



# FACEPLATE

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

*Volume 16, No. 1 / March 2012*



## ***In This Issue...***

*Salvage Divers Beach a Sunken Pier at Umm Qasr Port  
U.S. Navy Divers Supporting Operation Tomodachi  
Trident Refit Facility Divers Participate in Navy Weeks  
How to Make \$1.5 Million in Less Than Three Weeks*



# 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.

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Chief Navy Diver Billy Goold, assigned to Commander, Task Group (CTG) 56.1, removes a working line from a sunken pier. CTG 56.1, Army, and Iraqi divers are working to raise and remove the pier. CTG 56.1 supports maritime security operations and theater security cooperation efforts in the U.S. 5th Fleet area of responsibility. (U.S. Navy photo by Mass Communication Specialist 1st Class Peter D. Lawlor/Released)







# SUPSALV SENDS



**G**reetings to Navy Divers around the world from Washington, DC, where many of us are engaged in an annual budgeting process called the Program Objective Memorandum (POM). I realize that this bureaucratic evolution is far less interesting than an SPM change-out on an SSN, or an aircraft salvage in rough seas, but the results of this POM - our budget for fiscal years 2014-2018 will significantly

impact all diving commands and divers. So I will briefly describe what I believe will be the outcome, and make a recommendation about how we might proceed. Our nation is in dire fiscal straits, and budget cuts are coming your way. I cannot predict the actual amounts or specific timing more precisely than “a lot” and “soon”. The Fleet will still require fixing and salvaging, so it is incumbent upon all of you to aggressively pursue innovative, efficient ways of completing these critical missions. Documenting how efficient (i.e., maintenance costs avoided) and effective (i.e., Fleet sailing on time, ship pulled off of the reef in one tide cycle) you were, is almost as important as actually completing the work. My recommendation is to religiously record how you are saving the Fleet from spending additional maintenance funds, and keeping our ships and submarines at sea. Be ready to produce verifiable data on a moment’s notice that clearly shows how your work kept a ship from having to be dry-docked, allowed a submarine to sail on time, or salvaged a stricken vessel so that it

could fight again. Documenting the concrete effects of your work won’t eliminate budget cuts, but it will help to keep these cuts manageable.

In February 2012, I was relieved as SUPSALV by Commander Mark Matthews. CDR Matthews is qualified in submarines and has completed diving and salvage tours in a naval shipyard as a Fleet Salvage Officer, and most recently, as Commanding Officer of the Navy Experimental Diving Unit. The SUPSALV job will be in great hands with Mark, and I anticipate that you will see him around the Fleet soon.

I joined the Navy because I wanted to be a Navy Diver, and since 1983 I have had the privilege of serving as a diver alongside some of the finest folks in our Navy. I am proud to have been part of a great tradition for so long and am confident that you will continue to overcome any challenge thrown your way.

Keep diving!

Captain Patrick J. Keenan, USN  
Supervisor of Salvage and Diving



**I**t is certainly an honor to serve the Navy, more specifically, the Navy Divers as the Supervisor for Salvage. On Friday, February 10th, 2012, I had the bittersweet privilege to relieve CAPT Pat Keenan in that position. It is an awesome opportunity to serve in an office so rich in history with global responsibilities, which will likely be the high point in my profes-

sional career. However, it was a sad day to watch CAPT Keenan depart the service after thirty years. Many of you know Keenan, as it seems he was purpose-built for this job. He leaves big shoes for me to fill and hopefully I will be able to adopt his infectious grin. Pat – I thank you for the years of mentoring and all of your contributions to Navy Divers across the globe.

For all Navy Divers – my job is to support you and to help you be successful in executing your mission. Your efforts in underwater ship husbandry keep our ships at sea and reduce the cost of maintenance. Your salvage capabilities are what the Navy relies on when ships are aground and when ports need to be cleared. It is my job to ensure you have the right equipment and the right procedures to get the job done. Also, my office stands ready to supplement your work with world-wide salvage contracts and service providers as tasking exceeds your capability or capacity. If, at any time, we are not doing everything possible to help you be successful, I want to hear about it.

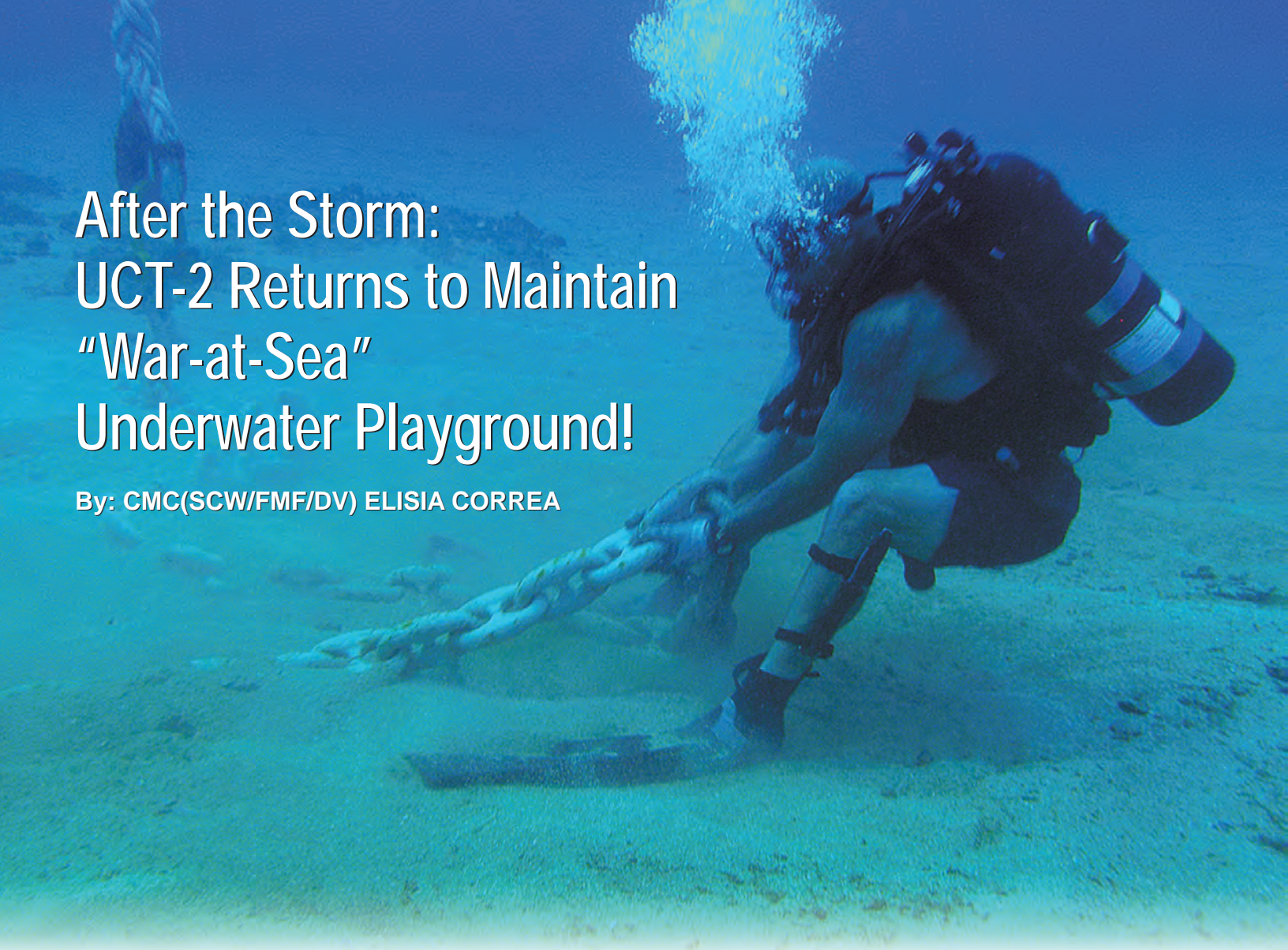
In CAPT Keenan’s last SUPSALV sends article, he described the fiscal envi-

ronment that we face. As he said, expect “a lot” of budget cuts and expect them “soon”. Even before the first Supervisor of Salvage was established in 1941, we have worked to maintain the right balance of salvage capability between the U.S. Navy and commercial providers. Certainly, I am committed to this goal, but I am forced to maintain a certain level of capability with a declining budget. We have already cut the easy stuff and further reductions will force “vertical cuts” in capability, in other words, we will have to identify things we are no longer going to do. There is an alternative: do things differently. I am pushing my office to identify sources of cost savings by challenging the status quo and making sure we strike the right balance between risk and cost. I ask you to do the same. If you have ideas for changes in how we operate, please share. Certainly, not all good ideas come from Washington.

Keep diving and stay safe!

Mark M. Matthews, CDR, USN  
Supervisor of Salvage and Diving



A diver in a dark wetsuit and scuba gear is working on a large, thick, braided cable underwater. The diver is positioned on the sandy seabed, leaning over the cable. Bubbles from the diver's breathing apparatus rise towards the surface. The water is clear and blue, with some light rays visible. The overall scene is one of focused underwater maintenance work.

# After the Storm: UCT-2 Returns to Maintain “War-at-Sea” Underwater Playground!

By: CMC(SCW/FMF/DV) ELISIA CORREA

The bone crushing waves sweep across the long Na’Pali coast during the winter months. On average, there are four storms per winter season, lasting two to four days each. The swell heights associated with these storms can reach an impressive 25 feet. The spectacular waves roll in with no mercy and ravage the seafloor with their persistent ebb and flow. When the storms settle, men and women of Underwater Construction Team TWO (UCT TWO) homeported at Port Hueneme, California, arrive to commence their annual maintenance and repair of the Pacific Missile Range Facility (PMRF) at Barking Sands Kauai, Hawaii. UCT TWO has been supporting the underwater range annually since the early 1980’s. This year, the 12 weeks of maintenance support fell to Construction Diving Detachment ALFA (CDD/ALFA).

PMRF is the world’s largest instrumented, multi-dimensional testing and training missile range covering over 1,200 square miles of sea floor, instrumented with 200 hydrophones and underwater communications devices, and 42,000 square miles of controlled airspace. “If you [were to] lay this range on the United States, it would cover the area from the entire west coast to over 20 states east of it.” said Construction Mechanic First Class (SCW/DV) Jeffrey Niblo, Project Supervisor. “It’s huge!” Using the sensors of the PMRF an object can be tracked, real time, within 10 meters from the surface to the bottom of the ocean floor. The instrumentation is cabled through the surf zone and to the shore along one narrow corridor of beach. Additionally, near the island of Nihue, submerged deepwater target buoys hover

at 100 feet tethered securely to anchors that lie in over 400 feet of sea water.

Approximately 400 meters of cast iron split pipe was installed on the seafloor cables. This pipe acts to prevent chafing of the cable in rocky areas. Damage is inevitable due to the abrasion, corrosion, and sand scouring during the storm season. Four failed cables were repaired this summer with new sections of spare cables using task-tailored injection-molded splicing techniques. According to Michael Dick, the Naval Facilities Engineering Service Center (NFESC) Engineer in Charge of the repair project, “11 other cables near failure due to abrasion and chafing were repaired with the application of anti-chafe split pipe preventing imminent failure. None of this effort could have been accomplished without the professionalism, hard work, and persistence of this team.”



Preventive maintenance on PMRF is the key to successful training for the Fleet. Builder Chief (SCW/DV) Jeremy Taylor, CDD/ALFA Officer in Charge explains, “the training facilities give the war fighter the ability to track and analyze open-ocean ‘war-at-sea’ scenarios. It tests the combat readiness and battle tactics capabilities of Fleet forces.”

The PMRF range is the facility used to train the crews of submarines, surface ships, and Anti-Submarine Warfare (ASW) aircraft around the Fleet. Exercises, such as Prospective Commanding Officer Submarine training, Submarine Exercise (SUBEX), Air Anti-Submarine Warfare Exercise (AIRASWEX), and Theater Ballistic Missile Defense (TBMD), are also conducted throughout the year.

The Sailors who have been involved in these endeavors have found them to be positive, enjoyable deployments. The following were quotes from the members of the Detachment.

