy efficient than previous diver heating system designs.”

“We are seeing no change in the metabolic rate of test subjects dressed in the heated undergarment and dry diving suit ensemble and sitting passively in a test tank filled with 40°F water,” says Dr.

Brent Ruby, Director of University of Montana’s WPEM. “Their average skin and core body temperatures are normal and hold steady with less than 50 Watts of power being applied to the prototype undergarments. Without this protective heated diving suit ensemble, a normal person would survive less than 20 minutes in such cold water.”

“Having a safer and more energy efficient design solution for heated clothing can greatly improve the military’s performance in many operational missions that are conducted in extreme environments,” says Coliant President, John Swiatek.

“Soldiers trekking through mountain passes, helicopter air crews in the North Atlantic in January, ground crew on a wintry airfield, or sailors working on aircraft carrier flight deck must all deal with harsh, cold weather environments. This technology even has application in combat casualty care for preventing or delaying the onset of shock and potentially extending what is known as the golden hour.”

NSWCPCD has been the U.S. Navy’s Center of Excellence for Diving Systems and Technology for over 60 years. This latest breakthrough tackles one of the toughest challenges that Navy developers have faced in creating a safe and energy efficient heating source for Navy divers. Its future application to various Navy operational needs like ship husbandry, Initial Response Diving Operations, Arctic Warfare, and Special Warfare operations is expected to greatly improve human performance in these applications.

John Klose is a researcher in the Underwater Systems Development and Acquisition Branch (Code E15) at Naval Surface Warfare Center Panama City Division.

Mark V Monument Scholarship Project

By: Dave Sullivan Mark V Monument Scholarship VP, T, & S

The Mark V Monument Project originally undertook a mission to obtain approval and funding to place a ten-foot tall bronze/granite JAKE monument at the entrance to the Naval Diving and Salvage Training Center in Panama City, Florida. Now that the monument is complete, the Mark V Monument Project Inc. has transitioned to a new order of business.

A college education is a significant cornerstone for achieving success in any career. Many of our children do not have the opportunity to earn a college degree because of the high cost of college tuition. Military Divers are among the hardest working people that willingly labor at one of the toughest jobs in country. The children of these divers aspire to higher education but cannot afford tuition or qualify for student loans at the increasing interest rates.

Therefore, the Mark V Monument Project has taken on a new mission to generate funds to provide scholarships to the spouses, children, and grandchildren of U.S. Military Divers. We are excited to be focused on our new mission and are grateful for the donations and vol-

unteers that have enabled us to support the success of our military diving family.

The recipients of the inaugural (2014) Mark V Monument Scholarships are:

Zach Dietz, Son of Brian Dietz HTCS
(DV) USN Retired

Throughout high school Zach has maintained a respected position on the Arnold High School Swim Team in Panama City Beach, Florida, making it to State competition and that of Swim Team Captain as well as member of the Engineering Club while persuing the most rigorous classes that possess the highest level such as Advanced Placement and Dual Enrollment. He has completed classes within different subject areas to include Engineering, Theatre, Digital Design, Psychology, Science, Chemistry and more. Whatever the class, he has strived to learn, understand and master that subject as he intends to do throughout college.

He is yet to definitively decide which career path he is most impassioned with, but is currently considering the fields of Theater, Sociology, Psychology, and Engineering. Whichever field or career path

that he may choose, will have his complete dedication. Hoo-yah Zach!

Jayde Stansel, Daughter of Steve Wargo
BMCS (DV) (SS) USN Retired

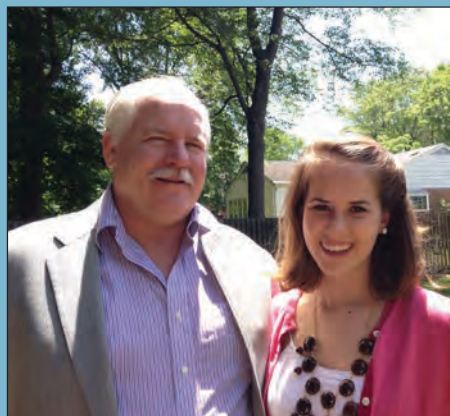
Jayde set extremely high standards for herself while attending Arnold High School in Panama City Beach, Florida. She maintained a 4.37 weighted GPA while enrolled in the toughest courses offered in dual enrollment and advanced placement. She also completed the requirements to receive her Associate of Arts degree at Gulf Coast State College with honors and a 3.89 GPA. All of this occurred while she captained the Cheerleading Squad, volunteered time in community outreach projects, mentored elementary school students in their studies, delivered food to convalescent center residents during the holidays, and assisted with beach clean-up projects in Bay County. Jayde is well prepared to continue her education in the same manner at Florida State College in Tallahassee and to pursue her dream to become an emergency room physician. Hoo-yah Jayde!

Kathryn Murray, Daughter of Captain
Chris Murray, USN Retired

Kathryn stated, "I am incredibly grateful to have received this award and would like to thank the Mark V Monument Project for such a generous scholarship. This award means that I won't have to worry as much about the expenses I will face in my first year on my own, like books and food, allowing me to focus more on keeping my grades up and adjusting to college life. Next year I will be attending the University of Virginia, School of Engineering, where I plan to major in Systems Engineering. This award means even more knowing that it comes from the Diving Community."



Pictured left to right: Steve Wargo (father), Jayde Stansel (recipient), Captain Jim Beene (CEODD), Zach Dietz (recipient), and Brian Dietz (father). (Photo by Linda Dietz)



Kathryn Murray (recipient), daughter of Captain Chris Murray

Scholarship information can be found at www.markvmonument.org



Divers Use New Cofferdam for USS FORREST SHERMAN Underwater Hub Change Out

By: Shelby F.W. West

Mid-Atlantic Regional Maintenance Center (MARMC) divers completed an underwater hub change-out on the Arleigh Burke Class Aegis Destroyer USS FORREST SHERMAN (DDG 98) at Naval Station Norfolk, Va., Nov. 20, 2014.

Carrier Strike Group 12 Commander Rear Admiral Andrew L. Lewis observed the divers who were using a new cofferdam to perform the change out.

MARMC Dive Teams Delta and Bravo began working around the clock in mid-October 2014 to replace Forrest Sherman's existing propeller blades and hub, in order to keep Forrest Sherman mission ready in 2015.

"Having this ship fixed without any hindrance or restrictions, as soon as possible, within the repair plan and having the ship underway, being able to fight is what it's all about," said RADM Lewis.

"Normally this job would have been done in dry-dock but with the invention of this new type of cofferdam, it allowed us to do this job underwater," said MARMC Diving Officer, Chief Warrant Officer 4, Tim Andros.

The cofferdam provides a dry environment for divers to work in and protects all equipment, so there is no water intrusion into the ship when divers remove the hub of the ship.

"This was only the second time this job had been done underwater in the Navy, and was the first time this job had been done underwater on an Arleigh Burke Class Guided Missile Destroyer," said CWO4 Andros.

MARMC divers completed the first ever underwater hub replacement to USS TAYLOR (FFG 50), an Oliver Hazard Perry Class Guided Missile Frigate, in Souda Bay, Greece, earlier in 2014, which gave them experience for this job on Forrest Sherman. Although the two jobs were similar, the configuration on the bottom of each ship is slightly different; a frigate has one screw whereas a destroyer has two, affecting how the cofferdam fits underneath the ships.

"This same group of individuals handled the Taylor hub replacement, which gave us a lot of experience towards a ship that wasn't damaged this time," said Navy Diver 2nd Class Petty

Officer Nicholas Barna. "The smaller aspects of such a large job are some of the things that are overlooked sometimes, and having the integral knowledge and the familiarization of the mechanics of the underwater proceedings helps a lot when it comes down to doing a job in less visibility than we had last time. This job ran a lot smoother than the Taylor because we had done it before."

There are three dive lockers that fall under the leadership of Commander, Navy Regional Maintenance Center; MARMC, Southwest Regional Maintenance Center (SWRMC) and Southeast Regional Maintenance Center (SERMC). In order to gain experience to perform this job on Destroyers home ported in Mayport, FL, SERMC sent a few of their divers to Norfolk to help with the Forrest Sherman job.

"It was really fun to work with people from other commands and spread our knowledge," said ND2 Barna. "Although we had done this before, it was really nice to give that same hands-on attitude and atmosphere to other people within our community. We want as many people



NAVSEA 00C Technical Expert Bill Reid (right) explains to Carrier Strike Group 12 commander Rear Adm. Andrew Lewis how the hub of USS Forrest Sherman (DDG 98) fits into the cofferdam during MARMC divers' hub change out.

within the dive community as possible to fully understand the circumference of this whole procedure. It was great to have guys here from SERMC and SWRMC. It helped to lighten our work load while giving them a lot of beneficial knowledge.”

MARMC's dive teams are made up of military and civilians. Each team worked a 12 hour shift, 24 hours a day. If one team primarily consisted of civilians,



MARMC Dive Team Bravo supervisor Chief Navy Diver (DSW) Mark Sawyer (left) and MARMC dive tender Navy Diver 3rd Class (DSW) Joseph Beals assist Navy Diver 3rd Class (DSW) Cameron Kleypas as he returns to the dive boat during USS Forrest Sherman (DDG 98) underwater hub change out.

Naval Sea Systems Command (NAVSEA00C), and Naval Station Norfolk Port Operations.

“The divers were the underwater work force working with the NAVSEA technical experts who were overseeing all components of the work package, and they were working with Ship's Force who was working internal equipment to help facilitate the positioning of the new hub and blades,” said USS FORREST SHERMAN Chief Engineer, LT PJ Remillard. “All three entities worked together during the entire evolution to keep everything on track and safe. We had nothing but great results from the MARMC divers and experts. Everyone was phenomenal, communicating and making sure everything stayed on schedule.”

“It was exciting for the whole maintenance community to do this because they built a skill set that we haven't had in the past, and we had all the right people doing hard work to get it done,” said RADM Lewis.

a few military divers were added to the team for that shift in order to gain experience and learn from the civilians.

Changing out the hub on Forrest Sherman was a joint effort by MARMC Divers, Waterfront Operations, Welders, Machinists,

“Completing this job was an invaluable learning experience for everybody involved,” said CWO4 Andros. “Being that this was the second time this job had ever been done, we were able to use this experience to improve and fine tune our process and techniques for future underwater hub replacements. It is a new skill set that we can offer the Fleet and perform with confidence. We were able to complete this job ahead of schedule because of the experience gained and lessons learned on the Taylor hub replacement.”

For more information on MARMC please visit: <http://www.navy.mil/local/nssa/>



USS Forrest Sherman (DDG 98) hub and cofferdam are lifted out of the water pier after MARMC divers utilize the cofferdam to remove the hub underwater.

Like MARMC on Facebook:

<https://www.facebook.com/#!/nssa.rmc>

Follow MARMC on Twitter:

@MidatlanticRMC

Title Photo: MARMC dive tenders Navy Diver 3rd Class (DSW) Wiley Shields (left), Navy Diver 3rd Class (DSW) Joseph Beals (center), and Alexander Osgood (right) assist MARMC diver Navy Diver 3rd Class (DSW) Anthony Marturano in returning to the dive boat during USS Forrest Sherman (DDG 98) underwater hub change out.

Article and U.S. Navy photos by Shelby F.W. West. Mrs. Shelby West is a Senior Public Affairs Specialist for Mid-Atlantic Regional Maintenance Center, specializing in photography of Fleet maintenance and modernization.

