

ISSUE 4

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THE PRIMER

NAVY EOD QUARTERLY

VISION

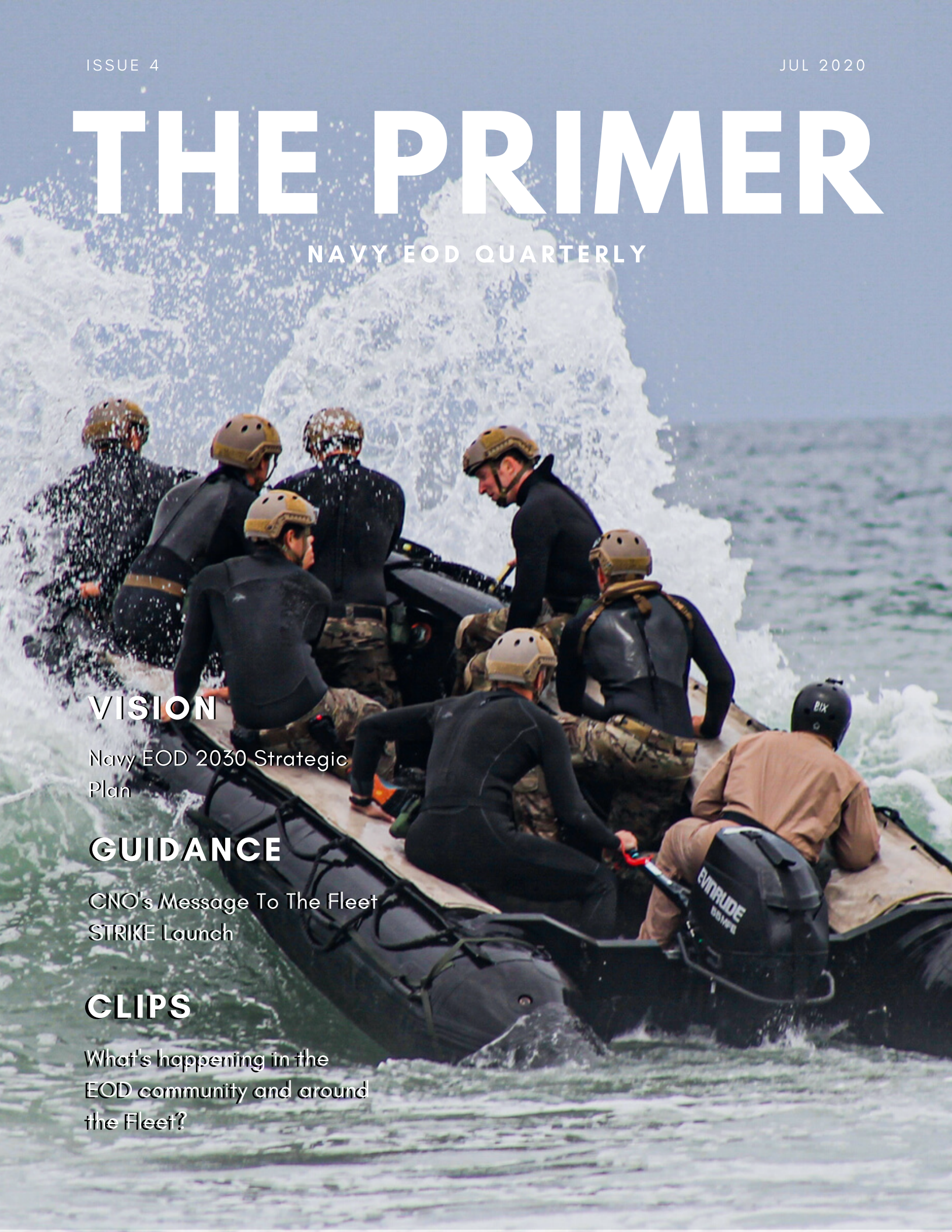
Navy EOD 2030 Strategic
Plan

GUIDANCE

CNO's Message To The Fleet
STRIKE Launch

CLIPS

What's happening in the
EOD community and around
the Fleet?



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A MESSAGE FROM THE COMMODORES

As the Navy adjusts to the "new normal" during the COVID-19 pandemic, the EOD force has maintained its flexibility and adaptability continually meeting mission requirements. We recently welcomed home EODMU-2 after completing a very successful, and extended, deployment to U.S. 5th Fleet, and look forward to EODMU-6's achievements as they continue the mission. As the Navy transitions through the COVID pandemic, continue to do your part to follow health protection conditions and CDC guidelines to prevent the spread of this disease.

Looking into the future, the Navy EOD Strategic Plan 2030 will be released in August in conjunction with Navy EOD's 79th birthday. The plan lays out a 10-year strategic framework to address steps needed to generate the future force in an era of great power competition. As we enable the fight for sea control and freedom to maneuver Joint Forces, this plan will set conditions for the continued success of our organization.

The successful launch of STRIKE, previously called EOD Force Resiliency Program (FRP), in July is a key element to enable further development of the force. STRIKE is not just a program, but a process to increase readiness and adaptability of the warfighter and prepare them to adapt to uncertainty. Our people are our weapon system and our greatest asymmetric advantage against our adversaries.

A critical component of this advantage is our ability to embrace diversity in Navy EOD. Our force make-up is comprised of individuals with a myriad of cultural backgrounds and history. The CNO recently stood up Task Force One with the mission of improving inclusion within the service. We cannot tolerate discrimination of any kind, and we must actively fight it. Discrimination works against the people and teams that serve as our center of gravity. Seek out different perspectives from the people you serve alongside to evolve and learn. Leverage our diverse backgrounds for the future fight.

CAPT Oscar Rojas
Commander, EOD Group 1

CAPT Rick Hayes
Commander, EOD Group 2

NAVY EOD 2030 STRATEGIC PLAN

NAVY EOD STRATEGIC PLAN 2030, A FRAMEWORK THAT SUPPORTS OUR STRATEGIC VISION, IS NEARING COMPLETION. THE PLAN OUTLINES STRATEGIC OBJECTIVES AND KEY INITIATIVES WE WILL EXECUTE TO GENERATE THE FUTURE FORCE AND MAINTAIN ADVANTAGES DURING THE GREAT POWER COMPETITION. THE PLAN WILL BE RELEASED IN CONJUNCTION WITH NAVY EOD'S 79TH BIRTHDAY ON AUGUST 22, 2020.

WE LOOK FORWARD TO DISSEMINATING THE PLAN WITH THE EOD FORCE AND DISCUSSING HOW OUR TACTICAL, OPERATIONAL, AND STRATEGIC FORCES CAN BEST SUPPORT.



WHY THE PRIMER?



Why name this publication "The Primer"? If you don't remember what a primer is, then maybe it's time to dust off the Advanced EOD Publication System (AEODPS) and refresh yourself on the basics.

In literature, a primer is an introduction to a subject. It presents the most basic elements of a subject. The primer is used to introduce the reader to the topic at hand. It serves to create within the reader's mind a sense of curiosity and inspiration to learn more.

In explosives, a primer is an essential component of the explosive train that commences the detonation of insensitive explosives, ordnance or ammunition. We use blasting caps to initiate demolition charges in a variety of scenarios - to render safe a roadside IED, breach walls, or create blast over-pressure to knock out a sea mine's electronics package. Primers are also present in enemy ordnance - the base of a 7.62 round, a grenade fuze, or IEDs constructed of home-made materials in hopes of catching us off guard.

The primer is a fundamental component of a system to achieve an output greater than the input. Though only requiring a small amount of energy itself, the primer sets in motion an action that is much larger than itself. We hope this publication is your primer. We present to you the actions, investments, and accomplishments of the EOD Force over the past quarter in hopes you recognize the value of your great community. We hope you read something that sets you in motion.

Even the smallest primer can have a massive effect.



EOD & DIVING COMMUNITY IDENTITY



- Unique battlespace problems require unique specialists. The Navy EOD & Diving community specializes in high-end, complex war-fighting problems.
- Navy EOD Operators and Divers protect the Fleet and Joint Force from explosive threats, enabling the nation to fight and win at a time and place of its choosing - wherever, and however, it chooses.
- Three unique, operationally vital skill sets:
 - (1) Support the Fleet: **Expeditionary Mine Countermeasures (ExMCM)**
 - (2) Support the Joint Force: **Counter-Weapons of Mass Destruction (CWMD)**
 - Specialized exploitation expertise informs both
 - (3) Support the Fleet: **Deep Sea Combat Recovery and Salvage**
- Focus is on high-end weaponry in challenging environments that poses an existential threat, capable of upending the world order and economy - “weapons of mass effect.”
- The Navy EOD & Diving community is unique due to their selection process, training, and specialized capabilities.
- **Decades long, sustained combat operations have forged Navy EOD into the world’s premier EOD force**, supporting the Fleet, joint special operations, and joint conventional forces.

We effectively deny use of weapons of mass effect, conduct deep sea special applications, and ensure freedom of movement



Mission One for every Sailor – active and reserve, uniformed and civilian – is the operational readiness of today's Navy. Our Nation expects a ready Navy – ready to fight today – and our commitment to the training, maintenance, and modernization that will also ensure a Navy ready for tomorrow. We will deliver this Navy.

WARFIGHTING

End State: A Navy that is ready to win across the full range of military operations. We must have a Fleet that is manned, trained, equipped, integrated, and ready to meet requirements of our senior leaders at any time. Alongside the Marine Corps, the Navy will deliver decisive Integrated American Naval Power.

WARFIGHTERS

End State: A Navy that is world-class. We will recruit, educate, train and retain America's most talented men and women. Our people – uniformed and civilian Sailors – are our asymmetric advantage.

FUTURE NAVY

End State: A Navy that is fully prepared to fight and win. Our Navy will be equipped with the right capabilities and numbers to meet the challenges of a complex and competitive maritime environment. We will look at what is required to operate forward, build the Fleet to match, and train together until we achieve integrated combat power across the force.

