



DEPARTMENT OF HOMELAND SECURITY
UNITED STATES COAST GUARD

YARD

NEWS

BALTIMORE, MARYLAND

AN EQUAL OPPORTUNITY EMPLOYER

VOLUME 69 ISSUE 03 Winter 2020

Breaking Through Ice...and Project Milestones

By LTJG Sergey Dayneko, Ship Superintendent



Above: USCGC Sturgeon Bay moored on the CG Yard's East wall following completed modification and upgrades to its HVAC system.

On average, how long does it take to plan, procure materials, and schedule a major vessel renovation project? If you answered 2 – 3 years or more, you are correct! But what if it was possible to get there in half that time?

A close partnership between the Coast Guard Yard, the In-Service Vessel Sustainment (ISVS) Project Resident Office (PRO) in Baltimore, the ISVS Program office (CG-9323), First District, USCGC Sturgeon Bay (WTGB 109) crew, the Surface Forces Logistics Center's (SFLC) Engineering Services Division (ESD) and Icebreaker & Buoy/Construction Tender (IBCT) Product Line made

exactly that happen. The project team took on a challenge to troubleshoot and correct the 140-foot Bay-class Icebreaking Tugs' 40 year old Heating, Ventilation, and Air Conditioning (HVAC) climate control system, which was undersized, and failed to meet the crew's needs.

The Engineering Change went from problem statement to functioning prototype in 14 months' time, surpassing all established Programmed Depot Maintenance and ISVS milestones. Meeting this aggressive timeline is an achievement in its own right, and even more impressive considering overcoming the hurdles of the COVID-19 pandemic.

The original HVAC system on Bay-class cutters was designed and built in the late 1970s, with one climate zone for the entire vessel and heat provided by steam boilers. In general, this meant that there was no redundancy and none of the efficiency that could be provided by dividing the system into multiple zones.

Around the turn of the millennium, the HVAC systems were modified to replace the existing steam heat with hot water heaters to circulate water to air handlers. During the 140' Service Life Extension Project (SLEP), 2014 – 2020, the systems were re-designed again. These modifications separated the cutter's

(Cont'd to page 3)

The Commanding Officer's Column

Happy New Year, CG Yard Family!

As 2020 draws to a close and we mark the transition into 2021, it is important to recount what has been accomplished.

August 2020 saw the completion of the ninth and final hull of the 140' WTGB Service Life Extension Program (SLEP). Five years of hard work by the men and women of the CG Yard have extended the service life of the entire icebreaking tugboat fleet by 15 years! CG Yard, CG-932, and PRO Baltimore teamed up for its first virtual completion "ceremony" which you can view [here](#). This year also marked the finish of the first 154' Fast Response Cutter (FRC) patrol boat drydock availability onboard CGC Lawrence Lawson. We also completed a second FRC availability and are working hard on our third. These efforts are preparing our **people** for future FRC availabilities at our Recurring Depot Availability Program (RDAP) facility, our next major waterfront improvement. Finally, CG Yard employees were again recognized with Service-wide awards, demonstrating our workforce is second to none.

CG Yard's **professionalism** serving our nation is well recognized and we have much to look forward to in 2021. A COVID-19 vaccine is being dispensed and we are hopeful for its success in dampening the pandemic's impact. CG Yard Clinic will be administering this vaccine to others. Renovation of Building 5 into an MTU-certified FRC Engine Overhaul Center of Excellence will continue throughout 2021. CG Yard has broken ground on the T. Roland Lewis Shiplift Expansion Project and in January construction will gather momentum to add drydock capacity and expanded flexibility for mid-sized cutter SLEPs and drydocks. In July, we welcome the first 270' Medium Endurance Cutter SLEP prototype. This SLEP will be two prototypes and six full production hulls that will enable continued 270' operations until the Off-shore Patrol Cutter is brought fully into service. Later this year, we will have the CG Yard Infrastructure Optimization Study results that will inform our future shore investment strategy as we grow Large Cutter Shiphandling capabilities on our waterfront. CG Yard looks forward to delivering on its motto of Service to the Fleet by drydocking and working pierside on the Coast Guard's 418' WMSL's and 360' Off-shore Patrol Cutters

