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MTU Engine Overhaul Facility... A Relevant and Intertwined History



Team members from SFLC and CG Yard were recognized by CAPT Paul Stukus, RADM Kevin Lunday, and CAPT Vince Skwarek for their resilient dedication to turning this idea into reality.

Recently, a hero from the Service’s past has serendipitously intertwined with a current facilities project that will positively impact the 154’ WPC patrol boat class for the next several decades.

Coast Guard Yard received \$4.3 million in Project, Construction and Improvement (PC & I) and \$450 thousand in Shore Facilities Depot Maintenance (AFC-43) funding to renovate Building 5, a 1930s-era wood boatbuilding shop, into a modern overhaul facility for the Fast Response Cutter (FRC) class’ 4000 series MTU marine diesel engines.

Let’s take a step back- The *Finest Hour*’s movie depicts the true life story of Coast Guardsman Bernard “Bernie” Webber who, in 1952, led a small crew onboard a 36-foot lifeboat to rescue the SS Pendleton crew following the partial capsizing of their vessel. Webber and his crew saved 32 of 33 Pendleton crewmembers, in what is credited to be one of the most successful rescue operations in USCG history.

The Commanding Officer's Column

Hello CG Yard Family,

The COVID-19 spike that was hitting our communities in January quickly passed and with it winter. The cold weather, but especially the COVID, are now only distant memories. We are thankful that after nearly two years of mask wearing, sitting far from everyone, and avoiding meetings that we can now get back together without restrictions. The CG Yard is a family and being together is part of our culture.

The **people** of the CG Yard Family never stop, especially in the Electro-Ordnance Project Management Branch and the waterfront shops supporting that critical work. Annually since 1997, the Armed Forces Communications and Electronics Association in partnership with others recognizes individual contributions to naval warfare in C4I, cyber operations, and information warfare. For 2021 CG Yard's own CWO3 Keith Jarvis was selected as their Copernicus Award winner. Keith led 100 military and civilian technicians through the planning and completion of \$32 million in depot level repairs, upgrades, and modernization prototypes of C5I systems across the CG and around the globe. Critical to the success of these projects is the integration of engineering design with project planning and production. For 12 years Mr. Eric Linton was at the helm of CG Yard Engineering and we marked his retirement in March. With tremendous in-house engineering bench strength it was a difficult choice but Ms. Sarah Wickenheiser, the CG's 2016 Engineer of the Year, was chosen as our next Chief Engineer. Wow! What a strong team we have across the shipyard that will continue this amazing work.



The toughest jobs are the ones you have never completed before. Based upon the success of the In-Service Vessel Sustainment Program, CG Yard was given the risky task of extending the service lives of the 270' WMEC fleet so these cutters can remain in service through 2040 when fully replaced by the 360' Offshore Patrol Cutter. The 270' WMEC Service Life Extension Project consists of two prototype and six full production hulls renewing the electrical generation and distribution system, down-gunning from a Mk75 76mm gun weapons system to a Mk38 25mm machine gun system, and renewing the aging main diesel engines. CGC SENECA successfully completed the first prototype and sailed away with CGC HARRIET LANE ready to start her SLEP availability. The **professionalism** and tenacity of the CG Yard team working with Surface Forces Logistics Center, CG-9323, and multiple commercial vendors secured success on the first hull despite the ripple effect of COVID supply chain impacts.

In closing, we have all been shocked by the Russo-Ukrainian War pictures and stories. The **passion** expressed by the Ukrainian defenders has amazed everyone. Since 2018, CG Yard has worked closely with the Ukraine Navy transferring five 110' Patrol Boats through an Excess Defense Article process. CG Yard technicians know of their hard work and have heard for years first-hand accounts of the conflict. It was a somber day when news arrived that the ex-CGC CUSHING, serving as the Sloviansk (P190), was attacked on a reconnaissance mission and sank in the Black Sea with the loss of life. This is a shocking reminder to everyone in reflecting how important CG Yard is to the national security of the United States but also other countries. Your passionate work is making a difference.

Thank you and Semper Paratus!

CAPT Vincent Skwarek

Commanding Officer, United States Coast Guard Yard

(Cont'd from page 1)



The lifeboat built at CG Yard while Bernie Webber attended bootcamp and sailed in the famous Pendleton rescue.



The newly completed Engine Overhaul Facility in Building 5, where the CG 36500 was built in 1946.

