



FACEPLATE

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

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In This Issue...

***Multinational Underwater Repair Engagement
CTG 56.1 Battle Damage/Repair and Tow Exercise
Waterborne Installation of USS IWO JIMA Rudders***

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.

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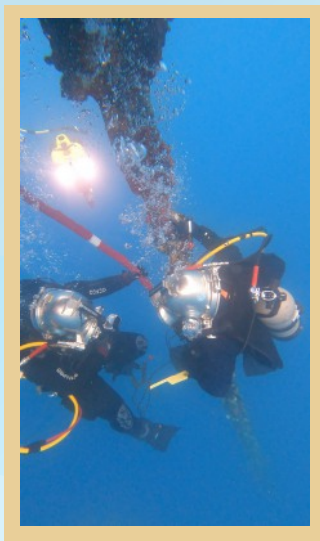
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Cover



Steel Worker Second Class Andrew Cuellar of UCT TWO and Chief Petty Officer JinHan KIM of the ROK UCT conduct a fleet mooring inspection and replace anodes in Outer Apra Harbor Guam with a ROK UCT Remotely Operated Vehicle (ROV) watching overhead on September 21, 2023 during MURENG 2023. Photo by Senior Chief Petty Officer Haejin JIN, ROK UCT.





SUPSALV SENDS...CAPT Sal Suarez

Hooyah and greetings to all. There has been so much going on over the last six months, it's hard to know where to start! From the successful SATFADS mission in Papua New Guinea in support of the Defense POW/MIA Accounting Agency (DPAA), to the extensive shaft repairs on the self-defense test ship in Port Hueneme, Ex-PAUL F. FOSTER, by a team of Southwest Regional Maintenance Center (SWRMC) and contract divers... there is a lot of waterfront activity. These are merely two examples of outstanding waterfront efforts, demonstrating grit and determination to get after challenging work.

I was recently able to meet with the lockers out at SWRMC and the Undersea Rescue Command (URC) – walked the spaces and looked at equipment, and (most importantly) met some of the hard working people assigned to both units! Over at URC, I was able to meet with leadership, tour the equipment with operators, and further promote a good working relationship between our offices. I then had a great discussion over at the SWRMC locker about Battle Damage Repair (BDR) planning efforts, notional associated equipment, and even a quick discussion about the planned capabilities that the future salvage ships (T-ATS) will provide. A lot of that is still to be defined and demonstrated, specifically BDR requirements and T-ATS capabilities as they hit the fleet in the next few years, but it was a great opportunity to hear some of what the waterfront is thinking about.

I want to take this time to provide a quick background note on NAVSEA's role in BDR response development... in reply to the Government Accountability Office (GAO) report from 2021 regarding actions required to improve planning for and response to BDR capabilities, the Navy designated NAVSEA to lead and oversee the continued development of the Navy's BDR capability. This led to the establishment



of the Warfighting Readiness division (SEA00R), led by RDML Dodson. RDML Dodson's team will ultimately establish the requirements that will be used to define what lower echelon organizations will be held responsible for with respect to BDR response. Although requirements are still being defined, BDR capability will ultimately be led by the personnel at our waterfront repair organizations, specifically the Regional Maintenance Centers and Naval Shipyards, which includes their associated dive lockers. Ultimately, SEA00R's effort will solidify and streamline the response to meet fleet requirements and will heavily leverage previous forward repair response performance, lessons learned, and demonstrated best practices, and it will undoubtedly require us to work across organizations to ensure we're all ready to perform when called.

An example of working across organizations to uniquely define and repeatedly demonstrate the ability to meet requirements was a recent Navy-Coast Guard pollution response exercise in Seward, AK. Originating from after action reports on the Deepwater Horizon oil spill disaster response and then a proof of concept exercise in 2012, this process has become the standard operating procedure to

maximize the efficiency of a national level emergency response capability. Here, SUPSALV pollution response personnel and the Emergency Ship Salvage Material (ESSM) contractor force demonstrated the deployment and operation of the Navy's NOFI fast current boom system from the decks of a USCG buoy tender. This combination of USCG platforms with SUPSALV pollution equipment allows both organizations to meet pollution response requirements and is now demonstrated on the order of two to three times per year in various oil spill exercises. Despite demonstrated proficiency, there is always room for learning and refining expertise to ensure deployment will be smooth when called upon (though we all hope the scale of oil spill that this is designed to respond to will never be needed again). Thus, based on response requirements, this was another great demonstration of performance against those requirements and drives home the fact that performance is expected to speak for itself when push comes to shove. I know we can all agree that, while often times seemingly mundane and duplicitous, repeated training and practice is required to ensure we stay sharp on the skills that our organizations are relied upon for, the same ones the fleet and nation expect of us.

As I write this, we are preparing for another meeting of the Salvage Executive Steering Committee, where my intent is to focus on fleet salvage requirements and how we, as a Navy, are poised to meet them. The fight tomorrow will most likely encompass the entire range of diving and salvage missions, most notably harbor clearance, towing, and emergent repairs. Our focus must be on ensuring our personnel and equipment are ready to respond. As always, I'm excited to be here and continue to be amazed by what you all do. Hooyah, Deep Sea!

They got it to work....

now let's make it work better.

By: Thomas Payne

About 15 years ago, the fleet requested the assistance of the UWSH division of SUPSALV (00C5) to support a waterborne replacement of an Electrical Hull Fitting/Penetration (EHF/EHP) on an Ohio class submarine. For those that don't know, an EHF/EHP is SUBSAFE electrical connector installed in the pressure hull of a submarine that provides a connection from the inside of the submarine to the many electrical components outside the pressure hull; predominantly in the Main Ballasts Tanks (MBT). The EHF/EHP is installed in a Hull Insert, which is a metal cylinder (welded to the hull at construction) that acts as the sea chest for an EHF/EHP as can be seen in Figures 2 and 5. Note: An EHF and EHP are the same component but they are called EHF's on 688 and Ohio class boats, while 774 and 21 class boats use EHP.

For the Ohio repair, an accelerated development schedule was required to meet the sub's deployment schedule, a common requirement

for 00C5 projects. Within less than a month, a cofferdam solution was developed, fabricated, and used to successfully repair the submarine so that she could carry out her mission. The repair plan was relatively straight forward; a cofferdam is installed on the inboard side of the hull (pressurized to the same pressure as in the MBT), and then the EHF/EHP is removed/replaced from the ballast tank side.

The original EHF cofferdam design would look familiar to any UWSH diver. It was a basic top hat style with a 2-inch foam gasket attached to a flat flange that sealed against a curved hull. Installation required 7 studs to be welded to the pressure hull that bolt the cofferdam down and compress the gasket. EHPs have about 15-20 feet of cable on the inboard side, so a long non-collapsible hose (pressure rated tubing) was connected to the top hat to contain the cable whip. Figure 1 shows the original cofferdam with a shortened length of tubing that was used for testing. This cofferdam de-

sign was used several times throughout the years to successfully replace EHF's... but not without its problems.

Many divers have uttered the phrase, "We got it to work" with a combination of pride in accomplishment, relief that the job is behind them, and hope to never do it again. Some see this expression as validation of the design, while others recognize it means there is room for improvement.

The primary flaw with the old design is that it required 7 studs to be welded completely straight in a very precise pattern. Performing this task on a curved hull is not easy, even for an experienced ship fitter. The studs passed through the cofferdam gasket which, if misaligned, created two issues. First, they pulled on the gasket thus opening up the gasket holes and creating a leak path. Also, they interfered with the cofferdam flange, preventing full compression of the gasket.

In January of 2022, the above scenario prevented an EHP cofferdam from holding a seal due to the



Figure 1 - Original Design (short tube for testing)

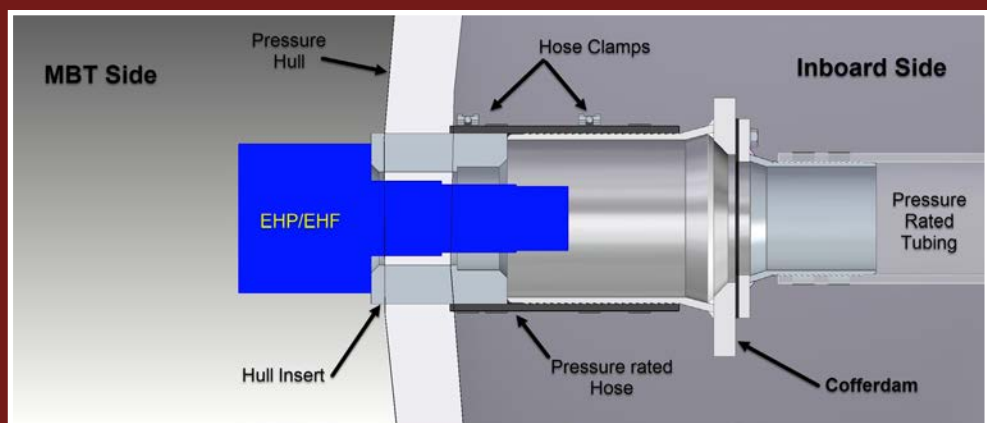


Figure 2 - COTS Based 6" EHP Cofferdam Cross Section

studs being slightly misaligned. There was not sufficient time in the availability to re-weld the studs so the job was pushed to the next availability. 00C5 engineers recognized that in order to ensure the success of future repairs, the cofferdam needed to be redesigned to eliminate the need for precision stud welding.

Two new concepts were developed. One design was more cost effective because it integrated commercial off the shelf (COTS) components into the build. The COTS component was compatible with the current repair location, but due to limited size options, the design could not be universally applied to all EHF/EHP locations. The second concept was based on an O-ring interface with the EHP hull insert. The O-ring based concept had a much broader applicability but would be more expensive to design and fabricate.

Six months later, 00C5 engineers returned with the new COTS based design (Figures 2, 3, 4). It was easy to install, held pressure without issue, and was used to successfully replace the faulty EHP. This design eliminates the foam gasket and reduces the number of studs needed from 7 to only 3 with considerable allowance for stud placement. In the original design, the studs were needed to maintain a seal, however for this new design, the studs are only required to ensure the cofferdam is not dislodged during the repair. Instead of sealing against the curved hull, the new design seals to the EHF/EHP Hull Insert using a COTS pressure rated industrial hose. The seal is made by pushing the hose over the Hull Insert and tightening in place with industrial hose clamps. For this particular repair location, COTS pressure rated hose could be employed because the diameter of the Hull Insert is common to COTS pipe and hose dimensions and it protrudes inboard a generous amount providing plenty of surface area for the hose to seal against. Simple, yet effective.

Around this time another repair activity requested 00C5 provide a waterborne repair option for a dif-

