FACEPLATE

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

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In This Issue...

FACEPLATE

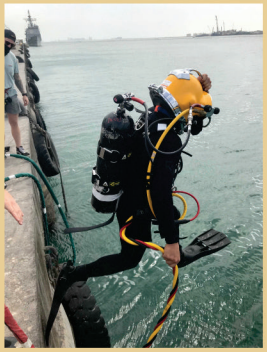
FACEPLATE is published by the Supervisor of Salvage and Diving to make the latest and most informative news available to the Navy diving and salvage community. Discussions or illustrations of commercial products do not imply endorsement by the Supervisor of Salvage and Diving or the U.S.Navy.

Articles, letters, queries and comments should be directed to the Commander, Naval Sea Systems Command, NAVSEA 00C, 1333 Isaac Hull Ave. SE Stop 1070, Washington Navy Yard, DC 20376-1070. (Attn: FACEPLATE). Visit our website at **http://www.navsea.navy.mil/Home/SUPSALV/00C3-Diving/Faceplate-Magazine/** to view/print Faceplate.

Editorial Staff

In This Issue

Cover



Hm1 Shane O'brien entering the water to conduct Assessment Identification Mine Susceptibility installation in Manama Bahrain.
Photo by: HMC Natasha Libby/ND1

SUPSALV SENDS...CAPT Jay Young

I trust that this installment of Faceplate finds our Deep Sea family safe, healthy, and vaccinated. Through your leadership and dedication, our Navy Diving community continued to execute diving and salvage operations the world over during the most challenging of times, and I truly applaud your effort. Let me begin with a heartfelt farewell to our Supervisor of Diving – CAPT Tom Murphy and our Fleet Master Diver – NDCM John Hopkins who will both be departing SUPSALV in the next couple of months. Both are headed to the island paradise of Hawaii, CAPT Murphy to US INDO-PACIFIC Command and MDV Hopkins to MDSU ONE. CAPT Murphy and MDV Hopkins have done a tremendous job and made our community better through aggressive development of new diving capability and a constant drive toward safe and effective diving operations. Please join me in wishing both of them Fair Winds and Following Seas as they start the next chapter of their awesome careers.

Many of you spend time each day discussing the concepts of Battle Damage Response (BDR) and what the planning and execution evolution would look like, should our Navy find itself involved in armed conflict at sea. Our response to a BDR scenario is a complex problem that will require an all hands on deck effort to stabilize, relocate, and repair our ships to get them back in the fight. That said, last week the Indonesian Navy submarine KRI Nanggala-402 was reported missing late on 21 April 2021. The last known position was approximately 30 miles north of Bali in 2600 FSW. The SUBMISS call went out soon thereafter, and allied partners from around the region and the world responded to the scene to support the search effort. Within 48 hours, our SUPSALV team was loaded aboard two C-17s with our Hugin Autonomous Underwater Vehicle and our Hydros Remotely Operated Vehicle enroute to Indonesia. In parallel, CTF-75 mobilized a team from Guam equipped with two MK18 search systems to assist in the effort. On 25 April 2021, KRI Nanggala-402 was located by the Singapore submarine rescue vessel M/V SWIFT RESCUE, and unfortunately, KRI Nanggala-402 and all Sailors aboard were lost.

Although the loss of KRI Nanggala-402 was not a BDR event, the complex challenges that we faced when executing our emergent response to the search effort,

parallel the challenges that we will face when conducting BDR operations. And these challenges will be even more difficult in a contested environment. Here are few specific examples to think about.

- Equipment: Are your salvage and UWSH assets available and RFI? Our HUGIN AUV was RFI and loaded on a truck within 12 hours, but our CURV ROV was still enroute from a recovery mission in the Pacific. Instead, we mobilized our HYDROS ROV for this mission. HYDROS is very capable, but has a maximum depth of 5,000 FSW. What if the submarine was at 6,000 FSW?
- Personnel: Where is your team of proficient operators, and are they available to travel on short notice? In this case, our SUPSALV / Phoenix team was in the DC area and ready to travel. Had this happened three weeks earlier, many of them would have been deployed to the western Pacific recovering an MH-60.
- Mobilization: What is your plan to transport personnel and equipment to a remote location, and what logistics support will you need upon arrival? For this event, TRANSCOM identified and mobilized two C-17s to Dover AFB within 36 hours. The aircraft were loaded and ready to depart within 48 hours. In country, mobilization requires trucking from the airport, crane support on the pier, welder support, and more to safely and effectively mobilize our equipment and get underway.
- Vessel of Opportunity: We chartered a vessel on no notice out of Singapore. Luckily, there was a vessel available and ready for hire, and we were able to contract the vessel before someone else did. What if the nearest vessel was two weeks away or no vessels of opportunity were available?
- Diplomatic Clearance: Before any personnel or equipment departed their origin location for Indonesia, Indonesia had to approve our diplomatic clearance request. Our Embassy team in Jakarta worked for 48 hours to get diplomatic clearance for our personnel and equipment. We had to delay C-17 departure from Dover AFB by 12 hours (twice) because we did not yet have diplomatic clearance to travel.

Understanding that the operation detailed above involved the search and recovery of a foreign submarine, but replace the words Submarine/Search/Recovery with Ship/Damage Assessment/Repair and the challenges are the same. Where are our damage assessment and repair teams located, and are they available to deploy on short notice? Are they familiar with the vessels that they will be deploying to for salvage and/or repair operations? How can we get our teams in theater and/or aboard a damaged vessel? What equipment and repair parts need to be available and how do we transport them? Are there vessels available in the area to support embark and/or towing operations, and how do we gain access to use them? Will our teams be allowed to enter the country to which we are sending them? How long will all of this take, and will we have that much time to respond? These are all difficult but needed questions that we need to ask ourselves. I encourage you to discuss this scenario, the USS BONHOMME RICHARD fire, or other similar events within your Dive Lockers and self-assess your readiness to respond to a true Battle Damage Repair event when called upon to do so. If we were called upon tomorrow, are you ready?

Keep leading, stay motivated, and continue to take care of yourselves, your families, and your teammates, and please keep the 53 Indonesian Sailors lost aboard KRI Nanggala-402 in your thoughts and prayers. Stay safe, and I look forward to seeing all of you on the waterfront. Hooyah, Deep Sea!

ANU Authorized for Navy Use

By: Master Chief Dumke

NAVSEA 00C Diving Program Division provides cradle-to-grave service for diving equipment, policies, and procedures from basic research through prototype development, acquisition, publication, and life cycle management for the Authorized for Navy Use (ANU) List. NAVSEA 00C leads the fight on updating and authorizing equipment to keep divers safe and more efficient underwater.

The Office of the Chief of Naval Operations (CNO) instruction OPNAVINST 3150.27 requires SEA 00C3 to prepare and publish a list of diving equipment known as the Authorized for Navy Use List, while NAVSEA is responsible for publishing the NAVSEAINST 10560.2 – the ANU List's governing policy instruction. The ANU process spells out what equipment is authorized for U.S. Navy Diver use and under what circumstances it can be used.

What is tested and why:

Category I: Life Support Diving equipment. Cat I equipment provides a safe, controlled environment for a diver by satisfying the life support requirements of the intended diving operation. Cat 1 equipment includes SCUBA regulators, life preservers, SCUBA manifolds and tanks, SCUBA/special service full face masks, compressors, CO2 scrubbers, decompression computers, and gas atmosphere monitors (ensure that breathing media is safe).

Category II: Non-Life Support Diving Equipment. Cat II equipment enhances the mission capability and is not essential for diver life support. Category II equipment may exhibit inherent attributes that are hazardous to a diver. These can include diver propulsion devices, sonar equipment, electrical equipment, and diver heating equipment.

Each piece of dive equipment falls into one of the seven sections of the ANU:

1. SCUBA
2. Surface Supply
3. Thermal protection and Accessories
4. Communications
5. Diver's Breathing Air and Mixed Gas
6. Diver's Tools
7. Recompression Chamber Equipment and Sanitizers

The process of how a piece of equipment becomes part of the ANU is shown in the illustration below. The equipment sponsor submits an ANU submission form containing three enclosures which is evaluated by the ANU board. The ANU submission form and enclosures to the NAVSEA Instruction 10560.2 can be found at https://secure.supsalv.org/anu/Home.asp.

ENCLOSURE 1. The Diving Equipment ANU Submission Form provides a step-by-step procedure to submit diving equipment for ANU evaluation. This form includes the item name, manufacturer, and the manufacture's main primary point of contact (POC). This enclosure also requires the sponsor's information and the justification for inclusion into the ANU.

ENCLOSURE 2. The Diving Equipment ANU - Board Review provides the step-by-step procedure for the review process of equipment submitted for ANU inclusion. Per this enclosure, three board members are selected to include a uniformed personnel, an engineer, and one other to review the technical documentation and determine whether the operational need has been adequately provided. The requirements for formal testing may also be established and include final comments. SEA 00C will work with the sponsor and the relevant manufacturer of the equipment being submitted for the ANU.

ENCLOSURE 3. The Change Request Form. The last step of the process for the piece of equipment to be added to the ANU is the Change Request Form. This is the close out form authorizing the item to be placed on the ANU list.