"I am confident that we will maximize the Navy we have today while delivering the Navy that our nation will rely upon tomorrow. We will do so with **urgency**. Our fleet will be a potent, formidable force that competes around the world every day, deterring those who would challenge us while reassuring our Allies and partners. Joining with the Marine Corps, we will deliver decisive **Integrated American Naval Power** when called. As we focus on the future, we will value and celebrate our heritage. Our Core Values of **Honor, Courage, and Commitment** and our attributes of **Integrity, Accountability, Initiative, and Toughness** will always guide us. They underpin who we are as members of the profession of arms: united by our common oath, dedicated to our special standards of ethics and character, and constantly honing our unique expertise in the art and science of naval warfare."

— Adm. Mike Gilday
Chief of Naval Operations



CNO MESSAGE TO THE FLEET ON SUSTAINING READINESS

WASHINGTON (NNS) -- Chief of Naval Operations (CNO) Adm. Mike Gilday sent a message to the fleet stressing the importance of remaining vigilant in the long-term battle against the Coronavirus (COVID-19), June 30.

Below is the text of CNO's message:

"As we head into a well-deserved holiday weekend celebrating our nation's independence, I want to convey how proud I am of our collective resilience and grit during this challenging time, and stress the importance of remaining vigilant in our long-term battle against the Coronavirus (COVID-19).

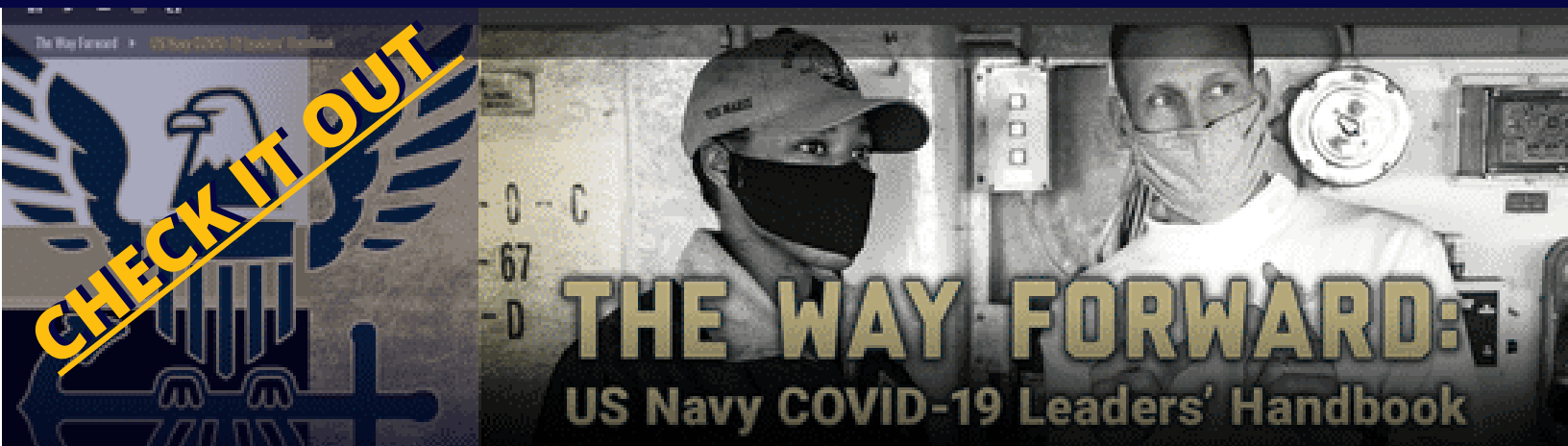
Together, we have impressively adapted and maintained our edge in confronting the COVID-19 Pandemic. Sustaining that hard-earned readiness is now dependent on each of us holding steadfast to the procedures, protocols and policies that keep COVID out of our commands. Especially this weekend, each of us will be faced with temptations to cut corners and return to the 'old normal.

'Do not do it. The health and safety of our Sailors and families is my number one priority. Do not compromise yourself, your family or your friends and become the source of COVID-19 at your command. We must protect family and shipmates from this virus with the same intensity that we protect them from any adversary, with focus and conviction. We will remain socially distant, wash hands, wear face coverings, and avoid large groups.

COVID is an insidious enemy, with roughly 35% of those acquiring COVID remaining asymptomatic. A single, healthy-feeling individual can unwittingly spread the disease to many others. COVID does not care how long it has been since you shook a hand, went to a bar, or hugged your grandparents. It can and will continue to spread with reckless abandon unless we stay united in defensive action. Together, we will rigorously maintain health protection measures to protect our Navy family and assure mission success even when it may appear the general public may be relaxing them.

An additional important layer of defense against this disease, given that the only way to uncover asymptomatic individuals is through testing, is the Surveillance Sentinel Testing (SST) that NAVADMIN 178/20 puts in place. SST tests a small percentage of our force routinely to help break the transmission of COVID-19, increase awareness across our force and provide greater health protection mission assurance.

I am extremely proud of the readiness we've maintained during these past few challenging months. More than one-third of the Navy is currently forward deployed, spending longer times at-sea with fewer port visits. These units, and many other ongoing examples of prioritizing service and country above self, demonstrate what makes us strong and a great Navy. My deep and sustained thanks as we continue to define and operate in this 'new normal.'" Get more information about the Navy from US Navy facebook or twitter. For more news from Chief of Naval Operations, visit www.navy.mil/local/cno/.



^{GUIDANCE} SUPPORT TO THE JOINT FORCE

CWMD & SOF Working Group homepage:

<https://intelshare.intelink.sgov.gov/sites/navyeod-sof/SitePages/Home.aspx>

Go here to update the distribution list, look for future engagements, post relevant events, and share information regarding equipment testing.



Even though our Forces were unable to participate in the large scale, SOF-focused, exercises like TRIDENT SPECTRE this year, our efforts to further Navy EOD's capabilities continue. We are actively maintaining momentum with our SOF Lines of Effort, and are postured to integrate across the DoD and Joint Force pursuant to the 2018 National Defense Strategy. We continue to host monthly SOF Working Groups via SVTC on the first Thursday of every month. Request access to the SOF Homepage, linked above, to ensure you're on the distro.

We continue to have the necessary engagements to further enhance NSW's awareness of the myriad Navy EOD capabilities. We are building relationships with NSW to build new Tactics, Techniques, and Procedures (TTPs) that enhance the reach and freedom of maneuver of the US Joint Force, and our ability to execute a variety of real-world operations.

Recently, we completed the SOCOM and GCC discussions following CRF Optimization, allowing us to advance our mission analysis and take critical steps ensuring our Forces are ready to execute missions when required.

LOE 1 Build a more lethal force

- Remain relevant in current and future requirements.
- Identify critical requirement shortfalls and gaps to drive investment and innovation.
- Drive transition of SOF equipment to the broader force.

LOE 2 Expand Competitive Space

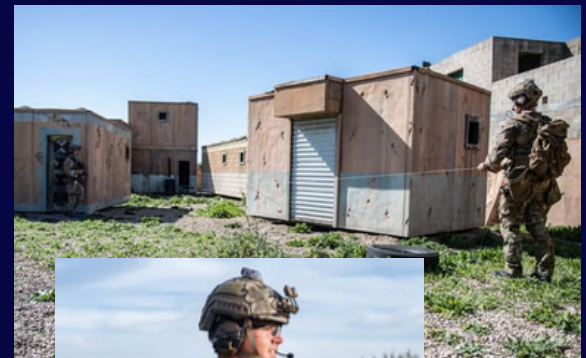
- Enhance force capability for Distributed Maritime Operations.
- Dominate the decision space.
- Optimize and advertise our unique capabilities.

LOE 3 Strengthen Partnerships

- Lead the Navy and Joint EOD SOF network.
- Identify unique opportunities for engagement.
- Increase our means to communicate & integrate across the DoD/IA/IC.

LOE 4 Evolve the Force

- Improve talent management and optimize billet assignment.
- Conduct capability assessments across multiple mission areas.
- Increase collaboration at every level.



Navy EOD's involvement in CWMD and SOF mission areas continue to evolve and requires your input!

CONTACT LCDR MATT BYINGTON, EODGRU 2 N5, FOR FURTHER INFORMATION:

MATTHEW.D.BYINGTON@NAVY.SMIL.MIL

SUPPORT TO THE FLEET

Expeditionary Mine Countermeasures New ROV, Video Ray Defender, in First Real-World Response

U.S. Third Fleet tasked EOD Mobile Unit Three to reacquire and detonate a bomblet near the Northeast tip of San Clemente Island. In March 2020, the EOD platoon attempted to complete the event with their organic SeaBotix® vLBV300; Navy EOD's first generation robotic platform for underwater response. However, the combination of the prevailing currents and insufficient weight-carrying capacity of that remotely operated vehicle, or ROV, posed a serious challenge. Enter Navy EOD's next generation of ROV, the VideoRay® Defender. It was rapidly modified from a commercial-off-the-shelf product and acquired with assistance from Naval Sea Systems Command's Program Management Office, Program Management-Ships (PMS) 408 and the Defense Innovation Unit (DIU).

PMS-408 and DIU used the Other Transaction Authority language found in 10 United States Code subsection 2371b to "carry out prototype projects that are directly relevant to enhancing...mission effectiveness."



VIDEORAY® DEFENDER PERFORMING
PIER INSPECTION AT JOINT
EXPEDITIONARY BASE LITTLE CREEK

In reality, PMS-408 began modifying and fielding two systems from that developmental effort, the VideoRay® Defender and the Strategic Robotic Systems (SRS) Fusion; a smaller, battery-operated ROV. These systems interim solutions, as part of OPNAV 957's strategy, to fully field the Maritime Expeditionary Stand-Off Response (MESR) Program of Record and are in their User Operational Evaluation System (UOES) phase. UOES is one method that the Department of Defense (DoD) Acquisition Process rapidly positions maturing technology to get warfighter familiarization and feedback. The UOES enables military operators to develop Tactics, Techniques, and Procedures (TT&Ps) and test the systems under operational conditions; one of the last hurdles in maturing the technology.