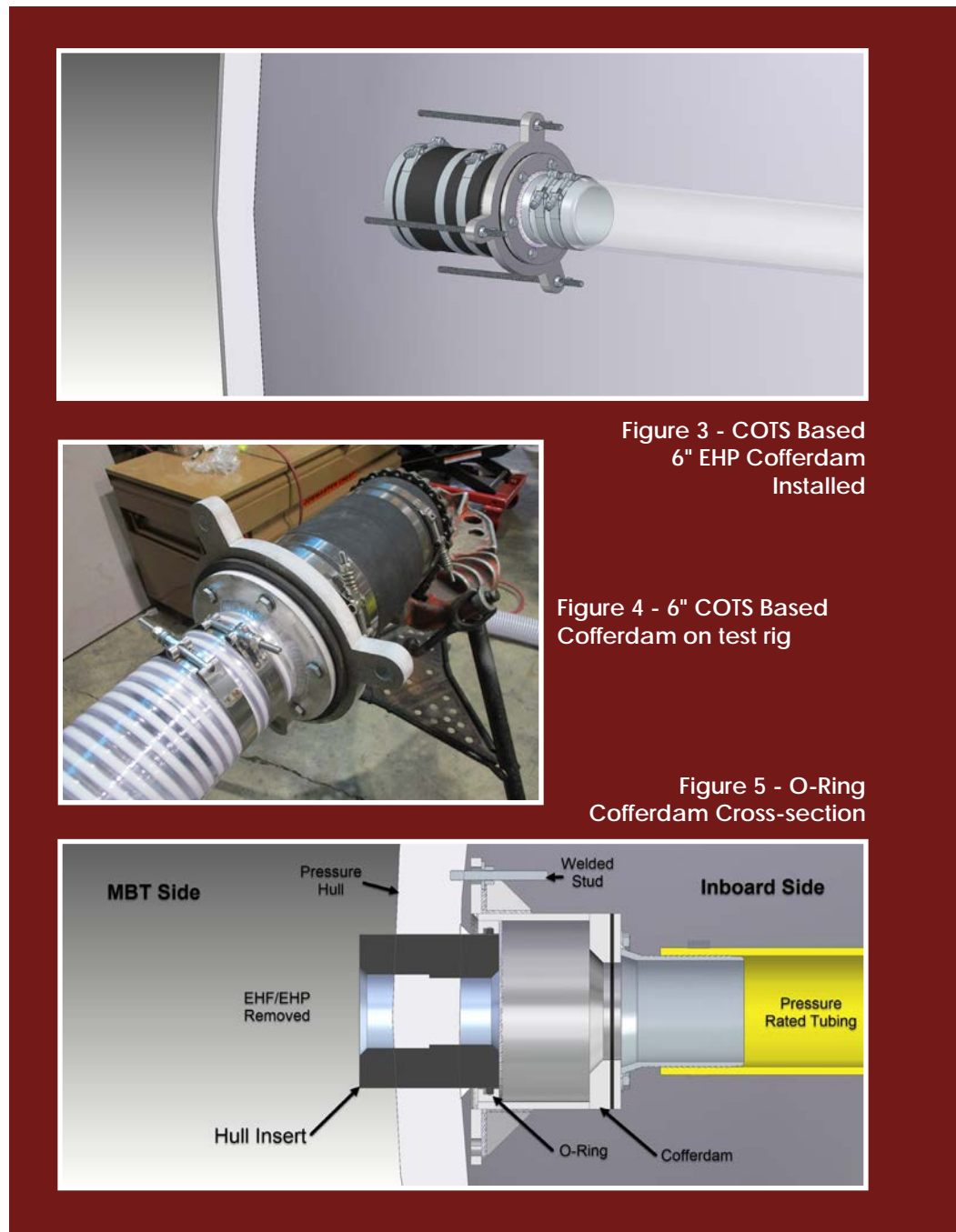


Figure 3 - COTS Based 6" EHP Cofferdam Installed

Figure 4 - 6" COTS Based Cofferdam on test rig

Figure 5 - O-Ring Cofferdam Cross-section

ferent faulty EHP. The Hull Insert for this EHP didn't have a diameter that matched COTS pressure rated industrial hose sizes, preventing the design that worked so well previously from being used in this application. Instead, 00C5 engineers designed a cofferdam that sealed against the Hull Insert using an O-ring seal (Figures 5, 6). Once more, 3 studs are needed to be welded to the hull. Much like the previous cofferdam, there is a generous allowance for placement, and they only serve the purpose of preventing

the cofferdam from being inadvertently dislodged mid repair. In June of 2023, the O-ring cofferdam was successfully used to replace another EHP.

With two proven designs now in our inventory, 00C5 will continue designing additional EHP cofferdams to meet the future needs of the fleet. When the next EHF/EHP needs to be repaired, we will be ready with a design that not only works, but works better.

Thomas Payne is currently the UWSH Engineer for Submarines at NAVSEA 00C.

Command in the **SPOTLIGHT**

Naval Undersea Warfare Center Division Keyport

By: CWO2 Ryan Foster and NDCM Jericho Diego

Dive Locker Background

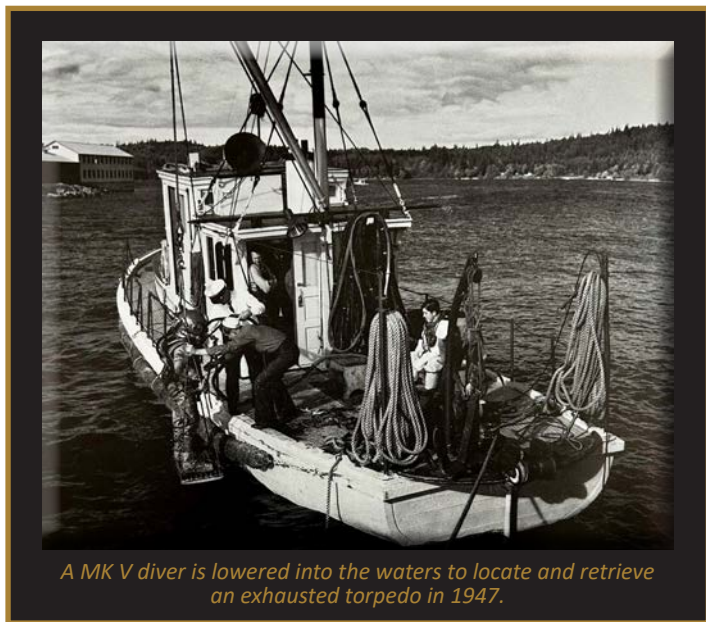
In the early 1900s, Keyport was referred to as Torpedo Town U.S.A. The Naval Station was established to advance development and testing of torpedoes for the Pacific Fleet. These technical advances required Navy Divers to be present during all in-water Research, Development, Testing, and Evaluation (RDT&E). In 1919, Keyport held its first diving course for nine Sailors. These brave young men were trained to dive to 40 feet to locate and retrieve test shapes that were shot on the local range at Dabob Bay. After a few diving accidents and divers developing Caisson Disease, a Recompression Chamber was constructed from an old boiler in 1930 to treat Sailors suffering from the "Bends." Throughout the years, the Dive Locker's capabilities have grown and it now provides diving support throughout the Fleet.

What We Do

Now known as Naval Undersea Warfare Center (NUWC) Division, Keyport – the Dive Locker carries on the tradition of RDT&E for autonomous underwater systems, and offensive and defensive weapon systems associated with undersea warfare in both Washington State and The Canadian Forces Maritime Experimental and Test Ranges at Nanoose Bay, Canada. The Recompression Chamber, also known as "The Whale," continues to provide emergency recompression chamber support for Navy Region Northwest. As a warfare center department, the Dive Locker provides diving support and end user feedback in the development of the Navy's newest one atmosphere suit, the Deep Sea Expeditionary No "D" (DSEND) Suit. Additionally, the dive team supports the testing and evaluation phases for the Orca XLUV autonomous vehicle program. The Dive Locker frequently travels to Alaska and Idaho to support rigging evolutions and repairs that contribute to acoustic testing for submarines, underwater assets, and undersea warfare development. The Dive Locker is also responsible with developing dive plans and evolutions with Special Operations Command Program Managers to operate new underwater equipment before it is used by Special Warfare personnel.

Range Operations

For more than a century, NUWC Division, Keyport divers were required to retrieve exhausted torpedoes and deliver them back to the firing pier. To this day, the local test ranges are where the divers predominantly employ their skills doing what Navy Diving was created to do! The team is trained to familiarize themselves with the procedures and safety precautions necessary for the recovery of MK46, MK48, MK54 torpedoes, to include general and experimental test vehicles.



A MK V diver is lowered into the waters to locate and retrieve an exhausted torpedo in 1947.



The Whale – The Oldest Certified Chamber in the US Navy - Circa 1930

“The Whale”

“The Whale” has served as an emergency recompression chamber since circa 1930. It is the oldest operational chamber in the Navy and continues to successfully treat divers for diving illnesses and provide vital Hyperbaric Oxygen Therapy (HBOT) for patients. Just this past year, over 40 HBOTs and one Arterial Gas Embolism treatment were administered in the chamber. All patients successfully recovered from their illnesses and were returned back to full active duty status. Recently, the dive team, with the assistance of Highstar and guidance/approval from NAVSEA, made major upgrades to the chamber to increase its capabilities to meet current NAVSEA standards. In the past, “The Whale” was certified by Naval Facilities Engineering Command (NAVFAC) and was recently transferred to NAVSEA in 2021. This made it possible to better align certification requirements, maintenance schedules, and the development of unique repair/design procedures authorized by the System Certification Authority (SCA) and program managers.

One of the unique designs of “The Whale” when it was originally built in 1930 were two-way drive valves that allowed divers to compress themselves in the chamber without the assistance of topside personnel. The divers would use old caisson gauges to monitor their depth during the treatment. Although the operation of the chamber was safe and functional for emergency use, the team, with the concurrence of NAVSEA, made the decision to modify “The Whale” and increase its capabilities, per the U.S. Navy Diving Manual. The modifications include adding a CO2 scrubber and an updated environmental monitoring system, LED lighting, interior camera monitoring system, the addition of air bibs and the removal of numerous piping, volume tank and filters throughout the system. During the recertification process, the SCA, Master Chief Master Diver (Ret.) Eric Frank stated, “The modification was critical to maintaining modern NAVSEA chamber requirements. It will be classified as a Class “A” chamber in accordance with the new revision of the U.S. Navy Dive Manual. “The Whale” is the best shore chamber in the Navy comparable to Standard Navy Double Lock Recompression Chambers throughout the fleet.”



NAVSEA SCA Eric Frank observes and certifies manned recompression chamber operations following recent modifications and upgrades to the system.



NUWC divers assemble and conduct pre-dives on the DSEND suit.

Deep Sea Expeditionary No-Decompression Suit (DSEND)

If you were present at this year's Military Diver Training Continuum, you had the opportunity to see the DSEND suit in action. Working in parallel with the Office of Naval Research, NAVSEA 00C3 Diving Programs Division and Johns Hopkins University, NUWC Division, Keyport Divers are the primary dive team for the program.

The initiative to re-introduce a new and improved suit is driven by deep-diving safety, increased capabilities and keeping humans at depth. The objective is to develop the next-generation atmospheric diving suit that uses new, highly flexible, low resistance joints; is lightweight (300 lbs); and is easy to transport and deploy via commercial vessel of opportunity (VOO).

Currently, the divers are qualifying as EXOSUIT (Canadian Atmospheric Diving Suit) technicians and supervisors at the Nuytco Research training facility in Vancouver, Canada. These newly qualified personnel will be the subject matter experts when diving and demonstrating the DSEND suit capabilities across the fleet. The layout plan for the first pressurized suit demonstration is tentatively scheduled for the third quarter of fiscal year 24. This initial prototype will be air-transportable and provide life support and habitability features capable of sustaining one diver to a maximum depth of 50fsw with the ability to conduct demonstration dives in-water up to three hours in duration during the test and evaluation (T&E) period.

Acoustic Testing Sites

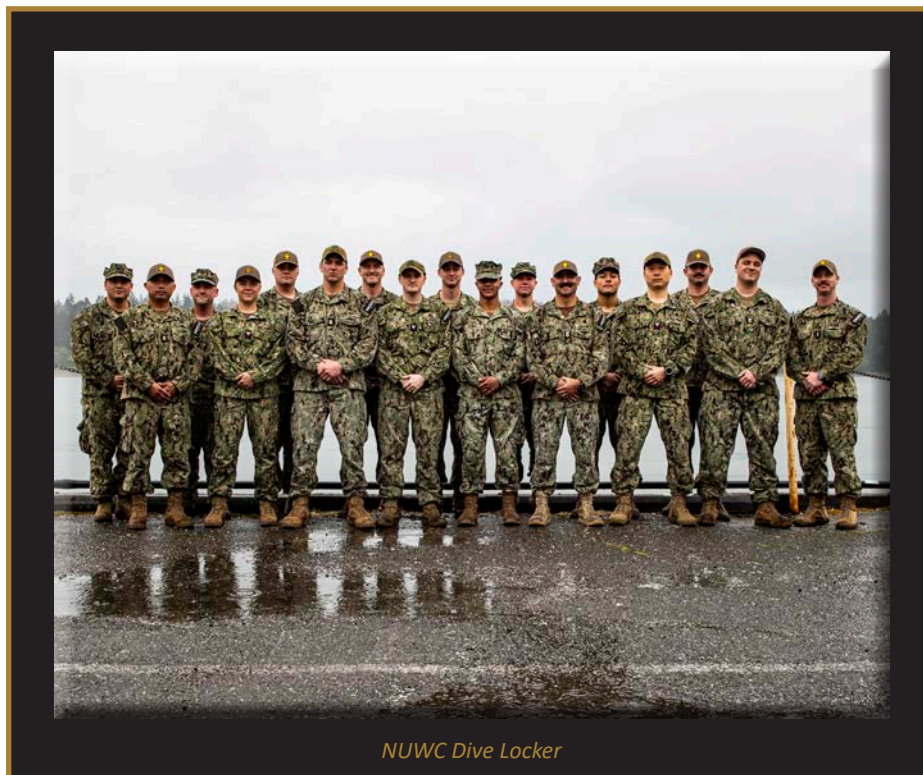
Carderock's Southeast Alaska Acoustic Measurement Facility (SEAFAC) provides the capability to perform RDT&E evaluations to determine the sources of radiated acoustic noise, to assess vulnerability, and to develop quieting measures. Navy Divers work diligently with the SEAFAC crew during pre-trial inspection of all acoustic equipment and mooring gear; support line-handling, coxswain and winch operator positions while the Test Vessel is mooring in the static site; propeller cleaning; provide operational and chamber support to Seal Delivery Vehicle Team; and, emergency pinger replacement in the event of a failure.