“[I] enjoyed saving the Navy money, contributing to the big Navy mission, while doing some of the most beautiful diving in the world.” Builder Second Class (SCW/DV) Khiaro Promise.

Engineering Aid Second Class (SCW/DV) Craig Claudio stated, “Great learning experience as a diver. Good to

help out the readiness of the Fleet while honing our diving skills.”

Seabee divers load the Lighter Amphibious Resupply Cargo (LARC) with SCUBA diving and underwater hydraulic equipment to set the stage for repair efforts. “Having the LARC for this project is very important” said Equipment Operator First Class (SCW/DV) Leroy Schnathorst. “The convenience of entering the water from anywhere and mobilizing our heavy hydraulic equipment to the job site is priceless.”

A total of 6 moorings were put in place. This included a combination of Danforth



*CMC (SCW/FMF/DV) ELISIA CORREA Assistant Officer in Charge (AOIC) Construction Diving Detachment ALFA (CDD/A) UCT 2. Currently deployed to Diego Garcia repairing the Fuel Pier, she is one of three enlisted female divers in the UCT 's with 20 years in naval service.*



*Title Photo: BUC(SCW/DV) JEREMY TAYLOR staging the mooring leg system in place at 90 feet of seawater. By: CM1(SCW/DV) Jeff Niblo.*

anchors and 5-foot by 4-inches all-thread rod, which required drilling into the sea floor and securing with epoxy. “We designed a special drill stand to house the Stanley Hydraulic Sinker Drill 58 in order to drill the holes straight for our all-thread to be placed,” Installed anchor points on the ocean floor allowed the cable splice ship to moor.

*Photos bottom left to top right: EA2 (SCW/DV) CRAIG CLAUDIO drills 4-foot hole with Sinker Drill 58 for the sea floor anchor. (By: BU2(SCW/DV) Khiaro Promise); BU2(SCW/DV) Khiaro Promise recoils the repaired cables following a splice repair at 100 feet of sea water. (By: Mr. Mike Dick, NFES); UT2(SCW/DV) ADAM GLISTA inspects deep water target bouy at 100 feet of sea water. (By: HM1(DSW/SW) Ryan Irvine)*





# Chile Operates with U.S. Naval Forces as part of Submarine Rescue Exercise CHILEMAR III

By: Mass Communication Specialist Seaman Apprentice  
Karolina A. Martinez, Navy Public Affairs Support Element West

Chilean submariners from CS CARRERA (SS 22) along with the U.S. Navy's Deep Submergence Unit (DSU), participated in exercise CHILEMAR III off the coast of Southern California November 3, 2011.

CHILEMAR is an annual bilateral exercise between the U.S. and Chile designed to demonstrate interoperability between U.S. submarine rescue systems and Chilean submarines. The exercise also promotes greater understanding and cooperation between the U.S. and Chile.

"This exercise is important because you cannot surge friendship," said Rear Adm. Robert J. Kamensky, Deputy Commander, Submarine Force Atlantic. "You build that over time. Here's a demonstration of friendship being built so that whenever we have to exercise it, we already know each other. We can trust each other in that we'll be able to operate as a team."

A personal relationship between the U.S. Commander of DSU and Chilean submarine commanders provided the genesis for CHILEMAR. Assigned together as classmates at Chile's Naval War College, the commanders continued to engage beyond that duty assignment and convinced their respective higher headquarters that a bilateral rescue exercise served beyond both country's interests. This highlights the importance of personal relationships gained during international programs.

The exercise included a practice rescue scenario in which DSU's Pressurized Rescue Module (PRM), mated with CARRERA for a transfer of personnel from the simulated distressed submarine to the rescue vessel.

"We actually went down and mated at 480 feet with the Chilean submarine CARRERA," said Navy Diver 2nd Class

Joe Olin, a PRM attendee assigned to DSU.

"We went down and met the captain and the crew," said Olin. "We shook hands and exchanged gifts with them and let them know that submarine rescue is real and that we can deploy all over the world within 72 hours and be on station and ready to do our jobs and provide a real rescue if needed."

CHILEMAR is also designed to prepare and train both nations to perform Submarine Escape and Rescue (SER) which is an international humanitarian aid discipline that requires cooperation across national and alliance boundaries.

"It was an excellent experience all around, not only because we got to see action and be part of it, but we got to watch the interaction between sailors from Chile and Sailors from the United States," said Kamensky, who was one of the personnel who rode in the PRM to witness the evolution. "Watching how they interact was extremely heartening to me as one of the leads in the submarine force because it speaks for how well our coalition can cooperate and make things happen. It was extremely rewarding."

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*Above: Sailors assigned to Deep Submergence Unit (DSU) help civilian diver Justin Lashley resurface from the ocean inside an Atmospheric Dive System aboard the surface support ship Hornbeck Offshore Ship Dominator. (U.S. Navy photo by Mass Communication Specialist Seaman Apprentice Karolina A. Martinez/Released)*

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*MCSA Martinez is A Mass Communication Specialist assigned to Navy Public Affairs Support Element west in Naval Base Coronado.*

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*Chief Navy Diver Cory Hall prepares hoses for dewatering inside a sealed chamber connecting the Chilean navy submarine CS Carrera (SS 22) to a pressurized rescue module. (U.S. Navy photo by Karolina A. Martinez/Released)*



# THE SKIN THEY'RE IN: U.S. NAVY DIVING SUITS

BY: MARY RYAN



rine escape immersion suit), included to reinforce the dangers of the underwater environment.

Visitors learn about the suits themselves, and also why Navy Divers need diving suits and how they are used. Interactive components built into the exhibit emphasize these messages. For example, one activity shows visitors how difficult working underwater can be by asking them to thread a nut onto a bolt wearing diving gloves while their visibility is blocked by a shield.

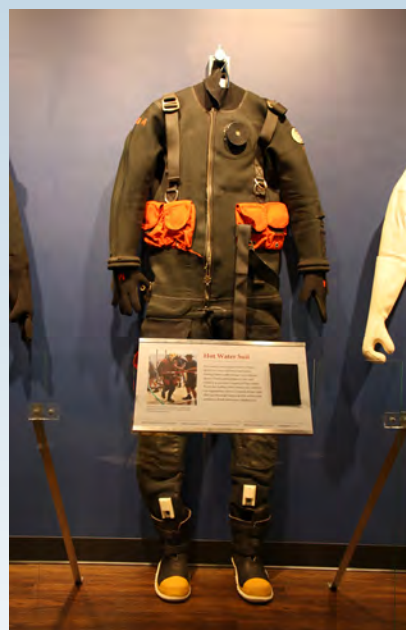
A key feature of the exhibit is a video that explains to visitors what it was like to wear and work in different suits. In this video,

The Naval Undersea Museum in Keyport, Washington, opened a new exhibit, “The Skin They’re In: U.S. Navy Diving Suits,” on 16 April 2011. The exhibit highlights the diving suits Navy Divers depend on for warmth and protection as they work in a variety of underwater conditions. CDR Darlene Iskra, USN (ret.), a Navy diver and the first woman to command a commissioned Navy vessel, cut the ribbon at the exhibit’s ceremonial opening.

The Navy employs a range of diving gear to safeguard its divers in every type of environment. Diving suits offer critical thermal and physical protection that our bodies – particularly our skin – cannot provide. In this sense, they act as artificial or second “skins.”

The exhibit showcases six types of contemporary and historic suits: five ambient pressure suits (a wet suit, a dry suit, a hot water suit, a Mark V diving dress, and a Mark 12 outer garment) and one

atmospheric diving suit (a JIM suit). Also featured are a flight suit, as an example of the lightweight coverings divers sometimes don, and a survival suit (subma-



NDCM/MDV Jason Brustad, the current Master Diver at Puget Sound Naval Shipyard/Intermediate Maintenance Facility, and retired Navy Divers CDR Iskra and Chief Engineman Norm Haas discuss the diving suits they used during their careers. Their reflections add an important human dimension to the exhibit.

“The Skin They’re In: U.S. Navy Diving Suits” will be on exhibit through 2012. The museum is open 10:00 AM to 4:00 PM daily (closed Tuesdays October–May). Admission and parking are free.

For additional information, please call (360) 396-4148 or visit the museum’s website at <http://www.history.navy.mil/museums/keyport/index1.htm>.

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*Mary Ryan is the curator at the Naval Undersea Museum in Keyport, WA.*

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# Salvage Divers Beach a Sunken

**M**obile Diving and Salvage Unit (MDSU) Two, Company 2-4 Divers assigned to Commander Task Group (CTG) 56.1 beached a sunken pier at the port of Umm Qasr, Iraq, June 14, after three years of excavation.

The floating pier was sunk in the early 90's according to Senior Chief Navy Diver Anthony Mabry, a Master Diver assigned to CTG 56.1, who supervised the overall dive operation during two separate missions to raise the sunken pier.

Mabry said the pier needed to be relocated from its previous resting point at the bottom of the deep-water harbor because it posed a potential hazard to navigation.

Multiple dive teams had attempted to raise the 90-foot by 30-foot rusted, barnacle covered pier. In addition to MDSU Two's first attempt May 10-21, other MDSU teams had tried and been unable to raise the then seemingly unmovable pier since the first attempt in Nov. 2009.

Traditional methods of extraction were attempted to raise the pier, using tools of the trade, such as cranes and lift bags to pull the wreck from the harbor's grip, but the pier had several lines still attached to nearby mooring stations and other debris not visible through the muddy and racing current holding the pier in place.

"The biggest challenge for us was that the visibility here in the river was zero," Mabry said of the difficult conditions. "Once your head left the surface, you were working with your hands only. Along with that, you have anywhere from a 15-foot to a 19-foot tidal shift."

"So when the current really got moving through here, it was moving maybe four, five, or six knots... and we had to dive through that," Mabry said.

To move the pier, the dive team maneuvered a 110-foot fuel barge over the project and connected it to the pier with 16-rigging points to use the massive tidal shifts to their advantage and create 200-tons of lift to free the pier from its sunken state.

Chains and lines of Spectra (type of rope), along with rigging harnesses attached to 10-ton chain falls were constantly adjusted topside on the barge during the carefully coordinated lift, with precision accuracy needed to properly distribute weight evenly as the tides raised and lowered the project.

Submerged divers tunneled through 15 feet of mud using water pushed through a fire main and amplified by a P-100 fire pump to remove excess weight on the sunken pier and access its structural features to hook up rigging points.



"In total we had 147 hours of dive bottom time, which combined is roughly a little over six days of Divers on the bottom working on the project," Mabry said. "Many days we were working 18-19 hour days because at certain points in this operation, once you get started you just can't stop because it gets dark, so you work right through."

"It took a lot of hard work, but we came out here and did it," Mabry said. "The guys do what they always do. They're professionals and they got it done safely. It's a good feeling for us."

Mabry also gave credit to the skipper and crew of U.S. Army vessel Landing Craft Utility Five Forks (LCU) 2018 for their expert piloting skills, sharp deck hands, and logistics support throughout both missions conducted by MDSU Two, company 2-4.