The systems were formally introduced to fleet operators in March of 2020 when the equipment manufacturers provided training to units from EOD Group 1 and 2 in San Diego and Virginia Beach. During the training at the Virginia Beach location, EOD Senior Chief Jeffrey Spengler stationed at the EOD shore detachment at Norfolk Naval Base said the new systems were "more user friendly and capable" than their predecessor. He likened the VideoRay® Defender to a "brute" with the required thrust to work in more challenging currents. EM1 Robert Smith who works in EOD Expeditionary Support Unit Two's Robot Shop was pleased that the newer systems could be operated outside of the water for longer periods of time than Seabotix® which will help with maintenance and operational checks prior to employment.



SRS FUSION, WITH ITS LIGHTWEIGHT
FORM FACTOR AND COMPACT
FOOTPRINT, SUPPORTS THE
EXPEDITIONARY NATURE OF NAVY EOD
RESPONSE

Since their introduction, the systems have seen some operational employment. VideoRay® Defender, with its improved capabilities, was designed to meet the depth, current and charge weight requirements for this particular bomblet operation.

On April 14th, EODMU 3 MCM platoon, operating off USNS Grasp, verified the bomblet's position at a depth of 280 feet. The ROV was loaded with an explosive charge and driven to the ocean floor. The ROV Operator maneuvered the ROV, avoiding entanglement with the detonating cord and positioned the charge near the bomblet. This technique proved to be successful. The charge was initiated and explosives detonated. Verification by the ROV confirmed the bomblet was destroyed. This mission was the first time Navy EOD's VideoRay® Defender was used in a real-world response and demonstrated the potential of the system to expand the range of environmental conditions under which missions can be completed. It also showcased how proficient ROV operators can transition quickly to new platforms.



Support To The Fleet

Fleet Concepts Development



Lines of Effort:

1) FLEET CONCEPTS
DEVELOPMENT INTEGRATION

3) INDUSTRY EXCHANGE & ACQUISITIONS

2) FORCE GENERATION & EMPLOYMENT
Expeditionary Salvage Line of Effort 1:

4) PLATFORM INTEGRATION & TRAINING

Define current salvage force capabilities and generate coordinated, forward leaning concepts in support of Fleet operations.

At Sea Damage Repair

Battle Damage Repair TTX

From 1-11 Jun 2020, MDSU, EOD, NCHB, and RMC personnel conducted a table top and live exercise to execute ASDR to a stricken ship in a semi-permissive environment, an expeditionary ordnance offload, and a low density, scalable, mission-essential husbandry operation.



Mobile Diving and Salvage Force Operations Doctrine

During the 2019 Salvage ESC, EXWDC was tasked to develop a new NTTP for Mobile Diving and Salvage Operations. Through hard work by EXWDC, MDSUs, SUPSALV, EOD Groups, and NECC, the NTTP is in the final stages of review. This doctrine will provide a means for naval and joint commanders to effectively deploy and employ mobile diving and salvage forces.

NTTP 3-10.5

NAVY TACTICS, TECHNIQUES, AND PROCEDURES

MOBILE DIVING AND SALVAGE OPERATIONS
NTTP 3-10.5

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS

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OF DEFENSE AND U.S. DOO
ONLY FOR ADMINISTRATIVE/
ONAL USE (NAV 300). OTHER
IT'S SHALL BE REFERRED TO NAVY
PHASE DEVELOPMENT COMMAND, 1325
1ST STREET, BLDG 0-27, NORFOLK, VA
23511-2721

PRIMARY REVIEW AUTHORITY:
COMMANDER, NAVY EXPEDITIONARY
MANIFESTING DEVELOPMENT
CENTER

URGENT CHANGE/REVISION RECORD		
NUMBER	DATE	ENTERED BY

This and other Navy Tactics, Techniques, and Procedures (NTTPs) are controlled by the Navy Tactics, Techniques, and Procedures (NTTP) Management Office (NTTPMO). NTTPs are controlled by the Navy Tactics, Techniques, and Procedures (NTTP) Management Office (NTTPMO).



FORMERLY THE FORCE RESILIENCY PROGRAM (FRP)

The name STRIKE is derived from the lightning bolts in the EOD insignia. Not only do the lightning bolts symbolize the potential destructive power of unexploded ordnance, they most importantly symbolize the courage, professionalism, and RESILIENCE of the EOD operator.

When the storm clouds roll in, STRIKE empowers the Force to overcome adversity and uncertainty. The human – our platform, sensor, and weapon system - in EOD STRIKE wields comparable power to the air wing in the Navy's Carrier Strike Group. STRIKE is not a program, it is a leadership process executed by every single member of the Force to: protect individuals and teams from debilitating stress through adaptability, recovery, and growth across the personal, social, cognitive, and physical wellness domains.

CURRENT STATUS

EODGRU 1

We have six of eight contractors hired and approximately \$800,000 in state-of-the-art, human-performance and rehabilitative equipment ordered. Our interim human performance facilities are taking shape and our long-term MILCON plans continue toward the world class level our Force has earned. Each member of our staff is actively working two days a week with each unit, and we have received invaluable operator feedback to make these efforts even more effective. We are building a culture of optimized health and readiness, keeping our Sailors prepared to fight! Additionally, we are focused on providing a customizable data tracking and metrics platform to keep our force healthy and capable of meeting any challenge. We will leverage experts in sports medicine and psychology who have worked within the special operations community to give us an objective look at the physical and mental health of our Sailors and keep us on the forefront of innovation.

EODGRU 2

Facility complete! Equipment installed! Staff Ready!

The first platoons will be starting the program in July! During your first week, personnel going through STRIKE will participate in INDOC. During this phase, personnel will receive nutrition, supplement and sleep education. Height, weight and body fat percentage will be recorded and the staff will develop individual programs. Everyone will have an opportunity to meet with a mental health care provider. There will be courses on work-life balance, including stress management as well as physical performance evaluations. The staff will also develop workout schedules for each team to help guide them through the program to ensure longevity and minimize injury recovery.





EOD

Frequently Asked Questions

Who can use the program and facilities?

Priority is assigned to the units of action (UOAs) - EOD, MDS, and UMS platoons and companies – preparing to deploy. Additional EOD, Diver, staff, and support personnel will be granted access based on the STRIKE specialists' availability and individual needs (medical condition, post-op recovery, etc.).

Will the program be tailored to the platoons or companies and the mission they are anticipated to be doing?

Yes, the program will be specifically tailored to the mission and projected operational environment. We understand each UOA has its own unique needs - a SOF platoon is not a MDS company is not an ExMCM company - so we will tailor each program to each team and their members.

How often will we see the STRIKE program staff?

The first touch point for the UOAs is Indoctrination to conduct baseline assessments and familiarize teams/individuals with program basics and expectations. Mandatory assessment touch points will be programmed throughout the OFRP, including: end of ULTRA, after FEP/CERT, mid-sustainment, prior to first/second deployment, and post-deployment.

Is there a way to schedule one-on-one time with any of the STRIKE staff specialists?

Yes, please see or contact your respective EODGRU STRIKE Team to determine availability for one-on-one interactions. Please contact your medical representative to determine availability for physical therapy appointments.

Can I use the facility whenever I want? Are there open hours?

No, the facility is specifically designed for the training and assessment of our teams and individuals. It is not designed for open gym hours. The current COVID situation further restricts our ability to provide access to a larger volume of the Force. We will further refine standard operating procedures and schedules in the coming months to maximize use by the Force.



EODGRU 1 MEET-AND-GREET WITH THE STRIKE STAFF

J.D. Garbrecht, DPT



J.D. Garbrecht retired after 35 years of service in the Marine Corps and the Navy. He received his bachelor's degree in physical therapy from the University of Wisconsin in 1997. He subsequently completed an MBA from Boston University and holds two other master's degrees in exercise science with concentrations in biomechanics and sports performance, respectively. He also completed a doctorate in physical therapy from the Massachusetts General Hospital Institute of Health Professions. He is a board certified specialist in both orthopedic and sports physical therapy since 2003. His clinical interests are in manual therapy and sports performance. He is a distinguished graduate of both the USMC Command and Staff College, and Amphibious Warfare School programs. He is a former Navy and Marine Corps parachutist and graduate of the U.S. Army Special Forces jumpmaster course.

Kristin Manyak, DAT, ATC



Kristin is one of STRIKE's board certified athletic trainers, emphasizing in the rehabilitative care and prevention of musculoskeletal injuries. She comes to STRIKE after almost nine years of experience as an athletic trainer at San Diego State University (SDSU). While at SDSU, she worked with a variety of sports including men's soccer, women's rowing, women's water polo, and track and field. She also held multiple administrative positions including writing the department's policies and procedures, facilitating departmental task forces for athletic medicine initiatives, completing concussion research for the department, and being the clinical site coordinator for the SDSU Athletic Training Program. Prior to her full-time employment, she completed her undergraduate degree in kinesiology with an emphasis in athletic training in 2011 (SDSU) and earned her master's degree in kinesiology with an emphasis in rehabilitation sciences in 2013 (SDSU). She earned a doctorate in athletic training from A.T. Still University in 2018.

Stephane Rochet, CSCS



Stephane Rochet began his career as a strength and conditioning coach at UCLA in 1999. He also served as a strength and conditioning coach at Indiana University and as the head strength and conditioning coach at the University of San Diego. Rochet was a lead instructor for CrossFit for several years before serving on the CrossFit Games event team from 2013-2017, where he assisted with organizing and putting on regional events, and the CrossFit Games. Most recently, Rochet returned to UCLA where he worked primarily as the strength and conditioning coach for the baseball team.



EODGRU 1 MEET-AND-GREET WITH THE STRIKE STAFF

Dale Nitzel, MS, ATC, CSCS, PES, USAW



Dale has been a certified athletic trainer for more than 19 years. He has worked with USA Volleyball's high-performance camps and USA Rugby. He has significant experience in 16 different sports, working with athletes ranging from high school to collegiate athletics. For the last seven years he was the senior athletic trainer in the Sports Medicine Department at Naval Hospital Camp Pendleton, working with service members from all branches and specialties. Dale has been a certified strength and conditioning specialist for 17 years, working with professional, collegiate and high school athletes. He holds certification through the National Academy of Sports Medicine as a performance enhancement specialist and is certified as an USA Weightlifting Level I coach. Dale Graduated from San Diego State University in 2000 and later received his master's degree in 2005. A competitive athlete himself, he played three years of college football—two years in junior college and a year of NCAA Division II.