The facility consists of a site to collect acoustic signatures of submerged submarines underway, and a unique site to measure acoustic signatures of motionless (static) submerged submarines with various onboard machinery secured or under unloaded operation. At the static site, suspension barges lower the submarine on cables and position it between measurement arrays to evaluate acoustic signatures of individual machinery components. From the stem to stern, NUWC Keyport divers play a vital role ensuring the sound trial success of the Navy's critical undersea warfare vessels and components.



SOCOM

In support of Special Operation Forces Combat Diving, the NUWC Division, Keyport Dive Locker has directly supported multiple Developmental Testing (DT) plans designed to evaluate undersea communications systems. NUWC Division, Keyport's critical role ensures the execution of DT plans and requires meticulous attention to detail in order to provide the data needed to document these RDT&E efforts. In order to minimize risks while maximizing mission success, underwater combat diver communication is reliant on efficient and reliable underwater communication devices. These systems come in various configurations including, a diver worn transponder and a wrist device, about the size of a Navy Dive Computer.



CONCLUSION

The beauty of being stationed at the Naval Undersea Warfare Center Division, Keyport Dive Locker for divers young and old, is the scope of operational possibilities. They are not limited to torpedo recovery, in which has been a misperception across the diving community for years and hold one of the longest standing traditions in the history of U.S. Navy diving. Whether supporting RDT&E efforts, torpedo recovery or treating patients in the oldest operational chamber in the Navy, Keyport divers have paved the way for our reliefs for 100+ years. Growing to support the broader military objectives, the team has adapted to the ever-changing undersea research and development requirements globally.

CWO2 Ryan Foster serves as the NUWC Keyport Command Diving Officer.

NDCM Jericho Diego serves as the NUWC Keyport Command Master Diver.

EXU-1 Conducts Maritime Post-Blast Investigation Course

By: Holly Dodds, Public Affairs Specialist, NSWC Indian Head Division

U.S. Navy Explosive Ordnance Disposal (EOD) Expeditionary Exploitation Unit One (EXU-1) alongside the FBI's Critical Incident Response Group (CIRG) conducted a maritime post-blast investigation course at Naval Air Station (NAS) Key West, Florida, June 2-9. The course focused on training EOD exploitation specialists in the tactics, techniques, and procedures regarding underwater search techniques and the subsequent gathering of Collectable Exploitable Material in a maritime environment.

NAS Key West offered the ideal operational atmosphere for the course, which encompassed a full week of classroom briefs, diving and case study analysis for the explosive exploitation specialists. The operators ultimately complete the course in the thorough and conclusive exploitation of materials of an explosion or detonation that occurred below, at, or above the waterline.

"The main goal is for EXU-1 operators to apply combat post-blast knowledge to a maritime environment," said EXU-1 Training and Readiness Officer Lt. Roy Wiggins. "This course of instruction prepares explosive exploitation specialists to

execute core requirements aligned with the National Defense Strategy by enabling the operators to meet the unique challenges associated with conducting underwater post-blast operations or exploitation of foreign ordnance, IEDs and underwater systems."



U.K. Royal Navy Diving and Threat Exploitation Group, Delta Diving Unit One Lt. Ali Aindow participates in the underwater portion of the maritime post-blast investigation course at Naval Air Station Key West, June 2-9.

The course was comprised of personnel from the U.S. Navy EOD community, the FBI CIRG, the U.K. Royal Navy Diving and Threat Exploitation Group (DTXG), as well as NATO partner forces. U.K. Royal Navy Mine Clearance Diver and EXU-1 Personnel Exchange Program Officer from DTXG Lt. Cmdr. Chris Barber said the sustained attendance at the course provides clearance divers with access to the gold standard in exploitation training in a maritime environment.

"Supported by our EXU-1 brethren, the U.K. Royal Navy continues to cement a niche capability that provides unique strategic military effects for the U.K. and partner nations," Barber said. "Whilst we are training the team here to look at the detailed tactical picture through forensic collection and analysis; they are learning that exploitation in an era of day-to-day competition

provides the international community with an understanding of rapidly evolving threats and a subsequent means to counter them, and protect the force."

By integrating and executing these complex training scenarios alongside mission partners, EXU-1 is able to strengthen relationships across the allied EOD community and optimize capacity to meet mission requirements and theater strategies.

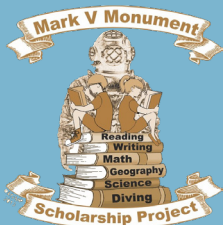
"When properly executed, this process leads to improved intelligence directly supporting attribution, targeting, and prosecution efforts. This course ensures our operators have the ability to enable the attribution of malign activities to state and non-state actors to inform decision-making," Wiggins said. "Additionally, this course enables EXU-1 to prevent technological surprise and characterize foreign military capabilities."

EXU-1 is an operationally deployable Type II, Echelon V command aligned under Naval Surface Warfare Center Indian Head Division (NSWC IHD). The unit hosts a variety of platoons designed to collect, process, exploit and analyze improvised threats, advanced weapons systems, munitions, ordnance, unmanned systems, and strategic infrastructure on land and sea to provide real-time targeting information and intelligence to EOD forces. EXU-1 was commissioned in June 2018 as an Echelon V afloat command and reports to NSWC IHD Commanding Officer Capt. Eric Correll, who serves as the immediate superior in command to EXU-1.

Holly Dodds is a Public Affairs Specialist at Naval Surface Warfare Center Indian Head Division.



An Expeditionary Exploitation Unit One Technical Exploitation Platoon member collects evidence during a site exploitation training scenario.



Mark V Monument Scholarship Project

By: Steve Mulholland

'JAKE' is believed to be the most visited monument in the State of Florida and is formally dedicated to all US Military diver graduates. It celebrates the traditions of divers around the world who have given their life's work to underwater ships husbandry, underwater construction, salvage of ships lost at sea, combat, and clandestine missions.

Between 2014 and 2022 there have been 30 students that have received scholarships ranging between \$500 and \$3000 dollars. And thanks to generous donations from our friends, fellow Military Divers and fundraising events, we are pleased to be able to allocate \$9500 in scholarship funds for 2023. Congratulations to the following students that were selected as recipients of the 2023 MKV Monument Scholarship:

Dylan Casey of Chesapeake, VA

Kendall Coreil of Panama City Beach, FL

Katerina Gibson of Chesapeake, VA

Mia Gibson of Chesapeake, VA

Sarah Frey of Christchurch, New Zealand

Savannah Stover of Chesapeake, VA

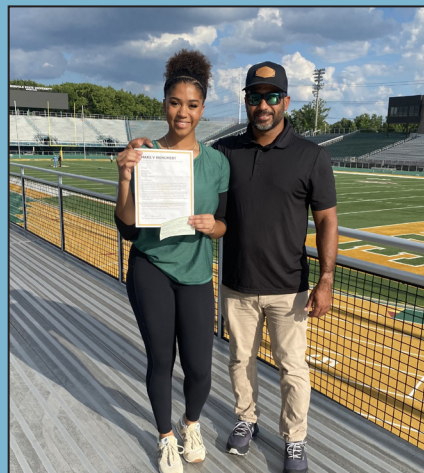
A colossal thank you to this year's sponsor, The Diver Recall. Chuck and Becky ran an awesome event and had a great team of supporters!

We are also honored to have teamed up with the board of directors from the Institute of Diving. Working with the Man in the Sea Museum, our combined efforts will ensure we continue this great scholarship and honor the legacy of Dave Sullivan, our founder.

If you would like information on how to apply for our 2024 scholarships or support one of our fundraising events, please visit us at: www.mkvmonument.org.



Kendall with her parents CK and Kristen



Savannah with her Father Daniel



COMMANDER TASK GROUP 56.1 BATTLE DAMAGE ASSESSMENT/REPAIR AND TOW EXERCISE

By: CW02 Jordan DeFarcy

Commander, Task Group FIVE SIX POINT ONE (CTG 56.1) Navy Divers (ND) and Explosive Ordnance Disposal Technicians (EOD) conducted the first-ever Commander, FIFTH Fleet (C5F) at-sea Battle Damage Assessment and Repair (BDA/R) and Tow exercise 11 nautical miles off the coast of Bahrain from 21-23 May 2023. The exercise showcased cross-Task Force cooperation and interoperability throughout C5F and validated a forward-deployed Mobile Diving and Salvage (MDS) Company's capability to conduct at-sea BDA/R during Major Combat Operations (MCO).

To set the scene for the format of

the exercise, TG 56.1 was tasked to respond to a below the water line mine strike and an above the waterline missile strike, resulting in Unexploded Ordnance (UXO) aboard the USS GLADIATOR (MCM 11). Once the UXO was rendered safe and an initial damage survey and repairs were made, the MDS Company was tasked to tow the stricken vessel back to safe harbor at Naval Support Activity, Bahrain, for turnover to Forward Deployed Regional Maintenance Center (FDRMC).

Major events that took place during the exercise included a helicopter insertion of an Initial Entry Team (IET) consisting of MDS and EOD personnel with the capability to conduct at-sea BDA dives and embarkation of EOD Technicians to perform Render Safe Procedures (RSP) of the UXO residing in the aft storage locker aboard the USS GLADIATOR. The Main Body Response (MBR) embarked the USNS CATAWBA (T-ATF 168) and got underway with required repair material for at-sea repair, conducted Surface Supplied Diving with both vessels nested at-sea, which culminated in the towing of the USS GLADIATOR.

Naval Sea Systems Command (NAVSEA), Navy Expeditionary Combat Command (NECC) and Military

Sealift Command (MSC) collectively formed the Navy Salvage Triad. During the exercise, all three parts of the Navy Salvage Triad were exercised through NAVSEA's Emergency Ship's Salvage Material (ESSM) warehouse in Bahrain, Navy Expeditionary Combat Forces Central (NECFC) headquartered in Bahrain, and MSC's USNS CATAWBA (T-ATF 168).

The BDA/R exercise development was largely influenced by the emerging Ship Wartime Maintenance and Repair (SWaRM) model presented in the U.S. Pacific Fleet Concept Paper published in April, 2021. In an effort to build upon this concept and validate the relevancy of required MDS Company competencies outlined in the SWaRM concept, TU 56.1.2 (MDS) leadership built upon lessons learned highlighted in previous BDA/R and SWaRM Exercise After Action Reports (AAR) – specifically, Mobile Diving and Salvage Unit (MDSU) ONE's SWARMEX 22-3 on Ex-DENVER (June 2022), NAVSEA 00C SWaRM Afloat Salvage Training on former BONHOMME RICHARD (LHD 6) (July 2021), MDSU ONE's ExBDA/R on former BONHOMME RICHARD (LHD 6) (May-Jun 2021), and MDSU TWO's ExBDR event on Ex-BOONE in conjunction with C6F SINKEX (2022).



LT Andrew Engelhardt and EOD2 Joel Wittel preparing for Render Safe Procedures during Unexploded Ordnance phase of the exercise.



CTG 56.1 Divers and EOD Technicians recovering into MH-60S helicopter following Cast training.

Due to ongoing doctrinal development to officially recognize the SWaRM concept, additional source documents were necessary during exercise development. These documents were the Navy Tactics, Techniques, and Procedures Mobile Diving and Salvage Operations (NTTP 3-10.5), Navy Warfare Publication Navy Salvage Operations (NWP 4-12) and the United States Government Accountability Office's June 2021 report to Congressional Committees titled *Navy Ships - Timely Actions Needed to Improve Planning and Develop Capabilities for Battle Damage Repair* (GAO-21-246). The exercise events and aggregate literature validates the relevant competencies an MDS Company needs to be proficient in to ensure mission success during MCO.

Planning for the BDA/R and Tow exercise began in early February 2023, shortly after EODMU ELEVEN Det MDS Navy Divers assumed the role of TU 56.1.2 in Manama, Bahrain. Initial planning efforts were captured during three (3x) In Progress Reviews (IPRs) that lead to two (2x) Operational Planning Team (OPT) meetings which included members from CTF 56, CTF 53, CTF 52, USS GLADIATOR (GLA), USNS CATAWBA (CAT), FDRMC, MSC, and helicopter squadrons HSC-26 and HM-15.