Thank you for the work you do each and every day. Our past accomplishments are a testimony of your **passion** to support the Coast Guard's missions. Your commitment shines brightly in the quality of your work and will help secure our success in 2021. Though it appears we are in the midst of a long winter fighting this pandemic, the tide will turn in this battle. Thank you for working to keep the CG Yard Family safe. Wearing masks, staying six feet apart, practicing good hygiene, and staying home if you are not feeling well are straightforward tasks. These easy actions have a direct impact on our health and our Service to the Fleet. Thank you for not tiring. Best wishes to you for a healthy and prosperous 2021.

Thank you and Semper Paratus!

CAPT Vincent Skwarek

Commanding Officer, United States Coast Guard Yard



(Cont'd from page 1)

climate control system into four zones with fully electric heat, and gave the ability to isolate vital services and control humidity. However, crews reported colder than acceptable conditions above main deck in the winter, as well as overheated compartments in the summer. Placing the entire HVAC system on the ship's electrical power grid also increased electrical loads beyond acceptable limits. One ship's service diesel generators (SSDGs) would become overloaded if a high current draw (such as a fire pump) was suddenly added during an emergency. As a result, the fleet reported the need to run both SSDG's at all times while underway. The team took on the challenge to address these concerns and found a way to improve crew comfort and decrease machinery wear.

CG Yard engineers produced well developed drawings so that specification, budget, schedule, and long lead time materials were all achieved within 2 months. At a cost of approximately \$1.3 million, the CG Yard's skilled workforce began the first installation in October on Sturgeon Bay. This improved system returns to using boilers for most heating loads, but retains the electrical pre-heaters and terminal re-heat, ensuring no pipes freeze and burst, and allows for fine-tuned temperature adjustment in each climate-controlled compartment. The result is an optimized thermal balance throughout the ship along with improved fuel efficiency. SSDG's powering electric heaters are at best 36% efficient, while the boilers are 82% efficient! This design allows the cutter to operate routinely on one generator while underway, reduces wear on machinery, lowers maintenance needs, and increases the engineering plant's overall reliability. Importantly, crew comfort is greatly enhanced as well. In total, the HVAC system upgrades on Sturgeon Bay are forecasted to increase the cutter's net heating capacity by 130% and double the cooling capacity within the ECC.

This achievement could not have been possible without the Coast Guard Yard's diverse expertise including engineers, planners, estimators, schedulers, project managers, and certainly not without the impressive workmanship of the highly skilled trade workforce. The multi-divisional USCG team were all critical in making this installation a success.



Above: The CG Yard's Electro and Structural Groups have once again stepped up to provide assistance to families in need during the holidays. In total, 31 families from communities surrounding the Yard, Baltimore, Brooklyn Park and Curtis Bay, received Thanksgiving meals and all the fixins. Both Groups raise funds throughout year and on their own time. Families are identified by either the elementary school or county social services office. Helping families in need is a Coast Guard and CG Yard tradition!



Congratulations to HS2 Whitney Austin on her selection as the Coast Guard Pharmacy Technician of the Year for 2020! As the pharmacy representative, she adheres to the principals of a Patient Centered Wellness Home (PCWH) practice, providing excellent pharmacy and medical support to service members, clinic staff, and cutter commands visiting the CG Yard. Seeing a need for additional Pharmacy support, HS2 Austin scheduled and assisted in the training of four additional Pharmacy Watch standers which increased the CG Yard clinic capability to maintain ancillary services. When it was noted that there was a backlog in records awaiting disposition, processing and delivery to Health, Safety, and Work-life Service Center HS2 Austin completed, of own accord, Central Cell training and processed over 100 backlogged medical records, reducing backlog of personnel with pending Veterans Administration benefit claims.