U.S. NAVY DIVE COMPUTER

NDCM (DSW/SW/MDV) JON SOMMERS

The Navy Dive Computer (NDC) started in the late 1970's as a SEAL/SDV multi-level diving requirement and finally hit the primetime in 2001 with the first NSW variant. Several iterations have come and gone since, and we now have five different NDC variants on the AMU for different applications and gas mixtures. The upcoming Revision 7 to the USN Dive Manual will contain a new appendix covering NDC use.

So why use an NDC?

A recent near mishap is a good example of a well-executed but totally unnecessary EP:

A surface-supplied (air) husbandry diver spent :300 at 6fsw at which point he was dragged down and fouled on the bottom at 50fsw for :34. The sup and local dive locker executed an unplanned Sur D on a 50/:360 T/S with 3.5 O2 periods.

Common sense would tell us that there is no possibility that :34 at 50fsw would require :105 of O2 in a recompression chamber, but our square table rules require it. If the husbandry diver had an NDC on he would have had :50 more remaining of NoD time at 50fsw (:84 total), plenty of time to unfoul, and would not have required the resources of a chamber run and second dive side.

Outside of stage diving with a fixed bottom reference point for table selection, NDC's are a great tool to use for all types of diving. Because the NDC takes a depth sample every second, it allows the diver to work at several different depths during the dive, constantly updating the inert gas tissue loading.

Does using an NDC increase the risk of Decompression Sickness (DCS)?

From 2004-2013, the Safety Center has received over 9000 logged NDC dives (and that's just what was logged). Of those, one single case of DCS Type I was observed. That means the observed DCS risk was at 0.01%. To put that in perspective, the current square tables typically carry a potential DCS risk range from 0-5%.

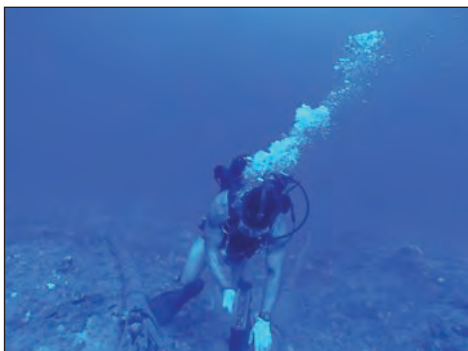
As a Dive Supervisor, how do I control my diver's decompression?

Short answer - you don't. You brief limits and educate your divers to understand the NDC. Just as a SCUBA diver has a vested interest in checking his gages every couple minutes to check on air, they have a vested interest in checking their remaining NDC time.

After training hundreds of divers and SEALs in NDC use and as the MDV for hundreds of NDC dives, I can tell you firsthand the fantastic tool that the NDC is and can be. I realize it is a philosophical shift from the sup controlling the times to the diver controlling his own, but for many applications dropping the paper tables and donning an NDC substantially increases bottom time and productivity. I highly recommend attendance at the MDTC where we will have training sessions on NDC use and planning.

UCT TWO Pacific Missile Range Facility (PMRF) Cable Inspection

Seabee Divers Inspect Underwater Cables at PMRF, Barking Sands, Kauai, HI.



Builder 2nd Class (SCW/DV) Keith Reed, Underwater Construction Team Two (UCT 2) Construction Dive Detachment Alfa (CDDA), tracks the signal on an underwater cable at 104 feet of seawater (fsw) at the PMRF.

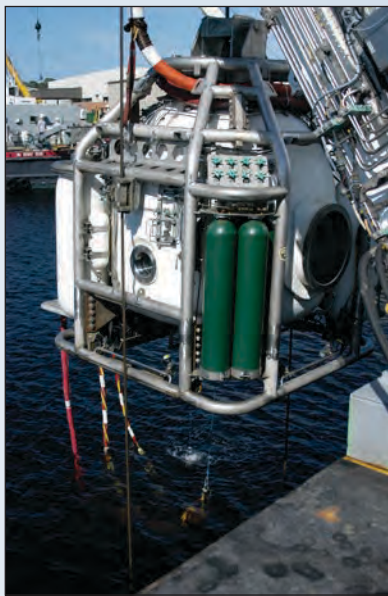


Construction Mechanic 2nd Class Daniel Nichols (SCW/DV), Underwater Construction Team Two (UCT 2) Dive Detachment Alfa (CDDA), uses a cable tracker to identify and find deficiencies in an underwater cable at the PMRF.



Builder 2nd Class Justin Lieder (SCW/DV), Underwater Construction Team Two (UCT 2) Dive Detachment Alfa (CDDA), tracks an underwater cable and inspects it for damage at the PMRF.

Photos by Steelworker 2nd Class (SCW/DV) Calvin Huckabee



NAVSEA 00C Conducts Flyaway Saturation Dive Training, Prepares for Crisis Calls

By: Jacqui Barker, Office of Public Affairs, NSWC-PC

For the U.S. Navy's 40 saturation divers, requalification on the Fly Away Saturation Diving System SAT FADS here this week ensures the Navy retains its deep water recovery capability.

The Sailors train on SAT FADS three to four times a year to retain their qualifications on the unique system that allows these Navy divers to execute missions such as deep ocean salvage, aircraft or black box retrieval.

"We train so the procedures become routine, and we're using this opportunity to train now until a real disaster happens," said Saturation Diving System Program Manager Paul McMurtrie, who is also a retired U.S. Navy Master Diver. "We train here in Panama City, Florida because this is where the expertise is lo-

cated, and we can conduct training operations here year round."

The March 2015 SAT FADS testing is conducted pier-side, and only in 30 feet of seawater, simply to give the divers the opportunity to practice operations such as manned pressurization, manned launch and recovery, watch stander drills and emergency procedures.

"It's a lot of hands-on training," said McMurtrie. "There is a lot to learn here from the divers who have been doing the job for decades, either in the military or as civilians."

This one-of-a-kind system is owned by Naval Sea Systems Command and maintained by a crew of five civilians from the command's Supervisor of Diving and Salvage organization. It is a complex combination of pressured dive

chambers and metal containers that allow the Sailors to work and live on a barge at sea and dive in the ocean's depths for up to 30 days. The main chamber, the deck decompression chamber, allows the Sailors to achieve desired and pressurized depth only then to connect to a Dive Bell that is then "locked out" and submerged into the water by way of a hydraulic arm that picks up the dive bell and places it and the men inside into the ocean.

Title Image: SAT FADS dive bell moves from the deck of a barge in Panama City, Florida March 10, 2015 into the water where U.S. Navy Saturation Divers conduct pier-side training operations. The training allowed the specialized set of Navy divers to retain qualifications, and hone skills. (Photo by Jacqui Barker, NSWC PCD).



U.S. Navy Diver Chief Petty Officer (DSW/SW) Jerry Moreno from Naval Reserve Surge Maintenance Dive Unit support SAT FADS dive bell as it prepares for pier-side submersion during training operations. Moreno works with Navy Diver Chief Petty Officer (DSW/SW) Christopher Coreil during two week SATFAD training. Coreil is presently assigned to NEDU in Panama City, Florida. (Photo by Jacqui Barker, NSWC PCD).



Neil Patterson, a retired saturation diver now employed at NSWC PCD, prepares SAT FADS equipment for diving bell lock out training procedures March 10, 2015. Patterson supported a two-week SATFAD training evolution conducted in Panama City, Florida in March. (Photo by Jacqui Barker, NSWC PCD).

SWRMC IX 548 DIVE BARGE

By: Rick Armstrong



Southwest Regional Maintenance Center (SWRMC) divers routinely utilized a Commander Navy Region Southwest (COMNAVREGSW) Port Operations YC barge to complete Underwater Ships Husbandry (UWSH) repairs on surface ships and submarines in San Diego, California.

While the YC-barge sufficed as a safe dive platform, there were issues of space and time associated with using a borrowed barge. The space limitations were due to the amount of equipment that needed to be properly mounted to the deck to properly accomplish a wide variety of waterborne repairs. Time limitations came into play when SWRMC divers needed to complete complex UWSH repairs, such as installing large cofferdams or conducting an in-water propeller change out. It took nearly a week to load, position, and weld the required gear to the deck of the barge, which made it difficult to respond in a timely manner to emergent repairs. Time was also increased at the end of each job as equipment had to be removed, weld beads ground out and barge restored to original condition for the return to Port Operations.

SWRMC Divers knew of a better way to permanently set up surface supplied dive equipment and support gear onto a barge to successfully accomplish ongoing waterborne repairs, and improve their

ability to respond to emergent work. They soon set their plan into motion.

In 2009, SWRMC Divers began developing a plan to convert a YC-barge slated for disposal into a unique diving platform. Working with NAVSEA engineers and utilizing an existing NAVSEA 00C5 design, the YC barge was re-designated as IX-548 dive barge by PMS 325. NAVSEA 00C, Supervisor of Salvage and Diving, conducted engineering calculations and drafted plans to permanently mount deck handling system structures, office boxes and Weight Handling Equipment (WHE) containers, and a 150KW diesel generator onto the IX-548 barge deck.

The deck handling equipment included: a Morgan Marine model 11522 hydraulic crane, two Braden HP50B hydraulic recovery deck winches, and an "A" frame unit, which is utilized to rig and move large cofferdams and UWSH equipment from the IX barge deck onto various hull openings onto a carrier, surface combatant and/or nuclear attack submarine hull including the ships running gear. Dive barge equipment also included twin hydraulic capstans used to shift the IX-548 barge fore and aft once moored alongside a carrier. The marine crane, deck winches, and capstans are powered by two Hydraulic Power Units (HPU).

Prior to this barge project divers often used heavy duty lift (air) bags to move and position large cofferdams onto and off of the hull, as well as moving heavy rigging equipment to and from lifting tunnels. Although a standard and acceptable practice, using lift bags can be potentially dangerous because they require careful maneuvering by divers to avoid uncontrolled load shift.

The new barge and permanently installed equipment enables SWRMC divers to forego the use of heavy lift bags and improves diver safety when performing critical underwater lifts and rigging evolutions.

The IX-548 barge is also able to be mission ready in a matter of days, vice the weeks required to outfit the YC barge. It can also be transported within an amphibious assault ship to support UWSH repairs, harbor clearance and salvage operations worldwide, if needed.

NAVSEA 00C IX-548 barge engineering designs and analysis encompassed the following items:

- Electrical load requirements for the Morgan Marine crane and ancillary equipment.
- Dynamic calculations for load on the "A" frame lifting arrangement.



ND1 Matt Trautman conducts final surface checks of divers on IX 548 Dive Barge. (Photo by ND1 Cannon)

- Structural analysis on the area for potential “A” frame and marine crane base placement.
- General engineering concepts for capstans, deck winches, and Morgan Marine crane.
- Solid edge modeling for deck equipment layout and structural spacing.
- Equipment installation timeline and in place system testing.
- Program of Ship Salvage Engineering (POSSE) stability model for various sea states regarding the IX-548 barge with full load.
- Final certification, to encompass design and construct IAW ABS and California standards (P307).



ND1 Buzek supervises Morgan Crane lift of cofferdams on USS RONALD REGAN. (Photo by ND1 Trautman)

The first phase of refurbishment of the dive barge began in February of 2009 which encompassed the following: fabrication and repair of damaged hull plates and framing to include installation of structural stiffeners and foundation mounts for the Morgan Marine crane, of fice and rigging co nex boxes, 150KW generator, HPU’s, capstans, and the “A” frame platform.

Once the initial barge overhaul was completed, IX-548 dive barge deck handling systems were tested in place with NAVSEA 00C engineers and contractors, followed by a complete refurbishment (blast, prime paint) of the hull, deck and interior spaces. The Navy INSURV board then inspected the IX barge following the overhaul period, which resulted in this new dive platform being deemed “ready for service” June 2014.