Once schedules were de-conflicted for all participants and a viable Window of Opportunity (WOO) was iden-

tified, the Concept of Operations was drafted and presented to CTF 56 Commodore for approval with concurrence from CTF 52 and CTF 53. Striving for a "crawl-walk-run approach", TU 56.1.2 members conducted iterative work-up training in the months leading up to execution. Training consisted of:

1. Helicopter Rope Suspension Techniques (HRST): MDS personnel conducted fast rope and rappel training from the TG 56.1 tower to certify MDS Company personnel as basic ropers. This qualification provides MDS personnel the ability to conduct multiple helicopter insertion methods into BDA/R scenarios.
2. Static CAST Refresher Training: In conjunction with EOD personnel, the MDS Company conducted walk throughs and rehearsals of CAST operations with HM-15 personnel in preparation of the planned insertion method for this event.
3. MH-53E CAST Evolutions: In conjunction with ExMCM, MDS conducted two (2x) CAST evolutions of personnel and "hard duck" F-580 Combat Rubber Raiding Craft (CRRC) with equipment from HM-15 MH-53E helicopters in preparation for the IET insertion.
4. MH-60S CAST Evolutions: MDS personnel conducted two (2x) CAST evolutions of personnel with HSC-26 for HRST/C proficiency training.
5. Cutting/Welding Proficiency Training: MDS personnel performed cutting and welding training on the TG 56.1 compound utilizing organic MDS TOA. Though actual cutting and welding was not performed during the BDA/R and Tow evolution, the fundamental skills were exercised in preparation for war-time repairs or follow on training on inactive (INACT) fleet vessels.
6. Pier-side Surface Supplied Diving (SSD): The MDS Company conducted multiple iterations of pier-side diving on Naval Station Bahrain (NSA) II. They also coordinated with the USNS CATAWBA while she was pier-side to conduct realistic SSD to simulate the oper-

ating environment for the exercise. Diving equipment to include SCUBA, KM-37 and MK-20 Underwater Breathing Apparatuses were used in preparation for this event.

On 21 May, twelve (12x) TU 56.1.2 NDs embarked the CAT and transited to the Operation Area (OPAREA) in Kahlifa Field, roughly 11 nautical miles off the coast of Bahrain. The importance of balancing safety, diving procedures, and exercise realism, necessitated both vessels to be in a two-point moor (and nested) at-sea prior to the commencement of diving operations. Although this did not present the most realistic framework, it was vitally important to meet the broader intent of the exercise as a whole. The GLA made way to the OPAREA and set into a two-point moor utilizing the aft mooring leg (STATO anchor with one shot of chain) placed by the NDs and CAT crew. With the GLA secure in the moor, the CAT rafted alongside after dropping her forward and aft mooring legs.

Upon notification that both vessels were securely moored on day two (22 May), the IET loaded into the MH-53E standing by at NSA III. The CRRC was secured within the helicopter, fully loaded with all required BDA SCUBA diving equipment and EOD response and ROCO gear. IET gear was secured inside the CRRC in preparation for the CAST. The IET crew transited roughly 25 minutes to the OPAREA for the first-ever BDA/R exercise CAST insertion and final one-mile transit via CRRC to the "stricken"



CTG 56.1 EOD Technicians embark USS GLADIATOR (MCM 11) to respond to Unexploded Ordnance phase of the exercise.

MCMV. Once on station, the IET Diving Supervisor conducted underwater BDA to gather data required by the MBR (currently embarked on the CAT) to perform at-sea repairs to the GLA. Concurrently, EOD Technicians from the IET embarked the GLA and conducted UXO RSPs and ROCO procedures to expeditiously remove the explosive hazard from the ship.

After the BDA dives and UXO RSP and removal were complete, the MBR Air Diving Supervisor briefed, and launched divers to conduct underwater repairs of the GLA. The GLA's sonar trunk was used to simulate explosive damage to the hull from the mine strike. The purpose built sonar trunk cofferdam was utilized for repairs and to minimize damage to the active MCMV and so that the ship's crew and IET personnel still on the GLA could perform internal dewatering with the ship's own pumps. Once the patch was installed and the trunk was successfully dewatered, it was flooded, the cofferdam was removed, and divers were recovered.

With the at-sea BDA/R phases complete, the aft deck of the CAT was prepared for the tow phase. Retired U.S. Navy Master Diver and MSFSC Towing and Salvage Specialist, Mr. Ken Hinkebein, was a vital part of the CAT's first-ever MCMV towing evolution. With Mr. Hinkebein's guidance, the embarked NDs set up the back deck of the CAT with an eight-inch towing hawser off the traction winch and plasma line used to haul the tow hawser

through the bullnose of the GLA where it was taken to the gypsy head of the anchor windlass. No shackle/jewelry was used on the eye of the hawser due to small size of the bullnose. With the hawser taken to power, the GLA took up until the slack was out of the water and then made it fast to the bits. Towing commenced for 30 minutes. After the tow was disconnected, the remaining NDs disembarked the GLA.

Due to emergent tasking of the GLA, turnover to FDRMC was not possible. As soon as the tow was disconnected, the GLA was underway for follow on tasking. If executed as planned, this phase would have included transferring the GLA from the towing vessel to tugs coordinated by FDRMC. Once the GLA was pier-side, relevant FDRMC shop codes would board the GLA to perform more in-depth internal (notional) damage assessments to identify the required repair materials.

Accomplishing this exercise given all the variables was an enormous feat. Not only did multiple entities' operational schedules require de-confliction, the substantial C5F ATPF diving requirement remained constant. Another layer of complexity came in the form of difficulties navigating the logistical requirements of utilizing a fully crewed U.S. Warship as the stricken vessel – this has never been done in an exercise such as this. The helicopter insertion of the MDS/EOD element was also a “first of” for a BDA/R exercise. This exercise would not have been possible without the team effort provided by all participating units.

Maritime insertion from a helicopter utilized during this exercise provided validation to points contained in NTTP 3-10.5; specifically, from chapter three paragraph 3.7.3 – “The helicopter is an almost indispensable tool in salvage...is advantageous for transferring personnel between the salvage ship and the casualty.” The helicopter's utility continues when there is a need to transfer salvage equipment, and is critical when the casualty is in the surf zone. Furthermore, initial BDA usually reveals the need for immediate temporary repairs to include: dewatering, pumping, underwater damage



ND2 Ryan Casler entering water to conduct at-sea repair and cofferdam installation on USS GLADIATOR (MCM 11).

measurements, patching, plugging, onboard Damage Control, etc. Knowing this, the helicopter provides the most expeditious embarkation method of a BDA team in remote permissive or uncertain environments, where BDR normally takes place.

Per NWP 4-12, in January 2006, “the CNO established NECC to provide oversight of subordinate Navy Expeditionary Combat Forces and to develop capabilities required to address emerging missions in the rapidly evolving maritime security environment. This includes harbor clearance, ship salvage, and battle damage repair...” Moreover, NWP 4-12 describes the MDSU mission as providing combat-ready and rapidly deployable capabilities who also deploy teams as small as four divers using SCUBA via helicopter to conduct light salvage. The TG 56.1 at-sea Battle Damage Assessment and Repair (BDA/R) and Tow exercise validated this concept.

Article cover photo: ND1 Austin Brown and HM1 Jordan Knoppert leaving surface to perform initial battle damage assessment on USS GLADIATOR (MCM 11).

CWO2 Jordan DeFarcy is currently serving as the Company Commander for Mobile Diving and Salvage Company 11-7 at Explosive Ordnance Disposal Mobile Unit ELEVEN, Imperial Beach, California.



ND1 Ivy Dawn supervising CTG 56.1 Initial Entry Team (IET) during battle damage assessment SCUBA diving operations on USS GLADIATOR (MCM 11).



HM1 Jordan Knoppert conducts rappel training from CTG 56.1 rappel tower.



NDCS(MDV) Ryan Dean conducts fast rope training on CTG 56.1 compound Manama, Bahrain.



Deployed MDS Company 11-7 members along with Mr. Kenneth Hinkebein standing by to receive the tow line once disconnected.



ND1 Diego Rivero supervising Surface Supplied Air Diving operations with USNS CATAWBA (T-ATF 168) and USS GLADIATOR (MCM 11) rafted.



CTG 56.1 Divers and EOD Technicians recovering into MH-60S helicopter following Cast training.



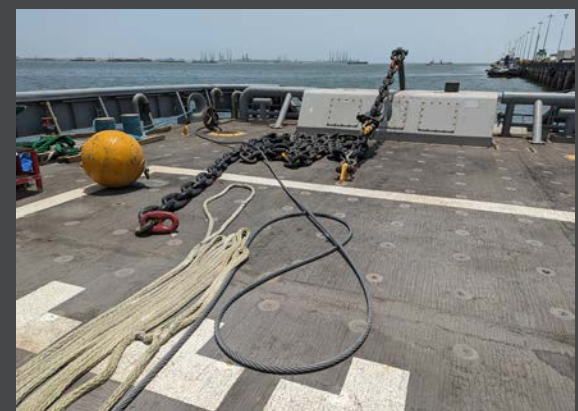
USNS CATAWBA (T-ATF 168) towing USS GLADIATOR (MCM 11) upon completion of at-sea repair and UXO removal portions of the exercise.



CTG 56.1 Divers and EOD Technicians conduct hard duck Cast training from MH-53E helicopter with F-580 Combat Rubber Rafting Craft.



USS GLADIATOR (MCM 11) successfully under tow.



Aft mooring leg rigged to deploy onboard USNS CATAWBA (T-ATF 168) for USS GLADIATOR (MCM 11) two-point moor.

This Day in Diving History

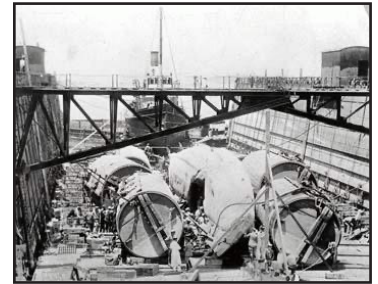
By: MDV David Gove

John Henry Turpin – Retired November 1925

John Turpin was born on August 20, 1876 in Long Branch, New York, and grew in a time just after the Civil War a time when the nation was healing and trying to come together after such a conflict. To say that the civil war was bloody is an understatement, it claimed over 600,000+ American lives and remains our greatest war with the most casualties. Take a moment to think about what it would be like to go against your brother that you served with prior, or being a common type worker that was so upset at the other side that they volunteered for service knowing that they may never come home. This is not to put the lesson for today aside, but seeing that Turpin was born in that aftermath of hate, and war really puts this time in perspective. While there are no articles about his childhood, I would imagine that he had grit and was tougher than nails to survive in this time. The fact that he was a boxing champion while in the Navy over several weight classes and that he taught boxing at the Navy Academy shows his toughness at a young age.



The first historical mention of him was at age 20 when he joined the Navy. After only two years he was a survivor of the sinking of the USS MAINE (AC-1) where he nearly died as he was trying to exit the craft with water quickly rising to the level of his chin. He was very lucky to find a line that guided him out of the vessel and he was soon rescued by a passing boat. Only a few years after the MAINE tragedy, Turpin was able to survive yet another explosion onboard the USS BENNINGTON (PG-4) when her boiler exploded. This explosion resulted in over 60 deaths out of a 102-person crew. Turpin remained steady and saved 15 of the remaining sailors by swimming each of them into the shore. While he was rewarded for such bravery, it was not at the level it should have been. The Navy was still segregated at the time and it is certain that this had some effect on what he received.



Following his BENNINGTON tour, he was stationed at Mare Island Navy Shipyard (near San Francisco) where he likely learned how to be a Navy Deep Sea Diver. Soon thereafter he was involved in the salvage of the sunken submarine USS F-4 which showed the public how much the Navy lacked any sort of submarine rescue capability, which needed to be addressed. During the salvage, the dive team was able to go down on air to almost 300 feet to attach large lifting cables to the F-4. It was during this time that Turpin likely got the idea to create some kind of underwater welding device that he would continue later in his civilian career. On June 1, 1917, John Henry Turpin became the first African American Chief in the Navy. Keep in mind that there were no Senior Chiefs or Master Chiefs during that time, so CPO was the highest enlisted rank. Turpin retired in 1925 after giving a lifetime to the Navy. After he retired, he remained a diver and a Master Rigger (actual qualification) up at Puget Sound Navy Yard where he also qualified as a Master Diver. When I first read this, I was puzzled as I always thought that Carl Brasher was the first African American to be awarded such an honor. After much research it turns out that Turpin did this qualification as a civilian, not while on active duty. The qualification had the same standards at that time, but he had already retired from active duty due to his years in service. As both a Master Diver and Master Rigger, he was someone that showed dedication to the Navy and served as a trailblazer for others after him. In addition, he is credited with development of the first underwater welding procedures still used to this day. He definitely lived up to his first two names of "John Henry". There have been efforts made to award him the Medal of Honor due to his rescue of those he saved during the explosion on the BENNINGTON. Time will tell if this ever happens, while it is doubtful.....who knows?