OPS SPOTLIGHT- CGC Margaret Norvell

CGC Margaret Norvell recently returned to operations following the completion of a Dry Dock Availability at the CG Yard from May - September 2020. The cutter has since completed two successful patrols. Towards the end of the first operational period, the crew responded to a report of a disabled vessel with 24 people onboard which was receiving assistance from the cruise ship Carnival Sensation. The 24 SAR survivors claimed that the master of the vessel had swam ashore to seek help, so Margaret Norvell crew conducted a 36+ hour search in challenging seas in an effort to locate the master. It was later determined that the vessel was engaged in a human smuggling operation. The 2 suspected smugglers and 22 migrants were repatriated to the Bahamas.



After a brief Charlie period and following hurricane avoidance operations, the crew transitioned to the north to support Sector Jacksonville space operations and LMR enforcement efforts. Margaret Norvell was the Commander Task Unit (CTU) for a task force of an 87' CPB and several Station/MSST assets enforcing the Kennedy Space Center security zone off pad 39A in support of SpaceX's first crewed launch of an operational spacecraft - Crew 1. Following the launch, while awaiting the report of a "successful docking" with the International Space Station, Margaret Norvell patrolled the Oculina Bank providing much needed offshore coverage and Maritime Domain Awareness for Sector Jacksonville.

LCDR Kevin Laubenheimer, CGC Margaret Norvell CO, had this message for the CG Yard: *"Thanks again for all the hard work and dedication of the Coast Guard Yard personnel! Your efforts allowed Margaret Norvell to quickly transition back into Coast Guard operations. Bravo Zulu!"*

FY2020 CG Yard Financial Performance

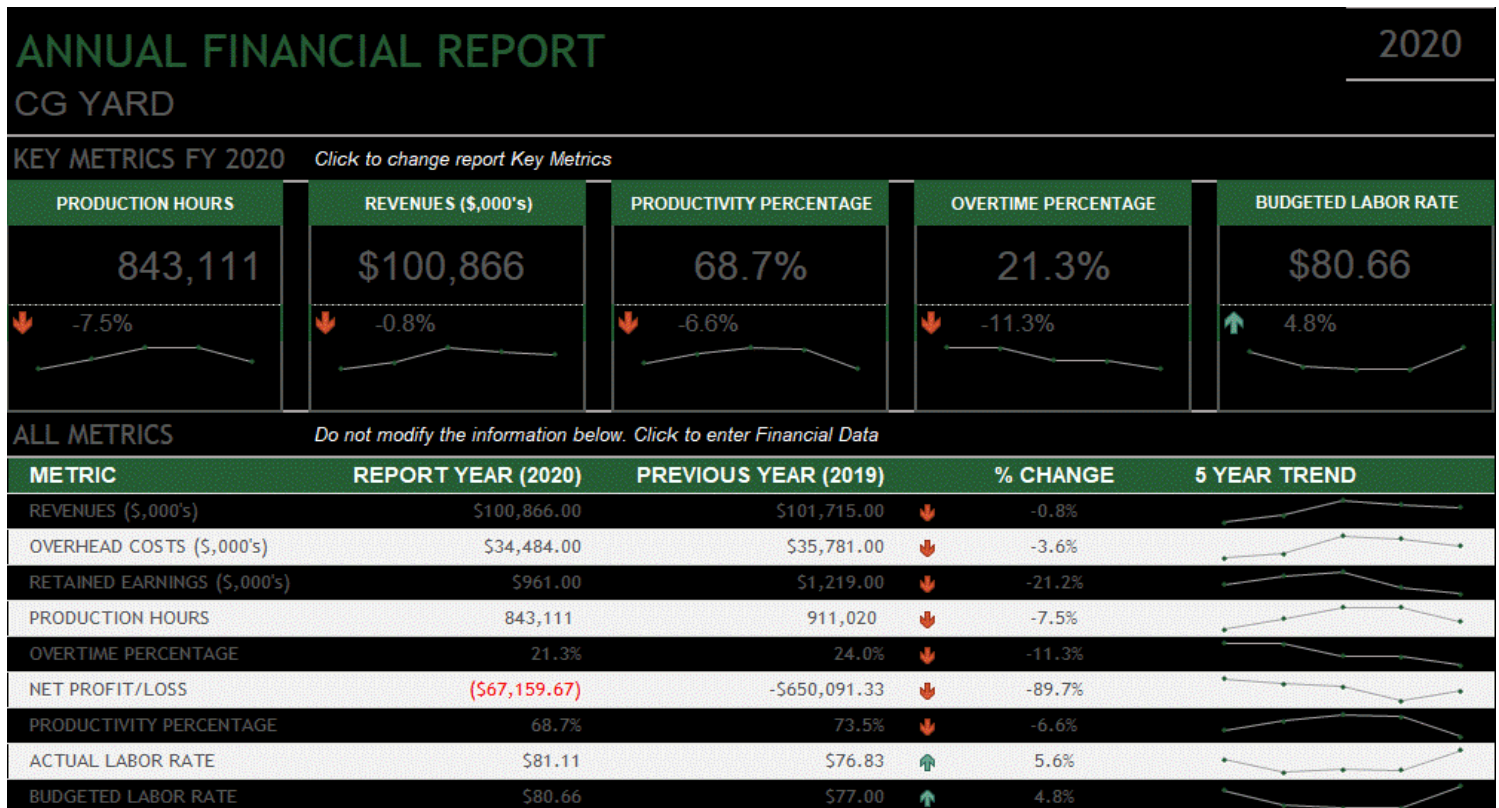
By Tim Howard, Chief Financial Operations