In August 2014, the new SWRMC dive barge was moved alongside USS Ronald Reagan (CVN 76) in support of a 6 month long Planned Incremental Availability (PIA), which resulted in SWRMC Divers accomplishing numerous high profile waterborne repairs. Additionally, SWRMC Alpha Crew Divers completed UWSH repairs on USS Carl Vinson (CVN 70) and voyage repairs to USS Nimitz (CVN 68) utilizing the IX-548 dive barge during this repair period as well.

The IX-548 dive barge went into a final overhaul period in June of 2014 to install a flooding alarm system, certify the installed Morgan Marine crane with NAVFAC San Diego in -



SWRMC ALPHA Dive Team. (Photo by ND1 Trautman)

accordance with Navy Crane Center (NCC) P-307 guidelines, and to relocate all topside hydraulic hoses below deck in order to free up critical deck space for cofferdam and UWSH equipment lay-down. In September 2014 the SWRMC IX-548 dive barge was moved by tugs back onto Ronald Reagan to support a steady stream of UWSH repair work at Naval Station North Island.

This unique dive platform will service the Pacific Fleet for years to come, and has the potential to save Commander Pacific Fleet (COMPACFLT) limited repair funds by avoiding contracted dive services and costly dry-docking, while increasing diving response time. The SWRMC IX-548 Dive barge is the result of an outstanding collaborative effort between: NAVSEA 00C, Global Phillips Carter, Naval Surface Warfare Center Carderock Division, PMS 325 and SWRMC engineers. Notable support was provided by Rick Thiel (NAVSEA 00C), Lloyd Saner (NAVSEA 00C), Jeff Cane (NAVSEA 00C), Brandon Gibson (NAVSEA 00C), LCDR Chris Addington (NAVSEA 00C), Deneen Monroe-Stewart (NAVSEA 00C), Lenora Jones (NAVSEA 00C), and SWRMC Dive Division’s Chris Reiter.

Rick Armstrong is a retired Navy CWO5/Master Diver and currently serves as the Dive Manager/Deputy Division Head for SWRMC Code 360, Dive Division.



Mark V Turns 100 During Year of the Military Diver Celebration

By: CDR Hung Cao, Commanding Officer
Naval Diving Salvage Training Center



No other symbol is more indicative to U.S. Navy diving than the Mark V. What began as a firefighting ensemble in the early 1800s became the catalyst for nearly two centuries of diving. 2015 marks the 100th anniversary of the Mark V dive helmet, the workhorse of Navy Deep Sea Divers for 65 years and the trademark of courage, perseverance and professionalism. Although the Dive Manual lists 1916 as the year when the U.S. Navy adopted the Mark V, research and development actually occurred the previous year according to the Diving Historical Society. To commemorate this anniversary, 2015 has been dubbed "The Year of the Military Diver". This historic milestone is celebrated along with the 35th anniversary of the Naval Diving and Salvage Training Center (NDSTC), the largest diving facility in the world, where 1200 divers train each year from all services in the Department of Defense, the Department of Homeland Security, allied and partner nations, and other government agencies.

The goal of the Year of the Military Diver is to commemorate this significant landmark that gave birth to a generation of men and women who conquered the treacherous ocean depths. This year-long commemoration may serve as a reminder to our country of everything that military divers have done for our great nation. Specific examples of military dive contributions to U.S. history include the four brave men who dove into the sea in 1939 to rescue all 33 survivors of USS Squalus, and proved the concept of submarine rescue. These men were honored with our nation's highest award: The Medal of Honor.

After the Japanese attack on Pearl Harbor, it was Navy divers that raised every ship sunk (with the exception of USS Arizona and USS Utah) back to the

surface and sent them back to chase the Japanese fleet, resonating to the world the indomitable American spirit that can never be subdued. Since that time, whether it was TWA Flight 800 or other airline disasters, the space shuttle Challenger, the Minnesota I-35 bridge collapse, mineshaft collapses, the Fukushima power plant meltdown, or the Korean ferry boat capsized, military divers have been there for every tragedy to help heal the wounds of the world.

After the creation of the Self-Contained Underwater Breathing Apparatus (SCUBA) and the popularizing of civilian diving by Jacques Cousteau, hundreds of thousands of people around the world began recreational diving. Whether they received their certification from the Professional Association of Diving Instructors (PADI), National Association of Underwater Instructors (NAUI) or Scuba Schools International (SSI), all the tables and charts used were created from the sweat and sometimes blood of divers of the Navy Experimental Dive Unit (NEDU). When divers are hurt, they are treated by recompression tables also created by NEDU. The benefits of hyperbaric oxygen (HBO) therapy are not limited to just diving casualties, but the super-oxygenation of cells have had much success in gangrene and carbon monoxide poisoning. Recently HBO therapy has had reported successes in cases of traumatic brain injuries, and although it is a long way from treating post-traumatic stress disorder, it gives a glimmer of hope to caring for our wounded warriors. Wherever HBO research may one day lead, it all began with a Navy diver willing to give everything for God and country.

The Year of the Military Diver will not only highlight great achievements, but also the great servicemen and women

who made those achievements. These success stories include divers such as Carl Brashear, who shattered barriers to become the first African American Master Diver, and Donna Tobias, the first female Navy Diver. Saturation divers proved the concepts of long-term underwater habitats, and NASA astronaut Scott Carpenter became one of the aquanauts in Sealabs II and III.

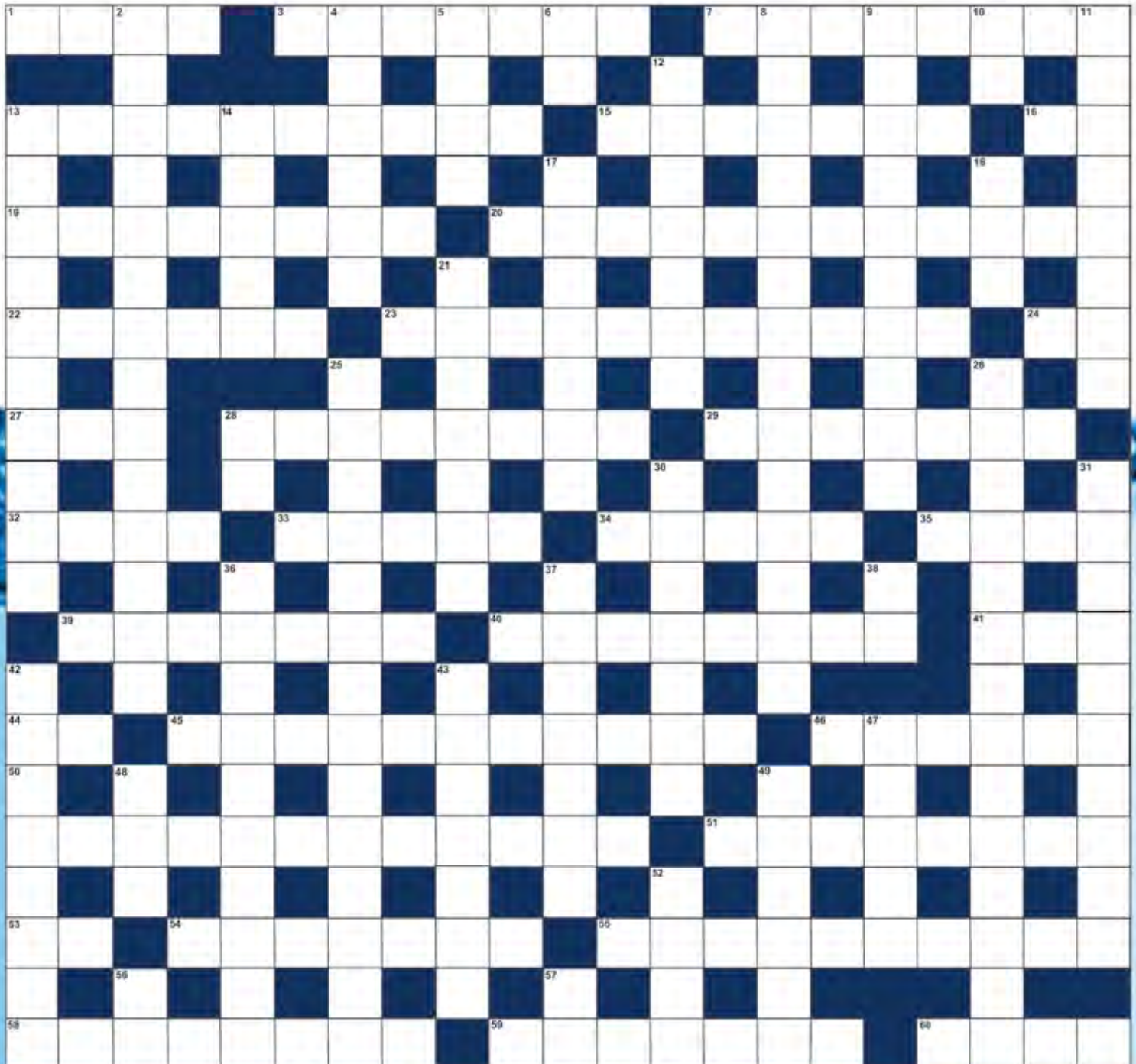
All of these tremendous contributions make up who we are today as U.S. divers. To celebrate these historic milestone achievements during the Year of the Military Diver, NDSTC will host a week-long celebrations May 4-8, 2015 in Panama City, Florida. That week-long celebration will include historic dives in the Mark V for the Sailors of the Year from all diving commands and an open house aboard Naval Support Activity Panama City the hub of research, development, testing, evaluation and training for all diving. The celebration will be held in conjunction with the Military Divers Training Continuum (MDTC). The U.S. Coast Guard will have an opportunity to inaugurate its new Coast Guard Diver job specialty, and the Army will honor a fallen soldier and diver in a dedication of a physical training facility at NDSTC. The Year of the Military Diver will honor warriors who battled the perilous seas in service of this Great Nation.

We will highlight past and present diving achievements through the media, social media and our website www.netc.navy.mil. #YOMD #NavyDiver

The Year of the Military Diver will honor warriors who battled the perilous seas in service of this great nation and we hope you can attend. For more information contact CMDCM(MDV) Steve Mulholland, Command Master Chief, Naval Diving and Salvage Training Center, Stephen.Mulholland@Navy.Mil

CROSSWORD PUZZLE

**Based on ACN 2/R7 to U.S. Navy Diving Manual
(SS521-AG-PRO-010), Change A**



CROSSWORD PUZZLE

Based on ACN 2/R7 to U.S. Navy Diving Manual (SS521-AG-PRO-010), Change A

Down

- 2 The focus of DIVEMAN Chap 5 with respect to Dive Program
- 4 Rip currents may _____ as far as 1/2 mile from shore
- 5 Type of signals used to communicate between divers
- 6 _____ Form 2544 was replaced by DRS
- 8 Four Factors cause people to be _____ biased
- 9 Recompression procedures to resolve DCS symptoms
- 10 Not PM.
- 11 Normally preceded by "Do Not" on power switch tags
- 12 Together or both, as in: The buddy divers are _____ responsible for the assigned mission.
- 13 Parts of equipment for example
- 14 Type of repair, duty, or list
- 17 Happened after a symptomatic trapped diver returned to surface
- 18 Can authorize open circuit SCUBA decompression
- 21 Thermal protection is _____ needed below 80° F
- 25 Assigned by 00C3 to initially inspect initial equipment condition after a diving mishap
- 26 May need a MOA if provided by civilian EMS for emergencies
- 28 Procedures for normal operation
- 30 What one becomes when being treated for DCS or AGE
- 31 A subcategory on the Environmental Checklist. Also atm
- 36 What is required of RMV to calculate air supply duration
- 37 Environmental Checklist cloud cover unit of measure
- 38 GFIs shall be capable of tripping within 20 of these
- 42 Example of dangerous bottom conditions (Omit hyphen)
- 43 Can be one with or without a commission
- 47 _____ unnecessary risk.
- 48 The W in WESS
- 49 What supervisors shall do to the 4 principles in ORM
- 52 A type of exhaustion associated with elevated temperature
- 56 EXO _____ MS FFM
- 57 State of NDSTC