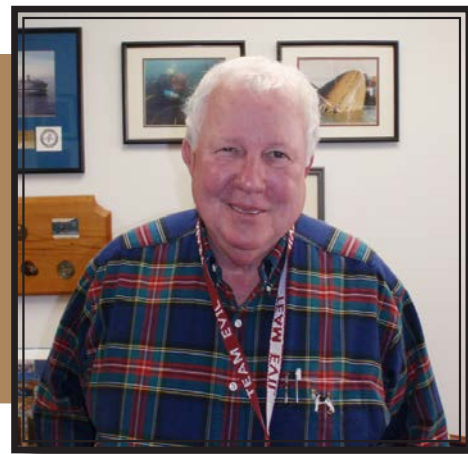


For those who want more info on him please view the video: <https://www.youtube.com/watch?v=vbZo3TjBw7g&t=271s>

MDV David Gove, your friendly neighborhood Master Diver. Copyright David Gove, 2021.

MARTY SHEEHAN

By: Bill Reid



Sadly, the Underwater Husbandry world lost an honored member early this year. I personally choose to not dwell on Marty's passing, but to concentrate on his contributions to diving and diver tools.

Marty started off in the 1970s at the Navy Labs out in Port Hueneme, California working to improve and develop diver tools; this allowed Marty to serve without being shot at in country, Vietnam. When that particular lab disbanded in the early 1980s, Marty moved east to Panama City Beach, Florida where he continued working to develop diver tools.

One of the most enduring tools Marty was instrumental in the development of are SUPSLAV's underwater hydraulic hoists (50, 25, and 12 tons). These hoists were modified from pneumatics to hydraulic. While replacements had been identified after decades of reliable use, the new designs had proven to be not quite up to the "Marty" level of performance and durability. That Marty was instrumental in the redesign of the pneumatic hoist - it was not something that was widely advertised within SUPSALV or by Marty - this being a glaring example of Marty's quite extreme professional competence and humility.

While I am sure I ran across Marty during my active duty tour at SUPSALV in the late 1990s, I have no specific memory of such an event. I do recall after returning as a civil servant working with Marty. Initially, we did a number of SPM replacement operations in which we spent much time connecting and reconnecting SPM cables in order to achieve the correct resistance reading. Then one day Marty said, "What we need is a way to remove moisture out of the connection." What Marty meant was that he had devised a system that con-

nected to the HPU terminals and provided a flow of Nitrogen intended to dry the connections; spoiler alert, the system worked well and is in fact still in use.

At some point Marty retired from civil service and became a consultant; a fact I did not learn until promotion to Division Head. This realization sticks with me because I was out in Guam working a submarine issue (SPM or Propeller), and had been getting remote assistance from Marty. In one of my calls I said to Marty, "I think I'm going to apply for the Division Head position." Without hesitation Marty said, "Why would you do that, you don't want that headache? Don't do it Bill." In hindsight, perhaps I should have heeded his advice, he never steered me wrong before. While there have been some good aspects, there's also been more than enough times I've asked myself why I did this and didn't take Marty's advice.

Along with the promotion to Division Head came the budget which included a line item for a consultant, Mr. Martin E. Sheehan. That turned out to be a silver lining that afforded me much more time and closer interaction with Marty. Working to improve submarine procedure and develop new diver tools to make life easier. One such tool was the "Drill in a Bag." Long before there were underwater battery tools, Marty approached me and said let's develop a drill for use underwater. After much research and discussion we (Marty) determined since there was no market, it would be cost prohibitive to develop and custom build a waterproof drill. So we pursued the next best thing - how could we take what is available and make it usable underwater. We put the drill in a bag and it worked well, but it was a bit cumbersome and if the bag

leaked then there were problems. Testing showed that moist (not enough to short drill) tended to dissociate into Hydrogen and Oxygen and then if/when the motor brush sparked the drill and the bag went boom....not good for a diver's hand etc. After several iterations, Marty advised we scrap the idea as the risk to divers was not worth it, even if only one diver got hurt. So like Marty, it went peacefully into the night but unlike Marty it was soon forgotten by most.

Over those years I also had the privilege of watching as Marty built a robust team to develop the procedures, tools, and equipment to conduct waterborne replacement of the WSQ-9 OTAA's on VA class of submarines. These are quite extensive procedures, which are routinely used today.

In fact, just recently SUPSALV and NELO had folks out in Hawaii working an operation when one of the divers asked whatever happen to Marty Sheehan, lamenting he was a class act and a pleasure to work with on the pier. Turns out, this was a rather wide held opinion (or observation, if you like). In fact, the folks who took over SUPSALV's WSQ9 support often reached out to Marty, both professionally and personally, and the PM for NELO's WSQ9 program routinely kept in contact.

So I know I am not alone in thought when I reflect that Marty was a positive force, consummate professional with a good heart who always treated you as a friend. Marty will be MISSED, but NOT FORGOTTEN, and I am honored and thankful I had the opportunity to have him as a Colleague and to have called him FRIEND.

Bill Reid after 20 year active EDO service, has been serving as UWSH Division Director at NAVSEA OOC since 2007.

Diving Officer's Perspective

By: CW04 Luke Johnson and CW05 Coy Everage

I would like to take this opportunity to thank the OOC team for a warm welcome and seamless transition into my new duties and responsibilities here at NAVSEA. I will echo SUPDIVE's comments on the outstanding work CW05 Jason Potts has done within the enterprise, but also for the broader diving community. I have no doubt I will spend the next three years treading water in an effort to maintain the standard Jason has set. Like all of you hard charging Deep Sea Divers out there doing the business every day, I am up for the challenge!! I look forward to the FY-24 DORI schedule kicking off in Oct, getting back out on the road and engaging with our lockers around the Fleet.

While there are no shortage of current fleet diving topics to discuss, I believe it's always prudent to take an opportunity to reflect on the experiences of our community's leaders and gain some perspective as they prepare to conclude their Naval service. Please find below some parting words from my friend, mentor, and a Deep Sea Diver who seems to have done it all in the last 33 years...CW05 Coy Everage. We wish you and family nothing but the best on your surface interval. I know you won't be retired long. - CW04 Luke Johnson

Deep Sea,

The time has come, as it will for all of us, to say goodbye. On the day of my retirement, 01 January 2024, I will have served 33 years plus; 12,131 days to be exact. It has been a fun and exciting adventure, but alas it must come to an end.

In April 1990, I was on my way to work in my hometown of Panama City, FL. I was driving down highway 98 when the sign in front of the Navy recruiter's office caught my eye....again. About a mile down the road I stopped at the corner store. I was inventorying my checking account balance in my head while pumping gas, counting the days until payday. Suddenly the urge, and the courage hit me. It's the same urge each and every one of you had. I paid for the gas, turned the car around and walked into the recruiter's office. Two months later, on 27 June 1990, I went to MEPS and signed on the dotted line as a Dive-fare candidate.

After boot camp at RTC Orlando, FL and Electricians Mate "A" School in Great lakes, IL, I was finally on my way to dive school. I arrived at NDSTC in Panama City, FL for 2nd Class School in July 1990. My original class was number was 91-55-2C. However, a few weeks from graduation my mother passed away from cancer. Upon my return from emergency leave, despite my best efforts to stay with my original class, I was rolled into class 92-10-2C. I graduated in March of 1992. I am the last remaining Diver on active duty from either of the two classes. To my knowledge, my old shipmate CW05 Jason Deatruck is the only diver remaining wearing a uniform who graduated dive school before me (Oct 1991).

During my career I have traveled the world, seen many changes in the Navy and worn many uniforms. I witnessed the end of the "Cold War", the decommissioning of the surface and submarine tenders (late 90s), the bombing of the World Trade Centers on September 11, 2001, the invasion of Iraq in March 2003 and the decommissioning of the salvage ships in the early to mid-2000s. A lot has changed. One thing that has not changed is the pride and professionalism of the Navy Diving community. The saying "we dive the world over" has never been more accurate than it is today. In 2006, the Navy demanded change, creating the Navy Diver (ND) rating we all know. We, the diving community, were given an opportunity. Unlike never before, we were given the chance to commit all of our community's time and resources to becoming better underwater tradesmen and perfect our craft and rating. Today we find ourselves supporting almost every TYCOM in the Navy in some fashion. Navy diving is more relevant now than ever, and it's growing...fast.



In the 1990s, after the cold war, a large part of our communities' time was spent conducting underwater repairs supporting ship's husbandry efforts. The Navy's salvage capability was robust with a fleet of salvage ships. In the early 2000s the focus changed; the world changed. The nation once again had a foe. We found ourselves with a new enemy, who couldn't have possibly been any further away from the ocean. We found ourselves in the deserts of Iraq and the mountains of Afghanistan. The diving community was asked to support, in other more unconventional ways, and we did. Ten years later the mission slowed. We found ourselves subject to downsizing, budget cuts, and like every other community, manning shortfalls. However, this time was different. This time our community's leaders developed a thought; almost a plan. They invested in junior divers and sailors for the future. We have spent the last 15 years growing the community and lobbying to place leadership, both officer and enlisted, into positions of strategic importance. The community and the Navy have benefited.



We now have input at levels our past leaders never imagined. We have had representation at U.S. Fleet Forces (USFF) for almost two years now. Soon we will also have representation on the Pacific Fleet staff. Having representation on two 4-star Admiral's staffs can and will be very advantageous. When I arrived at USFF it had an immediate impact on the ND community. It allows us to be a part of the initial conversation and planning. The conversation where funding, manning and resources are discussed and identified; up front and in advance. Those conversations are where national and strategic level planning for the future occurs. It allows us to Identify opportunities and needs early on. We provide recommendations to senior, Flag level leadership, where NDs can contribute on a greater scale for the Navy's primary mission, the defense of our great nation. I am proud to say Navy diving has never been more poised to do so.

In 2003, after the initial invasion of Iraq, the diving community was told to become more "expeditionary". Much of the Diving community's leadership responded with "it's not our job" and "that's not what we do". Two short years later ND's were doing regular expeditionary deployments to 5th and 6th Fleets. Changes like that create opportunities, especially for people who are willing to learn new things and contribute. The Navy and the military have changed several times in the previous three decades. Partly due to technology and heavily because of changing world geopolitical views. It continues to change even as I write this. The ND community is once again witnessing change. We are finding new ways to contribute and further the national strategy. It is an exciting time to be a Diver. Take advantage of it, embrace it. Don't be the one who tries so hard to avoid or resist change simply because it's scary or you know others are more knowledgeable in an area. Don't be apprehensive or concerned you might look bad. It will not go unnoticed amongst your peers. Instead, be bold, go learn something new. Be a trail blazer, dive in and become an expert.

I can honestly say the Navy diving community is better positioned for the future now than when I came in the Navy. It is better organized, funded and represented. I can also say, without a single doubt or hesitation, it is because of great people like each and every one of you out there wearing a pin, leading troops, supervising dives, and turning the wrenches both above and below the waterline that it will continue to grow, prosper and soar to new heights. I can't wait to see what new and exciting roles and contributions are on the horizon. It has been my great honor to work for, and with each and every one of you throughout my career, both past and present. The memories I have are near and dear to me. Those memories are only surpassed by the lasting friendships. I thank you all for making me a better man and allowing me into your lives.

Hoo-Yah Deep Sea!
CWO5 Coy Everage



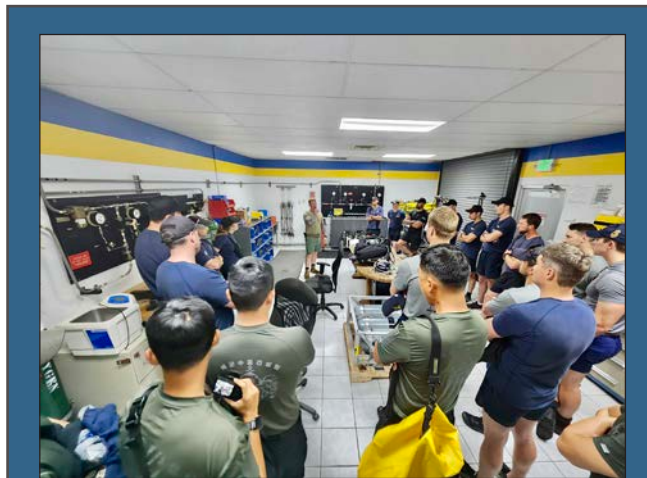
Multinational Underwater Repair Engagement Attracts 86 Divers From Four Countries

By: LCDR Tyler Anderson

The third iteration of the Multinational Underwater Repair Engagement (MURENG) took place from 11-22 September 2023 at Naval Base Guam consisting of four nations, six units, and eighty-six divers. What started as a bilateral engagement between Underwater Construction Team TWO (UCT TWO), from Naval Base Ventura County, and the Republic of Korea Underwater Construction Team (ROK UCT) in 2021 drastically expanded this year. After soliciting participation during last year's annual ABCANZ (Australia, Britain, Canada, America, and New Zealand) Diving Conference, New Zealand and Australia joined with dive teams for this year's iteration. The Thirtieth Naval Construction Regiment (30 NCR) based out of Naval Base Guam is the sponsor for the engagement that included UCT TWO, Mobile Diving and Salvage Unit ONE (MDSU ONE), U.S. Army 86th Engineer Dive Detachment, ROK UCT, Royal New Zealand Navy Divers, and Royal Australian Navy Clearance Divers. Explosive Ordnance Disposal Mobile Unit FIVE (EODMU 5) and the Naval Base Guam Dive Locker both based out of Naval Base Guam provided logistics support for the exercise.