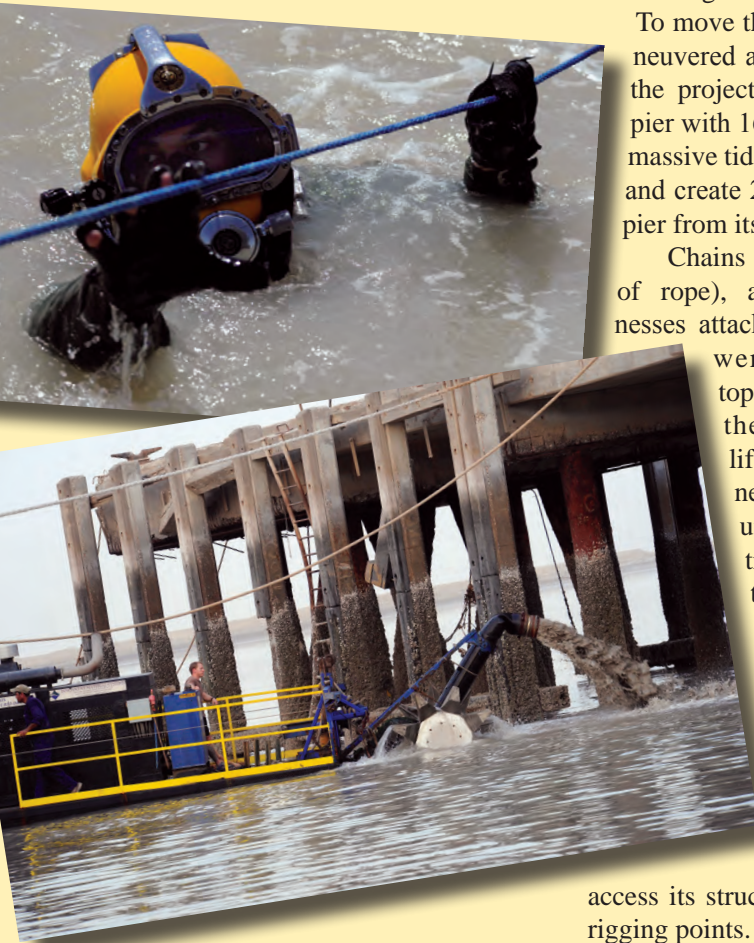
"Kudos to the Army for helping us out," Mabry said. "Without those guys we would not have been able to do this."

The U.S. Army also provided their own Divers from the 7th Engineer Dive Team to assist the U.S. Navy divers.

U.S. Army Sgt. Andrew Damon with the 7th Engineer Dive Team said he enjoyed the chance to work jointly with the Navy and was proud to be able to contribute to the mission.

"They're a great group of guys," Damon said. "I enjoy working with the Navy. They're hard workers. I also learned a lot of great rigging techniques from them."

Army Chief Warrant Officer 2 Frankie Caraska, Five Forks vessel master and commander of the 709th Trans-





# Pier at Umm Qasr Port

By Mass Communication Specialist 1st Class Peter D. Lawlor, Commander, U.S. Naval Forces, Central Command/5th Fleet Public Affairs

portation Det. 1, said his crew was happy to support the mission.

“We’re a support element and we did everything we could to support them,” Caraska said.

He and his crew provided transportation for the Diver’s equipment, meals, and security during MDSU Two’s recent missions in Umm Qasr. Five Forks also served as the Diver’s operating platform.

“We saw how hard the Divers were working out there and their job is incredibly dangerous. They’re so dedicated to their mission that they’ve actually been an inspiration to my crew,” said Caraska. “I have a new-found respect for Navy Divers and we hope to do more work with them in the future.”

After two missions, and months of preparation, the bollards on the top

portion of the pier poked through the surface as the tide began to descend at the port on the border of Iraq and Kuwait.

By low tide on the evening of June 14, MDSU Two, company 2-4, divers stood on top of the beached pier at Umm Qasr for the first time without dive helmets or an air supply.

Mabry said, “We had a lot of failures; we had a lot of setbacks, but no one ever got discouraged. They just kept doing their job and the pier is up on the beach, so mission accomplished.”

CTG 56.1 supports maritime security operations and theater security cooperation efforts in the U.S. 5th Fleet area of responsibility.

For more news from Commander, U.S. Naval Forces Central Command/5th Fleet, visit [www.navy.mil/local/cusnc/](http://www.navy.mil/local/cusnc/).

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*Captions top to bottom: Staff Sgt. Jake Cochran, a diver assigned to the 7th Engineer Dive Team, receives a mooring line from Navy Diver 2nd Class John Creger, assigned to Commander, Task Group 56.1, during a sea and anchor evolution.; Staff Sgt. Jake Cochran, a Diver assigned to the 7th Engineer Dive Team, works his way down a traveling line after working on a sunken pier dive project; Chief Navy Diver Ryan Oakley, assigned to Commander, Task Group (CTG) 56.1, monitors the output of a dredger as it discharges mud and silt covering a sunken pier at the port of Umm Qasr. (U.S. Navy photos by Mass Communication Specialist 1st Class Peter D. Lawlor/Released)*

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*A Sailor assigned to Commander, Task Group (CTG) 56.1 guides a U.S. Army Diver assigned to the 7th Engineer Dive Team down a bow ramp aboard the U.S. Army vessel Landing Craft Utility Five Forks (LCU) 2018.*



# How To Make \$1.5 Million in Less Than Three Weeks

By: MDV Hugh Bell



On a not so warm and rainy day in sunny Florida the last of six Auxiliary Propulsion Units (APU) came to the surface. This concluded our quest to supply the Fleet with spare APUs.

A few months ago there was a request from a PACFLT FFG for two ready for issue (RFI) APUs. Every FFG has two APUs so this request should not be an issue; simply go to supply, write a check for \$ 510K, and get two. But there were no spares. To fix this problem Mr. Jim Peck (Diving Manager from SERMC) had an idea. With the up-coming decommissioning of three FFGs in Mayport, Divers could remove two serviceable units from one of these FFGs, refurbish the APUs, send them to the west coast, get their two grounded units back, refurbish those. SERMC would have two RFI APUs and the ship in need would be back in business. This sounds simple enough, so SERMC put the plan in motion.

Our request brought to light the critical shortage of RFI APUs for the Fleet. This led to the conclusion that if swapping out two APUs was a good idea, then getting all six would be a great idea. Of course, no good or great idea works until it has been translated into a plan.

There were several major issues to overcome. One of the largest was without re-installing an APU there is nothing to

attach the APU fairing plate to the ship. This issue was vetted through SERMC Engineering as well as NAVSEA. Both agreed that the ships could be towed at low speeds without the fairing plates. The columns would be blanked off with solid flanges to reestablish a secondary watertight boundary. The next big issue would be time. How long would it take to remove six APUs? How could we save time on these jobs and provide valuable training to our Divers?

During normal APU swap-outs, rigging the cofferdam is one of the biggest

The first two started right after Christmas and were completed in three days. The other four APUs required two days for each ship. For the last two, NAVSEA OOC5 sent down their newest engineering diver, Mr. Jacob Nessel, to receive in water APU experience. We welcome Jacob to the diving community and look forward to working with him in the years to come.

The take aways from this job should be; Navy Divers are providing valuable services to the Fleets. Always take the time to make a good

plan and then follow the plan. Anytime you are going to deviate from a procedure, get technical guidance from competent authority. In this day and age we all need to be on the lookout for cost saving ideas and measures. In three weeks the Navy increased its



SERMC dive locker with Mr. Jacob Nessel (NAVSEA 00C5) and Mr. Jim Peck in the center standing behind six APU's. Photo by NDI Dionicio Peralta.

consumers of time. Normally one side of the ship is worked then the other side is worked. We decided to take a different tack. With NAVSEA concurrence, we would remove both port and starboard APUs wet, with no cofferdams. Additionally, we would use two sets of column fixtures which would allow the outboard APU to be yard and stayed to the inboard column and then removed with a pier crane.

APU inventory by six units, two of which have been re-furbished and sent to a ship in need.

"This is how to make over 1.5 million, in less than three weeks."

*Above: APU being craned from the water, USS STEVEN GROOVES (FFG 29) in the background. Photo by Mr. Jim Peck.*

*Master Chief Bell is currently in his 28th year of Naval Service and is the Master Diver for SERMC, Mayport FL.*



# USS DENVER (LPD9)

## Port Shaft Repair

By: ND1 (DSW) Andrew Strause



In the Spring of 2011, the SRF-JRMC Detachment Sasebo, Japan, Dive Locker was confronted by a job never before seen at this location. During a routine hull cleaning of the USS DENVER (LPD 9) in January, corrosion was detected on the port side shaft. The extent of the damage wasn't revealed until work began, but what ensued was a replacement of 27 feet of Glass Reinforced Plastic, encompassing the entire length of the port shaft.

The 13 man Sasebo Dive Locker, led by NDCS (MDV) Pierick, needed additional equipment and supplies to handle such a job. Having recently completed back-to-back Controllable Pitch Propeller seal replacements on two home ported LSD 41 Class ships, another monumental project seemed to be at hand. The wheels were quickly set in motion to acquire the necessary equipment and personnel to accomplish this feat by the May 27th deadline.

In an effort to ensure the project would be completed by the deadline, it was decided to employ two doghouse cofferdams, one from SRF-JRMC Yokosuka, and the second from SUPSALV's Emergency Ship's Salvage Material (ESSM) facility in Port Hueneme, CA. The dry habitats were necessary to successfully perform the required fiberglass work.

To complement the Sasebo Team, divers from SRF Yokosuka, SWRMC, and Phoenix International assisted in the repair efforts. Under the direction of Justin Pollack, the onsite SUPSALV Underwater Ship Husbandry engineer, divers

began work on April 24th. The cohesive teamwork displayed by all involved was remarkable. After installation of the first cofferdam by the Navy team, Phoenix began work removing the existing fiberglass. Once removed, the shaft was cleaned, inspected, and corrosion areas repaired. Upon completion of these repairs, non destructive testing was performed to locate any possible defects or weak areas in the shaft. Since no Navy divers were qualified to perform the NDT in a dry environment, the Phoenix team completed this on all areas of the shaft.

One major obstacle became apparent almost immediately. In order to safely use

this delay was kept to a minimum, and the cofferdam was repaired, tested, and installed on the shaft in less than a week.

Since the majority of the Navy team was inexperienced with fiberglass work, extensive training was conducted topside prior to performing the repairs to become more proficient at fiberglass installation before attempting to work in the confined environment of the doghouse cofferdam.

In spite of the obstacles encountered, the combination of dive teams was able to complete this arduous task in less than

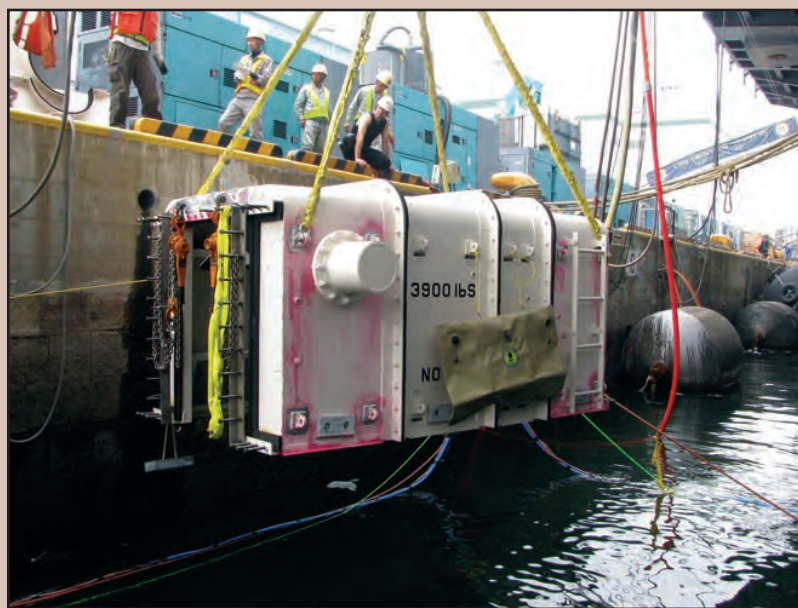
three weeks, well ahead of the May 27th deadline. Based on the experience with this job, revisions to Chapter 13 of the UWSH Manual are currently underway. The hard work displayed by both dive teams was incredible, and the teamwork from everyone led to successful, timely completion of the project.

NDC Canup was Lead Dive Supervisor on the Navy side and would like to express special thanks to Paul Kristiansen at ESSM, Justin Pollack at 00C5, SRF Yokosuka, SWRMC,

and Phoenix International Divers. Your outstanding support of your crews during this repair was critical to its success. "HOOYA DEEP-SEA"

*ND1 Strause is currently assigned to SRF-JRMC Yokosuka Detachment Sasebo*

*Top to bottom: ND2(DSW) Laux preparing to install cofferdam; Doghouse cofferdam being lowered into water.*



the Yokosuka doghouse cofferdam with two extensions installed, new padeyes would have to be welded in place. This welding required the use of 70/30 argon helium gas, a specialty product not readily available in Sasebo. After completion of the welding, all padeyes on the cofferdam still had to pass NDT using dye penetrant, followed by weight testing. As a result of diligent efforts by both teams,



# Trident Refit Facility Divers Participate in Navy Weeks

By: Stacey Byington, JOC (Ret.), Public Affairs Officer for Trident Refit Facility, Kings Bay, GA.