Across

- 1 To view, as in a gauge
- 3 Ways of doing things
- 7 The DRS as an application
- 13 Filling out, as with the Environmental Assessment Worksheet
- 15 Cylinders
- 16 That is
- 19 TCRM involves _____ change and risk while an event is in progress.
- 20 Safe Diving Distances from _____ sonar
- 22 Local, as in hazards. (Do not write hyphen)
- 23 GFIs require an _____ reference ground to function properly
- 24 Two hours before warm water diving, hydrate with 17 of this
- 27 An infection here can put a diver on the binnacle list
- 28 Represented by the vowel in ROV
- 29 Check these on a compressor for cleanliness
- 32 Fleet Ocean Tug (Omit hyphen)
- 33 Thoroughly _____ all personnel in Emergency Procedures.
- 34 Types of instructions pertaining to diving that the MDV must know
- 35 In current, just one of these can severely handicap a SCUBA diver
- 39 To own or have, as in: MDV shall _____ comprehensive knowledge
- 40 Vs is ROVs
- 41 A Program Executive Office
- 44 Operational Risk Management without the O
- 45 Fouled divers post surfacing may have missed _____ decompression
- 46 Submitted by a unit for a hazard not requiring a SIREP
- 50 Tasks performed on a checklist such as the final ones of Fig. 6-22
- 51 Part of JAGMAN
- 53 Avg. wave height unit
- 54 What time is in a Time Critical Process
- 55 Center at the center of Navy diving training
- 58 Characteristic of a vessel that was beached by a T-ARS
- 59 Accurate depth profile requires depth to be measured and _____
- 60 Word in name of command at DSN 436-4351 or (850) 234-4351

Procedures for Navy Trained DoD Divers to Earn a PADI Open Water Diver Credential

By: CWO5 Spann

Background: Civilian dive shops require civilian dive certification (i.e. PADI, SSI, or NAUI) to participate in a recreational dive or have SCUBA bottles filled. To date, graduating from a U.S. Navy diving course of instruction and possessing a graduation certificate or Navy Diver ID card is not recognized by civilian diving organizations. PADI and Navy Cool have partnered to allow qualified Navy Divers the opportunity to get a PADI Open Water Dive credential. The cost will be paid by Navy Cool. Enlisted U.S. Navy Diver's must adhere to the established procedures. Officers and all other DoD trained divers are eligible to receive the PADI Open Water Dive credential by completing the established procedures; however, they must provide the funding to PADI.

The experienced Military Diver must complete the following:

1. Pre-requisites:
 - a. Logged at least 20 total dives in DJRS
 - b. 6 dives on open circuit SCUBA dives logged into DJRS, within the past 6 months.
2. Request from CEODD N52 raymond.spann@navy.mil to attain PADI Open Water Diver certification.
3. CEODD N52 will verify pre-requisites through DJRS and email the following documents:
 - a. Liability Release
 - b. Standard Safe Diving Practices Statement
 - c. Non-Agency Disclosure
 - d. Quick Quiz
4. Complete PADI administrative documents and email to CEODD N52 raymond.spann@navy.mil:
 - a. Liability Release
 - b. Standard Safe Diving Practices Statement
 - c. Non-Agency Disclosure
5. Complete Navy Cool Funded Exam Voucher Request <https://www.cool.navy.mil/usn/index.htm>
 - a. Click Step 2 (Get Exam Voucher) affirm you are eligible to request a voucher, then click Get Form.
 - b. Complete Parts 1, 3, and 4
 - c. Print and sign part 5
 - d. Scan and email to raymond.spann@navy.mil
6. CEODD N-5 will request a voucher from Navy Cool for the PADI e-learning Open Water Diver course assessments.
7. Navy Cool will email PADI e-learning voucher to the member to start e-Course.
8. Complete e-course assessments and print.
9. Complete Quick Quiz.
10. Submit completed assessments, Quick Quiz and 2 passport photos to:
CEODD
Attn: N-52 CWO5 Raymond Spann,
350 S. Crag Rd.
Panama City Beach, Florida 32407
11. CEODD N-52 will review all submitted documents and submit to PADI for issuance of Open Water credential.

Author: CWO5 Spann is the Navy Diver Career Manager (N52) at the Center for Explosive Ordnance and Diving (CEODD) in Panama City, Florida.

U.S. NAVY MASTER DIVER ROLL CALL

THE WALL OF THE US NAVY MASTER DIVER ROLL CALL, LOCATED AT THE NAVAL DIVING AND SALVAGE TRAINING CENTER IN PANAMA CITY, FLORIDA

1928-1940
BADDERS, W. CRANDALL, O. CRILLEY, F.
GORMAN, C. HARMON, W. HORNE, W.
LEVESQUE, J. McDONALD, J. SCOTT, W.
SUGGS, G. WIENER, E.

1941-1950
ALICK, J. ALLEMAN, C. ALWORTH, J.
BALLARD, A. DANASKY, M. BUSBY
CHRISTENSEN, C. CLAYTON, E. CONNERY, R.
CORNELL, A. COTNELL, T. CRANDELL, A.
CRAWFORD, D. DECAUSE, B. DENNIS, H.
DAVILLEN, H. DOVER, N. EPHLAND, J.
FRANK, W. HAMBY, M. HARRINGTON, P.
KING, R. KIRSCH, K. KNOTT, K.
LINGG, H. MCCULLUGH, G. MCNEANE, J.
MCKENNA, M. MILLER, G. MILMOEN, K.
MOSIS, J. MORRISSEY, S. WOODHANN, J.

1941-1950
MURPHY, M. PETERS, W. PETERSON, J.
PLEMEL, L. PLOOF, K. POGREBA, P.
PORTER, J. POSEY, J. PRELIP, D.
RAINEY, W. SHEATS, R. SMYTHE, J.
STEVENS, J. STEVENS, P. WOGAL, J.
WALKOWSKI, A. WEBB, A. WILLIS, G.
ZAMPERINI, A.

1951-1960
ALCORN, BADGETT, J. BATES, J.
BENNETT, E. BENT, W. BISCHONNETTE, R.
CAREW, L. CATES, K. CLINE, R.
CRESSEY, O. CRISLER, L. DUNCAN, F.
GUICE, I. HAMMOND, L. HENNING, H.
IZZO, P. LAMAR, T. LINN, D.
LYNCH, H. McIVER, J. POWELL, B.
PRICE, D. SALTEZ, G. SIRONICAH, J.
STEPHENS, E. STOUT, J. WEBB, D.

1951-1960
WOODALL, J.

1961-1970
AARON, E. ADAMS, A. ADAMS, R.
ADAMS, S. ANDENOVER, J. ANDERSON, A.
ATKINSON, J. BAILEY, J. BARTON, C.
BATES, J. BECKMAN, C. BECKMAN, H.
BEHYMER, W. BENNETT, E. BENT, W.
BIGGER, F. BIGNARDI, D. BLEWETT, W.
BOSWORTH, B. BRASHEAR, C. BRAUNER, F.
BROWN, R. CANTRELL, C. CHILDERS, H.
CLEVINGER, J. COGGESHAL, C. COLLINS, F.
DEARIE, J. DONN, T. DRISCOLL, B.
DYKES, R. ERNST, J. FAIRCLOTH, A.
FALCON, R. FEWELL, W. FREEMAN, D.
GARLICK, J. GHOLSON, B. GREENE, J.

1961-1970
HAMES, G. HILL, M. HOLGERSON
HUDSON, V. HURLEY, G. JENSEN, F.
JONES, D. JORDAN, J. JOSEPHANS, F.
KEANE, B. KENEALY, J. KITCHENS, B.
LARSON, R. LEONARD, J. LIDDLE, H.
LINCLER, C. LOUDERMILK, B. LUCREE, B.
MANSFIELD, R. MARCELL, C. MAY, A.
MCCARDLE, B. MCCANNEAN, R. MORRIS, M.
MORRIS, M. MORSE, D. MUARRY, R.
MULALLY, R. MULLIKIN, H. NELSON, A.
ORTIZ, J. PARFINSKY, A. PHILBRICK, W.
RIBBICK, D. SALYERS, I. SCHMITT, D.
SHUNK, J. SOUTHERS, J. THOMAS, C.
THOMAS, D. THOMPSON, H. TOLLY, J.
VIRGILE, H. VOSKANS, F. WALLACE, K.
WATERS, N. WILLIAMS, V.

1971-1980
ACHELE, F. ALEXANDER, A. ANDERSON, R.
ANDERSON, R. ANGLIN, E. ARLINGTON, R.
AUE, R. AUSTIN, B. BEHLING, P.
BENNETT, E. BRADBURY, S. BRADY, G.
BUSKI, F. CALTEBACK, E. CARLE, H.
CARTER, B. CATO, M. CAVE, B.
CLARK, E. COLVIN, P. CONNEEN, J.
COPE, C. CROTT, H. DELAOLIVA, F.
DEARIE, J. DEBOLT, D. DECEMBER, D.
DELAUTER, J. DRAPER, D. DUNHAM, R.
EINHILLIG, M. FENWICK, J. FOMBY, M.
GILSON, G. GOAGHER, G. GORBAL, G.
GUMMEL, W. GUTIRREZ, W. HALL, R.
HARPER, H. HAYES, J. HERNANDEZ, R.
HICKS, H. HOLTEN, C. HUSS, S.
JENNINGS, J. JONES, B. JONES, R.
KERR, J. KILBURY, B. KING, J.

1971-1980
LANKFORD, J. LAURIN, D. LECHNER, S.
LEJEUNE, D. LESZCZYNSKI, J. LUGO, F.
MACE, L. MAGNUSON, G. MATHIS, B.
MCKENZIE, D. MEBUS, R. MEDINA, J.
MERRIMAN, R. MESPLAY, B. MOONEY, J.
MOORE, B. MOORE, C. MOWEN, R.
MULLINS, J. MUNDY, J. NICHOL, M.
PAYNE, C. PETERSON, T. PETRASEK, P.
POWELL, G. PRICHARD, B. RADECKI, R.
RAMOS, J. REYNOLDS, M. RHODES, W.
RINEHART, L. ROMAIN, B. RUDEN, P.
SANGREY, S. SCALPI, J. SCHLEGEL, J.
SMITH, B. SMITH, D. SMITH, J.
STANLEY, C. STARCHER, J. STEEL, R.
STRAINING, R. THOMAS, B. THOMPSON, D.
THOMPSON, R. VANDINE, B. VIRGIL, C.
WARREN, R. WEIBE, D. WESTBROOK, O.

1971-1980
WETZEL, G. WHITAKER, D. WHITE, R.
WILEY, D. WILLIAMS, D. WILLIAMS, J.
WINTERS, B. WOODFIELD, B. WOODY, E.
YARLEY, B.

1981-1990
ALEXANDER, A. ALEXANDER, M. AUGUSTINE, R.
BAISS, D. BEDARD, R. BEHNKE, J.
BENESCH, P. BERRY, T. BONNIN, M.
BOWDISH, R. BOWMAN, P. BRADFORD, B.
BRADSHAW, J. BROOKS, W. BUEHRING, D.
BUTTERBUGH, G. CAMPBELL, R. CAULEY, W.
CHANCELLOR, G. CHAPMAN, C. CLAREY, S.
COLE, B. COOK, J. COSSON, B.
CROSBY, J. CURTIS, D. DHOOG, C.