The intent of MURENG is to exercise interoperability and exchange engineering and underwater construction Tactics Techniques and Procedures (TTPs) in support of Expeditionary Port Damage Repair and Opening (ExPDRO). The engagement employed a wide array of TTPs including land

and underwater demolition, deep-water surface supplied diving, SCUBA diving, underwater hydraulic tools, and underwater welding, while simultaneously completing long awaited underwater repairs and inspections of key Naval Base Guam maritime facilities.



Builder Chief and Master Diver Justin Lewis of UCT TWO instructs ROK UCT divers, Royal New Zealand Navy Divers, and Royal Australian Navy Clearance Divers prior to conducting 130 feet of seawater recompression chamber dives during MURENG 2023.

The engagement began with capability briefs from all participating units in order to get a baseline of each unit's organizational structure and organic capabilities. Classroom sessions were held to level demolition, diving, and engineering TTPs, and The Naval Base Guam Dive Locker utilized their recompression chamber to conduct work up dives to 130 feet of seawater for all divers. The first TTP exercised was demolition operations, beginning with land demolition followed by underwater demolition. Land demolition was conducted on EODMU 5's range utilizing electric initiation methods. The underwater demolition opera-

tions took place in the Outer Apra Harbor range in depths between 30 and 50 feet of seawater with anchor chain and I-beams as targets to simulate precision demolition techniques. The first week concluded with the set up and operational testing of three surface supplied dive sides in preparation for the following week.

The second week consisted of four simultaneous dive sides: two surface supply sides executing underwater cutting, welding, and hydraulic tools along the quay wall; one SCUBA side conducting shallow fleet mooring inspections within the inner harbor; and one deep-water surface supplied side conducting fleet mooring inspections in excess of 160 feet of seawater in the Outer Apra Harbor from a contracted vessel of opportunity. MDSU ONE and the 86th Engineer Dive Detachment were the lead elements for the two surface supplied sides along

the quay wall while UCT TWO took the lead for both the shallow and deep fleet mooring inspections. Groups of intermixed divers from all four countries would spend the week rotating through the four dive sides conducting repairs and engineering assessments of the Naval Base Guam facilities while simultaneously building relationships and exchanging TTPs. Hydraulic tools were used to clear marine growth from the quay wall for the inspection and installation of zinc anodes. The zinc anodes were then welded to the sheet pile quay wall extending the service life of the infrastructure. Hydraulic tools to include the chain

saw, drill, and grinder were exercised on small training projects. The fleet mooring inspections consisted of marine growth removal, measurements, visual inspections, and the replacement of zinc anodes along the critical components of the fleet moorings. The deep-water surface supplied dive side required the execution of complex in water and surface decompression diving operations during the execution of work, further exercising complex diving TTPs while maintaining and inspecting critical facilities. The fleet mooring data collection was supervised by an engineer from the Naval Facilities Engineering Systems Command Expeditionary Warfare Center (NAVFAC EXWC). Fleet moorings pro-

vide vessels the ability to safely moor within the harbor both during extreme weather events and during the execution of operational requirements.

In addition to the formal diving and demolition training, social events were held on the weekend to further expand the relationships between the partner nations. 30 NCR CDRE, Capt. Dean Allen stated during his opening remarks, "This is the first time we've been able to assemble this many Partner Nation dive capabilities at a single exercise and it's important that we continue to build upon the relationships that we establish here to strengthen our combined capabilities. These conversations and engagements need to occur more often than just once a year at MURENG." The

ability to execute ExPDRO operations is an essential element in the support of fleet maneuver and the ability to maintain sea lines of communication during both competition and conflict.

The goal is for MURNENG to continue as an annual multinational ExPDRO engagement with an emphasis on completing repairs and assessments of critical marine facilities throughout the Indo-Pacific Command Area of Operations while simultaneously building partner nation capacity.

Photos by Senior Chief Petty Officer Haejin JIN, ROK UCT.

LCDR Tyler Anderson is currently the Executive Officer of Underwater Construction Team TWO in Port Hueneme, California.

THE MARK V MONUMENT PROJECT

<https://www.mkvmonument.org/>

The Mark V Monument Project is pleased to announce our newest project. In coordination with the Man in the Sea Museum, the University of Florida, and Naval Diving Salvage and Training Center, we will be launching our first underwater monument. Like Jake (the original), this monument will be dedicated to all military divers. The goal of this monument is to provide a "resting" place for our beloved divers from all services. This exciting and ambitious project aims to commemorate and pay tribute to all military divers who conducted their dangerous and sometimes secretive work underwater.

This monument will be placed three miles south of Panama City Beach, FL in the Gulf of Mexico. Our foundation will be starting a program to honor our past divers who always wanted to be one with the ocean again. At the family's request, biannually, our foundation will place the cremated remains of our brothers and sisters at the base of the monument. Custom salt urns will be utilized to respectfully carry our "heroes of the deep" down to their final resting place.

USA (RET) Diver, Scott Loehr will be building the MKV underwater monument for the US. Gavin Cochrane of Cochrane Made Creations, designed and constructed the original helmet. Gavin's design was deployed near the Busselton Jetty in Western Australia.

Our goal is to place a small cement monument by the end of 2023 and to place the final full scale MKV monument on Veteran's Day, 2024. To stay up to date, please follow our Facebook page and website.

- Steve Mulholland,
Executive Director, Man in the Sea Museum



Sculpture designed by Cochrane Made Creations. Helmet to be reproduced for Panama City area in 2024.



Sculpture deployed in West Australian Busselton Jetty. Panama City Monument will be placed 3 miles south of Rick Selters park off of Thomas Drive.



Navy Experimental Diving Unit Provides New Decompression Procedures to Improve Safety for Disabled Submarine Survivors

By: LT Mitchell Reed, NEDU Public Affairs

Stealthily patrolling the depths of the world's, submarines represent cutting edge, strategic assets for the United States Navy. While expertly built to withstand repeated exposures to extreme pressures and the operational rigor to keep our Nation's interests secure, these engineering marvels are still subject to failures, potentially leading to catastrophic consequences. The first successful rescue of survivors from a disabled United States Navy submarine was completed in 1939 with a McCann Rescue Chamber developed by Commander Allen R. McCann and Commander Charles B. "Swede" Momsen (later promoted to Vice Admiral). More sophisticated disabled submarine (DISSUB) rescue systems have continued to be developed and refined, buoyed by the Navy's continuous pursuit for safety and recently aided by expertise at the Navy Experimental Diving Unit (NEDU).

Apart from the inherent life-threatening risks of drowning, explosions and fires, and toxic internal atmospheres, submariners battling for their lives in a DISSUB event risk being exposed to long periods of increased atmospheric pressure. Such exposures will likely be long enough to risk potentially fatal decompression sickness (DCS) if rescuees are retrieved and returned to surface without controlled decompression. To mitigate such risks, the Navy has developed rescue systems that can attach to various submarine hatch locations and retrieve submariners for transit to surface under pressure, where they are then transferred under pressure (TUP) to a surface decompression chamber for controlled decompression. Such systems include deep-submergence rescue vehicles and portable submarine rescue chambers. However, problems can arise when these

rescue systems are unable to connect directly to the surface decompression chambers and complete rescuee transfer under pressure. If DISSUB survivors are forced to transfer to decompression chambers outside of the pressurized rescue system, then the exposure to ambient surface pressure for any extended duration before recompression and controlled decompression could prove fatal.

The Navy has developed DISSUB decompression tables that accommodate a brief surface interval at ambient pressure for cases in which TUP capability is not available. Unfortunately, the current guidance provides limited times for surface transfers without exposing rescuees to prohibitively high risks of DCS. The Navy tasked their team of military and industry leading decompression scientists at NEDU to develop and test new specialized surface decompression procedures to accommodate a 1-hour time at surface interval while reducing the estimated risks of DCS. The novel surface decompression (SurD) procedures specifically include an extended oxygen pre-breathe in both the DISSUB and during the rescue ascent to surface, and elimination of a first 60-minute surface decompression stop.

While decompression models are highly advanced in their ability to predict occurrences of DCS, their prescriptions still require adequate human testing for validation. Accordingly, the new procedures were tested at NEDU in one of the Navy's most unique assets, the Ocean Simulation Facility, one of the world's largest experimental hyperbaric chambers capable of performing the multi-day testing required. Briefly, volunteer test subjects spent a cozy 72 hours at storage depths of 30-60 fsw to simulate the potential air saturation that could oc-

cur in a DISSUB before rescue. Following 72 hours in extremely tight quarters, the bodily tissues of these volunteers were completely saturated at the storage depth pressure, requiring decompression for a safe return to the surface. Subjects were then instructed to conduct an oxygen pre-breathe of 100% O₂ from a MK 25 MOD 2 UBA for two-hours immediately preceding a direct ascent to the surface. This was followed by an additional hour at surface, after which they were recompressed to begin and complete the specialized surface decompression procedure. With only 2 cases of DCS in 54 test dives, results supported the safety of the new procedures and have motivated recommendation that they be adopted in formal DISSUB decompression guidance to increase the surface interval times for DISSUB rescuees to 1 hour and decrease the risks of DCS in DISSUB survivors. As the Navy's submarines continue to embark on missions across the world, the persistent risk of mishap or adversarial engagement places ever growing need for development of novel decompression methodologies.



Submariners conduct oxygen pre-breathe decompression procedures using the MK-25 as the oxygen source during a deep submergence rescue vehicle exercise.

Article cover photo: NEDU's dive team prepares the Ocean Simulation Facility for an upcoming saturation dive.



MARMC Divers Step Up: Waterborne Installation of USS IWO JIMA Rudders

By: NAVSEA 00C5 Staff and CW02 Brandon Holt

Rudder; from the Old English *roðor*, "paddle or oar", and from the Germanic root meaning "tool for steering".

Starboard; most sailors were right handed, and thus the steering oar was placed over the right side of the stern. The "steering" side became "starboard" by combining two Old English words: *stéor* (meaning "steer") and *bord* (meaning "the side of a boat").

It's no secret the Navy Diver's term "Deep Sea" is synonymous with and in so many words as "Can Do". The Navy Deep Sea Diver's heritage runs deep with taking on and accomplishing the "impossible" tasks; Divers often make things happen, out of ingenuity and determination, with limited or no resources.

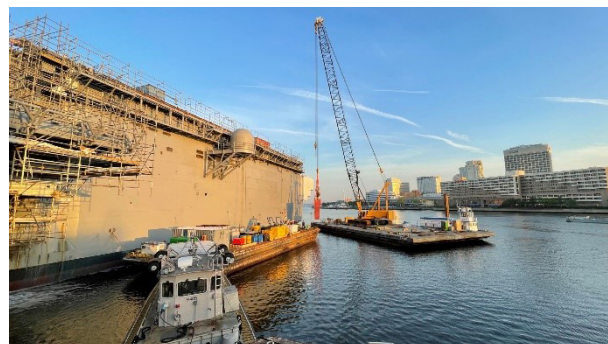
In December of 2022, Mid-Atlantic Regional Maintenance Center (MARMC) approached NAVSEA 00C about installing the rudders for USS IWO JIMA (LHD 7) waterborne. MARMC was in a difficult position due to unplanned work discovered during USS IWO JIMA's dry docking availability. Rudder stock repairs and refurbishment were not originally planned for. However, once the ship entered dry dock, engineers discovered that the bearings and rudder stocks were in far worse condition than anticipated. In order to keep the IWO JIMA operational and deployable until her next dry dock-

ing availability (ten years in the future), the rudder stocks would need to be repaired now. Unfortunately, repairing the rudder stocks and bearings and then reinstalling them would take the ship well beyond its original undocking date. With multiple ships waiting for dry dock space and other emergency dockings pressing, extending IWO JIMA's time in dry dock was not an appealing option for both the fleet and MARMC. Could NAVSEA 00C develop a procedure to install IWO JIMA's rudder in the water and allow the IWO JIMA to undock rudderless on time?