Information used by the review board include the equipment owner's manual, company testing data, equipment diagrams, and other pertinent information needed from the sponsor or the equipment's manufacturer. Inclusion of a commercial manufacturer's piece of equipment on the ANU lists does not constitute as an endorsement of the US Navy, but simply cites items authorized for US Navy use.

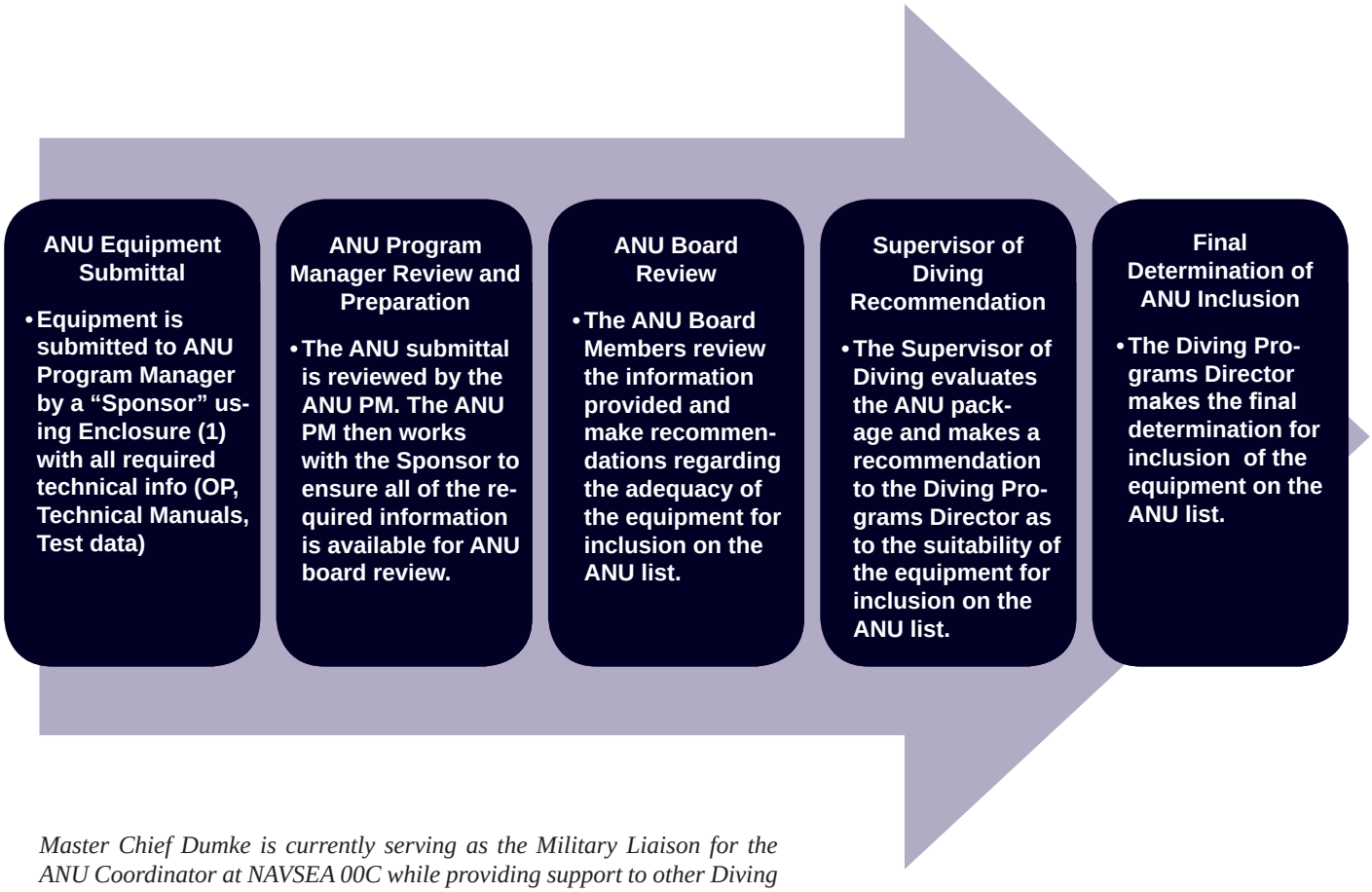
When equipment is submitted in the CAT I and II areas and there is a requirement for further testing, NAVSEA sets the timeline and parameters for testing while NEDU writes the testing protocol. The command pursuing ANU approval for a given piece of equipment may be required to fund the testing.

In the past year, NAVSEA conducted a harness review and revisited the types and styles of harnesses to be used in Navy diving. During testing, multiple D-rings on an Aqualung harness failed due to a manufacturing issue. NAVSEA subsequently suspended its use and began to work with industry to find and approve multiple harnesses that passed our rigorous testing procedures.

To download the requisite forms to add a piece of equipment to the ANU or view the ANU in its entirety, visit https://secure.supsalv.org/anu/Home.asp.

Recently there has been an increase in diving equipment that runs on rechargeable lithium batteries. The Navy must certify these batteries for use on vessels (submarine and surface) and for use underwater. The process to certify these batteries is arduous and can be lengthy – equipment using these types of batteries should be submitted for review as early as possible.

The more information a command can provide about the equipment being submitted for review, the easier it is for NAVSEA to review and approve the packager.



Master Chief Dumke is currently serving as the Military Liaison for the ANU Coordinator at NAVSEA 00C while providing support to other Diving programs and initiatives. He can be reached at Joshua.w.dumke@navy.mil, (desk) 202-781-3457, or (Cell) 202-904-7534

SPARTAN SHIELDS
BEST IN THE WEST

BY: CWO2 LONN TRINIDAD

(Left to Right) NDC Ludy, ND1 Smith,CM1 Dube, ND2 Laplant, HM1 Schmidt, HM1 O'Brien, ND1 Orbegoso, ND2 Kubichan, ND2 Lickteig, MDV Patrick, NDC Zenoni, ND2 Guzman and CWO Trinidad of Task Unit 56.1.2 supporting OPERATION SPARTAN SHIELD. Photo by: HMC Natasha Libby/ND1 Rory Fagan

The U.S. Navy Divers of Mobile Diving Salvage (MDS) Company 3-1 has executed another Task Group FIVE SIX point ONE deployment. This was no easy task – with the team dispersed in different locations and encountering multiple challenges placed by the coronavirus pandemic. MDS faced it, head-on and completing daily diving operations by supporting Anti-Terrorism Force Protection mission and surface-supplied taskings across the FIFTH fleet, earning the title as the FIFTH fleet ready salvage team.

Over the course of six month the Task Unites capability was impeded tenfold.

COVID-19 has now hindered our methods to operate and be in compliance with quarantine measures. Force Protection diving still provides a critical puzzle piece for developing the nation's security.

A lengthy deployment has always been challenging, even more so in the midst of a global pandemic that kept us all on restrictive maneuvers. Our Task Unit was able stay focused, and we could not have done that without the support of our loved ones back home, also dealing with an incredibly challenging environment on the home-front, holding the front lines against an unseen threat while we were out and performing our mission.

With the increased focus in conventional conflict and heightened Iranian, Russian, Chinese and other threats facing the United States, Navy Divers adapt and prepare to take the fight anywhere.

It is a different platform we now operate in and a completely different situation than what we are used to. Learning to operate in this austere environment will pay many dividends down the road for our future forces. Unit and the individuals made it home safely from OPERATION SPARTAN SHIELD, making this deployment an overall success.

CWO2 Lonn Trinidad is currently serving at Explosive Ordnance Disposal Mobile Unit THREE as the Commander for Mobile Diving & Salvage Company 3-1.

Command in the SPOTLIGHT

Navy Experimental Diving Unit

'Like Walking on the Moon'

NEDU's Saturation Detachment Revives Saturation Diving History, Heritage

By: LT Mitchell Reed, Navy Experimental Diving Unit Public Affairs

SATFADS diving bell, positioned next to the moon pool where it will be lowered during use. Photo credit: Ms. Jacqui Barker

The Naval Sea Systems Command's (NAVSEA) Director of Ocean Engineering, Supervisor Salvage and Diving (SUPSALV) has revived the U.S. Navy's deployable the Saturation Fly Away Diving System also known as SATFADS. Homebased at the Navy Experimental Diving Unit (NEDU) in Panama City, Florida, the deployable NEDU Saturation Detachment (NSD) brings a modernized saturation capability to the U.S. Fleet. Twenty-three NSD divers continue to make underway plans during the COVID-19 pandemic and according to them, the experience is out of this world!

"Opening the bottom of the dive bell and looking down feels like walking on the moon," said Navy Diver 1st Class Kevin Smith, on diving with the SATFADS. Smith is a saturation diver assigned to NSD.

NEDU, an echelon III command aligned under SUPSALV, established the deployable detachment in 2019. NEDU's mission is to improve warfighting capability through research, development, test, and evaluation of diving, hyperbaric, life support, and submersible systems and procedures. While NEDU has always hosted diverse mission objectives and equally impressive personnel skill sets, the dynamic saturation mission is one of the most exciting focuses of this impressive command.