John "Jack" McCormick, CSCS



Jack McCormick has been a strength and conditioning specialist since 2009. He has served as a college strength and conditioning coach at the University of San Diego (2010-2012), University of Massachusetts-Lowell (2012-2014) and Loyola Marymount University (2014-2018). During this time, he had the opportunity to lead the performance training for men's and women's teams across 12 different sports. He also has experience in the National Hockey League, having served as a strength and conditioning intern for the San Jose Sharks in 2009. Additionally, he served as a prospect development camp volunteer strength and conditioning assistant for the New York Rangers in the summer of 2013. Also, he served as a strength and conditioning intern while earning his master's degree in kinesiology with an option in sport psychology at Fresno State. He also holds a bachelor's degree in psychology from the University of San Diego.

Adam Taylor, DPT



Adam Taylor is a highly distinguished physical therapist out of Oahu, Hawaii. He served as an army officer and received his doctor of physical therapy degree from the prestigious Army-Baylor DPT Program. He has worked with wounded warriors and the limb salvage rehab team at Center for the Intrepid. He also gained valuable knowledge and experience in Special Operations and demolitions training by completing the rigorous SAPPER Leader Course. He holds a CSCS certification and has a true passion for human performance and the development of athletes. He is also certified in Trigger Point Dry Needling, battlefield acupuncture, blood flow restriction therapy and joint manipulation/manual therapy. He maintains a high level of physical fitness and enjoys boating, deep sea fishing and bodybuilding in his spare time.

Q&A

WITH EOD FORCE RECRUITER,
EODC MATT LUDWIG**Q: What is the current state of EOD recruiting?**

A: We recruit approximately 250 candidates of “street” accessions each year. Less than 20% of our street accessions successfully navigate the Navy EOD training pipeline. We see the highest numbers of attrition during Selection and Assessment due to water adaptability. Our two other sources of EOD candidates stems from the lateral transfer and redesignation program. As part of my job as Force Motivator, I screen potential candidates from the Fleet, such as first tour Sailors serving onboard ships, and potential candidates who were recruited for Navy Special Warfare (NSW) and did not complete their training pipeline. 80% of our lateral transfer and 60% of our redesignations make it through the Navy EOD training pipeline. The majority of our attrition occurs at different points along the way. We lose a majority of the street accessions at prep due to water adaptability. With that said, we also lose some of the BUD/S and fleet transfers here as well due to ineffective prior training and not being aware of the water protocol that is expected of them. The highest attrition rates we see occur at Eglin, primarily due to academic and motivation. As you know, this school has a fast learning curve and not all are up to the challenge or aren't able to show proper comprehension and application.

Q: What do you think the biggest problem facing EOD recruiting is today?

A: The biggest problem facing EOD recruiting is an overall lack of awareness that this community and career track exist. We do not have the same numbers or exposure in the entertainment industry that other warfare communities do. This does hamper us a bit when you think about how our recruiting demographic primarily receives information about the military—television, movies, books, social media, friends and family who are familiar with various Navy ratings. As I mentioned, the highest percentage of our candidates who successfully make it through the training pipeline, did not put EOD as their first preference and may not have even been aware it was an option. If they did, we wouldn't be relying on another community's attrition to produce the majority of our candidates. While this model has “worked” to create the numbers we have today, its unsustainable and irresponsible to rely on it as we work to develop the future EOD force for great power competition. We do not want to be directly tied to the NSW pool of candidates, because if their accessions numbers run dry, we will be left without a contingency plan.

Q: What do you think would fix these issues?

A: Ideally, we need to take a multi-pronged approach to this issue. One of the biggest avenues for advocacy that we are sorely missing out on is harnessing the power of our veterans and retirees to serve as regional SOF mentors for recruiting districts. Of the 26 Navy Recruiting Districts/Navy Talent Acquisition Groups, NSW has retirees and mentors in more than 90 percent of them. Who better to share our story with potential candidates than people who have lived it. We need to improve our market share when it comes to mentoring candidates for special operations career tracks. We also need to address the lack of exposure the community has on a public scale. There is a wrong way of doing this, but we are going to do it the right way by supporting outreach efforts and public affairs production requests whenever possible. Next year, the first EOD tech in recent memory will be joining the Navy's Parachute Team, that's big news for EOD recruiting and advocacy! We also need to explore more opportunities in meeting potential recruits where they are at—whether this is through social media platforms like Instagram, YouTube collaborations with influencers like we conducted last year with [DALLMYD](#) or sharing Navy EOD's story within the entertainment industry. We don't want to overexpose the community, because we take pride on being humble professionals. However, we can't continue down the same path and expect change with respect to recruiting if we don't put the effort in. We welcome any ideas from the community on better ways to reach potential recruits while maintaining our humble professionalism.

Q: What can EOD badge-wearers do right now to assist recruiting efforts, even though they're not in recruiting billets?

A: You all have spheres of influence in your hometowns, in your local community, and within your circle of family and friends. The Navy's power house recruiting districts for special programs, like Navy EOD, are Los Angeles, San Francisco, San Diego, Virginia and Massachusetts. Our true target market is coastal due to early exposure to the water. You can help right now by amplifying Navy EOD's story by sharing information with people who would make strong candidates. Bonus points if they're intelligent, athletic and are comfortable in the water! It is not just about helping individuals find a career path in the Navy, it is also about helping the community find people who are the right fit. It would assist us greatly if EOD techs “blueprinted” a Sailor before calling the ECM or Force Recruiter. This saves man hours on all ends so that we are not trying to help a potential candidate who doesn't qualify for the program. We're also taking any and all ideas on what the future of Navy EOD recruiting should look like. Have an idea? Know someone with a platform who can assist us? Shoot me an email and we'll get to work: matthew.ludwig@navy.mil.



MENTAL HEALTH

DURING THE COVID PANDEMIC

WHAT CAN YOU DO TO MAINTAIN RESILIENCY?

Since the COVID-19 pandemic reached the shores of the United States, a great deal of attention has been given to the precautions required to maintain our physical health status. The unique stress caused by COVID-19, that we are experiencing is ongoing and chronic, and uncertainty about what the future holds can make our attempt at managing the unnerving effects on our psychological health seem almost impossible. Presented here are some touch points for addressing concerns and maintaining proper psychological health in times of duress. The following is by no means an exhaustive list, but a collection of resources and strategies discussed in professional medical and psychological literature found to have benefits in everyday life, and especially in this time of ambivalence.

RECOGNIZE THE SIGNS OF STRESS



MAKE A LIST OF THINGS IN YOUR LIFE CAUSING YOU THE MOST STRESS

- Some types of stress are healthy, focus on those things that negatively impact your daily functioning.
- Identify what items on your list are within your control.



EXAMINE CHANGES IN YOUR AND LOVED ONE'S BEHAVIORS

- Problems with memory, thinking, concentration
- Pessimistic thinking
- Depression, anxiety
- Frequent mood changes
- Anger/irritability, emotionally reactive
- Feeling overwhelmed, lonely, worried
- Withdrawing from social interaction
- Explosive temper
- Excessive punishment of kids
- Loss of sex drive or desire of intimacy
- Chronic Pain
- Autoimmune response
- Problems with digestion and bowel functions
- Heart problems
- Diabetic reactions
- Marked increase in blood pressure
- Rapid Heart rate, chest pain
- Change in eating habits
- Poor hygiene
- Procrastination
- Risk taking behavior
- Finding little comfort in faith resources
- Anger towards faith leaders
- Abandoning faith entirely

REACH OUT FOR HELP!

Don't be afraid to reach out for assistance if you find yourself having difficulty dealing with psychological health-related concerns. Help is out there, and it's designed to keep service members functioning in their jobs NOT to prevent them from serving.

Psychological health services are available to service members and their families and range from workshops and trainings to individual, couples and group psychotherapy, as well as substance abuse treatment and support. Psychological health resources include Fleet and Family Support Services, Embedded Mental Health, Regional Military Treatment Facilities, Chaplains, and so much more. If you find yourself in need of assistance, it is better to be proactive and work on areas of concern before they grow into problems that seem overwhelming.

If you have questions, don't hesitate to reach out to your designated medical departments with concerns for yourself or your peers, as they can often direct you to the appropriate resources.

COPING WITH STRESS

COGNITIVE

- Challenge negative thoughts and pessimism
- Identify one thing each day for which you are thankful
- Attempt to eliminate distractions in your environment
- Get outside and in nature as much as you can
- Be mindful of the sights of nature around you
- Distract your mind (puzzle, book, your favorite show)
- Listen to music you find to be peaceful
- Be patient with yourself, you don't have to be perfect

EMOTIONAL

- Recognize and identify how/what you're feeling
- Write/draw/express feelings in a journal
- Channel strong emotions into a home improvement project (or neighborhood improvement project)
- Practice mindfulness and meditation exercises
- Take an online yoga class

INTERPERSONAL

- Maintain contact with support network
 - Use virtual platforms to have meetings with loved ones
 - Share positive messages
 - Check in on each other, especially people who seem to be withdrawing from your family or social circle
- Start a game night among the people in your home
- Reach out to old friends or people in your community who live alone

PHYSICAL

- Eat nutritious food
- Avoid excessive sugar, caffeine, carbohydrates
- Keep meals on a schedule
- Allow for some "comfort food" from time to time
- Even when gyms aren't open you can go for a walk, ride a bike, lift weights or exercise in your own home
- Take medications **as directed**, get refills early
- Take a relaxing bath or hot shower
- Practice deep breathing to calm down and relax

SPIRITUAL

- Schedule time for spiritual reflection/meditation, prayer
- Talk with others of same faith / different faiths
- Engage in virtual religious practices with others
- Read faith-based material that brings a sense of peace

BEHAVIORAL

- Establish and maintain daily routines
- Keep a regular sleep schedule
- Make bedroom comfortable (temperature, bedding, etc.)
- Be mindful of alcohol and tobacco intake
- Avoid self-destructive behaviors

SLEEP AND PERFORMANCE

Sleep is a Biological Need

Athletes sleeping <8 hours per night have
1.7 TIMES
increased risk of injury.

3 or more Consecutive nights of < 7 hours sleep correlates to
20% DECREASE
in Cognitive Performance.