Naval Submarine Base Kings Bay, Ga., have spent the past year engaging in Navy Week community outreach events in cities across the country, showing off their diving skills.

Last October, over the Navy birthday, they were diving in the Georgia Aquarium in Atlanta, GA. They spent five days in January diving in the Florida Aquarium in Tampa Bay, Fla., and in mid-June entertained crowds of people at the Tennessee Aquarium in Chattanooga,

Tenn. Most recently (Labor Day weekend, Aug. 30 – Sept. 4), they were part of Cincinnati Navy Week, diving in the Newport Aquarium (Newport, KY), just across the river from Cincinnati.

Coordinated by the Navy Office of Community Outreach (NAVCO), the U.S. Navy conducts approximately 21 Navy Weeks each year, reaching out to communities across the country to show Americans the investment they have made in their Navy as a Global Force for Good, and sharing the Navy story with as many people as possible.

A team of six TRIREFFAC Divers, led by Navy Diver Chief Kevin Moore, demonstrated their skills and equipment in each aquarium, swimming among sharks, stingrays, and numerous types of fish while answering questions about their lives as Navy Divers and talking to visitors to the aquariums.

At the Newport Aquarium they interacted with visitors from both inside and outside the aquarium tank where they had a static display of diving equipment.

“We were set up outside of the tank, and had a pretty good group for interaction with people,” said Moore. “Using video, we were able to show off Navy diving in general, so they could see some of the different things divers do.”

“We talked to a lot of people who were interested in what we had,” said Navy Diver First Class Troy McDowell, a member of the Cincinnati team. “We had a really good static display set up of all our diving apparatuses, and we got to school people on the type of work we do. They were very interested in what we had to say.”

When possible, some of the dive team participating in a particular Navy Week were originally from that local area.

Navy Diver Second Class Jonathan Ballew was part of the team who took part in Chattanooga Navy Week in June.

“It was extremely fun. We saw a lot of people,” said Ballew. “I am from that area, so it was nice to go back and show my family and friends what I do.”

At several of the events, it was the first time family members had seen them dive.

“Navy Weeks are a great opportunity to show something about what Navy Divers do,” said Moore. “A lot of people thanked us for our service. A lot more people had no idea that Navy Divers were even at Kings Bay.”

TRIREFFAC completes an average of 18-24 submarine refits, and spends more than 1 million production man-hours each year in support of ballistic and guided missile submarine maintenance and voyage repair. The command's Navy Divers are responsible for underwater ship husbandry, which means they maintain hull valves, repair and replace propellers, vent and clean ballast tanks, to name just a few of their tasks. They are the underwater repair team.

During fiscal year 2010, the TRIREFFAC Dive Locker conducted 879 dives encompassing more than 1,054 hours of accident-free diving operations for various commands, including Naval Submarine Support Center, Kings Bay; Strategic Weapons Facility Atlantic, Kings Bay; Naval Submarine Base Kings Bay; Nuclear Power Training Unit Charleston, SC; Naval Ordnance Test Unit Port Canaveral, FL; and many other naval and civilian components. Additionally, the TRIREFFAC Dive Locker had the 16th largest amount of bottom time of 101 diving commands Navywide in FY 10.

Using Navy Divers has been very successful in the community outreach effort said CDR Kim Marks, NAVCO Director.

“The Trident Refit Facility Divers conducted 12 dives over four days in the Newport Aquarium and proved to be one of the week's most effective

## TRIREFFAC Navy Divers participating in FY2011 Navy Weeks:

### ATLANTA (OCT 2010)

NDC(DSW/SW/SS) Kevin Moore  
ND1(DSW/SW) Noah Gottesman  
ND1(DSW/AW/PJ) Troy McDowell  
ND2(DSW) Joshua Underwood  
ND2(DV) Christian Sapp  
ND2(DSW) Alexander Weber

### TAMPA (JAN 2011)

NDC(DSW/SW/SS) Kevin Moore  
NDC(DSW) Timothy Staniszewski  
ND2(DSW) Nick Daly  
ND2(DV) Christian Sapp  
ND2(DV) Brad Pask  
HM3(DMT) Matthew Kelley

### CHATTANOOGA (JUN 2011)

NDC(DSW/SW/SS) Kevin Moore  
NDC(DSW) Timothy Staniszewski  
ND2(DSW) Andrew Mixon  
ND2(DSW) Thomas Seymour  
ND2(DSW) Andrew Weber  
ND2(DSW) Jonathon Ballew

### CINCINNATI (SEP 2011)

NDC(DSW/SW/SS) Kevin Moore  
ND1(DSW/SW) Noah Gottesman  
ND1(DSW/AW/PJ) Troy McDowell  
ND2(DSW) Joshua Underwood  
ND2(DSW) Brad Pask  
ND2(DSW) Brian Williams



outreach assets,” said Marks. “Cincinnati was the fourth Navy Week this particular diving unit has supported, and the unit’s past experience was clearly evident in their interaction with patrons and their approachability.”

Navy Weeks were not all work and no play. In addition to diving in the cities’ aquariums, the TRIREFFAC dive teams interacted with area media, had the opportunity to go to city sporting events, and participated in community service projects.

In Atlanta, they took their diving equipment to various high schools, visited with children who were patients in the Children’s Healthcare of Atlanta’s

Scottish Rite facility, and were interviewed by local and national media. In Tampa Bay, two divers were interviewed live during Navy Night with the Tampa Bay Lightning (ice hockey) on the jumbotron with an audience of almost 17,000; two different divers appeared on ‘Good Day Tampa Bay,’; and all were interviewed for stories which aired on both local and national markets.

It was the same in Chattanooga and Cincinnati. In Chattanooga, the Divers were interviewed on WPLZ, a local Chattanooga talk radio show, participated with the Leapfrogs at a “Snap a Sailor” event at the Big River Grill, and talked to

more than 7,000 visitors to the Tennessee Aquarium. In Cincinnati, attendance at the dive demonstrations at the Newport Aquarium was estimated at more than 14,000 people. Additionally, two divers were interviewed live on Fox 19, and several participated in a community service event at the Clippard YMCA.

“Navy Weeks give us the opportunity to show the communities what the Navy does for them,” said Moore, the only Diver at all four events. “Each city has had its own unique flavor, and it seems like each city tries to out-do the one before. It just keeps getting better and better.”



Left to right: Navy Divers Second Class Jonathon Ballew (right) and Alexander Weber talk to Chattanooga radio personality Gary Poole on WPLZ Radio’s “Chattanooga’s Morning News Show,” on 95.3 FM as part of Chattanooga Navy Week. (U.S. Navy photo by Stacey Byington); Navy Diver Second Class Brad Pask from Trident Refit Facility, Kings Bay, GA, is interviewed by a Fox 13 WTVT-TV reporter, as Navy Diver First Class Tim Stanezowski looks on, from inside the Coral Reef exhibit at the Florida Aquarium, as part of Tampa Bay Navy Week. (U.S. Navy Photo by Stacey Byington); NDC(DSW/SW/SS) Kevin Moore and ND2 Brad Pask promote Tampa Bay Navy Week activities during a hockey game between the Tampa Bay Lightning and the Atlanta Thrashers. (U.S. Navy Photo by MC1 Ruben Perez); Navy Divers from Trident Refit Facility Kings Bay pose with Master Chief Petty Officer of the Navy (MCPON) Rick D. West outside of the Tennessee Aquarium in Chattanooga, TN as part of Navy week. (U.S. Navy photo by Stacey Byington); Hospital Corpsman Third Class Matt Kelly and Navy Diver First Class Tim Stanezowski, are interviewed by Cyndi Edwards for ‘Daytime’ in the studio of WFLA-TV, as part of Tampa Bay Navy Week. (U.S. Navy Photo by Stacey Byington); ND2(DSW) Joshua Underwood and ND2(DSW) Brad Pask talk with children at the Clippard YMCA in Cincinnati, Ohio, and let a member of the audience feel the weight of an MK-21 Mod 1 underwater breathing apparatus (UBA), as part of Cincinnati Navy Week. (U.S. Navy/Released)



# U.S. Navy Divers Supporting

On 11 March 2011, at 1446 local a massive, 9.0 magnitude earthquake struck the northeastern coast of Japan, triggering widespread tsunamis which resulted in massive infrastructure damage. Especially hard hit were numerous port and harbor facilities. This timeline gives a brief description of the support given by U.S. Navy Divers during Operation Tomodachi.

**11 March** USNS SAFEGUARD with Mobile Diving and Salvage Unit (MDSU) ONE Company 1-2 was 900 miles north west of Japan in Chinhae, Korea for a 14-day ship repair and maintenance period. The Seventh Fleet (C7F) Salvage Officer was also in Chinhae, Korea meeting with the Republic of Korea Navy divers to plan the next Republic of Korea Salvage Exercise.

**12 March** SAFEGUARD, MDSU ONE Company 1-2, and the C7F Salvage Officer were mobilized and sailed for Yokosuka, Japan with orders for support and specific tasking soon to follow.

**15 March** SAFEGUARD arrived in Yokosuka ready to support as needed. The MDSU Company started supporting Yokosuka Naval Shipyard divers in a massive underwater ships husbandry effort to return all U.S. Navy warships conducting ship's maintenance to an underway condition. The MDSU Company Officer in Charge (OIC) and the C7F Salvage Officer headed to United States Forces Japan (USFJ), in Yokosuka, Japan, for a situational update and future tasking. Upon arrival to USFJ initial tasking was to help support the Japanese government in establishing different methods for getting coolant water to the Fukushima Nuclear reactors.

**16 March** After many hours of calculations, engineering analysis, and NAVSEA engineering support it was determined that a minimum of two high volume/low pressure diesel Hydraulic Submersible Salvage Pumps in series with two high pressure/low volume diesel Hydraulic Submersible Salvage pumps from NAVSEA's Emergency Ship Salvage Material (ESSM) warehouse in Sasebo, Japan were the best option to provide support to the cooling of the Fukushima reactors. Five 6-inch Hydraulic (high pressure/low volume and low pressure/high volume) Diesel Hydraulic Submersible Salvage Pumping Systems (w/kit) arrived at Yokota air base.

**17 March** At 0300 training was provided to the Japanese government and Fukushima power plant employees on the ESSM pump operations and configu-

rations. The equipment then departed on five 5-ton flat bed trucks later that morning bound for the Fukushima power plant.

A Tasking Order was released for SAFEGUARD with MDSU Company to support Humanitarian Assistance and Disaster Relief (HADR) and harbor clearance in Misawa and Hachinohe Ports. Later that afternoon C7F Salvage Officer departed Yokosuka for Misawa in order to assess and survey the damaged area in support of the harbor clearance.

**18 March** U.S. Embassy personnel assisted the C7F Salvage Officer to establish the first harbor clearance meeting attended by local Hachinohe government officials, local fishermen, local business owners and Japan Coast Guard to discuss local plans and USN capabilities. During the first meeting the president of the Hachinohe Port Authority (Prudential Government) personally requested U.S. Navy assistance for salvage and harbor clearance in the Port of Hachinohe. The Japanese Coast Guard (JCG) and the Hachinohe Port Authority met twice to discuss the Japanese effort to survey different sections of the Hachinohe Port, focusing on work that had been accomplished in the previous five days and the work efforts that would continue. The problem was that there was no clear plan after the surveys were complete.