"The work that we do here at NEDU is extremely physically and mentally demanding and often dangerous," said NEDU Commanding Officer

SATFADS crew prepping the diving bell for deployment. Photo Credit: CAPT Sonya Waters

ND1 Smith describes how the Navy uses SATFADS during our tour of the system. Photo Credit: Ms. Jacqui Barker

MDV Dodd monitors divers in the SATFADS during decompression following successful collaboration with NOAA. Photo Credit: Ms. Jacqui Barker

Cmdr. Kiah Rahming, USN. "We are extremely proud of the milestones our team have achieved in a short amount of time to bring this diving capability back to the fleet."

History: In the Beginning

As diving operations became deeper and more involved, new techniques were needed to provide long lasting bottom times for salvage and rescue, with reduced risk of decompression sickness. This was accomplished through the development of advanced saturation diving techniques. To quote the Navy Dive Manual: "Once a diver becomes saturated with the gases that make decompression necessary, the diver does not need additional decompression. As long as the depth is not increased, additional time on the bottom is free of any additional decompression. If a diver could remain under pressure for the entire period of the required task, the diver would face a lengthy decompression only when completing the project. For a 40-hour task at 200 fsw, a saturated diver would spend 5 days at bottom pressure and 2 days in decompression, as opposed to spending 40 days making 1-hour dives with long decompression periods using conventional methods."

With these benefits of saturation diving in mind, the Navy set forth to create a mobile saturation system, deployable around the world for continued and sustained diving efforts. Originally built in 2011, the SATFADS was envisioned and designed to provide a two-part system consisting of on-deck living quarters and a detachable diving bell, both pressurized to the equivalent depth of the desired dive site. In this way, the dive team can remain saturated, conducting day-trip excursions while retreating to at-pressure barracks, all deployable from the vessel. This system offers an amazing advantage for missions including deep sea salvage, submarine rescue, underwater construction, and scientific testing and observation. The SATFADS certification culminated with NEDU divers making a 1,000 feet of seawater (fsw) open ocean saturation dive in May of 2012 and NEDU has been tasked to continue supporting this diving system into the future. With the exception of a brief training mission to Lake Seneca, the system was sitting relatively dormant from 2012 to 2017. Now SATFADS has been resurrected, re-fabricated, and has undergone a series of certification dives to become fleet ready for current and future missions.

SATFAD Mission: A Changing of the Tides

While much of the current SATFADS use has centered on training and certification, the hard work from this team has begun to pay dividends in operations. "NEDU is the force behind the Navy's diving fleet and this capability will support operational training and humanitarian operations," said NSD Officer in Charge CWO4 Dennis Kypros, USN. "Our detachment has worked very hard over the past several years to reinvigorate this diving capability and we are very eager to get back to work." Recently in March 2021, NSD deployed SATFADS and validated a concept of employment for inter-agency support operations, assisting the National Oceanic and Atmospheric Agency (NOAA) in a multi-year effort taking coral reef samples and conducting reef restoration at depths of 200 fsw in the Gulf of Mexico. This initial collaborative effort was a resounding success, and also marked the first time the SATFADS was used with "Dynamic Positioning 2" of a non-anchored vessel, allowing Navy divers to help "walk" the diving bell into desired locations. Moving forward, NSD will help assist subsequent high priority salvage missions. One such mission has been proposed from the Defense POW/MIA Accounting Agency (DPAA). They are working with NSD to have them assist in the salvage efforts of a B-24 Liberator which crashed off the coast of Palau during WWII. DPAA is extremely interested in salvaging the wreckage and hopefully recovering the remains of the three crew members, Navy Aviation Radioman 3rd Class Walter Mintus, Navy Aviation Chief Ordnanceman Otis Ingram, and Naval Aviator Lieutenant Roland Richard Houle, who was a close friend and wingman of former President George H.W. Bush during WWII. The NSD and SATFADS will be instrumental in the conduct of the long duration dives necessary to the recovery of this historic site.

NEDU's all-hands mentality maintains success and overcomes COVID-19 obstacles

While COVID-19 remains a considerable concern for the U.S. Navy and the world, NEDU has shown the resilience that makes Navy Sailors synonymous with toughness. Navigating the new normal and restrictions during the COVID-19 pandemic has required an all-hands effort from every department, re-affirming the interdependence and dependability NEDU is known for. Whether this has taken shape in the form of the Medical Department providing unique solutions to maintain operational pace, the Test and Evaluation Department working double shifts to meet disrupted COVID deadlines, or the sustained effort from the Engineering Department to ensure uninterrupted maintenance and operations with the Ocean Simulation Facility, the collaborative effort to preserve operational tempo has brought continued success at NEDU.

The diving bell being lowered through the moon pool, bringing compressed divers to the sea floor to conduct long lasting saturation diving operations. Photo Credit: CAPT Sonya Waters

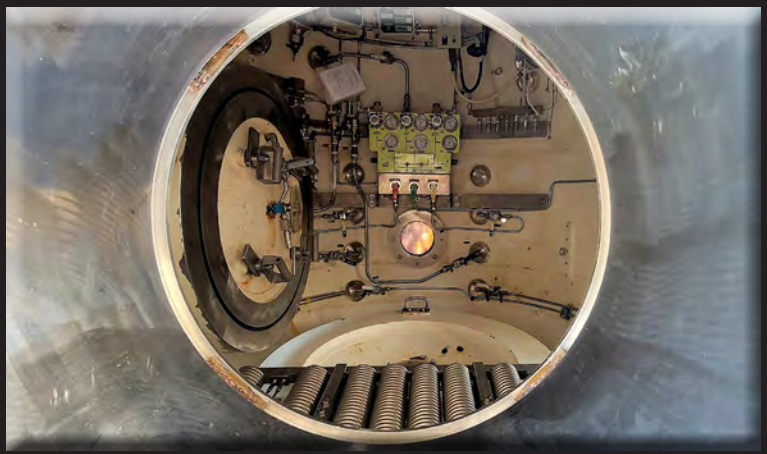
Specifically, the cross functional and mutually supportive teams at NEDU have completed an impressive array of operations in the last month including: extended deep dive saturation protocols, cold water training, decompression research for disabled submarines (DISSUB), and underway operations training with NSD. This snapshot look of the multitude of varied projects conducted at NEDU is just a small example of the extraordinary work the command generates each and every day.

Dive Deeper: The future of NEDU

Duty at NEDU provides Sailors with an exceptional opportunity to excel as a member of an exclusive team of undersea professionals performing research on a daily basis that has direct and timely impact to military diving missions world-wide. As a premier research facility, hosting biomedical research, test and evaluation of diving, hyperbaric, life support and submersible systems, safety and operation procedures, and continuous training support of the Navy's deep sea divers, NEDU continues to be the place to be. And while it's not strictly out of this world, just like the "Sat Rats" looking through the bottom of the diving bell preparing to salvage, rescue, and explore, the team at NEDU are truly helping to expand the advantage of the US Navy, one small splash at a time

Be a Part of History

NEDU is excitedly planning upcoming research. Currently a protocol is being processed that, when approved, will conduct six weeks of continuous surface supplied HeO2 dives in our Ocean Simulation Facility for dives up to 300 FSW. We are scheduling diving to run 8 Jun – 30 Jul once the protocol has passed internal review procedures and the Commanding Officer authorizes. This will be a great opportunity for some deep dive exposure in a controlled environment. We hope to be able to open this up to personnel outside of NEDU. If you, or someone you know, would like to be contacted about participating once the protocol is approved or if you would like more information now, please contact CWO5 John Theriot | john.theriot@navy.mil



With space for 3 fully equipped saturation divers, this diving bell is the transit system and between the sea floor and pressurized living quarters on board the vessel above. Photo Credit: Ms. Jacqui Barker

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LT Mitchell Reed is currently serving as a Research Physiologist in the Biomedical Research Department at the Navy Experimental Diving Unit.

Guam Isolation Under Pressure

By: Chief Warrant Officer 2 Michael C. Pazman, USS Frank Cable

Some refer to the remote island of Guam as isolated, however, COVID-19 took isolation to a whole new level for the USS Frank Cable (AS 40) and USS Emory S. Land (AS 39) divers assigned to the Lead Maintenance Activity (LMA). On March 30, 2020 the entire LMA went into a sequestered posture on a small peninsula called Polaris Point in order to create a Clean Work Force (CWF) equipped to repair, rearm, and resupply our "clean" U.S. Naval Forces Central Command / U.S. 5th Fleet (C5F) and Commander, U.S. 7th Fleet (C7F) forward deployed assets eliminating the risk of infecting the crew. Little did anyone know that a tidal wave of diving production was waiting around the corner.