Connecting the dots...Upon entering the Service, Bernie Webber attended boot camp at the CG Yard circa 1946. Simultaneously, the 36-foot lifeboat sailed in the Pendleton rescue was being constructed at CG Yard in Building 5. At the time, this 23,000 square foot facility, built in 1931, functioned as a boat building and fiberglass shop. Over the decades, Building 5 was redeveloped to accommodate overhauls for the 110' patrol boat Paxman engine. However, the original Pre-WWII building configuration remained relatively unchanged, until recently.

In FY19, the CG Yard received funding to renovate the Building 5 Engine Shop into an organic overhaul facility for the 154' WPC 4000 series MTU engines. This major project required sealing the building exterior, opening up the interior to provide flexible space, developing a ventilation system to support climate control requirements, and installing a 20 ton bridge crane to maneuver the engines.

The very first MTU engine to be overhauled in this renovated building is from the USCGC Bernard Webber, the first of the USCG's 58 Sentinel-class cutters to be built! As building renovations neared completion, CG Yard diesel engine technicians began CM4 training on the 20V4000 MTU engine. This training is the highest level of training the manufacturer offers to its customers and provides the Coast Guard their first fully certified technicians for these organic overhauls. By establishing organic overhaul capability at CG Yard, the Service will be able to augment commercial supply chains, and will create a pool of knowledgeable organic technicians to support troubleshooting for maintainers at sea. Coast Guard hero Bernie Webber's legacy continues to impact CG Yard history...and its future.



FACILITIES UPDATES



Three quarters of the way there! Since the last update on the \$26M Shiplift Expansion project, the environmental management control system has been installed and the area is being backfilled. Installation of this state of the art four-stage filtration system is designed to significantly reduce total phosphorous, total nitrogen, and total suspended solids (namely copper and zinc) from the CG Yard's stormwater and fall significantly under the Maryland Department of Environment's regulatory limit. On target and tracking for a June 2022 completion the current progress is at 80% completion rate, and the most critical ongoing activities are the tie ins of the existing shiprails to the new 3rd rail platform. Requiring specialized construction skillsets, the contractor from Georgia is onsite for the next 6 weeks to complete the rails tie in to turn over a portion of rail 2 for further shipyard drydock operations. Work on the horizon includes connecting new utilities to existing, which will include additional steam line work outside the construction limits of the project to replace old and deteriorated infrastructure.

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LDAC Update!

The Yard LDAC is working hard to organize workshops that will help CG Yard personnel progress in their careers. In the 2020 DEOCS survey results, employees identified a need for more transparency during the hiring and promotion process. Mr. Jeremy Davis, the Yard USA Jobs Representative, held another USAJobs workshop during the April LDAC meeting. This workshop provided knowledge about the hiring and promotion process, identified common errors made during the application process, and addressed hiring concerns such as nepotism. LDAC will also be hosting a Resume workshop during the June meeting. With the knowledge from both the USAJobs workshop and the Resume workshop, Yard personnel will be able to successfully create resumes to upload to USAJobs and advance in their careers. Lastly, in September, the LDAC is planning to host an education fair for civilian employees. This education fair will provide civilians with resources for reduced tuition for government employees as well as information from local colleges and trade schools.

The next LDAC meeting will take place on **04 June 2022**. If you want to be included in future discussions, consider attending a meeting or becoming a LDAC member. Please contact your supervisor first. You can email ideas, questions and suggestions anonymously to the LDAC YardLDAC@uscg.mil. Or, drop a note in one of the suggestion boxes located at the Galley, the Dry Dock Club, and the Waterfront Café. We hope to hear from you!

Eric Linton, Yard Business Manager and Chief Engineer, Retires with 44 years of Military and Civilian Service

Eric Linton, the Yard's Business Manager, recently found himself wrestling over the decision of when to retire. He won and retired on 31 March. It was a difficult decision because he has been a Coast Guard Naval Engineer for over 40 years and loves the Coast Guard, and the CG Yard in particular. Eric has spent his entire adult life in the Service and in a very real sense it is a part of his identity. But he is looking forward to the next adventure which includes spending more time with his family and in the garden, and probably falling off his mountain bike a few times. Eric shared the following that sums up some of the changes he has seen.



“My first ship was the USCGC Westwind. Built during WWII, the icebreaker was loaned to the Russians as a part of lend lease. The Westwind is an interesting benchmark. The ship's crane controller was literally a compartment. The entire structure was preserved with lead paint and insulated with cork. Every steam pipe was covered with asbestos, the hull was the hazmat locker and potable water wasn't treated for biologicals. Automation and alarms were primitive, fires were detected by sight and smell! Our Seabag Locker, Hanger, and IC Room all burned. When the foc'sle deck cracked we used steel shoring. The Engineering watch consisted of an Engineer of the Watch (EOW), an Assistant EOW, a roving security watch, a distiller watch, a boiler watch, and 2 Machinery Technicians in each of the two Engine Rooms. Most of the 9 person Engineering watch smoked while standing watch. The smallest fireman was put inside the main engines to check bearing clearances. A ham radio was used to call home. Messages came in on teletypes and logs were produced using a mimeograph machine. E5 and below slept in 30 man berthing areas and occasionally, a beer popped out of the soda machine. It was a great ship.