*LCDR Derek Peterson, U.S. 7th Fleet Salvage Officer, views photos of damage caused by a tsunami to the port in Hachinohe with city officials. (U.S. Navy photo by Mass Communication Specialist 2nd Class Devon Dow/Released)*



The meeting consisted of:

- Japanese Coast Guard (JCG)
- Hachinohe Port Authority (Prudential Government)
- Ministry of Land and Transportation
- Three Hachinohe City government officials
- Fishing Port authorities
- JX Oil Company
- NCIS
- LCDR Derek Peterson CTF 73/C7F Salvage Officer
- U.S. Navy public affairs officer NAF Misawa
- Two Hachinohe Media personnel (Nippo Press Co and Daily Tohoku Press)

This meeting agenda included discussion of a detailed 45 by 45 meter grid pattern fathometer depth search plan, clearly defining the port's priorities with respect to scanning and clearing, and discussing

personally requested the U.S. Navy's assistance for salvage and harbor clearance assistance in the Port of Hachinohe.

## 19 March C7F

Salvage Officer met with local fishermen and contractors for Hachinohe harbor survey and clearance. They gave a tour of Hachinohe Port by land and water, viewing the pier areas in the vicinity of the industrial, refueling, and fishing piers. The C7F Salvage Officer was able to talk with local shipyard businesses and diving/salvage shops for future/continued support in the debris removal.

## 20 March USNS SAFEGUARD

remained on station in Yokosuka to supplement SRF divers in removing 38 cofferdams and a shaft wrap from a US Navy warship. Also completed tow jewelry inspections in the event the ships were unable to get underway under their own power should they need to sortie due to projected wind shifts and possible radiation contamination in the vicinity of Yokosuka. SAFEGUARD stayed in the vicinity of Yokosuka until all ships were underway under their own power.

## 21 March EOD Mobile Unit

Five Platoon 501 (EODMU5 PLT 501) and Underwater Construction Team TWO were en route to NAF Misawa. Both USNS SAFEGUARD and USS TORTUGA (LSD 46) were en route to Hachinohe to help conduct harbor clearance and survey operations.



Vehicle removal in Hachinohe Harbor (By: LCDR Derek Peterson)

## 23 March EODMU5 PLT 501

and the Underwater Construction Team TWO arrive in Hachinohe.

## 24 March Command Task Group (CTG) 776.36

was formed to execute harbor/port clearance mission in Northern Japan consolidating the U.S. Navy Diving forces to include SAFEGUARD, MDSU ONE CO 1-2, UCT TWO, and EODMU5. Operations in clearing Hachinohe harbor included working with the local authorities in their previously performed soundings at 45m intervals. CTG let local officials and Japanese Coast Guard prioritize underwater obstacle removal and helped to develop survey and dive plans based on Navy soundings.



LCDR. Derek Peterson, U.S. 7th Fleet salvage officer, briefing U.S. Navy Diving Capabilities and assets to support harbor clearance for the Japanese city representatives. (U.S. Navy photo by Mass Communication Specialist 2nd Class Devon Dow/Released)

a future plan for clearing debris. Topics included were determining what kind of debris might be in certain locations, where there seemed to be possible debris, the manner in which they were searching for debris, and containment methods to use while lifting the debris. At the end of the meeting the president of Hachinohe Port Authority (Prudential Government)



Early morning dive preps in Hachinohe at DFG Pier (By: LCDR Derek Peterson)





Debris removal on USNS SAFEGUARD in Hachinohe. (By: MDV Jon Klukas)

**25 March** USNS SAFEGUARD arrived in Hachinohe to support harbor clearance. A specialized group progress south for site surveys and local provincial government meetings starting with the Miyako local government and Japan Coast Guard to discuss plans and USN capabilities.

**27 March** USS TORTUGA (LSD 46) and LCU 1627 arrived to support harbor clearance in Hachinohe.

**28 March** Completed objectives in Hachinohe Port included primary goal of creating a cleared path in order for an LNG compressed natural gas tanker to safely enter port through an access lane to the fuel pier for off-load of home heating fuel. This effort included a complete side scan survey, port priority list of critical areas, visual dive of all significantly sized contacts and a written survey of all operations (detail numbers provided below).

28 March – CTG 776.36 underway from Hachinohe in route to Miyako

**29 March** SAFEGUARD and TORTUGA arrived in Miyako harbor and started side scan sonar surveys and debris identification and removal with the combined diving and salvage team. MDSU Company stayed on board

SAFEGUARD while UCT TWO and EODMU5 were deployed from TORTUGA on LCU 1627. SAFEGUARD was positioned in the middle of the inner harbor of Miyako while TORTUGA remained at sea as the command and control platform for CTG 776.36.

**2 April** First harbor clearance meeting with Kesenuma local government and Japan Coast Guard to discuss local plan and USN capabilities.

**3 April** CTG 776.36 completed objectives in Miyako including a cleared path in order for fishing vessels to safely enter the port and allowing an access lane to pier for off-load of supplies and equipment. Efforts included a complete side scan survey, port priority list of critical areas, visual dive of all significantly sized contacts and a written survey of all operations (detail numbers provided below). Upon completion SAFEGUARD and TORTUGA were underway en route from Kesenuma / Oshima port.

**4 April** SAFEGUARD and TORTUGA entered Kesenuma port. Received LCU with combined team and commenced survey operations.

**4-6 April** Conducted survey and harbor clearance operations in Kesenuma and Oshima.

**6 April** CTG 776.36 completed objectives in Kesenuma and Oshima including a cleared path for ferries and fishing vessels to safely enter the ports surrounding Kesenuma and Oshima and allowing an access lane to pier for off-load of people, supplies, and equipment. This included a complete side scan survey, port priority list of critical areas, visual dive of all significantly sized contacts and a written survey of all operations (detail numbers provided below).

TORTUGA and SAFEGUARD sortied due to possible shift in winds and radiation exposure of Fukushima.



Debris removal off USNS SAFEGUARD in Miyako. (By: LCDR Derek Peterson)

**8 April** SAFEGUARD, TORTUGA, MDSU ONE, UCT TWO, and EODMU5 released from Operation Tomodachi.

Units Involved:  
 USNS SAFEGUARD  
 MDSU ONE CO 1-2  
 UCT TWO  
 EODMU 5  
 CTF-73  
 CTF 76  
 USS Tortuga (LCU 1627)



Debris removal by USNS SAFEGUARD in Miyako. (By: LCDR Derek Peterson)



## SUMMARY OF DIVING AND SALVAGE STATISTICS FOR OPERATION TOMODACHI

SSS OPERATIONS: SSS operations were conducted by UCT TWO and MDSU ONE.

	LINEAR METERS SCANNED	SQUARE METERS SCANNED
HACHINOHE	30,700	4,605,000
MIYAKO	20,800	3,120,000
KESENNUMA/OSHIMA	30,600	2,679,000
TOTAL	82,100	10,404,000

SSS operations were conducted using Marine Sonic SSS units provided by either MDSU ONE or UCT TWO. Swaths scanned were either 150 meters wide or 80 meters wide depending on model and settings.



*MV in Hachinohe Harbor. (By: LCDR Derek Peterson)*



*Floating Debris removal by USNS SAFEGUARD in Miyako Harbor. (By: LCDR Derek Peterson)*

ROV OPERATIONS: ROV operations were conducted by MDSU ONE.

	NUMBER OF ROV DIVES	ROV BOTTOM TIME (Hr / Min)
HACHINOHE	31	08:23
MIYAKO	38	08:30
KESENNUMA/OSHIMA	18	03:36
TOTAL	87	20:29

ROV operations were conducted using SEABOTICS LBV 300-5 Remote Operated Vehicle provided by MDSU ONE.

DIVING OPERATIONS: Diving operations were conducted by EODMU 5, MDSU ONE, AND UCT TWO

	NUMBER OF DIVES	TOTAL BOTTOM TIME IN MINUTES (hours)
HACHINOHE	13	:254 (4.23)
MIYAKO	51	:821 (13.68)
KESENNUMA/OSHIMA	42	:726 (12.1)
TOTAL	106	:1801 (30.01)

All diving operations were conducted using SCUBA. Dives were made to verify targets identified during SSS operations or to rig objects for removal.

DEBRIS REMOVED: 15 tons of debris removed including small boats, cars, work-trailers, fishing nets, and telephone-pole sized logs. In addition, 71 targets were positively identified and marked for possible removal by local commercial salvage assets.



*Underwater object identification in Miyako Harbor.*



# PERFORM TO SERVE

By: OPNAV N16 Fleet Introduction Team in coordination with NPC BUPERS-32

Our Navy Diver community manning is now over 100% and continues to grow with our current retention rates. Our participation in Perform To Serve (PTS) is an effort to ensure advancement and career progress is maintained at a healthy rate throughout a Diver's career.

PTS is a Navy-wide program for designated E3-E6 personnel with 14 years or less service (zones A thru C) and whose End Active Duty Obligated Service as extended (SEAOS) is 15 months from the expiration.

Historically the ND rating has participated in PTS with 100% of our quotas being approved due to our NECs being deemed critical and manning levels remaining under 100%. Since becoming a rating, the ND rating overall manning has significantly improved across the board. As our economy changes, the retention behavior of our divers change. We are now experiencing record high retention and record low attrition. Not everyone can stay to ensure long-term community health.

This coupled with the fact that the Navy is aggressively trying to get within its authorized end-strength has caused our community to participate in PTS. There have been and will be some Sailors that will not get approved due to loss of NEC, performance, etc. Leadership needs to be up to speed on Navy PTS policy and their Sailors' status as it could have far reaching effects on their ability to stay Navy. The best way to track PTS is to ensure your Command Career Counselor has Fleet RIDE access and provides you with monthly status updates.

There have been a lot of issues regarding PTS in the last few months so I wanted to address some of these issues and hopefully provide some level of clarification.

Significant Problems (SP) or Progressing evaluations: If one of your Sailors gets a SP or Progressing evaluation, their PTS application will be denied (or revoked if

they had prior approval) unless they have had two periodic evaluations above Progressing (i.e. Promotable or higher). This is because a SP or Progressing evaluation requires that the Sailor not be recommended for advancement/retention. If the member has two periodic evaluations above the level of Progressing, the request will be submitted via Fleet RIDE for consideration. This is not to say that commands should avoid giving their Sailors SP or Progressing evaluations. Writing evaluations that honestly identify personnel with performance deficiencies is a must if we are to protect our Divers who are making all the right decisions on and off duty. PTS does not discriminate between the command's number one ranked Promotable Diver and the number fifteen Promotable Diver who has been counseled repeatedly but has no trait marks that identify deficiencies, all other performance factors being equal. PTS is a good tool for trimming the fat when it is necessary to do so. At the end of the day if the Navy states we have 20 excess Sailors in a particular Year Group, 20 of our Divers are going to leave the community. I must stress to our leadership to take an active role in identifying the Divers that are not cutting the mustard or the Navy will select them.

Loss of NEC: If a ND loses their NEC for other than medical reasons, they will not get a PTS quota to reenlist as a Navy Diver. The Sailor will need to cross-rate to a rating that will accept them or be force converted (needs of the Navy). If the loss of NEC occurred due to performance reasons the individual could also be separated IAW MILPERSMAN 1910-156 (Separation by Reason of Unsatisfactory Performance), item 2.d.

Reenlistment Intention: If the member's application states that they do not intend to reenlist the PTS quota will automatically be disapproved. Some have erroneously checked this block because they do not intend to reenlist immediately. If the member intends to continue on active

duty at all they need to state is that they intend to reenlist.

Lack of evaluations in package: The PTS application should have the members last five evaluations included in the request. If the member has not been on active duty long enough to have five evaluations, submit all they have. A large number of applications have had only one or two evaluations included for personnel in zones B or C. This will cause the application to be disapproved until the missing evaluations are submitted.

Security Clearance: IAW MILPERSMAN 1220-100 personnel in the ND rating must have at a minimum a Secret security clearance. NDs that do not have at a Secret security clearance will not be approved for PTS.

Late Submission: IAW NAVADMIN 352/10 and MILPERSMAN 1440-060 PTS should be submitted 15 months prior to the member's EAOS or PRD (if additional OBLISERV is required for orders). There have been several instances where commands have placed the initial PTS submission within weeks of a member's EAOS. Needless to say these are difficult at best to get approved.