The LMA was informed on March 25, 2020 about the sequester order given by C7F. This meant the entire crew of 1,100 personnel would live aboard the Frank Cable and be isolated to the peninsula with no authorization to leave and no visitors allowed. This was basically a land-locked deployment. The command had four days to establish the Polaris Point Clean Enclave (PPCE). The Frank Cable Commanding Officer, Captain Albert Alarcon, was designated as the Senior Officer Present Afloat (SOPA). He empowered his senior leadership and crew of 1,100 personnel to provide him the technical guidance to develop governing instructions for the establishment and operation of the PPCE. The instructions identified the establishment of the PPCE which included; the boundaries, a ROM facility for Sailors entering the PPCE, entering of supplies, creation of recreational activities, berthing barge and additional safety and security watch stations. Additional watch stations included a berthing barge watch, clean enclave chief, shore patrol, CWF escorts, senior supervisory watch, an Assistant Command Duty Officer (ACDO), and a ROM CZAR. Our single point of contact between the Naval Base Guam Emergency Operations Center and the PPCE ACDO was our ROM CZAR. The additional watch stations made a significant impact to the pre-existing shipboard watch stations. Since the divers could no longer support the regional chamber rotation, they approached the rail and stepped into shore patrol duties to minimize the impact to the duty sections. Once the SOPA received all technical guidance from his Sailors, he finalized the governing instructions, and on March 30, 2020, he finally gave the order to secure the gates. This logistical challenge, along with making personal and family preparations, was successfully executed on time. The dust has now settled and the entire LMA was officially secured to the PPCE ready to repair our clean warships and return them to sea to defend our great nation.

The first month or so was quiet on the production side of the house. This acclimation period allowed the crew to fine tune the PPCE posture to better support our forward deployed units and improve the moral of our Sailors. To pass time there were many barbecues, softball tournaments, PT, qualifications, beach gatherings, camping, even an island of rafts tied together that the divers called "floatopia". Additionally, the divers cleaned up and repainted the Deep Sea Memorial anchor in memory of our never forgotten Deep Sea Brothers Navy Diver 2nd Class Robert Dotzler and Navy Diver 3rd Class Ryan Bennett. The divers worked hard to strip away the old paint so Master Diver Frank Horn had a clean canvas for the Sailor Jerry style painting he perfected. On Memorial Day, the divers gathered around the Anchor while Hospital Corpsman 2nd Class Nicholas Robertson and Navy Diver 3rd Graham Loiselle read their biographies. This was followed by a moment of silence and three "Hoo-Yahs" loud enough you could hear from the heavens above. "HOO-YAH ND2 DOTZLER!!!... HOO-YAH ND3 BENNETT!!!... HOO-YAH DEEP SEA!!!"

Immediately following Memorial Day weekend, as if it was almost orchestrated, the flood gates of diving production opened. Four small dive jobs to start out that first week and ended with a simple

stave bearing clean and inspection on the forward-deployed USS Oklahoma City (SSN 723). The Oklahoma City crew was not clean but the divers were clean, so we needed to ensure the divers remained isolated from the crew to prevent infection. Simple risk mitigation was to check tags with one of our non-clean divers outside the PPCE and utilize the 50 foot dive boat as our platform. Bottom line, the stave bearings needed to be replaced immediately. This forward deployed unit had to deploy as soon as possible.

May 31st, CWO2 Michael Pazman reached out to NAVSEA 00C5 to inform them of the urgent job that surfaced. Bill Reid and the team at 00C5 sent CWO2 James Goodman and two GPC mechanics (Matt Hayes and Tom Peters). Mission essential waivers were approved from Commander Joint Region Marianas in order to work while in a ROM status. Meanwhile, Master Divers Chris Marascio (Shiney) and Frank Horn (Frankie Fins) led 32 divers through the rapid yet efficient dive station set up. This process established all the initial conditions in preparation for the job. COVID risks made it more challenging than normal. NAVSEA and GPC arrived and were pier-side turning and burning as if jet lag didn't exist. On June 3rd 2020, within 48 hours of the initial tasking, Left Surface, charts mark time.

The job went around the clock with two 12 hour shifts. Tom Peters and Matt Hayes divided amongst the 2 teams and CWO2 Goodman worked with both shifts squeezing in "cat naps" whenever he could. Regardless, he always provided the necessary oversite at the critical points of the complex procedure. Tom and Matt constantly stayed ahead of the pressure by preparing and prestaging all the equipment for the upcoming steps. They provided invaluable on the job training to the divers, which truly paid off throughout the rest of year. In six days, the forward deployed USS Oklahoma City was repaired and ready to execute CTF 74 operational tasking's.

Throughout the chaotic six days diving, the SOPA and senior leadership were able to establish a plan to dismantle the sequestered posture of 1,100 personnel while still maintaining the PPCE and CWF on a much smaller scale in support of our clean warships. The plan consisted of minimal repair personnel living on a berthing barge in three week rotations after 14 days of ROM in a designated barracks. Each section consisted of 18 Repair Sailors with an OIC and a Senior Enlisted Leader at the helm. Only two divers were in each section as tag-out checkers. The dive side could always remain "unclean" and safely distance themselves from the crew during production dives. The SOPA presented the plan to higher headquarters and attained approval. The crew of 1,100 personnel were ecstatic! Date of execution was June 16, 2020.

Only three days after the Oklahoma City stave bearings completion, the forward-deployed USS Greenville (SSN 772) also needed staves replaced immediately. Divers took action and CWO2 Goodman, Tom, and Matt extended their stay to support this unexpected emergent stave bearing replacement. Divers Left Surface June 15th and went right back at it. The next day, after 78 days of sequestration, the rest of the crew went on a 30 day stand down while the divers kept at it. Sure the divers were still working during stand down but they were at least able to sleep in their own beds between shifts. They were able to accomplish the job and get them back out to sea ahead of schedule.

The two emergent stave bearing replacements occurred over a 22 day period with no time for preparation and restoration. They overcame many mechanical and logistical challenges along the way. These jobs culminated in 179 dives, 584 hours of Bottom Time, 226 man-days of production, and 30 critical lifts totaling 315,700 pounds. Both of these COMSUBPAC assets returned to sea to execute highly sensitive operations critical to the National Defense of the United States.

Six days after the Greenville staves were replaced, USS Topeka (SSN 754) pulled into port with a Main Ballast Tank (MBT) vent valve stuck open. After trouble shooting, it was determined that the spherical bearing and associated vent valve linkage needed to be repaired. This job is normally done in dry-dock. After innovative assessments and meticulous rigging, divers accomplished the first ever waterborne repair over the course of 378 man-hours.

One week into the Topeka vent valve job, two additional teams simultaneously replaced two Outboard Transducer Array Assemblies (OTAA) on USS Asheville (SSN 758). The technical guidance from NELODET Paul Williams and support of GPC mechanic Bryant Wilder was vital for success.

Two days later, the "planned" Asheville stave bearing replacement began. This time MDV Horn and his Emory S. Land divers took this one "cradle to grave". This particular stave job encountered mechanical challenges that was new to all of us. After four propeller installation attempts, two Departures From Specifications, two rework addendums, and two Liaison Action Requests, the job was finally complete. Immediately following, CWO3 Benjamin Sheltmire checked onboard as the Emory S. Land Diving Officer, ready to embrace the chaos.

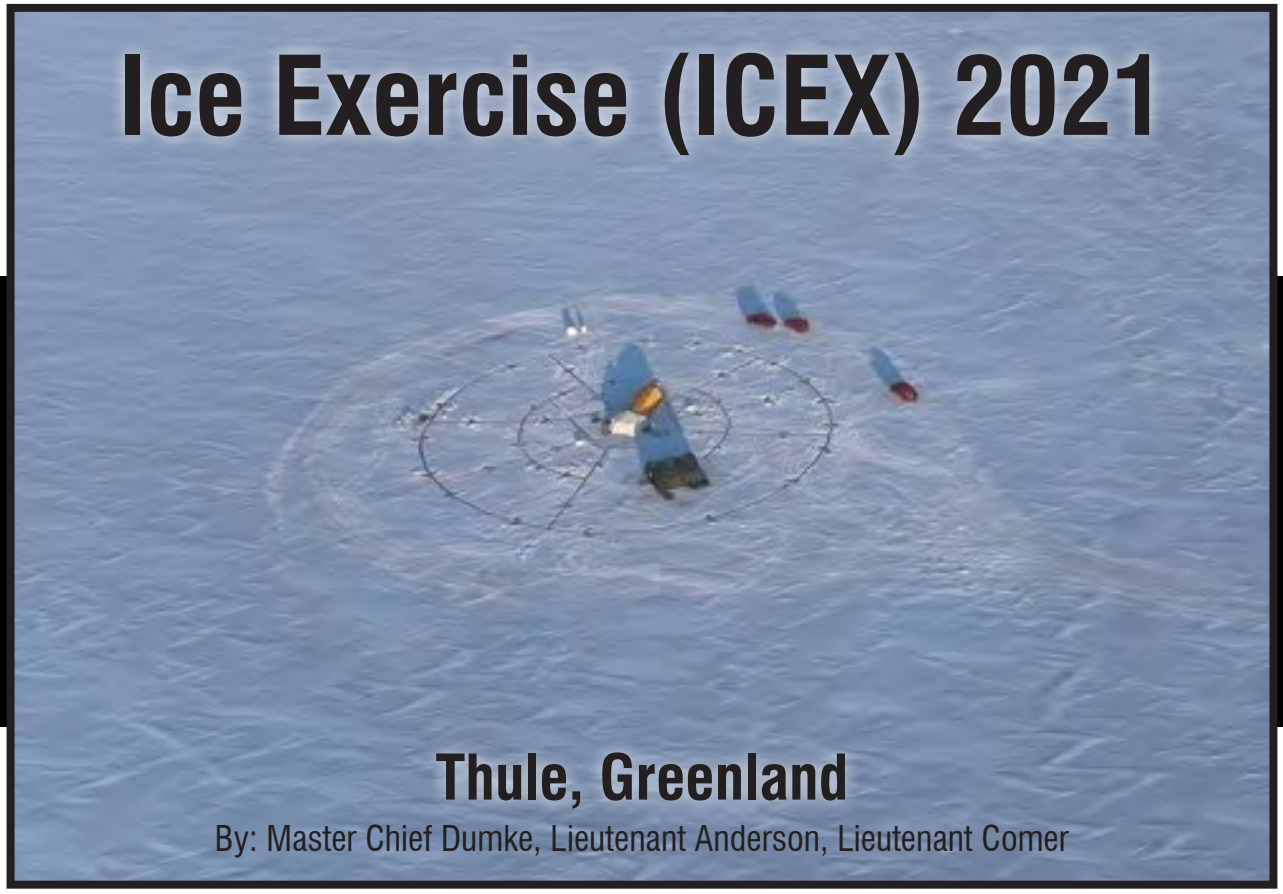
With a one week break in-between and a high-five turnover to MDV Marascio, his Frank Cable divers replaced the USS Scranton (SSN 756) stave bearings.