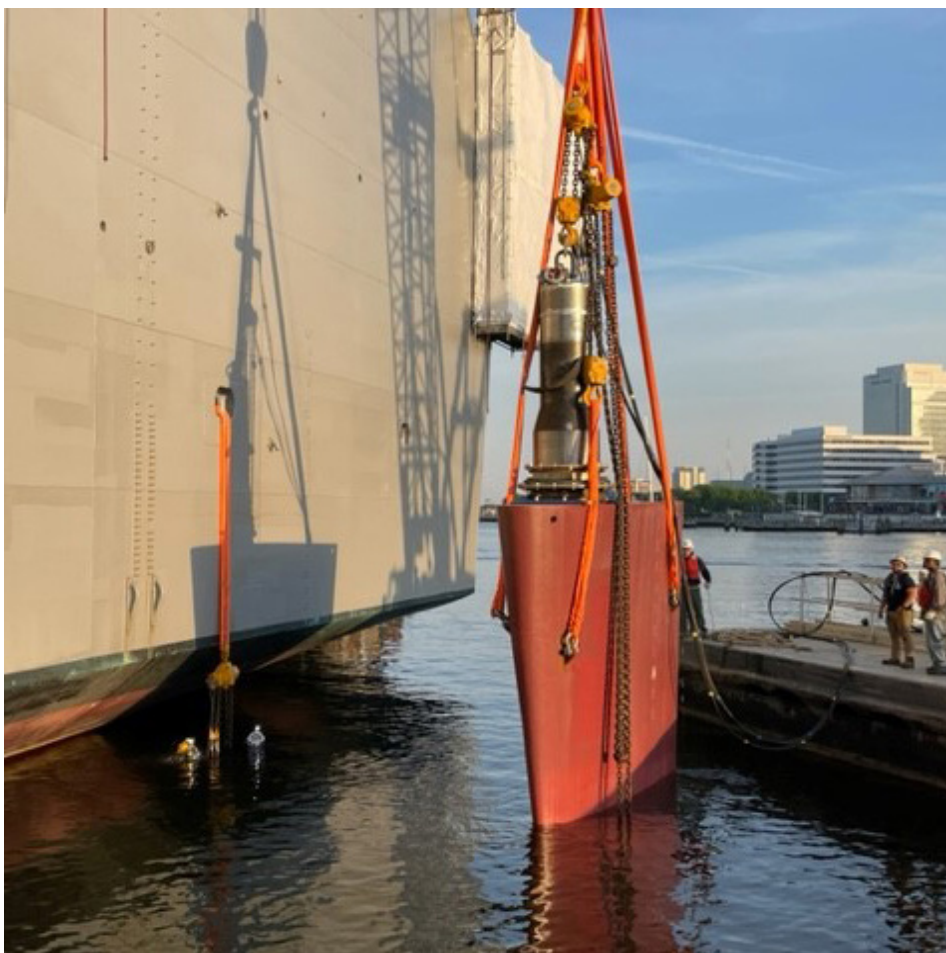
Luckily, NAVSEA 00C has a history of developing and completing complex waterborne repairs. Underwater rudder installations for Navy ships are uncommon but not unheard of and NAVSEA 00C has completed several installs or removals on various classes of ships over the years. Most recently, SWRMC divers removed and reinstalled a rudder on USS RUSHMORE (LSD-47) in 2021. Although, a waterborne rudder install on a WASP Class Amphibious Assault ship had never been attempted and it would be larger and more complex than any rudder install before; after some

quick engineering analysis, NAVSEA 00C Underwater Ship Husbandry (UWSH) engineers determined it was feasible. After receiving required funds from MARMC in February, 00C assembled a team of engineers, contractors and industry experts to develop the detailed procedure. In the meantime, IWO JIMA would undock as scheduled without her rudders installed and blanking plates over the rudder stock penetration holes to keep water out. All while the procedure was still being developed. LT Charlie Hodgkins from MARMC would lead the combined MARMC and NASSCO team with technical UWSH support from NAVSEA 00C5.

The engineering team was faced with numerous technical challenges. Chief among them was that the rudder stock's lower bearing needed to stay



Crane barge lowering port rudder into water. Photo by UWSH Division



NDCM (MDV) Ret. Kelly Polk and ND2 Hunter Lowe ready to receive the USS IWO JIMA's (LHD 7) 78,000lb. port rudder.

dry during the install but was located 18 inches below the waterline. Engineers needed to design a series of cofferdams that simultaneously allowed the rudder and rudder stock to be raised into position from below and keep the lower bearing dry. To do this, a plan to use a series of pressurized cofferdams was developed. Throughout the installation procedure, air would be pumped into the cofferdam to keep the water level below the bearing. Although this type of pressurized cofferdam has been used before to keep components below the waterline dry, it is still seen as risky as a loss of air pressure means that the water level would quickly rise and damage the new bearing, and negate all work to that point. This was especially true since sliding the rudder stock up through both the upper and lower bearings and then installing the external hull seals would take teams of divers working around the clock for at least a week to complete. The cofferdam would need to remain pressurized and dry throughout the process.

Both NAVSEA technical warrant holders and engineers outside of OOC were skeptical the bearings could be kept dry.

A team of divers from Phoenix International was originally tapped to rig the

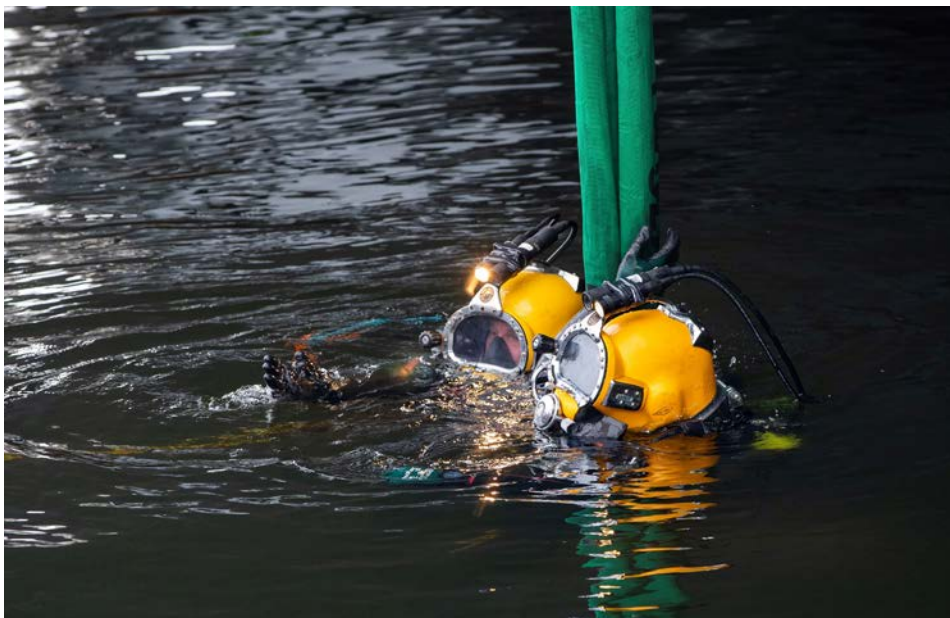
rudders into position underwater and perform any potential welding. However, in mid-March, several weeks before the repairs were set to begin, Phoenix divers were reallocated to complete emergent repairs to USS GERALD R. FORD (CVN 78) so she could deploy on her first full length deployment as scheduled. To complete repairs to IWO JIMA on time, several MARMC dive teams, in traditional fashion and spirit of Deep Sea, had to step up to execute the diving aspects.

The dive teams faced their own set of unique challenges. In order to maneuver the rudders into place, each weighing approximately 78,000 lbs. on the surface, they needed to install two sets of four hydraulically operated chain falls under the ship. Each chain fall weighed approximately 1,200 lbs. The divers adopted a Phoenix procedure used for replacing CVN shaft bearings for this purpose. A week before rudder install was set to begin, MARMC divers along with the local MARMC weld shop set about converting a barge into their work platform. An A-Frame, a set of air-operated winches, and a portable Morgan crane were welded to the deck of the barge. This allowed the divers to set up traveling lines underwater and then crane each hoist onto the traveling line and winch the hoists into position under the ship's hull. The efficiency of this set up allowed divers to install all eight hoists in just a single day.

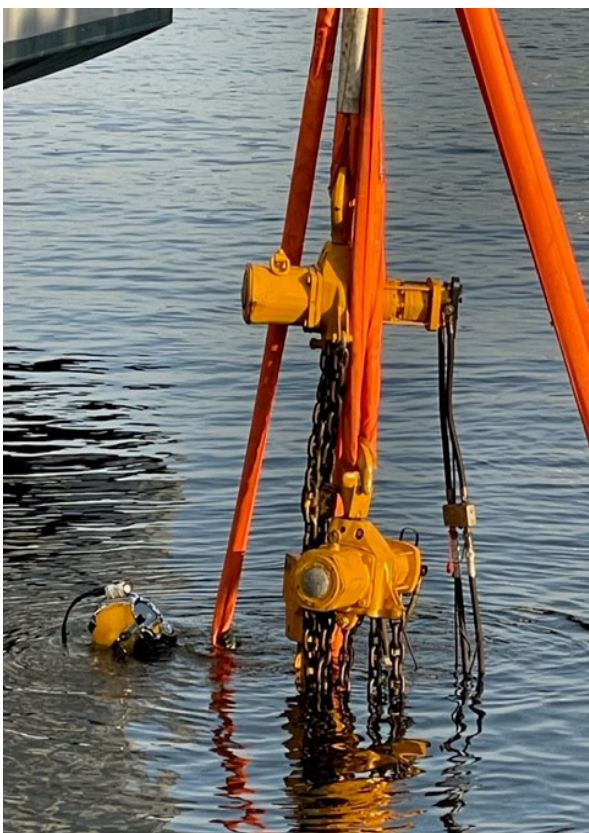
With all preparations complete,



Topside workers tending rudder. Photo by MC 2nd Class Mark Klimenko



MARMC Divers awaiting rudder. Photo by MC 2nd Class Mark Klimenko



NDCM (MDV) Ret. Kelly Polk adjusts rigging to transfer the USS IWO JIMA's (LHD 7) 78,000lb. port rudder from the crane to underwater rigging for installation.

at 0700 on April 20th (17 days behind original schedule), the port rudder was lifted off a barge by a floating crane and lowered into the water. MARMC divers maneuvered the rudder into position under the ship's hull. In coordination with NASSCO mechanics, divers began the process of lifting the rudder through

the lower bearing. Raising the rudder stock was a carefully coordinated evolution as the rudder stock and lower bearing were designed with a mere 0.002 inch clearance. To everyone's relief, the rudder stock passed through the lower bearing without trouble. Two MARMC dive teams worked around the clock on 12-hour shifts to raise the rudder into position and install the external seals. By the afternoon of the 28th, all external seals had been tested satisfactory. It had taken the divers just nine days to complete the install of the port rudder and to the relief of many NAVSEA engineers, the lower bearing had remained dry throughout the process.

The following week the starboard rudder was installed in a similar manner. In all, the concept of these waterborne rudders installs

went from merely an idea to successful completion in less than four months (a similar procedure for the DDG class was developed –under less urgent circumstances- over the course of several years). This display of "Can Do" resulted with the on time undocking of the IWO JIMA to facilitate the emergency dry-docking of an-



10ft tall top hat cofferdam extending above well deck. Photo by UWSH Division.

other warship. In today's industrial base dry dock space is a premium, being able to conduct repairs underwater and freeing up the critical dry dock space is critical and worth pursuing. All told, the time saved is priceless, but in terms of cost, this at a minimum saved millions of dollars. The everyday miracles performed by navy dive teams is often lost among the busyness of today's waterfronts. However, the IWO JIMA rudder install stands out as an accomplishment in both engineering and teamwork that would not have been possible without the hard work and dedication of NAVSEA 00C, ESSM, NASSCO, and MARMC. Hooyah and Deep Sea!

Article cover photo: MARMC Delta crews KM-37 dive helmet ready for the next dive to install the USS IWO JIMA's starboard rudder hanging from a crane in the background.

SUPSALV's Underwater Ship Husbandry Division applies Ocean Engineering principals to accomplish a wide range of underwater repairs to ship systems while vessel is waterborne.

CWO2 Brandon Holt is the Command Diving Officer and Diving Division Head at Mid-Atlantic Regional Maintenance Center, Norfolk Virginia.



The Old Master

When people say to me "Thank you for your Sacrifice", I think of those who have truly sacrificed as a result of military service. I have not! Falling into such an awesome career has allowed me to overachieve in my professional life. That said, I've still fallen short of the potential opportunity that the Navy offers every Sailor within its ranks. I implore all Navy Divers (ND) to maximize your potential, whether it be as an enlisted Sailor or Officer. Let your ambition match the deep-sea work ethic inherent to all who wear the pin and nothing will hold you back from leading at the highest levels of the Navy. Our job is not always glamorous, but it's an incredibly honorable profession that very few Americans can succeed in. And, our country needs your talent.