Note: If your command has submitted a proper PTS request at the 15-month mark it may not get immediately approved. There is a rack and stack process. There are only so many PTS approval billets each month, so PTS requests are routinely moved to the right. This does not mean it will not get approved.

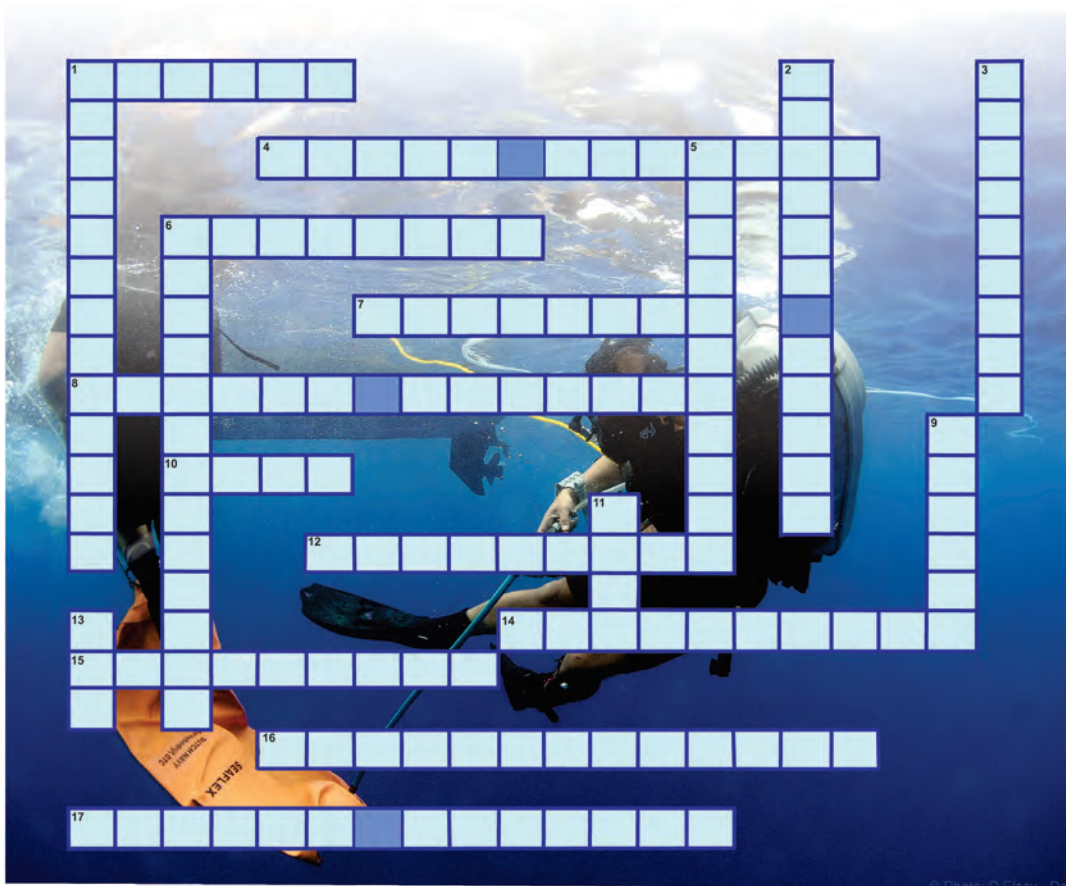
PTS will help ensure all our Divers have an opportunity to advance at the same rate or better than the rest of the Navy though their career. As your PTS window approaches, work closely with your chain of command and Command Career Counselor to ensure that you are the best possible candidate for reenlistment approval.

Remember: It is called Perform To Serve for a reason! Preparation starts the day you report to the command.



# Crossword Puzzle

## CHAPTER 17 - MK 16 MOD 0 Closed-Circuit Mixed-Gas UBA Diving



### ACROSS

1. The maximum \_\_\_\_\_ rate for the MK 16 MOD0 is 30 feet per minute.
4. The partial pressure of oxygen within the recirculation system is monitored by \_\_\_\_\_.
6. A reserve pressure of 500 psig is \_\_\_\_\_ to drive the reducer.
7. The MK 16 MOD 0 UBA has two \_\_\_\_\_ that provide continuous information to the diver about  $ppO_2$ , battery condition, and oxygen sensor malfunction.
8. \_\_\_\_\_ is removed from the breathing circuit in a watertight canister filled with an approved carbon dioxide-absorbent material.
10. A diaphragm assembly or counter lung is used in all closed circuit \_\_\_\_\_ to permit free breathing in the circuit. Add 's' to UBA
12. The MK 16 MOD 0 \_\_\_\_\_ display is designed to provide quantitative information to the diver on the condition of the breathing medium, the primary battery voltage and the condition of the secondary batteries.
14. The dive depth and time limits are based on considerations of working time, decompression \_\_\_\_\_, oxygen tolerance, and nitrogen narcosis.
15. The oxygen flask \_\_\_\_\_ volume (fv) is 0.1 cubic foot (2.9 liters).
16. When selecting the proper \_\_\_\_\_ table, all dives within the past 18 hours must be considered.
17. \_\_\_\_\_ UBAs efficiently use the available gas supply to extend underwater duration by recirculating the breathing gas.

### DOWN

1. The partial pressure of oxygen in the system is \_\_\_\_\_ controlled throughout the dive to a preset value.
2. Lines used for controlling the depth of the diver(s) for decompression diving shall be marked. This includes tending lines, \_\_\_\_\_, and lazy-shot lines.
3. If the canister is improperly filled, channels may form in the absorbent granules permitting gas to bypass the \_\_\_\_\_ material and allow the build-up of carbon dioxide in the UBA.
5. The closed-circuit \_\_\_\_\_ has a removable cover, a center section attached to the fiberglass equipment case, a flexible rubber breathing diaphragm, and a  $CO_2$  scrubber assembly.
6. The \_\_\_\_\_ system consists of a closed loop incorporating inhalation and exhalation hoses, a mouthpiece or FFM, a carbon dioxide-absorbent canister, and a flexible breathing diaphragm.
9. Aside from mixed or diluent gas addition during descent, the only gas required at depth is \_\_\_\_\_ to make up for metabolic consumption.
11. Should the oxygen-addition valve \_\_\_\_\_ in an OPEN position, the resulting free flow of oxygen in the MK 16 MOD 0 is restricted by the tubing diameter and the orifice size of the piezoelectric oxygen-addition valve.
13. The \_\_\_\_\_ uses an integral oral-nasal mask or T-bit to reduce dead space and the possibility of rebreathing carbon dioxide-rich gas.

Crossword answers on pg.23



# NSWC PCD Employee Earns Federal Laboratory Consortium Award for Technology Transfer

By: Jacqui L. Barker, Public Affairs Specialist, NSWC PCD

For offering a clearer vision for U.S. Navy Divers, a Naval Surface Warfare Center Panama City Division (NSWC PCD) employee was named the Federal Laboratory Consortium (FLC) 2012 Excellence in Technology Transfer award recipient.

Dennis Gallagher, lead project engineer and inventor of the Advanced Diver's Mask-Mounted Display System in the NSWC PCD Underwater Systems Development and Acquisition branch, earned the award for his work on the Advanced Diver's Mask-Mounted Display System. The display system was made available for commercial and military use in December 2011. NSWC PCD initiated a technology partnership with Sound Metrics Corporation through a Cooperative Research and Development Agreement (CRADA) agreement, and partially exclusive licensing agreement between NSWC PCD and Sound Metrics Corporation, based in Lake Forest Park, Wash. Gallagher initiated the system's patent which the government now owns. After the system was patented, the CRADA and a license agreement were reached and the technology transitioned to production manufacturing.

Gallagher said the original idea for this mounted display system came from simply listening to the customer.

"The original idea for the diver mask mounted display came many years ago from a test with several underwater sonars and a very rudimentary underwater

NSWC PCD and FLC representative Edward Linsenmeyer and Underwater Systems Development and Acquisition Branch Head Karen Borel agree that Gallagher's work to successfully transition the mask to Sound Metrics, who is now manufacturing the Navy design as a commercial product

available to military and civilian divers, is nothing short of transformational.

Borel said. "Until now, divers working in dark, murky waters haven't been able to effectively survey and assess their surroundings, but with the Advanced Diver's Mask-Mounted Display System, it's a new underwater world. The transformational flip-up, flip-down device is like an 'underwater night vision' sys-



*A scientist tests the Advanced Diving Mask created at Naval Surface Warfare Center Panama City Division (NSWC PCD) in July 2010 in a local test pond. The mask was transitioned to the U.S. Navy for Fleet diving use in December 2011. The inventor, Dennis Gallagher, was named the 2012 Federal Laboratory Consortium for Technology Transfer awardee. Photo by Chad Edmondson, NSWC Panama City Division.*

tem that allows divers to see what they're doing, whether they're looking for mines, scanning for intruders, inspecting ship hulls, recovering a body, searching for evidence, or studying fish behavior." Gallagher, a native of Phoenixville, Pa. who also calls Tallahassee, FL, home, joined NSWC PCD after he graduated in 1984 from Florida Atlantic University with a bachelor's degree in mechanical engineering. A diver himself, Gallagher brought his technical expertise and experience to conceptualize, deliver, and

display monacle that was being used. After a test dive with the sonar and monacle, we were reviewing the sonar images the diver had recorded during the dive. When looking at the images on the computer, the diver remarked, 'Man...if I could have seen the images with this resolution down underwater, I would have known what the items were.' That's when I knew we had to develop an underwater diver display equal in quality, color, and resolution to a computer laptop screen. It wasn't an easy task, but we did it."

ultimately manage the successful transition of a mask's mounted system able to withstand depths of 300 feet, and quickly transition it for use.

The 800 x 600 super video graphics array (SVGA) screen incorporates organic light-emitting diode (OLED) displays that are color-balanced and contrast-matched, giving the diver an astonishingly clear and actionable view. The mask-mounted display system is a whole new ballgame when compared to anything previously available, offering higher contrast, brighter color, smaller size, lighter weight, larger eye relief, lower cost, and lower power consumption. In addition, a low-magnetic version will be available for use by Navy Explosive Ordnance Disposal (EOD) Divers."

Federal technology transfers are the movements of technology, knowledge, facilities, or capabilities from

one sector to another to promote and strengthen technology transfer nationwide. That transfer may occur between government entities or government and private sector. The results of these technology transfers can result in commercialization of new products in commerce, and perhaps even enhance laboratories or agency mission objectives.

"This technology transfer achieves the "grand slam" of technology transfers, also known as T2. U.S. Navy technology is embedded in a new commercial product, which has both military and non-military application, and the Navy can turn around and purchase that manufactured good economically," said Linsenmeyer. "Thanks to Gallagher's innovative thinking and perseverance, and the NSWPCD team, the Advanced Diver's Mask-Mounted Display System has literally changed the

outlook for divers—and for military mission readiness. With this groundbreaking technology, the future looks clear."

The FLC was organized in 1974 and Congress passed the Federal Technology Transfer Act in 1986, which officially chartered the FLCs. Today, the FLC is comprised of technology transfer professionals from more than 300 federal laboratories, their respective agencies, and affiliated organizations. Several mechanisms exist in which government technology may transfer to another sector, such as Cooperative Research and Development Agreements, or CRADAs, collegiate interchanges, or technical assists.

Gallagher will accept the 2012 Federal Laboratory Consortium for Technology Transfer (FLC) award during a ceremony at the FLC national meeting scheduled to be held in Pittsburgh, PA., on Thursday, May 3, 2012.

# Joint Diving

By: LT Glenn Moffat

Diving is not just for the Navy anymore. And despite what the average person might think, it hasn't been a solely Navy program for quite some time. The Air Force, Coast Guard, Marine Corps, and Army are all actively pursuing diving interests and performing service-specific diving tasks.

Numerous changes are in the works to align these five distinct diving programs and push forward with one unified effort as Military Divers. Inclusion of all the different branches is a win-win for the entire military diving community and will help standardize our diving force.