Regularly sleeping < 5-6 hours per night is equivalent of a
0.08%
Blood Alcohol Level.

- Lack of sufficient sleep increases incidences of high blood pressure, depression and cancer. It can also hinder healthy weight loss.
- Banking sleep for 7-10 days prior to known restricted sleep periods positively effects performance and health.
- Getting deep sleep effects your hormones:
 - ↓ stress hormone (cortisol)
 - ↑ man growth hormone and testosterone production
 - ↑ muscle tissue repair
 - ↔ regulates appetite hormones



Tips for Improved Sleep

KEEP A SLEEP SCHEDULE

Go to bed at the same time every day. Sleeping 10pm -6am is the optimal time frame for physical and psychological recovery. It takes just 7 days to adjust to a new sleep cycle.

UNPLUG ELECTRONICS

Avoid blue light and screens for 2 hours before bed as it disrupts circadian rhythms. Keep electronics > 6ft from your bed and use the "do not disturb" settings during your sleep schedule.

BREATHING TECHNIQUES & MINDFULNESS

Reset the autonomic nervous system with low and slow diaphragmatic breathing. Pace at 4 seconds in and 6 seconds out for 10 minutes. Use mindfulness techniques such as meditation and yoga to calm obtrusive thoughts.

TEMPERATURE

Ideal room temperature for sleep is between 65-72 °F. Having a warm shower before bed allows your body to cool down afterwards, and increases your natural desire to sleep.

ATMOSPHERE

Dim lights for reading, use alarm clocks with red displays to avoid blue light, and replace window coverings with blackout materials to create an environment conducive to sleep.

LIMIT ALCOHOL

Alcohol is credited with relaxation, but may make it harder to fall asleep. Alcohol affects REM sleep, the most restorative sleep cycle. Limit alcohol consumption to 1-2 servings.

Food Hacks For Sleep

PROTEIN RICH SNACKS

Eating a protein rich snack before bed can help improved post-exercise recovery overnight.



MELATONIN

Melatonin is a hormone that regulates sleep and wakefulness. Natural sources include tart cherries & their juice, tomatoes, orange bell peppers and walnuts. Limit use of melatonin supplements to 3mg for 1-2 nights to help reset your sleep schedule post travel.

MAGNESIUM

Magnesium is a natural muscle relaxant; it can reduce stress and promote recovery. Magnesium is absorbed easily through the skin (e.g. epsom salt baths, magnesium sprays), and can be found in foods such as bananas, yogurts, dried fruits and dark chocolate. Be cautious with oral magnesium sulfate as it can act as a laxative.



SEROTONIN & TRYPTOPHAN

Serotonin is a neurotransmitter that induces sleep, and is produced when an amino acid called tryptophan enters the brain. A small carbohydrate and protein snack before bed can increase insulin and tryptophan to induce sleep. Avoid high sugars or high glycemic carbs. Examples: Greek yogurt + mixed berries, Cottage cheese and blueberries, tart cherry juice and casein, protein power and milk.



COMMUNITY RECOGNITION

BATTLE DAMAGE REPAIR: MDSU 2 FLEET CONCEPT

Mobile Diving and Salvage Unit (MDSU) 2 led an emergent damage repair "rehearsal of concept" (ROC) exercise at Joint Expeditionary Base Little Creek-Fort Story on June 11.

The rehearsal, held in-parallel to BALTOPS 2020, was conducted to test U.S. forces rapid response capability to stricken vessels during conflict in semi-permissive environments.

BALTOPS, held in the Baltic region since 1972, is a joint, maritime-focused exercise that brings together NATO and partner nations to increase interoperability and enhance flexibility.

The rehearsal tested MDSU 2 and supporting units' ability to rapidly deploy, conduct damage assessment, affect emergent temporary repairs, and offload ordnance from damaged warships.

"This rehearsal is the culmination of a two-week operational planning event incorporating capabilities from several units with the order to sustain naval fighting power," said Lt. Phil Westbrook, MDSU 2 operations officer.

For this scenario, a simulated enemy explosive device struck a maritime vessel in a contested environment. Prior to any damage assessment and repairs, explosive ordnance disposal (EOD) technicians assigned to EOD Mobile Unit (EODMU) 12 conducted an initial underwater sweep of the vessel for additional explosive devices. After the sweep, Navy divers assigned to MDSU 2 entered the water and completed the necessary emergent patching enabling the vessel to get underway and return to port for repairs.

"We are preparing for real-world scenarios where there will need to be a fly away capability and a land-based component to our emergent repair mission," said Westbrook. "We have incredible assets at our disposal and this rehearsal was essential to walk through the process of getting our ships back in the fight."

MDSU 2 and EODMU 12 personnel were joined by teams from Underwater Construction Teams, Regional Maintenance Centers, Navy Cargo Handling Battalions, and Naval Sea Systems Command Supervisor of Salvage and Diving, who would be vital to repair efforts in OCONUS naval ports.

During the scenario, damage was emergently patched and the ship returned to port, where Navy divers from the Mid-Atlantic Regional Maintenance Center (MARMC) entered the water to conduct more thorough, damage assessments and conduct temporary repairs to the vessel.

Based on lessons learned from the operational planning event and rehearsal of concept, MDSU 2 and supporting units continue to experiment with new response technologies, building upon their strengths as an integrated force.

"In our capacity as an expeditionary force, we have the unique capability to rapidly deploy and conduct vital assessments and emergent repairs," said Westbrook. "At the end of the day, Navy diving and EOD is a piece of the puzzle; our focus is to return ships to a warfighting status. Today was a proof of concept; we have the personnel and capability to answer the call when it is necessary."





EXPLOSIVE ORDNANCE DISPOSAL MOBILE UNIT TWO



COMMANDING OFFICER
CDR Cornell

EXECUTIVE OFFICER
LCDR Kennedy

COMMAND MASTER CHIEF
EODCM Dial

COMMAND SPOTLIGHT

1980

From its birth on 01 May 1980 at Fort Story to its present location on Joint Expeditionary Base Little Creek, 19 Commanding Officers and 17 Command Master Chiefs have led Explosive Ordnance Disposal Mobile Unit (EODMU) TWO throughout 40 years of marked accomplishments around the globe.

What started as 22 four-person shipboard detachments has evolved into three shore detachments, six Mobility (MOB) platoons, four Special Operations Forces (SOF) platoons, and two Expeditionary Mine Countermeasures (ExMCM) companies that deploy in support of fleet and joint commanders to perform EOD and diving operations.

Reports of **underwater explosions and terrorist claims of mine laying in August 1984** had EODMU TWO surging into the Red Sea to join the international mine hunt of Operation INTENSE LOOK. Two years later, EODMU TWO was called again to join Navy and civilian vessels in the recovery of critical components from the loss of the Space Shuttle CHALLENGER. EODMU TWO forces conducted 540 individual dives and visually interrogated 880 sonar contacts over 480 square miles, leading to the recovery of critical orbiter and payload components.

EODMU TWO's MCM work continued in November 1987 following the mining of international waterways by hostile Iranian forces. MCM detachments destroyed 16 mines in the Farsi Mine Danger Area and rushed to the aid of USS SAMUEL B. ROBERTS after she struck a mine in the Arabian Gulf; the same MCM team disposed of 30 additional mines and cleared three minefields.

In 1991, following the aftermath of Operation DESERT STORM, EODMU TWO forces deployed to Northern Iraq in support of (ISO) Operation PROVIDE COMFORT. While offering humanitarian assistance to the Kurdish people and preventing further retaliation from Saddam Hussein, EODMU TWO Sailors recognized a new need to train the entire EOD force in insertion/extraction skills, small arms proficiency, and close-quarters battle to better integrate with various units.

2000

The early 2000s brought EODMU TWO detachments deep into **Operations ENDURING FREEDOM (OEF) and IRAQI FREEDOM (OIF)**. One detachment joined the 3rd Ranger Battalion and parachuted into an Iraqi airfield at night to clear the airfield and land a C-17 by morning. With a high threat of chemical warfare attacks, and the runway littered with potential hazards, the operation was conducted in Advanced Chemical Protective Garments. EODMU TWO's work during OEF would also lead to the discovery and prosecution of the second largest cache found in Afghanistan at Tarnak Farms in 2004.

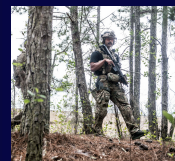
EODMU TWO remained busy throughout the following years. **In Iraq from 2005-2006**, technicians from EODMU TWO prosecuted an impressive 5,374 Improvised Explosive Devices (IED), destroyed 299 weapons caches, recovered 6,500 items of enemy ordnance through buy-back programs, and disposed of over 1.2M pounds of ordnance. EODMU TWO forces assigned to Joint Task Force TROY NORTH in 2010 conducted 747 unilateral missions, responded to 113 IED and unexploded ordnance incidents, conducted 284 post-blast investigations, and disposed of 23K pounds of ordnance.

Since 2006, EODMU TWO has lost three brothers. Their memory, their love, and the lessons they provide is instilled in every member of the command today. EODC Paul Darga was killed in action August 2006, and ET2(EOD) David Roddy was killed in action September 2006, both in support of OIF. In November 2016, while deployed ISO Combined Joint Task Force Operation INHERENT RESOLVE (OIR), EODCS Scott Dayton was killed in action while deployed to Syria. They are never forgotten.

In 2018, EODMU TWO deployed four platoons to support the U.S. Central Command Crisis Response Force. Supporting OIR, a platoon exploited the largest biological warfare agent cache in the Global War on Terror. Intelligence gleaned from this operation resulted in reports included in the Presidential daily briefing and a Secretary of Defense memo to the President.

A year later, another **EODMU TWO SOF platoon planned, executed, and led Operation VIPER SHANK**, a Joint Combined Operation with a 20-man element comprised of U.S. Army Special Operations Forces and Syrian Democratic Forces. The operation successfully disposed of over 33K pounds of toxic industrial chemicals recovered from multiple ISIS caches in Syria.

With tensions rising in the Gulf again in **2019-2020, EODMU TWO assumed responsibility as Commander Task Group 56.1/52.3** in Bahrain and completed an eight-month deployment which supported Maritime Security and contingency operations, enhanced international partnerships, and provided theater exploitation capabilities.