1981-1990
DONLON, R. DUBOIS, J. EARNEST, B.
ELLIS, C. EVANS, J. FARBER, D.
FERRERA, S. FARRERSON, R. GILBERT, E.
GILLIAM, R. GOLDS, G. GRAY, J.
GRIGGS, T. HANSEN, K. HENSON, J.
HERHOLZER, M. HIMA, D. HINKERBEIN, K.
HOWLE, B. INGLES, B. JACOT, R.
JENNINGS, T. JOHNSON, J. JOHNSON, J.
JONES, C. JONES, R. JONQUIST, D.
KNORICK, D. LANGLAIS, E. LAQUE, F.
LAURICH, B. LEDBETTER, S. LEGER, C.
LINDSAY, C. LISK, M. MATTEONI, L.
MCFARLIN, J. MCKETHAN, J. MALAUGHEN, G.
MORRISON, T. MURRAY, J. ORRYAN, C.
OLSON, G. OSSONET, C. OVERBECK, A.
PATE, C. PENN, C. PERNA, F.
REISNER, W. REKOW, G. ROBERTS, D.
ROMAS, B. RYAN, W. SAULMON, D.

1981-1990
SCHADOW, P. SCHENKEL, D. SEARCY, J.
SEELEY, R. SELBY, D. SHIEL, W.
SHINDER, D. SHORT, W. SHOULDERS, T.
SMITH, R. SNOWDEN, G. SPALDING, H.
STARCHER, J. STARKEY, E. STEWART, B.
STRUMS, D. TILLET, D. TUCKER, J.
VERMILION, R. VINCENT, S. WATTS, R.
WEAVER, C. WHITFIELD, B. WICKLING, L.
WILLETTE, D. WITUNSKY, F. WYATT, G.

1991-2000
ALLRED, D. ALOGNA, S. ARMSTRONG, R.
BABIN, M. BALESI, P. BECKER, L.
BETTUA, R. BISCHONNETTE, R. BOYD, D.
BRIGGS, D. BROWN, K. BURGES, B.
CARMICHAEL, B. CAROLAN, J. CRIDER, W.

1991-2000
DANIELS, D. DAVIDSON, D.
DEEN, R. DENNIS, D. DRYDEN, D.
ERVIN, R. FANNING, S. FITZPATRICK, P.
FLEEMAN, E. FRANK, E. FURR, G.
GILLARD, K. GORHAM, F. GRADINA, P.
GRIMM, G. HEATER, D. HEBERT, J.
HEINEMAN, S. HERSTOL, E. HOLLIDAY, E.
HOVE, D. HUNT, H. INGALLS, J.
HUST, F. JOHNSON, J. JONES, T.
JONES, D. KAYONA, B. KING, L.
KNUDSON, J. LEET, M. MALLETT, R.
MARIANO, J. MCLETRIE, P. MENZIE, T.
MORRIS, B. MURPHY, B. MYERS, P.
NEELY, R. NELSON, A. NICHOLS, J.
ORNS, F. PATTERSON, P. PERKINS, T.
PHALIN, J. PLUMMER, J. PRATSCHE, B.
PROPSTER, J. QUANT, B. RAMSEY, A.
REISS, J. ROBERTS, K. ROBERSON, B.

1991-2000
DANIELS, D. DAVIDSON, D.
DEEN, R. DENNIS, D. DRYDEN, D.
ERVIN, R. FANNING, S. FITZPATRICK, P.
FLEEMAN, E. FRANK, E. FURR, G.
GILLARD, K. GORHAM, F. GRADINA, P.
GRIMM, G. HEATER, D. HEBERT, J.
HEINEMAN, S. HERSTOL, E. HOLLIDAY, E.
HOVE, D. HUNT, H. INGALLS, J.
HUST, F. JOHNSON, J. JONES, T.
JONES, D. KAYONA, B. KING, L.
KNUDSON, J. LEET, M. MALLETT, R.
MARIANO, J. MCLETRIE, P. MENZIE, T.
MORRIS, B. MURPHY, B. MYERS, P.
NEELY, R. NELSON, A. NICHOLS, J.
ORNS, F. PATTERSON, P. PERKINS, T.
PHALIN, J. PLUMMER, J. PRATSCHE, B.
PROPSTER, J. QUANT, B. RAMSEY, A.
REISS, J. ROBERTS, K. ROBERSON, B.

1991-2000
ROOD, T. ROYSE, J. SACKMAN, M.
SANTO, J. SCHENKMAN, D. SCHNOERING, J.
SCHOFER, W. SCULLY, H. SELIG, R.
SHARPE, P. SKALA, R. SMITH, S.
SPANN, C. SPENCE, J. SPIRES, J.
STARK, H. STOCK, T. STOGDALE, T.
STORMENT, R. TRAUTMAN, P. VANHORN, B.
WASHINGTON, U. WESTBROOK, G. WESTLING, D.
WHITE, T. WIGGINS, S. WINTER, L.
YOUNG, C. ZAGURSKI, J.

2001-2010
ADAMS, P. ALLISON, M. AHERTON, R.
AUSTIN, T. BARKER, R. BELL, H.
BIGGER, F. BINGHAM, W. BRADY, R.
BRODEUR, S. BROWN, J. BROWN, E.
BRUSTAD, J. BUCKLEY, M. BURNS, A.

2001-2010
CHASSON, P. CLARK, D. CLOUSE, L.
COFFELT, J. COSTIN, J. DAVIDSON, P.
DEATRICK, J. DEFELICE, L. DEWITT, E.
DUMKE, J. DUPUISSEY, J. EATON, E.
EMBORSKI, J. ESSING, F. EVANS, R.
FARLEY, M. FLEMING, B. GARCIA, R.
GILBERT, B. GLIDWELL, D. GOVE, D.
GREEN, J. GRIMM, G. GRUBBS, D.
HALL, T. HARGARAY, W. HAWS, D.
HILL, M. HOOVER, T. HORVATH, D.
HOWARD, J. IZZO, P. JENKINS, M.
JOHNSON, M. JONES, D. JONES, K.
JONES, R. KINNARD, J. KLUKAS, J.
KOELBEL, L. KORDICH, D. LAMB, J.
LARK, T. LEAMAN, C. LEHNER, C.
LEPORI, J. LUTZ, M. MABRY, A.
MAGNE, V. MARLER, B. MATA, S.

2001-2010
MCDANIEL, G. MCDEPOTT, P. MILLER, M.
MORIN, C. MOSER, M. MOXLEY, J.
MURPHY, J. MURRAY, T. NEELY, R.
PANNAGONE, R. PAYNE, J. PENDING, J.
PERDOMO, J. PHILLIPS, A. PIERICK, A.
POLY, K. MAYAN, M. ROTAN, R.
RUBOW, W. SALPSON, J. SALINDERS, J.
SCARBROUGH, J. SCHROEDER, J. SCHUDEL, A.
SHANK, R. SHEPARD, A. SHIELDS, M.
SMITH, J. SMITH, C. SONENBERG, M.
STANTON, J. STEGALL, J. STEWART, R.
STEWART, J. TAYLOR, C. TELTZ, E.
THOMPSON, J. THOMPSON, J. TRADEL, M.
TROTTIER, J. TUCKER, J. WELTAGE, S.
WALSH, J. WELSH, M. WELSH, N.
WILKINSON, M. WILSON, J. WILSON, N.
WOLFE, M. ZENTZ, S.

2011-2020
ASKEW, S. BROSS, M. BRYANS, S.
BURGER, A. CANNON, J. CARDIELLO, R.
COLE, B. DODD, B. FOSTER, C.
GOSSETT, A. HOPKINS, J. JUERGENSEN, T.
KENEDY, M. LANGDON, I. LAUBE, D.
MCCORMICK, R. PARK, S. THOMPSON, S.
PHILLIPS, B. RIVERA, D. ROPE, T.
SHAFER, J. SIMON, C. STEARNS, C.
SULLIVAN, D. TONDA, L. WILLIAMS, T.
WITTMAN, W. WOTUS, P. HUNT, M.
GUILLIN, J. PARLANDER, G. STRAUSS, P.
WINTERS, A. OAKLEY, RYAN. BOLEN, R.
CLOUSE, J. SUMMEY, B. WAHL, J.
WENZEL, W. EBERLE, E. SCHAPPERT, D.



ADVANCED DIVER TRAINING



Advanced Diver Training: Volunteers for advanced diver training (NECs 5342 and 5341) must satisfy requirements stated below, be physically qualified under article 15-66 in NAVMED P-117, and be recommended by their Master Diver (NEC 5341) with CO's concurrence prior to assignment to advanced diver training.

Refer to MILPERSMAN 1220-100 for specific guidance & requirements



Diver First Class (NEC-5342) Prerequisites:



1. Diver second class (NEC 5343) with a minimum of two complete tours in an NEC 5343 billet. Candidates must have completed at least one tour at a Regional Maintenance Center or Mobile Diving and Salvage Unit. Other tours may be at any command having divers assigned.
2. Pay grade E-6 or above. Personnel in pay grade E-5 may apply for a waiver to attend advanced training. Waivers will be issued on a case by case basis by BUPERS-324F.
3. Thirty-six month OBLISERV from class graduation date.
4. Qualified diving salvage warfare specialist (DSWS) and all required command qualifications at present command.
5. Completion of HEO2/Saturation Diver course of instruction via Navy E-Learning.



Master Diver (NEC -5341) Prerequisites:



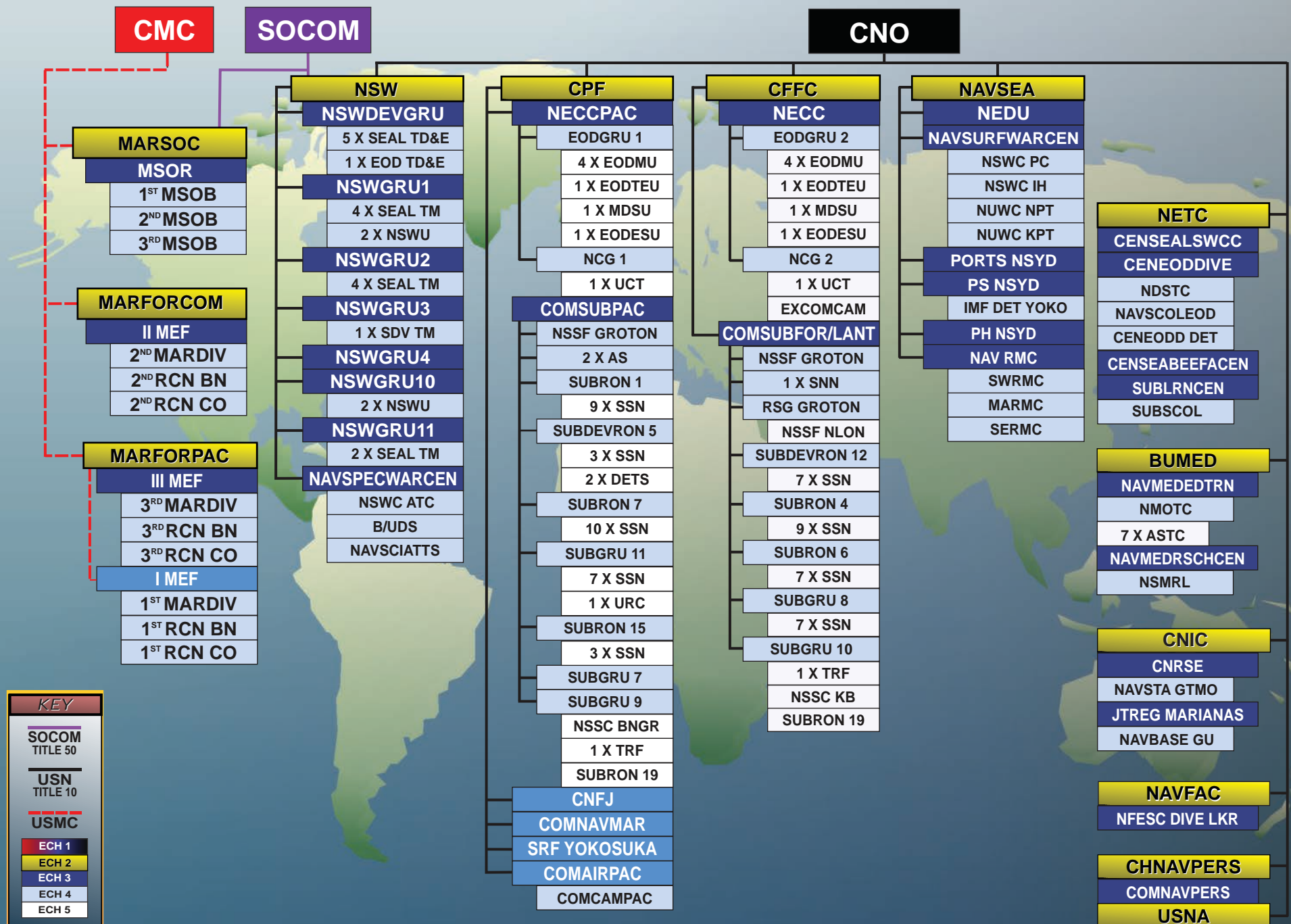
1. Served a minimum of 2 years from date of frocking or advancement to E-7.
2. Be a qualified diver first class (NEC 5342).
3. Served at least 4 complete tours as a ND. These tours must include three of the following (Three diverse type commands, no waivers.):
 - (a) Underwater Ship Husbandry
 - (b) Salvage command
 - (c) Naval Special Warfare
 - (d) Specialized
4. Be qualified at the highest level of diving supervisor at present command and must have been qualified as a surface supplied diving supervisor as a first class diver (NEC 5342).
5. Qualified diving salvage warfare specialist (DSWS) as first class diver and all required command qualifications at present command.
6. No marks less than 3.0 on the below listed reports. Must be marked no less than "promotable" for advancement.
7. Successfully pass written Master Diver Course Pretest administered by NAVDIVSALVTRACEN.
8. Complete Salvage Diving Officer course of instruction via Navy E-Learning



NAVADMIN 237/14
To be eligible for advancement to E9, Sailors must hold the Master Diver NEC (5341) prior to the regularly scheduled board convening date.



U.S. Navy Diving Organization





UCT TWO Work with the Humanitarian Mine Action (HMA) Program in the Solomon Islands

By: CE1 (SCW/DV) Daniel Luberto

In the midst of WWII, a tiny island in the South Pacific became a focal point of the campaign against Japan. The occupation of Guadalcanal, Solomon Islands from August 7, 1942 to February 9th, 1943 cost the lives of many dedicated servicemen during some of the most fierce fighting in the Pacific. Constant naval bombardment from both Allied and Japanese forces left the island littered with unexploded ordinance (UXO), and upon the end of WWII tons of ordinance was either buried or jettisoned from naval vessels near the surrounding coastline. In the years that followed, deaths due to the manipulation of UXO by the local population steadily increased, which sparked the need for increased containment efforts. The Royal Solomon Islands Police Force Explosive Ordinance Disposal Unit (RSIPF EOD) was subsequently created to deal with the removal and safe disposal of UXO. This unit was populated from local police forces in the surrounding islands, and was largely supported by Britain, Australia, and the United States. (Wikipedia 2014)

Through rigorous and persistent training, RSIPF EOD successfully removed countless tons of UXO from Guadalcanal. However, they did not have the capability to deal with underwater UXO. To bridge this gap, the Solomon Islands government qualified twenty RSIPF EOD personnel as Divers after attending a basic SCUBA course. Through the Humanitarian Mine Action Program (HMA), Underwater Construction Team TWO (UCT TWO) was tasked to provide dive technique expertise and equipment to RSIPF EOD. Seabee Divers from UCT TWO spent over three grueling weeks

training with the RSIPF, covering topics, such as, physical fitness, basic SCUBA techniques, emergency procedures, diving physics, diving medicine, casualty management, basic first aid, CPR, dive supervisor training, and preventative maintenance. "The importance of this mission could not have been understated. Diving is inherently dangerous, especially when you add the element of underwater UXO. We all realized that we had to deliver the highest level of training," said Construction Electrician Chief

has a direct correlation to diving safety, especially when dealing with tidal currents and wave swell. "This was a new aspect for them; we had to start very slowly. But by the end, they realized the importance of good physical fitness," said UT2 (SCW/DV) Erick Martin, lead physical training coordinator.

Another large challenge of the mission was to develop and purchase a full compliment of diving and support equipment for the RSIPF EOD, as well as getting it from Port Hueneme, California to the Solomon Islands. "This was not easy. We had to get boats, motors, SCUBA gear, medical gear, and twenty sets of personal dive gear. We had to get it all purchased, delivered, organized, and packed into containers for its journey," said BU2 (SCW/DV) Joshua Knolla, a lead diver for CDD/C.

The training exercise culminated in a very emotional ceremony where Seabee and RSIPF EOD Divers received certificates of completion, and two RSIPF standouts were presented with a diver coin from MDV Terence

Juergens. After the ceremony, customary cuisine and cold beverages were shared, as well as far too many sea-stories and lots of laughter.

The Solomon Islands was CDD/C's last stop on a six-month deployment in support of the Pacific Fleet, which spanned five countries and 20,000 miles. CDD/C conducted inspection, maintenance, and repair of various underwater and waterfront facilities, and participated in four Pacific Fleet exercises.

Title Image: RSIPF EOD Divers performing circle searching techniques during advanced dive training/subject matter expert exchanges. (Photo taken by: Utilitiesman 2nd Class (SCW/DV) Erick Martin).



RSIPF EOD Divers receive certificates of completion from advanced dive training. Divers from UCT TWO conducted 3 weeks of advanced dive training/subject matter expertise exchanges with 16 RSIPF EOD divers. (Photo taken by: John Wakini).

(SCW/MDV) Terence Juergens, the Officer in Charge for Construction Diving Detachment CHARLIE (CDD/C).

The training consisted of over 40 hours in the classroom, followed by an in-water portion on the neighboring island of Tulagi. This location allowed uninterrupted dive training, from mask/fins/snorkel familiarization to more advanced topics, such as how to rescue a stricken diver at depth. However, dive training wasn't the only focus. Every morning UCT TWO personnel and RSIPF EOD Divers conducted two hours of physical training, including: push-ups, eight-count body builders, and other body weight exercises. Physical fitness

Naval Base Guam Dive Locker Provides Recompression Treatment for Community

By: Naval Base Guam Public Affairs Office

On June 14, when 68-year-old retired U.S. Navy Sailor Chuck Bressie was diagnosed with severe type II decompression sickness, U.S. Naval Base Guam's (NBG) Dive Locker activated their emergency chamber team to treat him.

"I was just sitting on the bench and all of a sudden my toes started going numb," he said, recalling the day he was diagnosed with decompression sickness after a dive. "Then probably within two or three seconds it was up to my ankle, then I was numb up to my knees, then I got numb up to my waist, and then I felt like I couldn't move anything. They brought me [to the dive locker], the crew here loaded me up, put me in [the dive chamber] and from there, I don't remember. I was in so much pain. How many hours I was there, I don't know."

After three weeks of treatment from the NBG chamber team—Bressie was able to walk out on his own on July 3.

Decompression sickness, also known as the bends, is a sometimes fatal disorder characterized by sharp bilateral hip pain, paralysis and difficulty breathing caused by the release of gas bubbles from the tissue upon a rapid decrease in hydrostatic air pressure after an extended period of time in a compressed atmosphere.

For divers, this means if you surface too quickly from a dive, you run the risk of contracting this dangerous disorder.

"When people go down and they dive for a long time and they come back up, it's a little like taking a soda can and vigorously shaking it and then popping the top, except instead of soda coming out, we've got nitrogen — all these nitrogen bubbles coming into our body," said NBG Navy Diver 2nd Class (DSW/SW) Mark Dvorak. "Those nitrogen bubbles can accumulate around your spine or brain, and they can cause multiple maladies — personality changes, paralysis, unconsciousness, and death. What we do here is recompress the bubbles, allow time for re-absorption while flooding the body with 100 percent oxygen, allowing it to heal."

Bressie suffered from spinal cord decompression sickness, partial paralysis, and severe hip pain. After three weeks of intensive care at U.S. Naval Hospital Guam and 17 six-hour oxygen treatments at the NBG Dive Locker, he was able to independently leave the treatment chamber.

"The first three or four rides in the chamber, I don't remember," said Bressie, a Guam resident. "I was in so much pain. But as the rides got a long, they got better. I could remember the people; I could remember them taking real good care of me. I couldn't ask for anything better."

The experience for Bressie was an emotional one that restored his ability to walk after being paralyzed.

"These people here and the doctors are very professional; know what they're doing and how to do it and how to get the results from it," he said. "As it went along, my days in the hospital got better; I got better at this and I told the master diver, '

'I'm going to walk in there and I'm going to walk out.' And I finally did that. I can't praise these guys enough that they gave up so much of their time for me."

NBG Command Master Diver, Master Chief Diver (MDV) Rodney Atherton said the dive chamber on NBG is the only one in the region that serves to treat both military and civilian personnel.

"Our main mission here is to serve both the civilian population and military populations as well as and all of the active duty that are actually getting qualified here on Guam," Atherton said. "We have a huge pool of people and probably one of the largest in all of the military that sees so many dives and then, on top of that, so many diving injuries. Without this chamber, there would be so many people hurt and no ability to get treated. We're part of this island; these are our brothers and sisters underwater and even though we're military and they're civilian, we're all part of one team."



Sailors from NBG Dive Locker prepare for a sendoff for retired Sailor Chuck Bressie at the installation in Santa Rita July 23. Bressie, a recent patient who suffered severe decompression sickness, received treatment in the NBG dive chamber. (U.S. Navy photos by Shaina Marie Santos/Released)

Sailor Continues Family Dive Legacy During Year Of Military Diver Celebration

By: Jacqui Barker

Ask any military diver today or from yesteryear about what makes their military community so special and you'll hear one word: Brotherhood. For two men stationed onboard Naval Support Activity Panama City (NSA PC) Florida, this brotherhood allows them to share both a personal and professional bond in the home of military diving during this, the Year of the Military Diver.

Naval Diving and Salvage Training Center (NDSTC)'s Training Officer Lt. Jason Junker, USN, today serves in the U.S. Navy's diving community as an Explosive Ordnance Disposal Officer just across the base from his father David Junker, a retired Master Chief Machinist Mate and diver, serves as the In-Service Engineering Agent for the Explosive Ordnance Disposal (EOD) systems at the Naval Surface Warfare Center Panama City Division (NSWC PCD). The latter Junker retired in 1997 after 20 years on active duty and four years in the reserves.

"Being a Navy diver to me means being part of a long legacy of Navy divers, conducting work under extraordinarily difficult conditions. That was very rewarding for me," said Dave Junker. "On many occasions during my career, I reflected on how much I enjoyed the work and camaraderie, ultimately leading to a full career in this field."