The Authorized for Navy Use (ANU) list, a comprehensive tool for service men and women to check for approved equipment, has been converted into the Authorized for Military Use (AMU) list so that all the diving services can have a stake in it. By standardizing the list of diving equipment that is authorized, the Fleet and sister services are given a streamlined process to submit to and check the list for approval. The list is an extremely helpful tool and a living document that is updated on a daily basis and is constantly edited for accuracy. The manager of the AMU list, Robyn McGinn (00C39), has been receiving inputs from all of the services and incorporating them into the joint list. The AMU list is located at [www.supsalv.org](http://www.supsalv.org) under 00C3 Diving.

The Navy Divers Working Group (NDWG), an annual training meeting intended to train Fleet, discuss current issues with diving tactics, techniques, and procedures, has now been changed into the Military Divers Training Continuum (MDTC) with members of all the diving services planned to be in attendance. By expanding the purview of this training meeting, members of different services can learn Navy Diving practices and bring a wide array of knowledge and expertise to the table that affect all of the diving community. Equipment displays and demonstrations enable cross-functionality between the services as well. *LT Glenn Moffat is an EOD Officer and the Assistant Supervisor of Diving at NAVSEA 00C.*



# Top 10 Discrepancies During Inspections

By: MDV Henry Stark

Over the last few years the Safety Center and NAVSEA Certification has noted common discrepancies during their visits. The list below is not every discrepancy identified, however it is the “Top 10” of re-occurring problems. Most of these are a result of the leadership delegating certification / survey preparations to inappropriate levels and not monitoring or reviewing these preparations prior to the NAVSEA System Certification Survey or the Naval Safety Center Survey.

1. Systems are not inspection ready: A System Certification Survey is an inspection. Diver Life Support Systems need to be correctly set up and cleaned; not just wiped down. Valve tags should be in place; grease penciling or duct tape is not satisfactory. Caps with their lanyards need to be properly secured.
2. Commands not using the current PSOB: All portable and installed systems PSOBs are updated semi-annually and maintained on the OOC4 page of the SUPSALV Secure web site <https://secure.supsalv.org/00c4publications.asp?dest=00c4>. Commands should ensure that they have downloaded the most recent copy before editing their PSOB for certification.
3. Missing Objective Quality Evidence (OQE) for adapter fittings: Adapter fittings commonly found on TRCS, LWDS, and some FADS deck hoses should have their OQE available for review during the On-Site survey. This includes the Certificates of Conformance for the fittings, hydrostatic testing, and cleaning documents.
4. REC, Work description and Reason for work: In Block 8 and 10 of the REC form, ensure that the work description and reason for work actually reflects the work that is being performed. In many cases it is too vague and does not clearly reflect what actually took place. In this block the word ‘replaced’ should only be used when a new item is installed. Selecting ‘removed’, ‘repaired’, or ‘re-installed’ should be used for existing components that were reused.
5. View port inspection forms: Viewports require an in place inspection every 36 months and must be removed/inspected at 10 years to extend their initial service life per NAVSEA Process Instruction PI-006 Revision A. Both of these inspections should be documented on the viewport inspection form provided in the Process Instruction (PI), and must be available for review during the on-site survey.
6. UBA REC Procedures: REC Supervisor didn’t thoroughly review REC or understand the UBA maintenance requirement.
7. UBA REC’s: Too many RECs opened and closed on same date to effectively complete Maintenance Requirement Card (MRC), i.e. work hours completed exceeded work hours available.
8. Maintenance Tools: UBA technicians did not have the required tools and test gauges were not available, but Preventative Maintenance System (PMS) was marked completed.
9. HAZMAT: When hazardous material is dispensed into a non-original container the secondary containers are not properly labeled with material name, manufacturer address, and nature of the hazard. (DD form 2522).
10. Recompression Chamber: Chamber logs are lacking the required minimum data, and are not being reviewed and signed after watches by the Diving Officer or the Master Diver.

The purpose of these visits is to ensure that commands are maintaining their systems and dive lockers at the highest level of safety while still maintaining operational readiness. The leadership needs to take the time to prepare for these visits and set the standard.

# A Study in LEADERSHIP

By: Brendan Murphy

This is a story about a dramatic change I observed at a dive locker a few years ago. In order to protect the guilty, I removed the locker name and any specific person, but both the heroes and villains know who they are and should bask in their pride (or shame) as appropriate. I traveled to the location of this locker to conduct several Diving System Certification Surveys. On a Friday at around 1500 I stopped by the XYZ Dive Locker, unannounced. I wanted to see how Master Diver Hugh Deman was doing. First a little background. Some would say that MDV Deman, at the time a freshly minted Master Diver, was handed a can of worms when he first took over the XYZ Dive Locker. I think a viper's nest would be more accurate. The Dive Locker he inherited was plagued with disciplinary problems, including but not limited to DUI's and drug offenses. The Dive Systems had not been adequately maintained and morale was in the cellar. Turning that Dive Locker around required aggressive professional leadership, leadership akin to that portrayed by Gregory Peck in "Twelve O'Clock High". Over the next 6 months, working with the Diving Detailer, MDV Deman replaced virtually the entire 18 man dive locker with Second Class Divers, right out of the dive school. He kept one hard charging First Class Petty Officer, who subsequently was selected as the parent command Sailor of the Year. Between the two of them, they worked tirelessly training the young divers and instilling in them the sense of pride and professionalism that has been the trademark of Navy Divers. At the same time, MDV Deman took every opportunity to increase the productivity of his divers and added sev-

eral Dive Systems to permit his locker to better respond to emergent work. MDV Deman also extended the command's footprint to include a Light Weight Dive System (LWDS) and Transportable Recompression Chamber System (TRCS) in a forward location. It wasn't a smooth ride and there were setbacks (we're talking Navy Divers, not choir boys). MDV Deman never lowered the bar. In fact, the setbacks seemed to have motivated MDV Deman to redouble his efforts. To him, the failure of one of his divers or his Dive Systems was reflective of a failure in his leadership. One of the best tools that MDV Deman used to develop his young divers was ownership. He would assign new Second Class Divers a Dive System telling them it was their responsibility to maintain it like it was their own. He then gave the diver detailed instructions on what that responsibility entailed. MDV Deman, and his senior Divers, rigorously and without compromise ensured his instructions were carried out.

Back to my unannounced visit. As it turned out MDV Deman was TAD when I arrived. But, by this point in his tenure he didn't need to be there. His locker now had an outstanding LCPO. And if the LCPO was gone, the LPO was also a MDV Deman trained leader. And it was easy to tell that if all three senior divers were out of the locker, each diver knew exactly what was expected of them and the work would still get done the right way. Why? Because the leadership in this Dive Locker put forth the effort and time to train the divers and instill each diver with responsibility for their own actions. This was a team that was good, and they knew it.

Now we all know that liberty goes

down pretty early on Fridays for most of the local area. That is not the case in MDV Deman's Dive Locker. Whether his divers are working the waterfront or TAD, liberty goes down when the work is done, the dive station is squared away and training is complete. So when I entered the XYZ Dive Locker on a Friday afternoon, I was not surprised by the steady hum of activity. The Chief was planning a repair on a submarine with a new Dive Supervisor, the LPO was training a young Diver concerning tag-outs and the Work Center Supervisor was updating schedules. I said a quick hello to the Chief and stepped back outside, deciding that this was a story that needed to be told. What I found was a group of divers working to ensure perfectly maintained dive systems at 1500 on a Friday afternoon, in paradise; as if their lives depended on these systems – because they do.

Brendan Murphy is a Diving System Certification Manager at NAVSEA 00C.

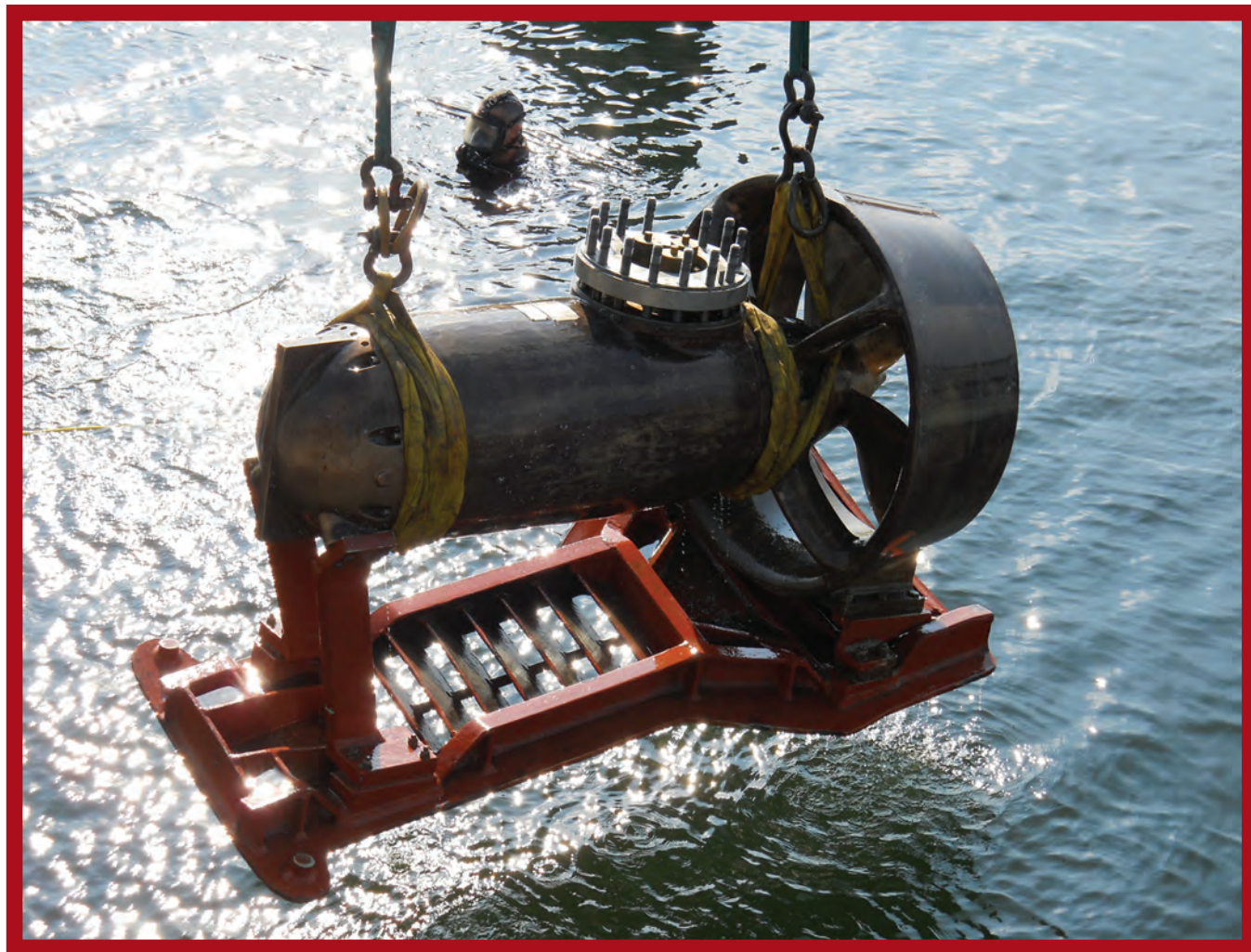
## Crossword Puzzle Answers

ACROSS:	DOWN:
1. Ascent	1. automatically
4. three sensors	2. marker lines
6. required	3. absorbant
7. displays	5. subassembly
8. carbon dioxide	6. recirculation
10. UBAs	9. oxygen
12. secondary	11. fail
14. obligation	13. FFM
15. floodable	
16. decompression	
17. closed circuit	



# Another Day in Paradise

By: ND2 Michael Christensen



On one hot August day in beautiful Groton, Connecticut everything was in place to begin work on the SPM (Secondary Propulsion Motor) replacement for the USS TOLEDO (SSN 769). After weeks of planning and preparation by our leaders, NDC Counts and ND1 Larsen, it was time to go to work. With a fairly green dive locker there were few divers that had any experience with this particular job. Furthermore, a newly designed cofferdam was being utilized for the first time on the East Coast for this job, and this team of divers were given the opportunity to validate its fit,

form and function. These added additional challenges to the already difficult task at hand. As with all major dive jobs there was a buildup of excitement and increased motivation to prove we could get this done on time. ESSM was here, materials were in place, we were all briefed on the job, and everything was going smoothly until the work actually began.