Over the course of just four months, the "Team Tender" divers replaced four stave bearings, two OTAA's, conducted the MBT vent valve repair, and countless routine dive jobs in between. The dust has now settled and after four months of normalcy, divers accomplished the fifth and final stave bearing replacement on USS Providence (SSN 719) in only six days with one hand on the wheel. Captain Alarcon recognized the divers with spot awards for Oklahoma City and Greenville stave bearings and also the Topeka MBT vent valve linkage. Most importantly, none of this would have been possible without the support from the tender. The CO, XO, Repair Officer, Production Management Assistant, Ship Superintendents, Planning, Supply Department, the machine shop, and many more put in countless hours to ensure we had the support needed for success. Additionally, 00C5 Bill Reid, Jacob Nessel, CWO2 Goodman, Scott Heineman, and Tom Payne provided immediate support and guidance 24/7 without hesitation.

Finally, on April 26, 2021, the PPCE and the CWF has officially been disestablished after 392 days. Most Sailors would say it felt like an eternity for this storm to blow over. From a Navy Divers perspective and "embrace the suck" mentality, time flies when you're having fun. Hoo-Yah Deep Sea!

Article cover photo caption: (left to right) HM3 Heusner, ND2 Cummings, ND2 Patterson, HM2 Robertson, ND2 Loiselle, NDCS Horn, CWO2 Pazman, ND2 Satornino, ND2 Fox, ND2 Souza, ND1 Reedy, ND2 Mcnurlin, ND3 Hatcher, ND2 Benefield, NDC Welch, NDC Cherek, ND2 Larson, HT2 Astolmalave, ND2 Carsey, ND2 Staack, ND2 Hanks, ND1 Thomason, ND1 Lee, ND2 Adrian, ND2 Uriarte, ND2 Florespapaevangelou, ND1 Roberts, ND2 Gray, ND3 Utter, ND2 Carroll, ND2 Wilber, NDCS Marascio, ND2 Tumaniszwili, NDCS Schonacher, ND3 Lane, ND1 White, ND3 Kleinlercher.

Ice Exercise (ICEX) 2021



Thule, Greenland

By: Master Chief Dumke, Lieutenant Anderson, Lieutenant Comer

Early February, 2021, 32 personnel met at Baltimore Washington International Airport to catch a flight to Thule Air Base, located above the Arctic Circle in Greenland to support ICEX 2021. This former Air Force base is now the U.S. Space Force's northernmost base and home to various military units from Denmark, Canada, and the United States. The base is strategically placed for defense purposes as well as partnership opportunities with our allies - including Greenland. The ICEX 2021 team came together from California, Mississippi, Florida, and Virginia to participate in the exercise 750 miles above the Arctic Circle. Participants were from NAVSEA, Naval Facilities Engineering and Expeditionary Warfare Center (NAVFAC EXWC), Naval Mobile Construction Battalion (NMCB-1), Underwater Construction Team One (UCT 1), Naval Diving Salvage Training Center (NDSTC), and Naval Experimental Diving Unit (NEDU). Upon arrival, the Sailors conducted a strict 14 day Restriction of Movement (ROM) at the base's flat-top housing. Contracted base personnel provided meals and other services, and any movement outside the housing was strictly prohibited.

Due to the extreme isolation of Thule and the strict ROM requirements, Greenland has enjoyed a COVID-free environment through the duration of the pandemic, and are currently at HPCON Alpha+. Once ROM requirements were met, ICEX personnel were not required to wear masks or practice social distancing. The relaxing of the masks/social distancing requirements allowed increased face-to-face exchanges between the ICEX team, the base population, U.S. Air Force personnel, and foreign nationals.

As would be expected for a location above the Arctic Circle in the winter, temperatures often dropped below -30 °F, and would hit -50F with wind-chill. These extreme conditions and uncertain weather patterns delayed the delivery of the dive and construction support equipment multiple times. Once the equipment arrived, it required climate controlled storage as extreme low temperatures can negatively impact the operation of tools and equipment. Pre-deployment modifications such as engine block heaters, changes to special low temperature lubricants and fluids, traction control, and insulation were made to Civil Engineer Support Equipment (CESE) to ensure operational availability in extreme conditions.

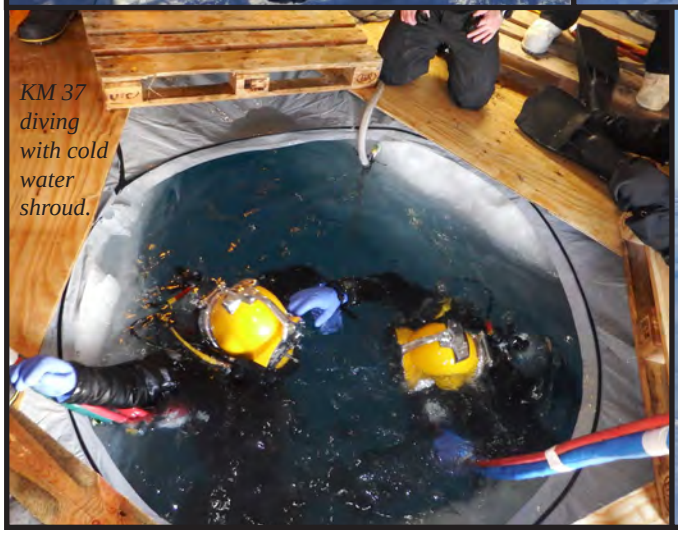
The need for sufficient Arctic rated personal gear issue (PGI) proved vital when working for extended periods outside. In the most extreme conditions, exposed skin could result in frostbite within minutes. Layering proved to be an effective heat retaining method because it allowed for the removal of layers for periods of strenuous work - this minimizes sweat - which can be dangerous in cold environments. Ice thickness surveys were conducted to locate adequate water depth for diving and to determine the load capacity of the ice. With clean, black ice more than 3 feet thick it was determined that the Seabee's MK28 MTVR (weighing in excess of 30,000 lbs) was safe to operate on the ice. A John Deere Skid Steer with an auger attachment made quick work of drilling an ice hole and soon trucks, four-wheelers, tents, heaters and diving equipment were moved in to construct the ice camp.

Seabees from NMCB1 conducted a series of general engineering tasks to determine how tools, equipment, and materials held up in extreme temperatures. These tasks included welding and laying small concrete pads. Conditions rendered the laying of concrete a useless practice as the cold precluded concrete from begin-

Using chain saws to assist with opening dive hole.

Steer Skid with auger punching holes.

DP2 divers prior to leaving surface.



KM 37 diving with cold water shroud.

ICEX Team. Mount Dundas in background.

ning the curing process. Welding operations on the other hand, were successful.

Using the skid steer to auger holes and chainsaws to remove the ice in between the holes, UCT and NEDU Divers were able to establish a 6ft triangle hole in the ice to serve as the primary entry for diver deployment and 3ft triangle emergency escape hole. A "wagon wheel" was prepared around the primary ice hole. A "wagon wheel" is a safety measure taken when diving under ice: snow is cleared in a large circle with spokes and arrows pointing back to the primary ice hole. This allows divers to quickly locate the ice hole in the event of an emergency. Despite ice being more than 4 feet thick, divers were able to still see the wagon wheel, arrows and spokes from the bottom at a depth of 60'.

UCT1 utilized ICEX 21 for reoccurring cold-water dive training and as a graded event for their pre- deployment diver training. Variable volume dry suits were used for thermal protection in conjunction with the Interspiro Dive Panel (DP) system, Surface Supply Diving (SSD), with KM37s Helmets and hot water shrouds. The team was able to conduct 18 dives and exercise 75% of their equipment. Underwater welding, weight handling and hydraulic work weren't tested due to time constraints associated with the late equipment arrival.