Rest easy brothers. We have the watch.



EODC Paul Darga



ET2 (EOD) David Roddy



EODCS Scotty Dayton

Welcome Home

EODMU2 Returns From Extended Deployment

By Explosive Ordnance Disposal Technician 1st Class John Barry, EOD Group 2 Public Affairs

VIRGINIA BEACH, Va. – Sailors assigned to Explosive Ordnance Disposal Mobile Unit (EODMU) 2 returned to Norfolk, Va., on June 22 following an eight-month deployment as Task Group (TG) 56.1/52.3.

EODMU 2 was deployed in direct support to Commander, 5th Fleet (C5F) for underwater mine countermeasures, expeditionary salvage, counter-improvised explosive device and explosive ordnance disposal (EOD) response.

The missions brought them to ten countries in the C5F area of operations; Bahrain, United Arab Emirates, Kuwait, Lebanon, Jordan, Saudi Arabia, Oman, Qatar, Egypt and Djibouti.

Engagements consisted of Anti-Terrorism/Force Protection missions supporting 12 international ports as well as maritime interdictions and illicit narcotics deterrence operations.

“I’m incredibly proud of the work accomplished by the EODMU 2, EODMU 1, Mobile Diving and Salvage Unit 2 and EOD Expeditionary Support Unit 2 Sailors that comprised our Task Groups,” said Cmdr. Clinton Cornell, EODMU-2’s commanding officer. “Their ability to quickly adapt to the changing environment in an unprecedented time of force health concerns and increased regional tensions is a great example of the hard work and dedication of our Force. The team’s performance and perseverance to the mission and each other was exceptional.”

EODMU 2, headquartered at Joint Expeditionary Base Little Creek-Fort Story in Virginia Beach, Va., was relieved by EODMU 6 to fill the role of TG 56.1/52.3. Both mobile units provide operational EOD capability for the location, identification, rendering safe, recovery, field evaluation and disposal of all explosive ordnance.



COMMUNITY RECOGNITION

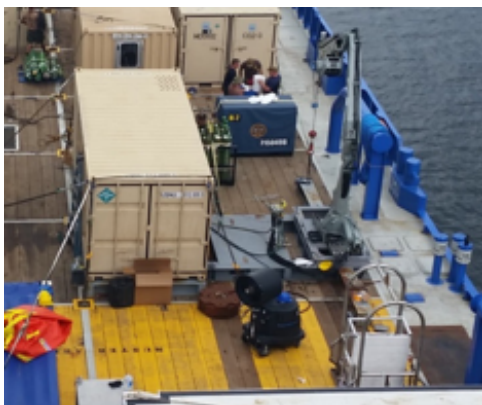
EOD IN-RESIDENT GRADUATE EDUCATION PROGRAMS

		School	Degree	Thesis/ Focus
NPS	LT Christopher Price	Naval Postgraduate	Mechanical Engineering, Undersea Warfare	Autonomously deploying effects on Seabird-Buried Target
	LCDR Jonathan Bach	Naval Postgraduate	Computer Science	Artificial Intelligence
	LT Ryan Donofrio	Naval Postgraduate		Structure, Thermodynamics, and Energy content of Percolate containing Manganese Clusters
	LT Colton Kawamura	Naval Postgraduate	Physics	
JUNIOR WAR COLLEGE	LCDR Gregory Bobich	Naval War College		
	LCDR Dhruv Parashar	USMC War College	Master of Military Studies (MMS)	The digital camouflage fiasco of the 2000s: How the US Military attempted to combine fashion with function and manufacture identity crisis
	LT J.D. Mello	Naval War College		
	LT David Haney	Army Command and General Staff Officer		
SENIOR WAR COLLEGE	CDR Doug Alley	Naval War College	National Security and Strategic Studies	Unmanned systems and GPC in the Arctic
	LCDR Zach Scheetz	Naval War College	National Security and Strategic Studies	Advanced Strategic Studies
FSEP	LCDR Braden Schrock	Northwestern University	Finance, Marketing	Technology Management, Artificial Intelligence contact
	LT Ralph Grossman	Harvard	Masters, Public Policy	International and Global Affairs
	LCDR Aaron Dixon	University of Southern Cal.	Systems and Industrial Engineering	Data analysis and statistic based efficiency
	LT Ben Lewis	Georgetown	Security Studies Program	Technology and Security
	LT Drew Visintin	University of Texas	Masters in Business Administration	Strategy, Innovation & Finance
	LT William Quadrino	University of Pennsylvania		
IGEP	ENS Ben Hynes	Purdue	Aerospace Engineering	Hydrogen storage for portable fuel cells using chemical hydrides
	ENS Aaron Fowler	Georgetown	Arab Studies	Arab governments, Civil-Military relations and US foreign policy
	ENS Cassandra Dooley	Cambridge		
SOCOM	EODCS Jake Trapp	M.I.T.	Masters in Business	
FEF		Fellowship Location	Research Topic	
	CAPT John Moulton	University of Oxford	How militaries harnessed the Industrial Revolution and what democracies can learn from it in the Information Age	
	CDR Jeremy Wheat	Tufts		
	CDR Erich Frandrup	Atlantic Council - Scowcroft Center for Strategy and Security	How the U.S. will maintain undersea superiority against its competitors in an age of unmanned systems	

**If you would like to contact personnel listed above to discuss their area of study,
please contact the EOD OCM or Detailer for contact information.**

USER OPERATIONAL EVALUATION

SYSTEM SUCCESS



CURRENT SYSTEM: MOBILE DIVERS DAVIT ASSEMBLY (MDDA)

UNDER THE USER OPERATIONAL EVALUATION SYSTEM (UOES), MOBILE DIVING AND SALVAGE UNIT (MDSU) TWO FIELD TESTED TWO ITERATIONS OF A DIVER LAUNCH AND RECOVERY SYSTEM (LARS) FROM BAY TECH INDUSTRIES AND MORGAN CITY RENTALS FOR POSSIBLE PHASED REPLACEMENT/ TECHNICAL REFRESH (PR/TR) OF THE CURRENT MOBILE DIVER DAVIT ASSEMBLY (MDDA). BOTH OF THESE SYSTEMS HAVE BEEN IDENTIFIED AS POSSIBLE MATERIAL SOLUTIONS.

THE DIVER LARS IS COMMERCIALLY DESIGNED AND MANUFACTURED IN THE U.S., AND WITH ITS "A-FRAME" DESIGN, WILL ALIGN THE NAVY TO CURRENT COMMERCIAL INDUSTRY STANDARDS ENABLING DIVING OPERATIONS FROM MOST VESSELS OF OPPORTUNITY.

THESE COMMERCIAL LARS WILL REDUCE THE DECK FOOTPRINT OF THE MDDA AND PROVIDE ADDED REDUNDANCY TO RECOVER DIVERS WITH AN ADDITIONAL WIRE IN EMERGENCY SITUATIONS. FURTHER REDUNDANCY IS DELIVERED VIA TWO HYDRAULIC POWER UNITS (ONE ELECTRIC, ONE DIESEL ENGINE DRIVEN), PERFORMANCE PARAMETERS NOT OFFERED WITH THE CURRENT MDDA. WEIGHING NEARLY 9K POUNDS LESS THAN THE MDDA, THE LARS' VERSATILE CONFIGURATION ALLOWS FOR INSTALLATION ONBOARD A MULTITUDE OF SUPPORT VESSELS AND PLATFORMS, WHILE GREATLY EXCEEDING MDDA PARAMETERS IN TERMS OF PERFORMANCE AND LOGISTICS.



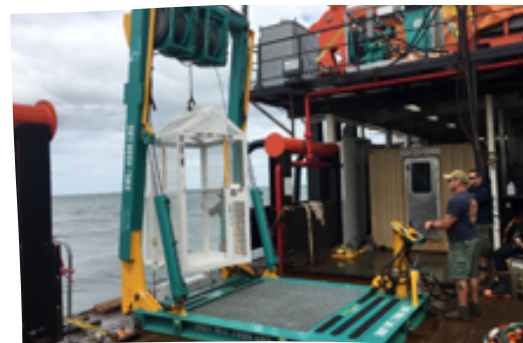
MORGAN CITY RENTALS LAUNCH AND RECOVERY SYSTEM (LARS)

SINCE THE LARS IS A NON-CERTIFIED DIVER LIFE SUPPORT SYSTEM, A HAZARD ANALYSIS (HA) FROM NAVSEA OOC3 AND OOC4 WAS REQUIRED, ALONG WITH A FLAG OFFICER WAIVER APPROVAL, TO ALLOW ITS USE.

NAVSEA OOC ASSESSED BOTH SYSTEMS FOR SUITABILITY BY CONDUCTING TABLETOP AND ONSITE REVIEWS OF SYSTEM CERTIFICATION, HISTORY, DRAWINGS, OPERATION AND MAINTENANCE MANUALS, SAFETY RECORDS, AND SOPS FROM THE MANUFACTURERS.

TO SEE BOTH SYSTEM'S FULL OPERATIONAL CAPABILITY, MDSU TWO PERSONNEL WERE ABLE TO MASTER THE OPERATION OF THE LARS AFTER A SERIES OF PIER-SIDE UNMANNED AND MANNED DIVES, AND A COUPLE WEEKS AT SEA ONBOARD THE HOS MYSTIQUE AND USNS APACHE. WHEN COMPARED TO THE CURRENT MDDA SYSTEM, BOTH LARS WERE MUCH MORE ROBUST, HAD A SMALLER FOOTPRINTS, WERE SAFER TO USE, AND REQUIRED FEWER PEOPLE TO OPERATE.

THESE EVALUATIONS PROVIDED VALUABLE FEEDBACK FROM THE USERS WHO WILL BE OPERATING THE SYSTEM, AND ASSISTED NAVSEA OOC IN EVALUATING A SAFE AND USER FRIENDLY COTS SYSTEM FOR FUTURE PROCUREMENT.