Following in his father's impressive and successful footsteps, Jason graduated from Bay High School in 1997 and enlisted in the Navy in 1999. Working his way up through the enlisted ranks and the EOD community, he ad-

vanced to Chief Petty Officer before he was selected for the Seaman-to-Admiral program in which he earned his commission. Since first enlisting, Jason has served in Operations Enduring Freedom and OIF. He has been stationed at EOD

commemoration. This year, 2015, is also the 100th anniversary of the Mark V dive suit and NDSTC's 35th anniversary.

"The year of the military diver offers a time to gather the diving communities from all DOD services together to share experiences and discuss our history," said Jason. "It provides a rare opportunity for young divers to give something back to those that went before us. It also offers education and quality interaction between our diving community and Bay County leadership."

For Dave Junker, who grew up in Galion, Ohio, enlisted in the Navy's submarine community in 1972. He fondly remembers when the facilities that now embody the home of military diving were being built on the Navy base in Bay County, Florida. It's an area that he proudly calls home and has worked at NSWC PCD now for 10 years.

"I was on staff at the Washington Navy

Yard until 1978 and I went through first class dive school here in 1980 when the old YDTS were here," said Dave. "I had a four year break in service and was in the reserves with the Harbor Clearance Unit in Seattle. A chief petty officer I had worked for persuaded me to return to active duty."

Initially, Dave was a "nuke" before he became a Navy diver and was stationed onboard USS Proteus (AS 19), and served in a staff billet at Navy First Class Dive School, Washington Navy Yard before the function was transferred to NDSTC by 1980. He was also stationed at Naval Medical Research Institute, Bethesda, Maryland, MV Seaforth Clansman with



NDSTC Training Officer Lt. Jason Junker, USN, stands with his father Dave Junker and a photo of his great grandfather who was a U.S. Navy submariner. Dave, who is a retired Navy diver and master chief machinist mate, is the Naval Surface Warfare Center Panama City Division's Explosive Ordnance Disposal In-Service Engineering Agent and now serves his former dive community from the Department of Defense's acquisition community. (Photo by Ron Newsome, NSWC PCD)

mobile units two, six, and five. Today, Junker is NDSTC's third in command.

"Being a military diver means having the honor to follow in the footsteps of some of the bravest men and women who have served our country," said Jason. "It's also about maintaining the proud tradition and heritage they built for us, while moving forward in today's Navy and creating new milestones for future military divers to be proud of."

While his most memorable dive job or duty station to date remains with EOD Mobile Unit Two in Kandahar, Afghanistan, he can embrace the legacy of being in the military dive community during the Year of the Military Diver

the British Ministry of Defense diver exchange program, USS Ortolan (ASR 22) as a saturation diver, and the Submarine Development Group One, where he worked deep submergence operations support. Finally, he worked at the Navy Experimental Diving Unit (NEDU) located onboard NSA PC in Panama City, Florida where he served as an unmanned test director and unlimited dive supervisor. Of all the wide range of experiences Dave had throughout his 20 year of Navy diving, he fondly recalls his work as a research subject between 1984 and 1987 at the Naval Medical Research Institute.

“What made this job so memorable for me was the testing and understanding the limits of physiological and psychological limitations for extended underwater missions,” said Dave.

Today, Dave reflects on what being a Navy diver has meant to him.

“To be part of a long legacy of Navy divers, conducting work under extraordinarily difficult conditions was very rewarding,” he said. “On many occasions during my career, I reflected on how much I enjoyed the work and camaraderie, ultimately leading to a full career in this field.”

Today, Dave continues to support his dive community but these days it’s as

a federal civil servant working on EOD systems at NSWC PCD, which is a research, development, test and evaluation facility. Over the years, he has not only watched the base grow into a military dive hub, he has been a major part of it.

“Certainly, in our local community, Navy divers are well known and are hopefully well regarded,” said Dave. “Panama City has been the hub of Navy dive training since 1980 when NDSTC opened, and with the Navy Experimental Diving Unit (NEDU) being here since 1970.”

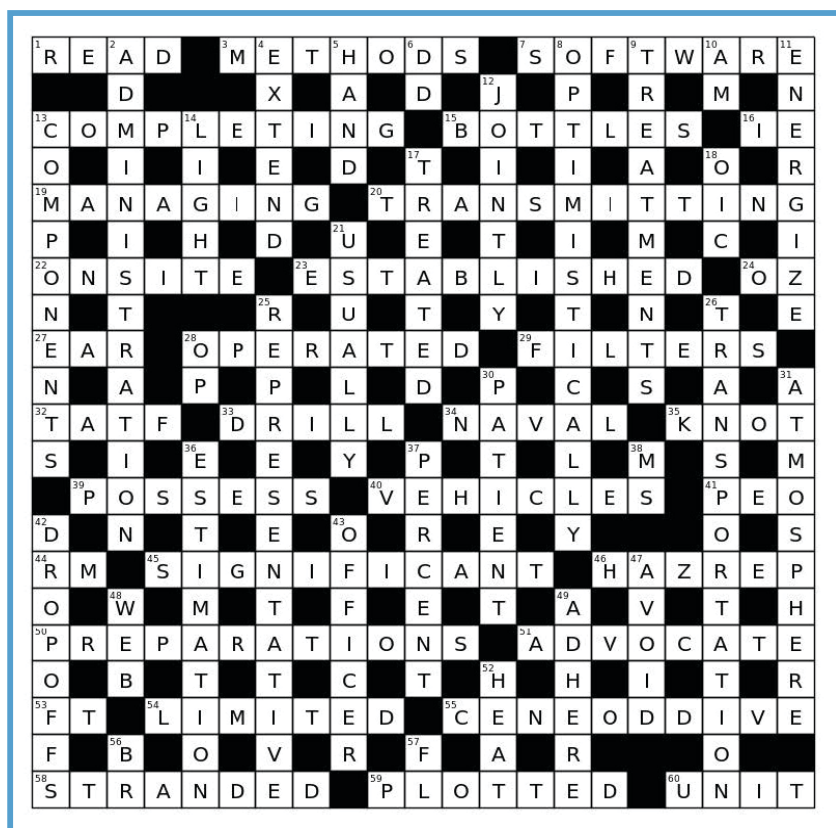
Military divers have been stationed or trained at the Navy base for almost 60 years when divers worked at the base – then called the Mine Defense Laboratory – on mine countermeasures, and diving and life support programs. Those programs have endured and are now supported by NSWC PCD where Dave Junker is employed working engineering and system development for EOD and diving.

“For many divers, Bay County feels like your hometown because at some point, we’ve all come through the dive school for training,” said Jason. “Small, specialized communities, like EOD or divers, tend to go unnoticed most of the time to the public. Panama City and Panama City Beach are unique in that they are

exposed to such a large number of men and women divers from all services and Department of Defense (DoD) organizations. The local public seems to recognize the work and sacrifice that the diving community has made and has supported our service members extremely well.”

At NDSTC, Junker is responsible for all NDSTC training courses for each branch of service, foreign national and interagency programs. Annually, NDSTC trains more than 1,300 students in various subjects in all ranks. Specifically, NDSTC houses 23 certified diver life support systems, which include six hyperbaric recompression chambers, two diving simulation facilities capable to 300 ft, an aquatics training facility which is the second largest pool in the U.S., a submarine lock-out trunk and two 133ft Yard Diving Tenders (YDT) for open, ocean-diving support with recompression chambers and mixed gas diving capabilities.

“Jason Junker is a tribute to Panama City. He grew up in this city and graduated from Bay High School,” said NDSTC Commanding Officer Cmdr. Hung Cao, USN. “Today, he is not only walking in his father’s footsteps but he is also the training officer responsible for developing the next generation of divers.”



Crossword Puzzle Answers

TRAINING UNDER PRESSURE

By: MC3 (DV) Thompson, Expeditionary Combat Camera

We floated on the surface, raised our hands out of the water and signaled to the Diving Supervisor, Engineering Aide 2nd Class, Garrett Snyder, that we were ready to leave surface. Utilitiesman 2nd Class, Erick Martin, Hospital Corpsman 1st Class, Virgil “Doc” Newton, and I were scuba diving on a wreck 100 feet below the surface in the Gulf of Mexico. The wreck was home to about half a dozen barracuda, a few sharks, and schools of other marine life.

As a Mass Communication Specialist and crew’s photojournalist, it was my job to take as many underwater photos as possible. It was the ideal job, on an ideal day. I was not aware of the dive training scenario that was about to take place.

After we surfaced, we muscled ourselves and our scuba rigs out of the water onto the deck of the rigid-hulled inflatable boat (RHIB). It was crowded with a handful of divers from Underwater Construction Team One (UCT ONE), and Underwater Construction Team Two (UCT TWO), along with scuba bottles and other ancillary dive gear.

“I swear if my dive boots don’t get wet everyday of this trip, I’m going to freak out. Having wet dive boots is the best,” chuckled EA2 Snyder, with a genuine ear-to-ear smile.

EA2 Snyder was known for taking a lighthearted approach to nearly every situation and possessing a laugh that could be heard clearly over the roar of air-compressors and heavy machinery.

I only saw that smile disappear for about an hour during that eight-day trip in the Florida Keys. It happened shortly after we surfaced from the wreck, when HM1 Newton asked the Dive Supervisor if he could get back in the water? “I think I got hit by a jelly” he said, tugging and pulling at the collar of his wetsuit.

“Negative,” replied EA2 Snyder, his positive demeanor switching to stern

and concerned. “Get out of that wetsuit and let me take a look.”

HM1 Newton winced as he pulled off his wetsuit. His throat was red and irritated from where he had been scratching at it. HM1 Newton, who stood about 6 feet 4 inches and weighed a muscle-



Construction Mechanic 1st Class Brandon Burrow, assigned to Underwater Construction Team One (UCT ONE) surveys the wreckage of USNS General Hoyt S. Vandenberg (T-AGM-10) during diver training aboard USAV Matamoros (LCU-2026). (U.S. Navy photo by Mass Communication Specialist 2nd Class Nicholas S. Tenorio/Released)

bound 240 pounds, was the only hospital corpsman on our RHIB.

“Ok camera-guy, get me some water,” EA2 Snyder said, in a way that made me want to comply with his request as quickly as possible and left me scrambling to produce the first bottle of water I could find.

“Agh, that didn’t help, that just moved it!” HM1 Newton shouted after the water touched his skin, recoiling and scratching at his ribs, which were now also red and irritated.

“Ok boat driver, get us back to the LCU (Landing Craft Utility Boat). Radioman, let them know we have a possible diving casualty,” ordered EA2 Snyder, the words spewing from his mouth like a belt-fed machine gun.

The main platform we were operating from, the USAV Matamoros (LCU-2026), was outfitted with recompression chambers, and a host of equipment geared toward performing surface

supplied and scuba diving operations. It also had other hospital corpsman, a diving medical officer, and the medical equipment required to aid our now incapacitated HM1 Newton.

The boat driver shouted, “Comin’ up!” and threw the RHIB into full speed, which bounced like a skipping-stone off of the choppy seas.

“Doc, lay down, and someone get me the O2 and the med kit,” said EA2 Snyder.

Builder 2nd Class Nate Emmett grabbed the kit, handed me a brown bag and opened up the black case.

“Toss that bag to the Diving Supervisor,” he said as he started passing me items from the black case. He handed me a plastic, hospital-grade oxygen mask, a rubber hand pump, and a green oxygen bottle.

“Where is the Epi-Pen?” shouted EA2 Snyder, over the sound of the twin engines, wind, and seas. “No, Epi-Pen

Sup!” replied BU2 Emmett.