NAVFAC EXWC Dive Locker personnel conducted an extensive evaluation of the Naval Construction Force (NCF) Table of Allowance (TOA) equipment and several commercial-off-the-shelf (COTS) items, including evaluations of the new Navy Dive Computers (NDCs). The information gathered will help identify/justify current capability gaps for NECC Arctic operations and ensure warfighters have the necessary tools for mission success in this challenging environments.

Exercises such as ICEX 2021 help maintain the Navy's competitive advantage and was highly successful in displaying the operational flexibility of NECC forces to work in extreme temperatures and respond to tasking in continually changing operating environments. Above the Arctic Circle, the weather can turn severe in minutes and without warning. The lessons learned and information gleaned from this exercise will be consolidated in the upcoming Polar Ice Technical Manual that's expected to be released by the end of calendar year 2021. Future arctic training events will build on these findings and ensure our warfighters are well trained, equipped and protected allowing them to succeed in extreme climates.

Master Chief Dumke is currently serving as the Military Liaison for the Navy Polar Diving Operations at NAVSEA 00C while providing support to other Diving programs and initiatives. He can be reached at Joshua.w.dumke@navy.mil, (desk) 202-781-3457, or (Cell) 202-904-7534.

Lieutenant Anderson is currently serving as the Group Dive Officer and Operations Officer for Naval Construction Group TWO. He can be reached at tyler.p.anderson@navy.mil, (desk) 228-871-4492.

Pictures taken by: NDCM Dumke. Article cover photo: Aerial photo of ICEX 2021 dive site. Unknown photographer.

Diving Officer's Perspective

By: CWO4 Jason Potts, USN

"Who Do We Work For?"

The diverse nature of the myriad missions we conduct across the globe, and the sometimes radical cultural shifts we experience each time our careers usher us into a new enterprise, often leave us wondering which headquarters in the joint universe we actually work for at sea, and ashore. In response to the relatively daunting task of clearly defining the chains of command associated with the generation and employment of dive-enabled forces, this article, along with the supporting graphics, will explore the hierarchical frameworks supporting a stateside Regional Maintenance Center (RMC) Dive Locker conducting underwater ship husbandry operations, and an east coast Mobile Diving & Salvage (MDS) Company preparing for and executing deployment to Southwest Asia. Although limited in scope, the exploration of this topic, in these exclusive lines of effort, is intended to elevate awareness of the positions we hold and the roles we fill in support of broader defense objectives, particularly for emerging leaders, many of whom fill key positions at the higher headquarters level.

At the ground level, our RMC Dive Lockers are led by commissioned, enlisted, and civil service leadership teams reporting to an Echelon IV Engineering Duty Officer (EDO) Commanding Officer (CO) via departmental and executive frameworks. The next step up the chain of command from the RMC CO is the Immediate Superior in Command (ISIC), or Echelon III headquarters, Commander, Navy Regional Maintenance Center (CNRMC), which is led by a Rear Admiral (RDML), typically an EDO but sometimes an Acquisition Professional (AP), exercising oversight of each of the Navy's RMCs from their offices onboard Naval Station Norfolk. Next stop up the chain fall from CNRMC is Commander, Naval Sea Systems Command (NAVSEA). Led by an EDO or AP Vice Admiral (VADM) and headquartered onboard the Washington Navy Yard, just a few miles away from the U.S. Capital, and as one of the Navy's Echelon II Systems Commands, NAVSEA is responsible for the design, construction, delivery, and maintenance of ships, submarines, and associated equipment in direct support of the operational forces. Moving up from NAVSEA, we end up at the Navy's Echelon I headquarters, or Chief of Naval Operations (CNO) staff (OPNAV), that's centralized in the Pentagon, which is the expansive Department of Defense headquarters complex just outside of Washington, D.C, in Arlington, VA. As the Navy's senior uniformed officer, the CNO reports directly to the Secretary of the Navy (SECNAV), also oriented in the Pentagon, who, in turn, reports to the President of the United States, our Commander in Chief.

For our paralleling exploration of the lines of authority responsible for the Virginia-based MDS Company, we'll start with the administrative chain of command, or ADCON, responsible for manning, training, and equipping units such as these for deployment tasking on the basis of mission requirements developed by the operational chain of command, or OPCON, we'll subsequently examine. Similar to the RMC Dive Locker's chain of command, and also reporting to the Commander in Chief, SECNAV tops the ADCON pyramid with OPNAV once again filling the Echelon I role. Stepping down the chain of command into the Echelon II level is the cognizant Navy Component Command (NCC), U.S. Fleet Forces (USFF), in Norfolk, VA, which is led by an Unrestricted Line Officer (URL) Admiral responsible for the "maintain, train, deploy, sustain" process known as the Optimized Fleet Response Plan, or OFRP. Reporting to USFF is the RDML URL-led Navy Expeditionary Combat Command (NECC). As one of the Navy's Echelon III Type Commands (TYCOM), NECC is responsible for applying the OFRP to generate forces in a specified mission area. Next stop down the chain of command from the TYCOM is the Echelon IV ISIC, in this case, Explosive Ordnance Disposal (EOD) Group TWO, whose compound is a short distance from NECC headquarters onboard Joint Expeditionary Base Little Creek. Finally, the line of ADCON authority continues down to the Echelon V Commander EOD URL CO of Mobile Diving and Salvage Unit TWO, another Little Creek tenant, to whom the MDS Company Commander reports via unit-level leadership.

Once certified for deployment, as a result of their successful completion of the OFRP, the MDS Company is subjected to a change of operational control (OPCON), or CHOP, as they mobilize and deploy in accordance with a force flow derived from an overarching Global Force Management system. Once CHOP'd and subsequent to a relief in place / transfer of authority (RIP/TOA) process, the MDS Company assumes the role of task unit (TU), which, in the case of their deployment to Southwest Asia will be TU 56.1.2 as the TU Commander (MDS Company Commander) reports to the Task Group (TG) 56.1 Commander, an EOD Mobile Unit Commander URL CO, also deployed to the region with his or her battalion headquarters staff. From TG, the chain of command progresses up to the Task Force (TF) 56, or Naval Expeditionary Combat Forces Central, level. A tenant of Naval Support Activity Bahrain, TF 56 is led by a Captain EOD URL who reports directly to the

Numbered Fleet Commander, Commander U.S. 5th Fleet, a VADM URL, who, in this particular area of responsibility, is also the NCC, U.S. Naval Forces Central, or NAVCENT. Continuing up the chain while stepping out of Navy-specific lines of authority and into the joint realm, we end up at the Geographic Combatant Commander (GCC) level, Commander, U.S. Central Command (CENTCOM), headquartered in Tampa, FL. As a Unified Commander, the General leading CENTCOM is responsible for all military operations in Southwest Asia and adjoining bodies of water. In exercising these authorities, the GCC reports directly to the National Command Authority (NCA), which is comprised of the Secretary of Defense and Commander in Chief and advised by the National Security Council via the National Security Advisor. Exercising ultimate control over the entirety of the Joint Force, the NCA is also advised by the Chairman of the Joint Chiefs of Staff (CJCS), who, along with the Vice CJCS and supported by the service chiefs, CNO included, plays a critical role in leadership of the Joint Force, even though these uniformed officers, our nation's most senior, aren't actually in the chain of command.

That's it: two of our military chains of command, all geared toward ensuring you, the folks on the waterfront and out at the gleaming tip of the spear are fully ready to deter aggression per the direction of our country's civilian leaders and, when necessary, fight and win in defense of our people and way of life.

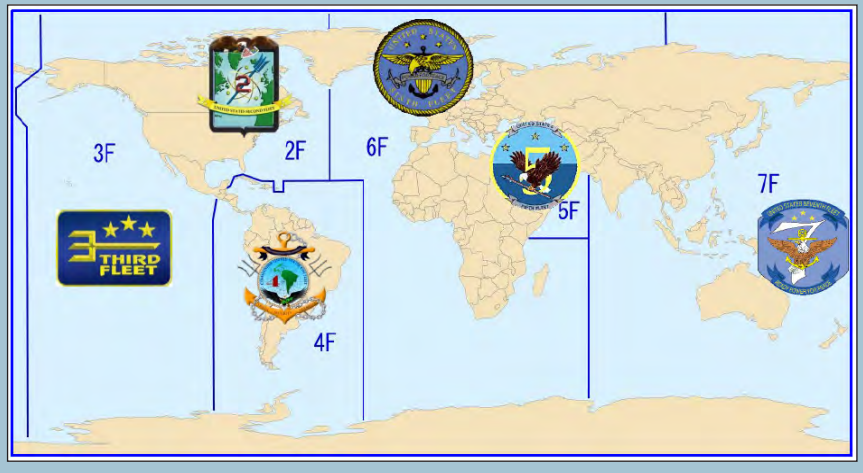
As each of us continually cultivates our tactical and technical expertise, it is also critical that we bolster our professional knowledge in order to enable the expansion and focused application of our world-class diving capabilities as an essential counter to adversarial posturing.

Looking forward to seeing you on the waterfront!