BAY TECH INDUSTRIES LAUNCH AND RECOVERY SYSTEM (LARS)



COMMUNITY RECOGNITION

BZ

HM3 CHRISTOPHER RECTOR

Attached to EODESU 2



HM3 WAS PART OF THE NMCP TEAM THAT BUILT A VENTILATOR THAT CAN BE MORE EASILY REPRODUCED DURING THE COVID PANDEMIC.

[LEARN MORE ABOUT IT!](#)

&

EOD1 ADAM BERTHOLD

Attached to EODMU 11

EOD1 WAS RECENTLY NAMED “HONOR GRADUATE” OF JOINT SPECIAL OPERATIONS UNIVERSITY’S JOINT FUNDAMENTALS COURSE (CEP-1) CLASS #30.

WAY TO REPRESENT THE FORCE!

CONGRATULATIONS

0-5 SELECTS



- LCDR Ben Vaughn, EODMU 8
- LCDR Ryan McGinn, EODMU 12
- LCDR Saul King, NORTHCOM
- LCDR Chris Osipower, NEDU XO
- LCDR Karl Staehle, EODMU 5 XO
- LCDR Eli Ford, OPNAV N80
- LCDR Mark Letourneau, NECCPAC
- LCDR Taylor South, MDSU 2

BASIC MEDIA ENGAGEMENT TIPS

Accurate, truthful, and timely communication increases the **credibility** and **transparency** of our organization and enhances the **legitimacy** of our operations.

AN **EFFECTIVE RESPONSE** INCLUDES AN ANSWER TO THE QUESTION AND A MESSAGE. FOR EXAMPLE:

Q: Why is Navy diving still relevant with the advances in unmanned underwater systems?

A: Unmanned underwater technology is important, and we employ it in many of our missions when it is safe and practical. However, there is no comparison to our incredibly skilled divers and EOD operators solving problems underwater.

IF YOU ARE ASKED A QUESTION OUTSIDE OF YOUR LANE, **BRIDGE** BACK TO THE TOPIC AT HAND. FOR EXAMPLE (TOPIC: EOD SHORE DET RESPONSE):

Q: Why does the Navy insist on dropping ordnance off the coast, knowing that it will put people in danger?

A: I can't speak on all the training the Navy does, but I can say Navy EOD operators are incredibly skilled and will handle any ordnance washed ashore in a safe and responsible manner when required.

WHEN IN DOUBT, CONTACT YOUR PUBLIC AFFAIRS OFFICER!



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o: 619-437-3644
c: 619-756-3915

26

LT Mary Smith
mary.e.smith1@navy.mil
o: 757-917-6780
c: 757-663-8420



US NAVY DETONATES UNEXPLODED WWII-ERA ORDNANCE OFF HAWAII

(The Associated Press) 30 April 2020

HONOLULU — U.S. Navy explosive ordnance disposal technicians have detonated two World War II-era bombs and removed other ordnance in waters off a Hawaiian island.

The Navy carried out the controlled explosions Monday in a well-traveled channel between Lanikai Beach and Mokulua North on Oahu, an area also known as Mokunui Islet, The Honolulu Star-Advertiser reported.

A snorkeler reportedly discovered the munitions and contacted the U.S. Coast Guard, which alerted the Navy. The ordnance included two 100-pound (45-kilogram) gravity bombs with fuses that were detonated where they were found because it was potentially dangerous to move them.

About eight other bombs or ordnance without fuses were moved in an inflatable boat to Bellows Air Force Station ahead of transportation to Pearl Harbor or the U.S. Army's Schofield Barracks for demolition. Officials are not sure how the munitions got to where they were found but said they may have been dropped during wartime exercises.

Unexploded ordnance from training exercises before and after the United States entered World War II in December 1941 is routinely discovered in waters off Oahu and on land.

All of the offshore islets are state wildlife sanctuaries. A perimeter path around Mokulua North is the only section visitors are allowed to traverse. The area is also popular with kayakers and stand-up paddlers.



NAVY EOD AND DIVE COMMUNITY EXPANDS TACTICAL HUMAN PERFORMANCE PROGRAM

Naval Education and Training Command (15 May 2020)

PANAMA CITY, Fla. (NNS) -- Taking ideas and programs from top-tier professional sports teams, the Naval Diving and Salvage Training Center (NDSTC) is implementing several changes this year to increase functional performance, resiliency and cognitive capability while decreasing injury and accelerating the physical recovery of explosive ordnance disposal (EOD) technicians and Navy divers.

Navy EOD technicians and divers may be known for their ability to stay calm in pressurized situations and possess high levels of fitness that allow them to eliminate explosives or underwater hazards for the most elite special operations forces, but that amount of tactical human performance does not come without the proper instruction and development.

Cmdr. Sam Brasfield, NDSTC commanding officer, said that the legacy human performance programs during an EOD technician's or Navy diver's initial training typically relied on the limited knowledge base of EOD and dive instructors, who did not possess formal education on exercise physiology and muscle recovery.

"The insufficient scope of the knowledge in exercise physiology and muscle recovery at these school houses resulted in recurring injuries throughout their time in school and on into their career," said Brasfield. "The sequence of physical conditioning did not consistently build strength, endurance and recovery across all phases of initial training or result in professional expertise based on proven methods to optimize human performance across a Sailor's expeditionary career."

In order to correct this issue, NDSTC initiated a review of its physical therapy program, while calling upon graduate-level research from the Naval Postgraduate School and inputs from professional human sports performance clinicians, to build a framework for tactical combat use. Using this data, NDSTC created the Tactical Human Performance Program (THPP) in 2016 to provide baseline instruction, development and evaluation in all aspects of human performance to dive training students. Today's program specifically focuses on four key pillars -- mindset, nutrition, movement, and recovery -- that optimize human performance and injury prevention.

"In the EOD and dive communities, our people are our weapon systems and we have to do everything we can to make them stronger, decrease injuries, increase cognitive capacity, and accelerate their physical/mental recovery," said Brasfield. "What we are trying to do with our THPP is get 'left of boom' with our folks by giving them the skills and foundation early on that will set them up for success with all these things. As my grandmother used to say, 'an ounce of prevention is worth a pound of cure.'"

NDSTC has been temporarily assigned an active-duty Air Force physical therapist and has one contracted athletic trainer who is responsible for coordinating efforts for three training/learning sites. However, with an annual throughput of 1,300 EOD technicians and divers, the Center for Explosive Ordnance Disposal and Diving (CEODD) has plans to hire a data analyst, three human performance program advisors and kinesiotherapists, three strength and conditioning specialists, two performance dietitians and two cognitive specialists who specialize in sports psychology. The Air Force has funded a new tactical performance facility and the associated exercise equipment for the THPP, and the other Services have come together to support this program.

In addition to the new hires, the EOD and diving community is also looking towards employing a complete athlete-data-management-platform, Smartabase, in order to track performance and provide better feedback to Sailors. Putting real-time data at the center of the THPP will digitally transform how the EOD and dive communities can monitor the health and performance of their Sailors over the course of their careers and make it easier to adjust the program's parameters as necessary.

"Early career training for EOD technicians and divers sets the stage for those Sailors as they develop in their career field. Giving them the best training possible allows them to adapt to the challenges that we face as a Navy in an era of great power competition," said Rear Adm. Brian Brakke, commander, Navy Expeditionary Combat Command. "The Tactical Human Performance Program provides world-class training for our Navy EOD and dive Sailors so that they recover after times of stress and grow throughout their Navy careers."

As THPP expands, the performance data that is aggregated will serve as the foundation for the EOD Force Resiliency Program (FRP), which protects individuals and teams in the EOD community from debilitating stress through adaptability and recovery and growth across the personal, social, cognitive and physical well domains. Both EOD Groups One in San Diego and Two in Little Creek, Virginia, are currently expanding their staff and facilities to address the current and future needs of their warfighters that will result in a more combat effective force.

Under Navy EOD's Strategic Vision 2030, THPP and FRP are identified as key lines of efforts that will develop the force to win against near-peer competitors in the future.

NDSTC is the largest diving facility in the world and trains military divers from all services to face any challenge anytime, anywhere by providing them with the skills and the confidence to successfully complete our nation's missions.

U.S. Navy EOD is the world's premier combat force for eliminating explosive threats so the Fleet and nation can fight and win wherever, whenever and however it chooses.

NAVY LOOKS TO PRO SPORTS TO BOOST PERFORMANCE OF EOD TECHS AND DIVERS

Military.com (18 May 2020)

The Navy is adding new cognitive enhancement techniques and eyeing performance-tracking systems akin to those used in pro sports for two job communities requiring high degrees of strength and precision.

Officials at the Naval Diving and Salvage Center in Panama City, Florida, are finishing work on a \$2 million, 15,000-square-foot tactical performance laboratory, to be complete by the end of the month, that will provide explosive ordnance disposal technicians and Navy divers with access to a new cadre of professionals -- all focused on boosting what the center's Human Performance director calls "the human weapon system."

In addition to performance dietitians and cognitive therapists with a background in sports psychology, the center will house strength and conditioning specialists, kinesiotherapists and a data analyst.

The goal of this effort is to prevent injuries, exhaustion and breakdown, both mental and physical, that have been a common casualty of these high-stress, high-intensity jobs.

"Dive school has always been a place where folks were tested," Cmdr. Sam Brasfield, commanding officer of NDSTC, told Military.com. "But it wasn't always a place where -- they came here as athletes and they might have got a little stronger, but it wasn't as structured as it needed to be. It was all tribal knowledge."

Unlike in other services, Navy EOD techs also complete dive school, as they might be required to execute underwater tasks such as mine removal.

The concept of taking a more holistic approach to fitness for certain high-powered military jobs gained notable momentum under Navy Adm. William McRaven, who commanded U.S. Special Operations Command from 2011 to 2014. NDSTC created its own Tactical Human Performance Program in 2016, complete with a smaller 5,000-square-foot training center. But as SOCOM officials pursue an increasing range of options to supercharge human performance, from supplements and electric brain stimulation to meditation, the Navy dive community is also intensifying efforts to strengthen bodies and minds.

Roughly six months ago, Brasfield said, NDSTC completed a classroom pilot program called Mission-Based Resilience with about 15 enlisted and officer students, focused on developing and improving a healthy mindset. In the eight-week course, students practice techniques on how to calm their minds down and maintain poise under pressure.