Fiscal year (FY) 2020 was challenging at the CG Yard, from a financial and production perspective, but was another successful year due to the efforts of the employees along with some Operations & Support (O&S) funding support from the SFLC.

One of the measures our customers track is the CG Yard's labor rate. CG Yard was able to maintain a budgeted labor rate of \$80.66 throughout FY20 despite the upward pressure from COVID-19. The 2020 CARES Act, passed by Congress earlier this year, enabled the CG to use their annual appropriation to pay salaries and benefits for CG Yard funded employees on weather and safety leave. This limited the financial impact to the CG Yard fund and prevented raised labor rates which then impact the CG maintenance and acquisition accounts. In FY 2020 CG Yard received just over \$4.3M in O&S funding to offset the impact of weather and safety leave across the CG Yard. Similar authority was provided in the Continuing Resolution language for FY 2021, which expired December 11th. Due to a more constrained fiscal environment, the CG Yard has not asked for or received any further O&S support for weather and safety leave in FY21.

The summary provided below contains key metrics used to track our financial performance and a comparison of the FY 2020 results with FY 2019. You can see most of the metrics trended in a negative direction showing the overall impact that COVID-19 had on CG Yard operations. On the positive side, overhead costs would have been significantly higher if not for the direct support of O&S funds from SFLC and we closed the year with Retained Earnings almost \$200K higher than budgeted.

While we have started the new fiscal year with solid fiscal performances in October and November, FY 2021 will be another challenging year with the continued impacts of COVID-19. And, although the benefits will be long term, beginning construction of the Ship lift expansion project will limit CG Yard earnings through 2021. Thank you all for your efforts in keeping the CG Yard on a firm financial footing. The stellar work you provide directly impacts our capability to attract new and repeat business.



Building 5 Transformation

By LCDR John Adams



Above: Pictured is Building 5 in 1938 at the CG Yard waterfront. The facility was originally built in 1931.

Recently, the CG 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 the Building 5 Engine Shop into an Overhaul Facility for the Fast Response Cutter's (FRC's) 4000 series MTU engines.