I saw patrol boats grow from 95-feet to 110-feet, and then to 154-feet. This happened across the fleet. As ships got bigger and more capable, crews got smaller because of automation and alarms. The Westwind's Engineering Department was about the same size as the entire crew of CGC Mackinaw. The Westwind had a crew of 175 people, the CGC Healy, a more capable ship almost 3 times larger with a similar mission, has an 85 person crew. And, the Healy's crew has staterooms!

In the 1980s I watched the Supply Centers turn into the Engineering Logistics Center (ELC). I saw some Districts disappear and Naval Engineers form the important parts of the Maintenance and Logistics Commands (MLCs). Later the MLCs, ELC and the Yard merged to become the SFLC. I was a part of FRAM, the 378-foot WHEC SLEP, which was one of our worst acquisition programs, and witnessed the birth of the Office of Acquisition which fixed the problems that caused FRAM. I was a part of Deepwater and watched the birth of CG-9 which fixed the problems that caused Deepwater to fail. Like ships, our organizations got bigger, and as we overcame problems, we learned and became much more capable.

At the Academy I saw a few brave women get treated badly and later graduate as Ensigns. On the CGC Westwind after our hanger fire the CO assembled the crew on the flight deck, made a few remarks and tried to cheer us up by saying “...at least we don't have any women on board.” Today women are a critical part of the Service and without them we couldn't complete the mission. The story of women in the Coast Guard is just one part of the broader trends of increasing fairness and mutual respect.

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In 1994, as a LCDR, I joined the Yard family as deputy Project Manager for Repair Staff. It was interesting for me because it was my first real encounter with Coast Guard civilians. I was surprised to learn that they thought that they were a part of the Coast Guard in the same way that I was. They cared about the ships, they cared about the crews, and made the Yard a great place. The Yard made things, and was accountable for how much those things cost. But, at that time we were in survival mode. The 180-foot SLEP and 210-foot MMA were drawing down and there were no major programs to replace them. We estimated projects low and hoped for the best. Hope turned out to be a terrible plan so we formed a Scheduling Branch. Billets were cut and the Chief Engineer was replaced by a Business Manager who brought in Army and Navy work. For the first time we certified our WWII drydock only to find out it was too small for the Juniper. We completed 30+ ship repair availabilities each year from 65-foot WYTLs to 378-foot WHECs, and learned from some spectacular failures. We succeeded with the 49-foot BUSL construction program, and the Mission Effectiveness Programs (MEP). MEP gave way to the In Service Vessel Sustainment Program (ISVS). In order to help develop ISVS and meet the program's needs, we doubled the size of the Yard Engineering Division. The Division designed the 140-foot SLEP, 225-foot MMA, EAGLE SLEP, and the Polar SLEP. ISVS has made obvious to everyone what I always knew, that Yard Engineering is the heart of the Yard. And, now I am the last Business Manager who will be replaced by a Chief Engineer. Another step forward for the Coast Guard! The trends are good."

Engineering Ingenuity



SSDG checks on CGC Seneca by CG Yard.

The 270-foot SLEP hit a speed bump when the contractor designing the generator upgrade went bankrupt and abruptly left the project. The SFLC and the CG Yard rallied to develop a plan to keep things moving. Critical to the plan was the flexibility provided by Yard Engineering. The SFLC/Yard team was able to reestablish relationships with critical contractors and pick up where the installation left off. The generators were load tested and engineer's red lined drawings to capture lessons learned.

The U.S. Navy's Weapon System Explosives Safety Review Board reviewed and concurred with the Yard's design of the MK38 Gun Weapon System for the 270-foot SLEP. A significant milestone for CGC Harriet Lane's SLEP starting in April. As was the case with CGC Seneca, design will continue into production, but we are in a better position than we were on Seneca. We are recovering from schedule delays that occurred earlier in the program. Dealing with the unexpected keeps major maintenance projects interesting!



MATERIAL HANDLING / WEIGHT HANDLING EQUIPMENT SAFETY



CHAIN FALLS/COME-ALONGS, SLINGS, LIFTING EYES & SHACKLES

Over the years, numerous workers in the Shipyard industry have been seriously injured or killed while working with or near rigging, and material handling operations. Employees whose work activities include rigging and material handling must be trained in the recognition and avoidance of unsafe conditions.