"We've taught visualization ... practicing your emergency procedures prior to having to use them, you know, you can rehearse it in your head hundreds of times. But we've never really discussed exactly what visualization is, why it works, how it works, and then giving it to them. So we're doing more of that up front," Brasfield said.

While the pilot course was taught by a contractor, the center is now working to develop its own curriculum that will eventually be part of the training load for all students.

Another human performance enhancement tool that may soon be available to the 1,300 EOD techs and divers who cycle through the center every year is Smartabase, an athlete data management system used by professional sports teams to prevent injury and assess individual performance breakdowns that require attention or rehabilitation. If the center can pull together the resources, it may use wearable devices, such as heart rate monitors or other smart trackers, to gather a more comprehensive picture of sailors' conditioning and performance.

"Maybe you're noting, 'Hey, you only got four hours of sleep a night, you know, you've got to get at least eight,'" Air Force Lt. Col. Sean Wilson, the center's Human Performance Director, told Military.com. "So you try to help them with their habits and with other things to help bump that sleep time up. So there are aspects of this program, we can identify readily some deficit and try to help them with those behavior modifications."

Meanwhile, Brasfield said, staff may improve data collection on the fitness assessments administered when divers and EOD techs arrive at the center and when they leave, allowing them to assess not only whether an individual passed or failed, but how recent scores compare to historical ones, and whether performance is in any way off-target.

One sticking point currently is funding: While the Navy found room in its military construction budget for the new training center, the staff is contracted or on loan from the other services. Brasfield said he is hopeful the service will find the funding to sustain an effort that purports to make warriors not only stronger but also more mentally tough and resilient.

"At the end of the day, we are the nation's spear," Wilson said. "... So that's the goal here, is to maximize the lethality of the men downrange, while we're taking care of them in the process, and even after they take the uniform off and retire."

<https://www.military.com/daily-news/2020/05/18/navy-looks-pro-sports-boost-performance-eod-techs-and-divers.html>

EODMU3 HOLDS VIRTUAL CHANGE OF COMMAND

EOD Group One Public Affairs (1 May 2020)

CORONADO, Calif. (NNS) -- Explosive Ordnance Disposal Mobile Unit (EODMU) 3 held their first virtual change of command ceremony today on Naval Amphibious Base Coronado with Cmdr. Alex Campbell relieving Cmdr. Wade Hildebrand as commanding officer of the unit.

In order to comply with Centers for Disease Control and Prevention restrictions during the COVID-19 pandemic, the ceremony was live-streamed so that EODMU3 personnel, families and friends could view from the safety of their homes. Only EODMU3 and EOD Group One leadership attended the ceremony and respected social distancing protocols by standing six feet apart, wearing masks and using hand sanitizer. Over 175 personnel viewed the ceremony virtually.

"To the men and women of EODMU3, it has been an absolute honor serving you as the commanding officer of this team of teams," said Hildebrand. "This organization is steeped in history, proven in battle, and our warfighting reputation has been painstakingly earned with the blood, sweat, and sacrifice made by warriors that have gone before you. That reputation has served as the foundation for the strong culture of this mobile unit, a culture that you cultivate everyday."

Hildebrand, raised in Bend, Oregon, graduated from Oregon State University with a Bachelor of Science in Biology and commissioned through the Reserve Officer Training Corps in 2001. Hildebrand will transfer to Virginia Beach, Virginia for his next assignment.

Campbell, raised in Brattleboro, Vermont, and a 2002 graduate of the United States Naval Academy, previously served at Naval Surface Warfighting Center Indian Head EOD Technical Division, Indian Head, Maryland where he led acquisitions teams to develop a wide range of specialized EOD equipment in support of special operations forces, the Joint EOD force, and Navy underwater EOD forces.

"Wade, your exceptional leadership of Mobile Unit Three is evident in the warfighting attitudes of each and every member of this command," said Campbell. "I will be fortunate to be able to earn the same level of trust and confidence that you enjoy today."

Capt. Oscar Rojas, commodore, Explosive Ordnance Disposal Group One, provided the keynote remarks. He said, "I know EODMU3, and I know that, true to your unit's Latin motto, 'Nihil Obstat', which translates to 'nothing hinders,' that nothing hinders this unit and nothing stands in the way of the mission, not even a global pandemic."

During the ceremony, Rojas also awarded the 2019 Battle Efficiency Award, or "Battle E," to EODMU3. He said, "This annual award is only given to one unit, who achieves operational excellence in all aspects of EOD operations and carries out their assigned tasks at the highest state of battle readiness."

You have taken the Navy EOD community's vision and run with it, expanding our undersea advantage, growing our exploitation expertise, and emboldening our allies and partners. I couldn't be more proud."

EODMU3 provides operational EOD capability to include the location and identification, rendering safe, recovery, field evaluation, and disposal of all explosive ordnance, including chemical and nuclear weapons.

U.S. Navy EOD is the world's premier combat force for eliminating explosive threats so the Fleet and Nation can fight and win.



MOBILE DIVING AND SALVAGE UNIT ONE CONDUCTS VIRTUAL CHANGE OF COMMAND

EOD Group One Public Affairs (15 May 2020)

PEARL HARBOR, Hawaii (NNS) -- Mobile Diving Salvage Unit (MDSU) 1 held a virtual change of command ceremony on board Joint Base Pearl Harbor-Hickam, May 15.

During the ceremony, Cmdr. William (Bill) Williams relieved Cmdr. Jonathan Puglia as commanding officer.

In order to comply with Centers for Disease Control and Prevention restrictions during the COVID-19 pandemic, the ceremony was closed to the public and only MDSU 1 leadership attended the ceremony with Explosive Ordnance Disposal (EOD) Group One leadership video teleconferencing in from San Diego, California.

During Puglia's tenure, he was responsible for transitioning MDSU 1 into a versatile and strategic asset for the United States Navy and the Joint force in an era of great power competition, and his forces played a notable role in removing fuel oil from the capsized World War II German cruiser, Prinz Eugen, at Enubuj Island in Kwajalein Atoll, Marshall Islands; clearing an abandoned fishing boat from Adak, Alaska's harbor in support of Arctic Expeditionary Capabilities Exercise (AECE) 2019; and conducting salvage efforts on Micro Dawn, a 185-foot steel hull cargo vessel weighing approximately 900 tons that sank pier-side in Weno Harbor, Chuuk State, Federated States of Micronesia, during a 2006 typhoon.

MDSU 1 also received Navy Expeditionary Combat Command's Battle Efficiency award for Fiscal Year 2018 while Puglia was in command.

Puglia, from Dillsburg, Pennsylvania, received his commission from the United States Naval Academy in 2001. His follow-on assignment will be at the U.S. Naval War College.

Williams, from Rockford, Illinois, enlisted in the Navy in 1987 as a Gunner's Mate, before receiving his commission and completing explosive ordnance disposal (EOD) officer training in October 1994. He completed his most recent tour at United States Fleet Forces Command in Norfolk, Virginia, where he served as the EOD, Dive, Salvage and Expeditionary Warfare advisor.

"Jon, thank you for your decisive leadership and vision over the last three years. Your mentorship over the last year, and the hard work of the MDSU 1 crew, have made my transition into this demanding position easier," said Williams. "To the Sailors and civilians of

"MDSU 1, I am both honored and humbled as I consider the immense responsibilities inherent in leading MDSU 1. My commitment is to remain focused on you and your families while executing force development, force generation and force employment of the nation's premier diving command in support of the Joint force and our coalition partners."

MDSU 1 is the U.S. Navy's premier diving and salvage force, prepared to rapidly deploy combat-ready, expeditionary warfare capable, specialized dive teams to conduct harbor and waterway clearance, emergent underwater repairs, and salvage operations in all environments.



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Explosive Ordnance Disposal Ethos

I am a United States EOD OPERATOR,
a warrior, professional Sailor and guardian of life.

I willfully accept the danger of my chosen
profession and will accomplish all duties my great
country asks of me.

I follow in the wake of those who have served before
me with uncommon valor. I was born from the bombs
and mines of the blitzkrieg. I have cleared the world's
sea lanes and fought in the jungles, deserts and
mountains around the globe.

I will never disgrace the Navy EOD warrior of the past
and will uphold their honor and memory, both on and
off the battlefield.

I am a quiet professional! I strive to excel in every art
and artifice of war. I adapt to every situation and will
overcome all obstacles. I will never fail those who
depend upon me.

I maintain my mind, body and equipment in the
highest state of readiness that is worthy of the most
elite warrior.

I will defeat my enemies' spirit because my spirit is
stronger. I will defeat my enemies' weapons because
I know my enemies' weapons better.

I will complete every mission with honor, courage and
commitment. Though I may be alone and completely
isolated, I will trust my teammates and my country. I
will never give up and I will never surrender.

Where most strive to get it right, I will relentlessly
train so I never get it wrong.

I am a United States Navy EOD operator.

Navy Diver Ethos

I am a United States Navy Deep Sea Diver

I traverse the dark, forbidding depths of the world's oceans, lakes, rivers and seas where only a select few can follow. They are my battlefield. I serve across the spectrum of our nation's military services and with Special Operations Forces.

I honor my deep sea brethren past, present and future; they are my Family. My personal Honor and Integrity are above reproach and compel me to do what is right regardless of the circumstances. Courage is the hallmark of my trade.

The laws governing my chosen profession are absolute and unforgiving, demonstrated and proven with the blood of many brave divers who have gone before me.

Because of their courageous sacrifice, I am committed to my Brothers-in-Arms through relentless mental and physical preparation. My knowledge of diving, underwater techniques and systems, physics, and hyperbaric medicine must be unsurpassed.

The accomplishments of United States Navy Deep Sea Divers are the benchmarks by which the world measures man's achievements in the sea. My specialized skills, undaunted spirit and unbreakable will enable me to succeed in an environment where there are no second chances. Excellence is my standard.

I maintain uncompromising standards personally and professionally. Accepting anything less would bring disgrace upon myself and discredit to my community. My sense of Duty to God, my Country and the United States Navy and my teammates is steadfast and enduring.

I am a United States Navy Deep Sea Diver