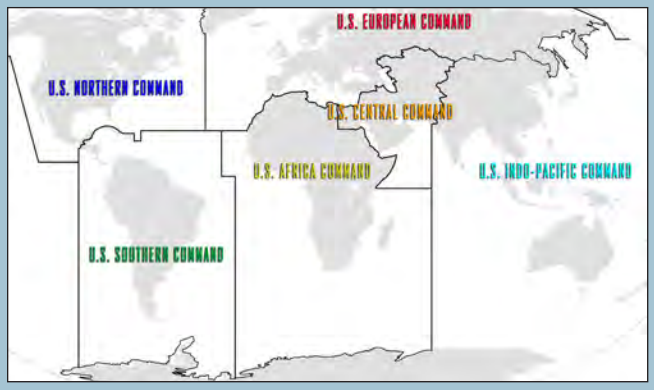
CWO Potts is the Fleet Diving Officer at NAVSEA 00C.

ADCON Architecture

Numbered Fleet Areas of Responsibility

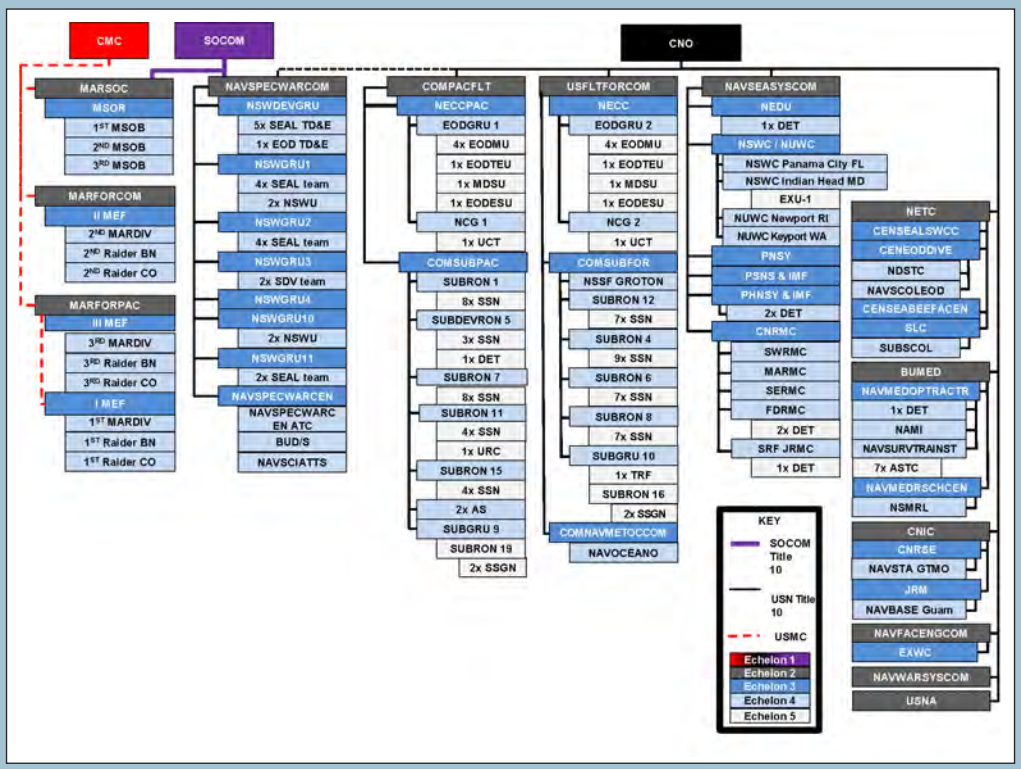


Combatant Command Areas of Responsibility



OPCON Architecture

Force Organization

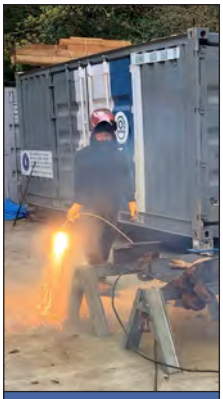


ESSM and MDSU Co 1-8 Linear Puller Training

By: Rick Theil

ESSM and MDSU-1 Company 1-8 have come together as a part of an initiative from the Salvage ESC to improve the material condition of the Salvage Equipment (Yellow Gear) onboard the Salvage Ships while also providing any needed training of deployed MDSU Companies on Yellow Gear (YG) equipment operations, troubleshooting, maintenance and repair. Following Co 1-8 coming aboard SALVOR in January, SALVOR proceeded to Sasebo to rotate the YG on board with warehouse inventory from the ESSM Facility in CFA Sasebo. The YG has been onboard SALVOR since May of 2019 and was in need of maintenance, long overdue. ESSM also took the opportunity to perform maintenance on all inventory at the ESSM Facility in Sasebo, which was last maintained in Oct of 2018. MDSU Co 1-8 took advantage of the opportunity to come to the warehouse over multiple days to gain in-depth knowledge and experience in multiple aspects of the Yellow Gear including operations, trouble shooting, maintenance, and field repairs. This culminated in the Linear Cable Puller Training on USNS SALVOR that included a complete rigging of one leg of the Cable Puller System on the Foc's'le, retrieval of a 1 ¼" wire off a buoy that allows the 1 5/8" wire to be brought on deck, and rigged into the cable puller for extraction of a stranded/ grounded vessel. The training proved invaluable in allowing Company 1-8 to experience the actual issues with handling and lifting the beach gear wires onto the Foc's'le.

Rick Thiel is the ESSM Salvage Program Manager at NAVSEA 00C. Photo above by: MDS Co 1-8. Completion of Linear Cable Puller Training.

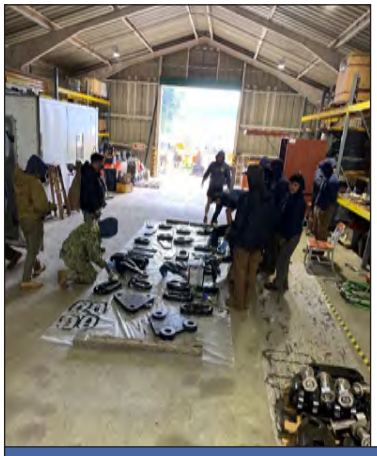


Training on cutting operations with Kerrie Cable. Photo by: Rick Thiel

ESSM Team deployed to Sasebo Japan to perform warehouse equipment maintenance, support the rotation of Salvage and Towing equipment on board USNS SALVOR, and to assist in familiarization training with MDS Co 1-8. Photo by: Rick Thiel

MDS Co 1-8 restowing 1 5/8" wire rope into the wire rope bin on board USNS Salvor. Photo by: NDCS(DWS/SW) Stephen D. Vanzant, Master Diver, MDS CO 1-8

Joint effort by ESSM and MDS Co 1-8, hauling out Salvage and Towing Jewelry for Inspection and Maintenance. Photo by: Rick Thiel



MDS Co 1-8 assisting ESSM in maintenance of Salvage and Towing equipment at the ESSM Sasebo Facility. Photos by: Rick Thiel

The Old Master

I must admit that when NDCM Jeff King asked me to write this issue's, "The Old Master," I was beyond honored. However, since then I have been scratching my head, unsure of what to write. I confess; if you are reading this with an expectation of receiving some profound pearl of wisdom, you will likely be disappointed. Unfortunately, all you will get here is the opining of a reminiscent old Master Diver.

What I can say is that after 28 years (25 as a deep-sea diver) I am squared away, ready to leave bottom for the final time. I cannot imagine having done anything else. I cannot imagine having worked alongside a greater caliber of professionals. There is nothing in the world that could ever convince me that Navy Divers are not the best the human population has to offer.

NDCM Craig Simon

Deep Sea, it has been quite a ride hasn't it? I know it is cliché to say, but time has certainly flown by. It seems like yesterday that I stood in dress whites, a freshly minted 2/C, service record in hand, before then ENCM (MDV) Frank Perna the very day after his wife was arrested in a chicken suit on the roof of McDonald's with a sign that read, "McMurder." Every deep-sea diver was there, like wolves circling their prey, sensing weakness in the old man, hurling their jokes and all the while, I stood silent trying hard not to draw his ire, biting my lip in an effort to hold back the laughter. He took it; what else could he do? In that moment, I realized two things: one, if you want to be deep sea, you had better have thick skin, and two, I had found a home in this community of pirates. Incidentally, a then EN3 Mike Shields made sure I and every other young diver there had skin like a crocodile.

In preparing for this article, I reviewed several previous submissions. Most share a similar sentiment - enjoy the ride because it goes quick; it does indeed. I promise you, old retired Master Divers don't get together and talk about when they were Master Divers. They reminisce about the late night dive jobs when they were young, knuckle-dragging, 2/C, working divers. They do that because it was during those times when the deeply held and close-knit ties to the community and each other were forged. I read somewhere that every activity can be categorized into three types of fun. Type 1, things that are fun to do and fun to talk about later. Type 2, things that aren't fun to do at the time but fun to talk about later and of course, type 3 fun is neither fun to do or talk about...ever. Type 2 fun; that's where deep-sea divers live. Think about it. It's those long, late night dive jobs when you're cold, hungry and sleep deprived that we all talk about most. It's the long deployments where we forge our deepest friendships. Like me, I expect that most Master Divers and CWOs in our community would give anything to relive those times.