Inspections – All Rigging and Material handling equipment WILL be inspected prior to use and periodically while in service

- Rigging is only as strong as its weakest link.
- Never exceed the Safe Working Load (SWL) of the rigging equipment used.
- Regardless of the SWL, if your equipment is cracked, twisted, torn or stretched it must be taken out of service.
- Never drag, drop or use equipment in any means other than its intended use.

Synthetic Slings and Wire Rope – Slings WILL have an identification tag which have the SWL for the hitch used (vertical, choker, basket, ext.).

- The identification tag, must be legible and not damaged
- Deficiencies to look for while inspecting and in use include:
 - Missing or illegible sling identification
 - Melting or charring
 - Holes, tears, cuts or snags
 - Excessive abrasive wear
 - Knots or Kinks
 - Discoloration or stiff areas
 - Bird cage
 - RED DEATH
 - If a red thread is visible in the synthetic sling it must be taken out of service.



Chain falls, come-alongs and hooks – Never exceed the SWL of rigging equipment.

- Inspect chain links for wear, stretch, bends, gouges, or alterations such as weld splatter.
- The hook latch must always close quickly and must not be bent or damaged
- Side, back and tip loading hooks
 - When loading a hook, be certain the attachment is at the “throat” of the hook, this will allow an even load.
 - Inspect hooks regularly to be sure they are not deformed or bent.
- The SWL must be clearly legible on all Chain falls and Come-alongs.
 - Never exceed the SWL
- Check all functional mechanisms for proper operation.
- Inspect hoist body for deformation, cracks and other damage.



MATERIAL HANDLING / WEIGHT HANDLING EQUIPMENT SAFETY

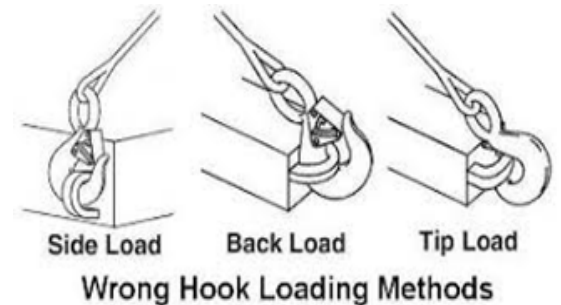


PINCH POINTS

We use our hands for virtually all work tasks that we do. Because of how often we use our hands, they are put in the line of fire where they can be injured. Of body parts injured, hand and finger injuries are the most injured. In CY-21 we have recorded 12 hand injuries.

A pinch point is defined as any point where it is possible for a body part to be caught between moving and stationary portions of equipment. Pinch points are found in many places throughout the workplace. Tasks such as lifting materials, using rigging equipment, rotating machinery and other operations, which involve rigging operations.

- Pay attention to where your hands are around any moving parts or any objects that have the potential to move.
- Eliminate the hazard by making sure proper guarding is in place and proper planning has been conducted.
- Eliminate the hazard by checking proper guarding is in place.
- Wear the proper gloves for the task you are completing to reduce the amount of damage to your hands, if they do end up in the line of fire.
- When working with others maintain proper communication to let each other know if you are out of the line of fire before moving objects and equipment.



Connecting with the future workforce



Colin Hart, a Shipwright and Welder with the Yard Structural Group, recently visited the Old Mill South STEM students. Mr. Hart met and spoke with almost 300 6th grade students about the Yard and work he performs in Service to the Fleet. He also engaged with students during the model boat building challenge. Mrs. Hartman, OMMS STEM DC expressed appreciation, “He did a great job engaging the students as they tested their model boats in our rain gutter regatta. We truly appreciate his interest in sharing both his personal career story and in promoting opportunities that might lie ahead with the USCG”. These seeds planted with the students today help grow the Yards future workforce.

Persons of the Quarter

COTQ4
Sharon Freddie
Outside Machine Shop



EOTQ4
HS3 Giovonte Blissett
Military Support Div.



We're Working On It!



CGC Thetis MK75 (Left) and MK53 (Right) Changeout: CG Yard Ordnance Shop completed a full changeout of CGC Thetis' MK75 using a previously-overhauled MK75 that was originally slated for installation on another 270'. CGC Thetis' MK75 inoperability has been a hot topic over the last few months, and this was the earliest window of opportunity to conduct the changeout, which required extensive coordination between CG Yard, SFLC-EOB-ORDSEC, MECPL, the Inter-Service Engineering Agency (ISEA), CGC Thetis, and the local WAT. The team successfully completed all work down-range at the cutter's homeport in Key West, FL, within a short 10 day period of performance. CG Yard was also able to capitalize on this window of opportunity to change out the MK53 Combined Antenna System, eliminating the need for a second costly trip later this fiscal year.