Building 5 is a 23,000 square foot facility built in 1931 to function as the CG Yard boat building and fiberglass shop. Wooden and fiberglass boats were constructed in Building 5, outfitted with engines and auxiliary machinery in Building 5a, and then launched with the marine railway adjacent to Building 16. Over the decades, Building 5 was redeveloped exclusively for overhauling engines though it retained most of its original Pre-WWII configuration...until now.

The 110' Patrol Boat Paxman engines have been a major reparables production line in the Engine Shop for the last 30 years. However, the demand for Paxman overhauls has greatly diminished as the service continues to decommission the 110' Patrol Boats and replace them with the 154' Fast Response Cutters. Modifying the production line to accommodate 4000 series MTU engine overhauls is no simple task. There are major differences in the facilities, tooling, and training stemming from modern environmental regulations and advancements in engine technology and manufacturing processes. While Building 5 has served the CG Yard well over the past 89 years, it could not meet new standards without significant improvements.

The current renovation project will seal the building envelope/exterior and open up the interior of the building to provide flexible space for modern day tooling. The CG Yard Facilities Division was tasked with developing an HVAC system to maintain the interior temperature and cleanliness as well as set footings to support a new 20 ton bridge crane used to maneuver the engine. The first step in the project was to remove the fiberglass booths, existing HVAC, and any interferences to create a single, open high bay space that can provide maximum maneuverability. The next step was installation of spray foam insulation to make the building envelope air tight and help insulate from exterior temperatures. Ducting for the new HVAC system is currently being installed

(Cont'd next page)

and the HVAC units are being manufactured.

The MTU engine is significantly heavier than the Paxman engine it replaced, requiring an overhead crane capability for maintenance activities. Therefore, the third step, and one of significant importance to the Building 5 transformation project, is the installation of a new 20-ton bridge crane. The CG Yard Facilities Division is designing and installing the pile supported crane foundation while the CG Yard Industrial Department is procuring the crane. The two have worked seamlessly to align these contract actions into one integrated project. During construction of the crane footings, the CG Yard team encountered some interesting history and geology. 1930's remnants of the old lumber shed foundations were discovered in some of the excavations. A seam of sand and clay soil was found on the north side of the building that introduced significant amounts of groundwater into the drilled footing holes. To repair this facilities excavated and backfilled with stone to ensure long term stability of the foundations.

The Building 5 transformation is one of several infrastructure investments along with the shiplift expansion and FRC Recurring Depot Availability Program (RDAP) projects that are enabling CG Yard to grow the capabilities to service the fleet of tomorrow. Similar, necessary infrastructure reinvestment such as a large cutter drydock will make it possible for the CG Yard to adapt to the needs of the fleet and continue as the Service's shipyard of choice.

This project is a testament to the CG Yard military and civilian workforce ingenuity that will transform a decades old facility to meet the future mission needs of the surface fleet. We have the fortitude to overcome any obstacle that is in the way.



Above: HVAC ducting being installed in Building 5 with fiberglass booths removed and spray foam insulation installed.



Above: Remnants of the woodshop foundation discovered during excavation.



We're Working On It!

Right: CG Yard has assembled and begun operating its new Horizontal Milling Machine inside the Machine Shop. CG Yard Facilities poured new concrete flooring to support the weight and size of the new machine. Inside Machinists have worked together to assemble the enormous machine, which can bore sleeve liners for all 110', 210', and 270' cutters, facilitating accurate fits for propulsion and tail shafts. The new machine will be able to support the sleeves and improve cut accuracy, given the size of the boring bar. Additionally, the milling machine will be able to set up 210' and 270' hubs for repair, as well as complete 210' (Class A/B) blade facing and 140' rudder stock keyways.



CG Yard LDAC is Formed!



Above: HS3 Eduardo Pena, LCDR Joseph Grant III, and Gabrielle Johnson.