So why do I bring this up? Balance. Deep-sea divers are exceptionally driven by nature. Too often however, in our pursuit of the next qualification or advancement we miss the things that make being deep sea great. We get out of balance. Do not misunderstand me; those are worthy endeavors and not to be ignored. Just make sure to have balance. Make sure to find balance between work and family, between personal and professional growth. Master Chief Rick Bettua said something to me shortly after he retired that always stuck with me. He said, "Craig, make sure you know who you are. Make sure you define what the uniform means and do not allow it to define you because there will come a day that you will hang the uniform up for the final time. It will not matter then what rank you wore on your collar or what medals were pinned on your chest. Get it right and you will have a family waiting for you at the finish line. Get it wrong and you'll have a pretty uniform wrapped in plastic, hanging in the closet of an empty house." Reflecting back on the last 28 years, I think I did it right. I leave our deep-sea community with countless friends and endless sea stories. No, I cannot imagine having done anything else. I consider myself fortunate to have been part of a community made up of the very best men and women that our Navy and this country have to offer.

It's amazing how often we overlook or even take for granted how dangerous the work we do really is. It's easy to do because we are, in fact, the very best at what we do. We are better than our civilian counterparts, better than our allies and most certainly better than our enemies. Make no mistake; what we do is dangerous. My parting challenge to each of you is to be ready. In our line of work, there is no room for pride or ego. The ONLY thing that matters is the diver at the end of the umbilical. Expend your effort and attention to that end so that whatever emergency presents itself, you and your team, will be ready and bring that diver home safely. Chiefs, lead well. Clearly communicate your expectations, empower your Sailors, and expect greatness from them; you will not be disappointed.

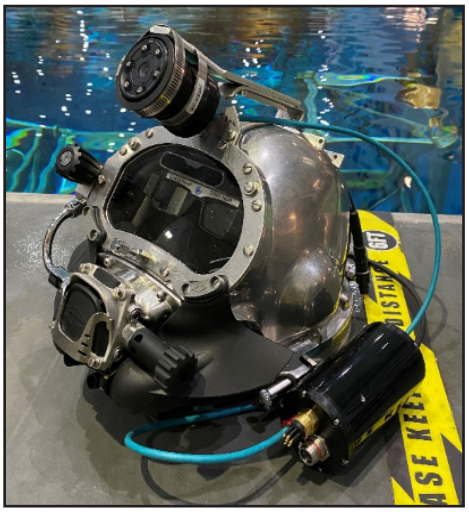
Now I will end the same way I started. It has been quite a ride, hasn't it? In the last 28 years, we have witnessed many changes and weathered many storms together. We have embraced the suck, celebrated successes and grieved losses together. We have done these things together. While I look forward to retirement, I fear the bitter truth that nowhere in this world can the brotherhood and camaraderie of the deep-sea community be replicated.

HOO-YAH Deep Sea! Red Diver leaving bottom!

SUPDIVE SENDS ...CAPT Thomas P. Murphy

I would like to open this SUPDIVE Sends, by welcoming LCDR Matthew Irwin to the NAVSEA 00C3 team as the new Assistant Supervisor of Diving. LCDR Irwin joins us from Rota, Spain where he was the CTF-68 Assistant Operations Officer for NECC forces within 6th Fleet.

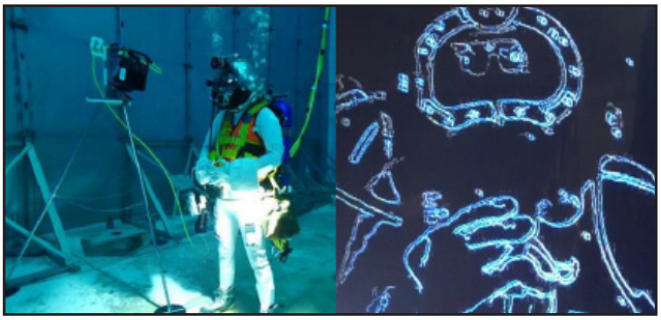
I would also like to congratulate and wish the soon to be departed NDCM (MDV), John Hopkins, "Fair Wind and Following Seas" as he prepares for his transition in June to assume the position as the Mobile Diving and Salvage Unit ONE (MDSU ONE) Readiness and Training Master Diver. John has been a tremendous source of diving equipment configuration knowledge, a valued inspector in support of our NAVSEA Diving Operational and Readiness Inspections (DORI) and lead developer/reviewer for both the update to the "Guidance for Diving in Contaminated Water" and the soon to be released "Guidance for U.S. Navy Diving in Swift/Fast Water" technical manuals. MDV Hopkins' hard work in updating and developing these two manuals will have a long lasting impact on our Navy diving community for years to come, and I wish him continued success in his return to MDSU ONE later this summer. Secondly, I want to congratulate and wish LCDR Mark Hyatt, our outgoing Assistant Supervisor of Diving, "Fair Winds and Following Seas" in his recent retirement after 25 years of service as both an enlisted 1st Class Diver and Explosive Ordnance Disposal (EOD) Officer. Throughout Mark's time at NAVSEA, he has led our DORI program, managed new dive equipment reviews for addition to our Authorized for Navy Use (ANU) List, and played a key role in maintaining and strengthening our diving partnerships with our Allies through technical information exchanges. Mark's efforts have left our diving programs and support to the diving community in a better place. I wish you the best of luck in your transition to civilian life and a big HOOYAH from the diving community!



KM-97 dive helmet configured with the DAVD GEN 2 system to support a NAVSEA 00C3 user evaluation on February 23, 2021.

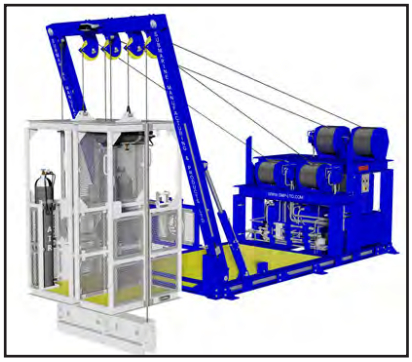
On the systems development side of 00C3, we began our unmanned testing of the Garmin Descent II and Shearwater Perdix and Teric dive computers at the Navy Experimental Diving Unit (NEDU) in May. These test results will assist us in the final selection and purchase decision for the Navy's next generation dive computer by the 4th Quarter of FY21.

Working in collaboration with CODA Octopus, Office of Naval Research (ONR), NSWC Panama City, and the National Aeronautics and Space Administration (NASA), we conducted a final user evaluation of the Diver Augmented Visual Display (DAVD) Generation 2 system at the NASA Neutral buoyancy lab in Houston, TX in February. The Gen 2 system has added a camera (edge mode in low visibility), diver motion system for heading and telemetry display enhancements, and hardware components testing to expand the capability of the system down to a depth of 300 FSW. In FY21, we will be issuing five Gen 2 systems, with the first two being delivered to MDSU TWO and UCT TWO in June and July.



US Navy Diver image captured during low visibility conditions utilizing the DAVD Gen 2 camera system in edge mode during a NAVSEA 00C3 user evaluation on February 23, 2021.

Additionally, in April, we awarded a contract for the purchase of two diver Launch and Recovery Systems (LARS) from Submarine Manufacturing and Products Ltd (SMP). The LARS will



Engineering drawing of the divers LARS produced by SMP.

be an A Frame system capable of two basket operations, and will be able to be shipped and aircraft loaded via a 20FT shipping container. These two systems are expected to be delivered to MDSU ONE and TWO by the end of FY21.

Finally, this will be my last SUPDIVE sends, as I will be transferring to be the Deputy of Current Operations within the U.S. Indo-Pacific Command headquarters staff. In June, I will begin my turnover with CAPT Bob Marsh, who is a former Mobile and Diving Salvage Unit TWO Commanding Officer and the current EODGRU TWO Chief Staff Officer. The SUPDIVE position will undoubtedly be in good hands for the next three years!

As always, we value your feedback and ideas, so please keep them coming, especially if you have ideas for future Faceplate articles, or if you would like to highlight the activities your unit has accomplished with a Command in the Spotlight article.

HOO-YAH, and DIVE SAFE!

Diving Advisories

20-18 REMOVAL OF THE AQUA LUNG SURFACE SUPPLIED HARNESS (SSH) FROM SERVICE AND DATA CALL FOR IN-SERVICE SURFACE SUPPLIED HARNESSES

20-19 EXPANDED EMERGENCY GAS SUPPLY REQUIREMENTS

21-01 LIST OF EFFECTIVE DIVING ADVISORIES

21-02 AQUA LUNG SURFACE SUPPLY HARNESS (SSH) REPLACEMENT INFORMATION

21-03 AUTHORIZED AND CERTIFIED USE OF DIVING AND MANNED HYPERBARIC SYSTEM COMPONENTS AND ASSOCIATED APPARATUSES

21-04 CONSOLIDATION OF DIVING AND MANNED HYPERBARIC SYSTEM TECHNICAL AND SYSTEM CERTIFICATION AUTHORITIES

21-05 POSEIDON DIVING SYSTEMS XSTREAM US NAVY EDITION FIRST STAGE SCUBA REGULATOR

21-06 HIGH PRESSURE DIVING AIR COMPRESSORS

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