The current generation of Navy Divers, should they choose the Navy as a career, will likely experience war with an adversary that will force them to learn perishable skills that have diminished over decades. During my 30 years of being a deep-sea diver, I've seen incredible advances in waterborne repair capabilities and operational tactics, and profiles that have helped us support a broad spectrum of missions. However, salvage skills, such as rigging, towing and damage control, where a lack of understanding and where resources and priorities have continued to dwindle, will require us to rely heavily on history to know our shortfalls, and to ensure that experience within our ranks is properly aligned to train us. Therefore, this article will focus on Navy Salvage.

As recently as twenty years ago, almost every MDV or Diving CWO had multiple salvage tours under their belt, including "Junk Boat" tours which provided the closest example of expertise needed to engage in afloat salvage and harbor clearance. The salvage community was led by Officers that served aboard salvage vessels enabling them to gain a clear understanding of what salvage forces are capable of, and how to deliver that organic capability in times of national emergency. That is no longer the case, and at a time when only a handful of those individuals remain on active duty, we desperately need to capitalize on their experience and pay that knowledge forward.

Five years ago, to better serve our TYCOM's by detailing experienced leaders across the diverse range of operational commands, the ND Senior Enlisted Advisory Team changed the number of required pillars for ND's from four to three. For the most part, every command, including the MDSU's have made up ground since then by having senior diving leadership detailed based on pedigree and priorities, to advance skillsets rather than allow status quo, or further degradation.

Today, the combination of manning shortages, My Navy Assignment (MNA) detailing and the possibility of MDSU companies being decentralized will further challenge that effort. It's more important than ever to be aware of how diverse dive commands can offer synergies towards other specialized commands. Ship familiarization and cofferdamming learned at an underwater ship's husbandry (UWSH) command provides essential knowledge towards afloat salvage skills at a MDSU. Submarine maintenance and quality control serves as a perfect stepping stone for DDS operations and maintenance. Damage control training and drills that divers receive onboard the submarine tenders won't be found at another diving command, but is the most critical set of skills needed to provide stricken ship rescue and assistance when responding to battle damage assessment and repair (BDA/BDR). When the balloon goes up, each of those capabilities will be expected of U.S. Navy Salvors. Go out of your way to learn the critical skillsets that will be needed in the time of maritime conflict. Leaders, continue to push for more robust training towards the goal of winning the Global Power Competition (GPC) so that when the need presents itself, and a flood of patriots join the military, you and the rest of your Navy Divers can amply prepare them for action.

I've read and re-read the book *Mud, Muscle and Miracles*, by CAPT Bartholomew. Please get your hands on it and read it. While much of it will seem technical in nature and may not capture everyone's attention, there are chapters focused on the Pacific war and the war in Europe that will arouse the interest of every hard-working Navy Salvage Diver. When you read it, imagine the training needed to accomplish those tasks today. Divers need to understand what will be expected of them when peace gives way. After reading the book, you might think this old guy is stuck in the past, so follow up by reading the current editions *Navy Tactics, Techniques, and Procedures (NTTP)* for Mobile Diving and Salvage Operations, and *Naval Warfare Publication (NWP) 4-12* for Navy Salvage Operations, (Home - Navy Warfare Library) and you'll see that history provides a guide to future warfare when it relates to Navy Salvage Divers. Technology has transformed many professions, but just like UWSH work, afloat salvage and harbor clearance is as dangerous and blue-collar today as it's ever been. War will exacerbate that. I'm proud when I see what Navy Divers are asked to do when %&#@ hits the fan.

I originally joined the Navy in May 1985. I've seen tremendous change and have grown to trust that the Navy will adapt to ensure we're prepared for future conflict. I'm from a generation of Navy Divers that has been spared major maritime conflict, and I'm grateful for our country that relative peace has prevailed. As I face my final year in uniform, I'm reminded of the many committed mentors and peers I've admired and learned from. Since switching to the diving Navy, I've always felt that my personal success was important to my leaders. I hope every one of you feels the same. I also remember some of those "old salts" reminding me how much tougher their generation was than ours. That's Hogwash! We've certainly had some conveniences that prior generations didn't but when the rubber meets the road, day in and day out, Navy Divers continue to take care of business in the most austere environment that's been asked of any profession. Having recently served at Naval Diving and Salvage Training Center, and now Mobile Diving and Salvage Unit TWO, I have no doubt that today's Navy Divers are as tough and capable as any I've worked with. They just need what we needed, solid leaders that taught and challenged us to be the best at what we do, who dedicated time developing us to be what would become their legacy. There is no substitute for investing "time" in your people; and sharing your experience, knowledge and mistakes. That's the tribal knowledge that will be what makes the new generation of Navy Divers the next "Greatest Generation".

I'll hold off saying my final farewell, as I may get another chance in next year's FALL edition of *Faceplate* magazine. In the meantime, keep up the impressive work. I'm very proud of you all.

HOOYAH DEEP SEA!!



NDCM (MDV) Steve Zentz





SUPDIVE SENDS ...CAPT Bob Marsh

HOOYAH, DEEP SEA! Hard to believe that we are in a new Fiscal Year already and are only a few months away from turning the page on 2023. I wanted to start this article by thanking all who assisted with, and had the opportunity to attend, the 2023 Military Divers Training Continuum (MDTC) held at Gulf Coast State College in Panama City, Florida from 23-25 May. This year's event brought a host of guest speakers, trainers, industry partners, and 200+ local and out of town military participants together to resume our annual event since 2019. We greatly appreciate the candid feedback received both during and after the event by those who participated and are looking forward to executing in future years. If you were unable to attend, the event was conducted over three days, with Day 1 designed to provide community-wide updates from key diving stakeholders and organizations. Days 2

and 3 were dedicated to various training workshops, determined by fleet recommendations solicited during the planning phase of the event, and tours of Navy Experimental Diving Unit and Naval Surface Warfare Center Panama City Division. We also had the great honor of hosting retired Chief Warrant Officer, and Honorary Chief Petty Officer, CW5 (Ret) Philip Brashear, U.S. Army, to present the Carl Brashear Foundation "Navy Diver of the Year" award to ND1 Davis!

Initial planning for the 2024 MDTC is in progress now. NAVSEA 00C3 is looking at other ways of providing targeted training and professional development opportunities for Navy and military divers that provide value to the daily execution of your job. NAVSEA 00C3 will solicit ideas from the diving community as we prepare and determine 2024's MDTC schedule and offerings.

New NAVSEA 00C3 Fleet Diving Officer.

This past August, CW05 Jason Potts departed NAVSEA 00C3 to fill the U.S. Fleet Forces N43 Diving Officer position in Norfolk, Virginia. Jason's tour spanned nearly three and a half years, arriving at NAVSEA 00C3 just prior to the COVID-19 shutdown. Throughout his tour, Jason's efforts were absolutely instrumental revamping and executing the NAVSEA DORI program as Lead Inspector. His efforts brought consistency and continuity to the process, provided an invaluable service to inspected commands and their personnel, and set the standard for due diligence and attention to detail to ensure command diving programs were managed in accordance with fleet-wide diving policy and direc-



tives. Jason also led NAVSEA 00C3's DORI Quality Assurance Surveillance Program (QASP), which is an OPNAV N97-directed program to ensure DORI program requirements are satisfied across all dive-enabled TYCOMs, ISICs, and SYSCOMs. In addition to DORI, Jason was our lead action officer for coordination and development of numerous NAVSEA 00C3 Risk Assessments (RA), enabling commands to execute mission objectives that either required a diving waiver or exception to policy. His duties also included Chairman or the Chief Warrant Officer Advisory Team (CWO-AT), where he led a host of enduring initiatives that affect the Diving Warrant Officer and fleet diving communities now and in the future. A true expert in his craft, Jason's absence will be missed. HOOYAH Jason, and thanks for all the hard work, dedication, sacrifice, and after-hours time spent ensuring our diving operations remained safe and effective!

Jason was replaced by CW04 Luke Johnson, reporting to NAVSEA 00C3 from the Naval Submarine School where he served as the



CW5 (Ret) Phillip Brashear, U.S. Army, and ND1 Davis



CWO5 Jason Potts, USN



CWO4 Luke Johnson, USN

High-Risk Training Department Head and Diving Officer at the Submarine Escape Trainer. Luke comes to NAVSEA 00C3 with a host of operational and training experience and has hit the ground running to ensure our office continues to provide the level of service expected from our diving community. As part of turnover, Luke assumed the roles of NAVSEA 00C3 Lead DORI Inspector, Chairman of the CWO-AT, and NAVSEA 00C3 Fleet Diving Officer. Please ensure Luke is aware of any NAVSEA 00C3 services or consultation needed to execute your dive-enabled mission safely and efficiently! Welcome aboard Luke!

Diving Executive Steering

Committee. This year, OPNAV N97, who has the authority and responsibility for military diving activities (and releases the OPNAVINST 3150 series...FYI), reinvigorated efforts to restart the annual Diving Executive Steering Committee (D-ESC). This committee, chaired by RADM Behning (OPNAV N97), is a Flag Officer-level event with the purpose to “improve the effectiveness and economy of diving activities and to ensure the Navy has the required capability to support peacetime, emergency, and wartime diving technolo-

gy and training requirements”. Due to its diverse membership of representatives that rely on Navy diving services and personnel to execute their respective missions, the group is charged to consider issues across all TYCOMs relevant to Navy diving policy, manpower, training, funding, operational readiness and future diving capabilities. The committee also includes diving resource sponsors (RS) who provide funding to support diving equipment, training, etc. for the Expeditionary, Naval Special Warfare, Underwater Ships Husbandry, and Special Mission diving communities. This past September, the first action officer-level working group was conducted at the Washington Navy Yard to officially kick off the process. Representatives from all TYCOMs participated with the goal of nominating their respective organizational issues that require D-ESC awareness and or decision.

My intent for including this in this issue of FACEPLATE is two-fold; to further educate the diving community on the event and to discuss your possible role and/or influence in the process. Two key advisors to the D-ESC are the Chairman of the Diving Senior Enlisted Advisory Team, MDV Mike McInroy, and Chairman of the Chief Warrant Officer Ad-

visory Team, now CWO4 Luke Johnson. As the working groups continue to execute their responsibilities, the SEAT and CWOAT Chairman will be engaging with the respective Advisory Teams members for input, as they contain representation from all TYCOMs. Additionally, TYCOM diving action officers should be soliciting their respective forces for any diving-related issues that require awareness, adjudication, and/or decision at the Flag level. If you have input or see issues you feel require attention, please notify your diving leadership and have them provide input via either the SEAT, CWOAT, or your designated TYCOM diving action officer. Nominated issues that share commonality and affect all TYCOMs will be priority topics discussed during this year’s event (i.e. manpower and manning, training, policy requirements, etc.). To provide an example of the value of this committee, OPNAV N97 is currently finalizing an effort with OPNAV N13 and NAVMAC to complete a holistic study of manpower requirements needed to meet current and future UWSH and Regional Recompression Chamber needs. This study is the result of a 2018 D-ESC decision that validated the requirement and led to action. The results of this study are expected within the next few months and will determine manpower requirements to inform decisions on personnel growth across the diving community for years to come. Please ensure you provide input to your respective chains of command when the opportunity arises!

I look forward to sharing more information with you in the next FACEPLATE issue. If you have topics that you desire information on or need any diving technical or policy assistance, please feel free to contact YOUR team here at NAVSEA 00C3 for support! As always, Dive Safe, Dive Smart, and support your teammates!...v/r SUPDIVE

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Diving Advisories

- 23 - 04 ADVISORY TEAM MEETING
- 23 - 05 NEMO BATTERY POWERED UNDERWATER TOOLS
- 23 - 06 REVISIONS TO U.S. NAVY GENERAL SPECIFICATION FOR DIVING AND MANNED HYPERBARIC SYSTEMS AND MANNED HYPERBARIC SYSTEMS SAFETY CERTIFICATION MANUAL
- 23 - 07 BATCH 10-19 POSEIDON DIVING SYSTEMS LOW / PRESSURE HOSE ASSEMBLIES
- 23 - 08 MANUFACTURER RECALL OF OCEANIC BUOYANCY / COMPENSATING DEVICE WEIGHT POCKETS
- 23 - 09 DIVER-END UMBILICAL SNAP SHACKLES
- 23 - 10 INTERSPIRO DIVATOR SELF CONTAINED UNDERWATER BREATHING APPARATUS DIVE PANEL SURFACE SUPPLY APPARATUS AND MK-20 UNDERWATER BREATHING APPARATUS CHECKLIST / REVISIONS

For more information on effective diving advisories, go to
<https://secure.supsalv.org/home.asp>