The CG Yard has elected the Leadership and Diversity Advisory Council (LDAC) counsel. Please congratulate our new LDAC Chair, LCDR Joseph Grant III; LDAC Vice-Chair Ms. Gabrielle Johnson; and LDAC Secretary, HS3 Eduardo Pena. The committee successfully held its first meeting January 6th, 2021.

The USCG Commandant envisions a diverse work force that makes the Coast Guard the "Service of Choice". The CG Yard LDAC mission is to establish a safe environment to evaluate and discuss leadership and diversity issues that impact our work place. The goal is to improve our work environment that is inclusive of our diversity.

Meetings are held open forum style and will focus on impacting positive change and outcomes. Have a topic that is being faced in the work place? Let us come together, have a respectful discussion and find a positive solution. Both uniformed and civilian personnel are encourage to attend meetings and provide input. The LDAC counsel will advise CG Yard leadership of generalized concerns and proposed solutions for implementation. To be successful in impacting change, your attendance AND input is needed.

If you have any questions/concerns or would like to know more, please reach out to the LDAC Committee at DO5-SMB-Yard-LDAC@uscg.mil.

MILESTONES

Civilian Retirements

07/31/2020	Richard Heilman
11/30/2020	Richard Raker
12/30/2020	Robert Jacob
12/30/2020	Leonard Falcone

Civilian Promotions

Courtney Cox	WG-3	Sheet Metal Joiner Helper Trainee	8/2/2020
Jacob Walters	WG-3	Sheet Metal Joiner Helper Trainee	8/2/2020
Emily Hays	WG-3	Sheet Metal Joiner Helper Trainee	8/2/2020
Steven Moon, Sr	WL-9	Paint Leader	8/2/2020
Troy Superczynski	WG-3	Structural Helper Trainee	8/2/2020
Anthony Lazio	WG-3	Structural Helper Trainee	8/2/2020
Daniel Rausch	WG-3	Structural Helper Trainee	8/2/2020
Nick Tinelli	WG-3	Structural Helper Trainee	8/2/2020
Michael Chacos	WG-3	Structural Helper Trainee	8/2/2020
Kenneth Johnson	WL-11	Sheet Metal Mech CNC Operator Leader	8/2/2020
Travis Bowman	WG-5	Structural Helper	8/16/2020
Destin Hartman	WL-10	Marine Machinery Mechanical Leader	8/16/2020
Cody Fultonberger	WG-5	Structural Helper	8/16/2020
Jason Freeman	WD-8	Planner/Estimator	8/30/2020
Ryan Grastorf	WG-10	Machinist	9/13/2020
Richard Fantom	WG-8	Elect Industrial Controls Worker	9/13/2020
Adam Krantz	WG-10	Elect Industrial Controls Mechanic	9/13/2020
Chris Mcquay, Sr	WG-9	Painter	9/13/2020
Robert Powers	WG-8	Elect Industrial Controls Worker	9/13/2020
Akil Jones	WG-11	Crane Operator	9/13/2020
Derrick Peterson, Sr	WG-9	Painter	9/13/2020
Jordan Soliday	WG-8	Elect Industrial Controls Worker	9/13/2020



Military Promotions

LTJG Joseph Miller	LT	10/20/2020
SN Matthew Prig	SK3	10/20/2020

Photo of the Quarter



Photo of Quarter 4 taken by Jordan Soliday from the CG Yard Electro Group. Pictured are two 225' Seagoing Buoy tenders dockside, CGC's Willow and Cypress, and the 87' patrol boat CGC Skipjack being lifted for placement in the 87' RDAP tent.

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)

"YARD NEWS" is a publication of the U.S. Coast Guard produced quarterly for active and retired employees of the U.S. Coast Guard Yard. The views and opinions expressed within are not necessarily those of the Department of Homeland Security or the USCG. Please submit articles, pictures, and story ideas for consideration to:

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