All husbandry Divers and particularly the ones stationed at NSSF Groton are all too familiar with Murphy's Law: "Anything that can go wrong, WILL go wrong". The job was scheduled to take 8 days, a modest timeline given the amount

of work we were to perform but we got off to a bad start. The TOLEDO couldn't meet our requirements for isolating the ASW (Auxiliary Seawater) due to issues with the ship's AC and the cooling of equipment. It took a couple of days for the ship to execute a plan that ensured diver safety during the SPM replacement. We took this time to become more knowledgeable on the procedure and equipment to be used over the next week and a half.

After a 3 day delay we splashed divers to install the flat patch and 5,000 pound cofferdam. With three divers



jocked up and eager to get the SPM replacement underway, we encountered another issue that had to be addressed; we had no one with previous experience installing the cofferdam. With a lack of personnel to choose from, MDV himself dusted off the old wetsuit and left surface with two younger divers.

The newly designed cofferdam went on with no major issues. The flat patch designed to cover Main Ballast Tank 4 forward grate and the aft Bottom Sounder was more difficult, and took some motivation to get a good seal. The next order of business

was to take apart the “cow’s tongue”. The SPM cables run through the cow’s tongue and through the top of the SPM column. The amount of salt water corrosion on the hardware plus the size of the cables proved to be a challenge that would require additional time.

Our strongest Divers spent hours working breaker bars and pipe wrenches to get the cables free. A new set of Divers went in and climbed the three stories to the EHF to discover the work area would only support one small diver. Looking down at a 25 foot fall that would lead to serious injury, things started getting tricky. After many failed attempts to break the cables free from the EHF we resorted to chisel and hammer. This proved to be the most effective way to break the fitting and if used by a trained diver wouldn’t damage the cable. We freed the cables and lowered them 30 feet out through the grate into the cofferdam and finally up and over.

The SPM came free without much persuasion from MDV Brodeur and Warrant Officer Smith. We slowly lowered



*Old SPM coming up and over.*

the SPM using chain falls, disconnected the cables from the SPM, and continued lowering the SPM into the deep dark abyss known as the Thames River. As the SPM came up and over the side a week later, everyone felt a sense of accomplishment. All the man hours and strategy had finally paid off. But the job wasn’t done...it all had to go back together. Yeah we knocked that out too. Hoo-Yah!

When it was all said and done we spent just short of two weeks, working day and night to get the job done. The divers accumulated over 120 hours of incident free bottom time and gained a significant amount of valuable experience. The TOLEDO got underway on time and everyone was happy. The NSSF dive locker took on a huge task and came out on top. The NSSF Divers’ determination and ability to adapt and overcome obstacles was paramount. Over twenty Divers added a key experience to their diving career and all learned a valuable lesson on how to get the job done no matter how great the challenge. Remember - there is no job too big for a US Navy Diver.

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*ND2 Michael Christensen graduated Concordia College Moorhead, Minnesota 2009 majoring in Sociology and joined the Navy November, 2009. Graduated Navy Dive School August 2010 and reported to Naval Submarine Support Facility Dive Locker September, 2011.*

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### **The Dive Team:**

- CWO2 Smith
- MDV Brodeur
- NDC Counts
- ND1 Larsen
- ND1 Smith
- ND1 Soria
- ND1 Putman
- ND1 Verhagen
- ND2 Christensen
- ND2 Faieta
- ND2 Touranjoe
- ND2 Finch
- ND3 Smith
- ND3 Young
- ND3 Pink
- ND3 Husky
- ND3 Friars





# The Old Master

From my time here at NAVSEA, coupled with my prior assignments, I have had the opportunity to visit the majority, if not all, of the dive lockers in the United States. What I have seen in my limited time is nothing short of incredible. I have over twenty two years in the Navy, my son joined the Navy and became a Navy Diver, and my daughter will be attending college next year with hopes of going into marine archeology. I have been married to a wonderful woman for over 23 years. All of these blessings and I get up each day looking forward to the next challenge.



NDCM (DSW/FMF/MDV)  
James "Bill" Costin

My first command aboard USS Edenton while serving under Master Diver Ernest, I looked into a rumor that I had heard of Navy Divers becoming a rate. That was 1991, and he told me he had heard the same rumor when he was young second class. This was coming from a Master Chief that had in 25 plus years in at the time.

We have most certainly become a rate with not only strong leadership and workforce but a rate that is actively sought out to see how and why we are so successful. That answer is easy, and it goes back centuries to common Navy practices. Take care of your people and your community. Once you make the senior ranks it is no longer about yourself, for most it never was, it is about insuring the careers of those who depend on us. This goes with every Chief lesson ever mentioned. Navy Divers have not just provided lip service, but live it day in and day out.

The advice I give to Chiefs who want to become Master Divers is to simply tell them to be ready for this to become your life, this job will define you. You can join the Navy and do four years and go to college. You can come in and do more and retire as a job. For others it is a career and big part of them. For some Navy Divers it goes beyond that, it becomes who you are. To some it may sound very shallow and go against popular thought. Even our vernacular gives a glimpse to this life with phrases like "that is Deep Sea" and "Hooyah" to express exemplary accomplishments or a work ethic. As I took the time to put pen to paper, I remember when I competed in the Louisville Ironman in 2010. I was asked; how did you do it? The answer to me was simple, I just did it. Don't get me wrong, there was training involved, but stopping was never an option. Whenever there is an endurance event I compete in, I always figure in the Deep Sea factor. Quit is not in us.

We as a community have to protect what is ours, and that is our way of life within the Navy. A life that says you work hard and strive to do your best everyday and the reward is you get to do it again tomorrow. We are a tiny community within the military of millions but one that has risen from obscurity to be a model for others to follow. Trust me when I say that we are the world's best. Attending many multi-national functions, I find that we are considered the standard of excellence. That is not a boast or sign of arrogance, but a label of responsibility. Our community has spawned legends and inspired innovations that test the sanity and bounds of science.

I can honestly say I enjoy going to work everyday. There are many career rates that provide great career opportunities in the civilian sector. All Navy Divers qualified for those rates, but chose a path that proves to test us daily. To each and every one of you I challenge you to find that test and push yourself and our community to the next level.

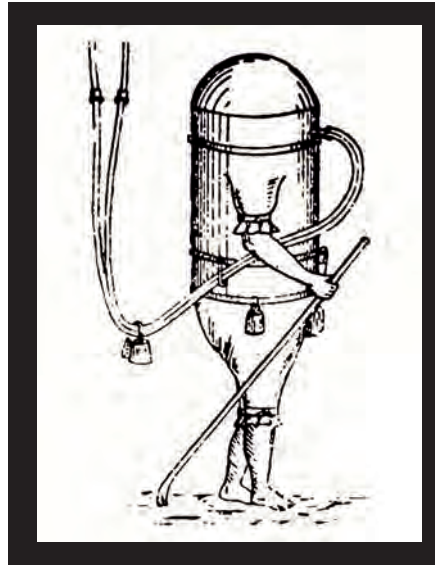
To close out I leave you with this thought "we are like everyone else in the world. We get up and put our pants on one leg at a time. The only exception is that before and after that, we are Deep Sea Divers and the rest of the world is not."





# SUPDIVE SENDS ...CDR Mike Runkle

I write this article on the day that the war in Iraq has been officially declared over. In its wake comes the hope that we will move past being the United States Army's Navy and become Sailors/Divers again. With it comes the chance to take a good look at the status of the Navy Diving program and equipment. Go ahead and look at your current dive gear. It's the same stuff invented by Jacques Cousteau 70 years ago. We have since made it 2 pounds lighter and painted it black. That's not innovation. That's the technological equivalent of inflation. Where is Sealab 8 on the ocean floor at 3000 fsw? Where is the rebreather that gets its oxygen and CO<sub>2</sub> scrubbing from seawater? They don't exist due to a fundamental flaw with the "Hooyah" diver attitude. Navy Divers can accomplish anything. When handed a roll of duct tape and a snorkel and tasked to repair an aircraft carrier and recover a downed plane, the Navy Diver says "Hooyah" and gets it done. The Fleet loves that about us. However, guess what appears under the Christmas tree the following year? A new roll of duct tape and another snorkel. Divers never say "can't" and never ask for tools to help them accomplish their mission. Thus there are no new tools. Or more often, NAVSEA has



to guess and equipment is developed that never moves past the prototype because no Fleet customer asked for it and never budgeted for its outfitting and maintenance. This needs to change. We can't afford to waste time and money on unsupported programs. The Navy Diving Program has developed a strategy that is centered around one goal: "To increase the actual work time of the diver". Everything points back to that simple statement. To make it work, you, the operator must determine what it is you need in order to meet that goal. You need to define

what your capabilities and shortfalls are now and what you want to do 2 years, 5 years, and 10 years from now. You then need to feed these requirements up your chain of command so that we at NAVSEA can sponsor and manage RDT&E that will meet these requirements. For example, do you want to reduce the cost of mixed gas diving? We can fund R&D for things like: Helium recirculators, trimix or other gas mixtures, schedules that increase bottom time and reduce decompression so you can get more evolutions in during a fixed period of time. Do you want to extend the duration of a rebreather? Then we can R&D new scrubber material or higher pressure air flasks. Would you like to improve your mobility and reduce your dive station footprint? We can R&D an inflatable 2-man recompression chamber that fits in a large suitcase or an IV bag with perfluorocarbons that can absorb excess nitrogen in the blood. But unless you tell us what you need, we at NAVSEA can only guess. The combination of 10 years of desert warfare and a budget crisis means the RDT&E funding is severely constrained. NAVSEA needs to prioritize what gets done and what has to wait. We need your input so we don't waste precious funding on systems that don't serve your requirements.

## 2011 Effective Diving Advisories

- 11 - 02 UNAUTHORIZED ITEM CIVILIAN CLEANING PRODUCTS ON DIVERS LIFE SUPPORT EQUIPMENT
- 11 - 03 MANUFACTURING DEFECT IN LIMITED NUMBER OF TRCS TESCOM 44F5627T108 REGULATORS
- 11 - 04 CHANGE TO OPNAVINST 3150.27B (DIVE JUMP REPORTING SYSTEM)
- 11 - 05 CHANGE TO OPNAVINST 3150.27B (SAFETY SURVEYS)
- 11 - 06 LIST OF EFFECTIVE DIVING ADVISORIES
- 11 - 07 DIVING WORKING GROUP (DWG) 2011
- 11 - 08 SUPPORT FOR PARTICIPATION IN DRDC EXPERIMENTAL DIVES USING TRIMIX
- 11 - 09 AUTHORIZATION TO USE STANLEY DL07 SERIES UNDERWATER HYDRAULIC DRILLS
- 11 - 10 PROCEDURE CHANGE FOR KM 37 NS
- 11 - 11 KM-37NS AND MK-21 REGULATOR DIAPHRAGM
- 11 - 12 ISSUANCE OF NEW AUTHORIZED FOR MILITARY USE (AMU) INSTRUCTION
- 11 - 13 SUPPORT FOR PARTICIPATION IN DRDC EXPERIMENTAL DIVES USING TRIMIX

All Effective Diving Advisories are located on the SUPSALV secure website: <https://secure.supsalv.org/aiglist.asp>



# ***2012 MDTC***

***MILITARY DIVERS TRAINING CONTINUUM***

**Virginia Beach, VA**

**14 May**

**Leadership Training**

**15-17 May**

**General Session**

**Training Includes:**

- Salvage Calculations
- O2 Worker
- KM-37
- MK-21
- DP-1/TDM/SAT Diving

**Quota Requests & Information**

**<https://secure.supsalv.org/>**

***Training is quota controlled,  
Commands should submit early to ensure availability.***