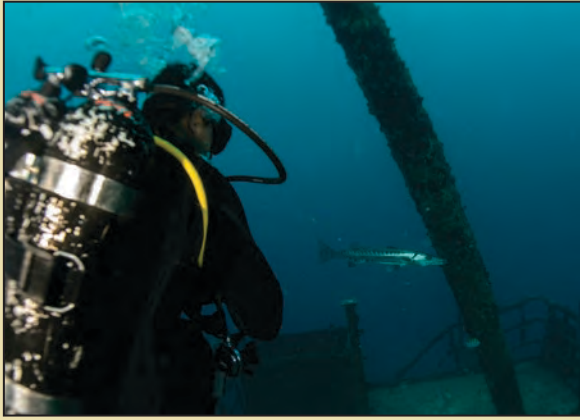
“Jeez, it burns!” HM1 Newton said, gritting his teeth as he balled his hands into two white-knuckled fists.

It was roughly 20 minutes before we reached the LCU. It took two Seabee divers to get HM1 Newton out of the RHIB and onto the deck of the ship.

They were a few feet from the recompression chamber when the large HM1 Newton slumped to his knees and crumpled onto the sun-baked deck like a house of cards.

“Camera guy, bring me the stretcher now!” EA2 Snyder yelled. I hustled over to the RHIB, snatched the orange stretcher, and scurried back to HM1 Newton, who was now gasping for every breath with his eyes closed.

Uh oh, I thought to myself, clutching the stretcher. How, am I going to get this guy who outweighs me by about 90 pounds, and towers over me by nearly half a foot, onto this stretcher.



Utilitiesman 2nd Class Erick Martin assigned to Underwater Construction Team Two (UCT TWO), encounters a barracuda while scuba diving on a wreck during diver training aboard USAV Matamoros (LCU-2026). (U.S. Navy photo by Mass Communication Specialist 3rd Class Tyler N. Thompson/Released)

This guy's going to die. I froze. "No! Don't hand it to me! Put it down and get him on it now!" EA2 Snyder screamed at me like a drill sergeant addressing a new recruit, immediately snapping me out of the daze.

Four men, myself included, knelt down beside HM1 Newton. I'm not sure if it was the adrenaline, but the big hospital corpsman suddenly became easy to roll onto that stretcher.

"His airway is obstructed, and his breathing is labored," shouted one of the Seabees, HM1 Newton now gargling with every inhalation.

"He's going into anaphylactic shock. UT2 Martin, grab the trach kit and the J tube, we may have to cut him," said EA2 Snyder, referring to a procedure called a tracheotomy, which involves creating an incision and opening a hole on the throat above the vocal chords. The resulting hole, or stoma, allows for the insertion of a sterile tube that acts as an alternative airway.

"The [ambulance] is here!" someone shouted. "Ok, get him off the ship and into the ambulance!" screamed EA2 Snyder. "On three," someone said. "One... Two... Three... Lift!"

"And, end of drill!" shouted the Master Diver, overseeing the scenario.

EA2 Snyder let out a huge exhale of relief and chuckled as his signature grin returned to his face, "Jeez, that was a nightmare!"

HM1 Newton calmly unbuckled himself, stood up. "Okay guys, not a bad run," he said. "Now here's what we could have done better."

He then articulated finer points of the medical procedures that could have been employed, and spoke about the positive and negative aspects of the diving scenario.

Throughout the week,

The two-week training evolution between UCT 1 and UCT 2 was designed to reinforce standard operating procedures, qualify personnel, maintain proficiency, and evaluate dive protocol during scuba, surface supplied and recompression chamber operations. Nearly every diver present was put into to Dive Supervisor role, many of whom had never worked with or met one another.

"We do this training in a joint setting, to ensure that all of our divers are working together and that the policies of UCT 1 and UCT 2 align with one another," said Lt. Thomas Hallam, Executive Officer at UCT 1. "These divers are really putting their lives in the hands of the Dive Supervisor. They are responsible for the divers going down, accomplishing the mission, coming back up and being able to go home at the end of the day. We put them under pressure to ensure that can be accomplished no matter the scenario."

"What I've noticed from this team is cohesion," said Captain John Adametz, Commander of Naval Construction Group Two. "When you think about what makes a successful team, it comes down to guys looking out for one another and wanting each other to succeed. They're not about individuals, they're about the team and the mission."

This sentiment was echoed later when EA2 Snyder approached me, smiling his signature smile, to apologize for yelling during the scenario.

He told me he felt bad about it; that the training puts a lot of pressure on the Diving Supervisor and that it is easy to forget it isn't real.

But his apology wasn't necessary. It's comforting to know that if I was suffocating from anaphylactic shock, whether real, or just a scenario, a trained Seabee Diver, like EA2 Snyder, would be ready to drop that smile, jump into action and yell like crazy at a cameraman to save my life.

MC3 (DV) Tyler Thompson is currently assigned to Expeditionary Combat Camera.



Chief Hospital Corpsman Peter M. David, assigned to Underwater Construction Team One (UCT ONE), and Chief Equipment Operator James McVicar, assigned to Underwater Construction Team Two (UCT TWO), simulate a dive casualty during diver training aboard USAV Matamoros (LCU-2026). (U.S. Navy photo by Mass Communication Specialist 2nd Class Nicholas S. Tenorio/Released)

more divers would surface with arterial gas embolism, tension pneumothorax, alternobaric vertigo, and a host of other simulated, diving related injuries all aimed at putting the Seabee divers through stressful scenarios in which they would be expected to perform with a high level of proficiency.

"We're here to break a few eggs, and make a few omelets, said Master Chief Constructionman, Michael "Shane" Jenkins, Command Master Chief of UCT 1. "We're here to make mistakes so we don't make them when it counts."



Seabee Divers Provide SCUBA Academy to Solomon Islands Police Force as Part of Humanitarian Mine Action (HMA) Program

Underwater Construction Team (UCT) TWO's Construction Dive Detachment Charlie (CDDC) is leading the Solomon Islands Police Force (RSIPF) in 5 weeks of basic and advanced SCUBA training as part of the Humanitarian Mine Action (HMA) program. Topics include underwater searching, supervisory skills, and preventative maintenance and safety procedures.



A Seabee Diver from UCT TWO instructs members of the RSIPF in proper SCUBA buddy breathing technique.



Seabee Divers from UCT TWO, instruct members of the RSIPF in mask, fin, and snorkel techniques.



Steel Worker 1st Class (SCW/DV) Cody Oswald, UCT TWO, inspects SCUBA gear of a RSIPF member following a ditch and don evolution.



Utilitiesman 2nd Class (SCW/DV) Erick Martin, UCT TWO, observes members of the RSIPF conduct underwater buddy breathing.

All photos by Equipment Operator 1st Class (SCW/DV) Manuel Terrero



The Old Master

So, I've been asked several times to write this "Old Master" article, and having endured several years of "oh you went to Dive School before I was born" and, in more recent years, from several Chiefs "you were a Master Chief Master Diver when I went to Dive School!" Well here it is; I'm NOT a typist by any stretch of the imagination, plus I'm limited on space so I'll stick to one topic, Leadership.

Now hold on, this isn't meant to be some canned Politically Correct, stay in the manual, don't take risks blah, blah, blah article. This is an embrace your paygrade (especially if it's your terminal paygrade) with vigor. In many conversations I've had with members of our ND community over the past decade, it seems they might not really be aware we've been at War! I get so sick to my stomach when people get behind that "Men of Honor" quote "the Navy Diver

is not a fighting man" blah, blah, blah! Oh really? I guess maybe these people took a different Enlistment oath than I did and use a different "Code of Conduct"! Statements like this serve mainly as enablers to those who continue to make comfort based decisions, and ride the coat tails of those who continually take the hardest assignments. I get it that many of our Commands are much more like working in an industrial American blue collar job, but the fact is we are supposed to be able to do this in a Combat Zone. That is why the Military has Divers. This is just a segue into the broader spectrum of leadership expectations.

The leader's primary job is to develop and train those they are charged with leading, sounds simple enough, right? Take the Master Diver for example, some think that the successful completion of MDV Evals is the crowning achievement, it is a significant milestone worthy of celebration and pride. Successfully leading that is the challenge, to continue to train and develop those under your charge and to realize you are still developing as well. So often I hear "wow these youngsters don't know squat about" you fill in the blank, and then think what did you do to teach them? Who taught you? How did they teach you? Did it work? Will it work on the current generation? Remember the current generation of divers who started as ND's began

in 2006 and by this years end we will have a decade of these. So for my brethren Master Divers, if they don't know something we think they should, it is our fault! The ND rating was built on a pyramid of block principals, the primary goal was to fill all the blocks. Significantly less effort was used to ensure that those in the blocks had the proper knowledge and skills. We even paid huge enlistment bonuses early on to get the base blocks filled and when money is used as a significant lure, it can create challenges of its own. Why was significant effort not put on knowledge and skills? Because Master Divers are expected to do this part! Train your people to master their craft, which is our #1 priority. If you're a senior MDV you also have the challenge of developing the young junior MDV's, albeit not always welcome. When I say develop the junior MDV's, I'm not talking about technically, because they are at the top of the Dive Manuals technical knowledge at this point. Heck the Dive Manual has been revised more since I've been a MDV than it was in its history when I made MDV.

So I'm all about keeping it simple, following simple guidelines and doing all I can to ensure those I'm trusted with leading get every opportunity to hone and master the skills required to master their craft. We have our own Ethos, there is the Chief Petty Officers Mission, Vision and Guiding Principles, the Navy Ethos, Code of Conduct, the Vikings 9 Noble Virtues etc. Does a 9 day Salvage ULT replace years of experience aboard ATF, ARS, ATS, ASR, Ships? No, but it is measurable base line from which to build - as is the USCG Cold Water Ice Diving Training. You won't graduate an expert, but you will have the knowledge and skills to build on! I was raised in a Navy where Sailors were meant to be on Ships and Ships were made to be at Sea; land was merely a hazard to navigation. That is no longer the case! You, the current generation of Leaders, MUST continue to push for training and exercises that develop and train our Divers to be relevant in this long and difficult fight against an unconventional enemy. In closing, I offer this motivator I borrowed in part from a SARC HMCS Brother; "Somewhere a true believer is training to kill you. He is training with minimum food and water, in austere conditions, day and night. The only thing clean on him is his weapon. He doesn't worry about what workout to do - his rucksack weighs what it weighs, and he runs until the enemy stops chasing him. The true believer doesn't care how hard it is; he knows that he either wins or dies. He doesn't go home at 1700; he is home. He only knows The Cause." Now, have you done all you can to ensure you and those you have been trusted to lead are prepared succeed in the fight with this enemy?" If not, get to it!! Hoo-Yah!



NDCM(MDV) Mark Leet



RADM White

Conducts an Underwater Awards Ceremony



RADM White, Commander Naval Education and Training Command, was conducting an underwater awards ceremony on Tuesday 28 Oct. The awardee was BU1(SCWS/DV) Joshua Sisson, NDSTC and CEODD's 2014 Instructor of the Year. BU1 Sisson was the lead instructor for a Mobile Training Team that travelled to Vietnam to train Vietnamese People's Navy special operations in SCUBA diving.

2015 MDTC

MILITARY DIVERS TRAINING CONTINUUM

**05 - 07 May
Panama City, FL**

Highlights

- Guest Speaker
- Risk Analysis
- Briefs: Detailer/ECM, Safety Center, WESS, DAN, ESSM
- Case Studies
- Discussion Items
- Review Panel
- Diving Manual Updates

Training

- Acrylic Window Inspection
- DP Overview & Set-up
- Salvage Calculations
- Comms (KM37/MK20)
- SDRW Repair
- Poseidon Scuba Regulator
- Dive Computers
- O2 Worker

Registration & Information
<https://secure.supsalv.org/>