CGC Steadfast SINS2/AIS Install: CG Yard completed an unplanned roadshow to conduct an expedited SINS2 navigation system installation on CGC Steadfast, that was dockside in LA/LB due to mid-patrol gyrocompass issues. Included in the SINS2 installation was a fluxgate gyrocompass, which gave Steadfast limited navigation capability in the absence of the primary gyrocompass. Yard Elex Shop was able to flex their schedule and quickly coordinate all logistics to have a fully-equipped team on scene in LA/LB within 4 days of MEC Product Line's official support request. CG Yard also took full advantage of this window to complete a concurrent prototype AIS installation on Steadfast. The ability to act on compressed timelines and surge labor resources allowed the team to successfully complete both installations within a 6 day period, while the SINS2 and AIS installations are typically slated for 10 and 5 days, respectively.

Photo of the Quarter 1

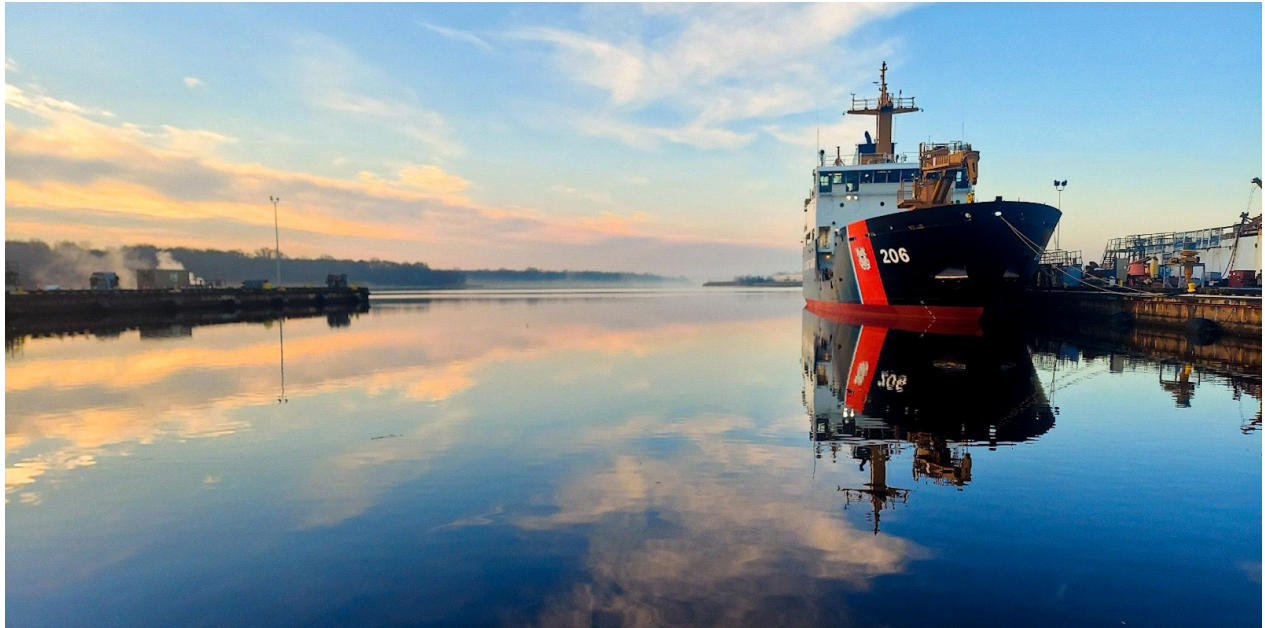


Photo taken by MK1 Travis Chapman, Firehouse, of CGC Spar on Pier 1 during its scheduled availability.

Have a photo for consideration of Picture of the Quarter?

Submit them to CGYard99@gmail.com. Picture must be taken during the quarter the newsletter covers:

Jan-Mar for April 1 July-Sept for Oct 1
Apr-June for July 1 Oct-Dec for Jan 1

Include your name, description of the photo and your group/shop/department.

Winner receives a \$15 DryDock Voucher!!!

CAPT Vincent Skwarek
Commanding Officer
U.S. Coast Guard Yard
2401 Hawkins Point Road
Baltimore, Maryland 21226
410-636-3265

Kristen Soper, Editor and Graphic Designer
(USCG Yard)

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Editor, YARD NEWS
2401 Hawkins Point Road
Baltimore, Maryland 21226
410-636-7238
Kristen.A.Soper@uscg.mil

