

# **Operationally Driven Maintenance Scheduling and FRC's**

By LTJG Katherine Beasley

The Fast Response Cutter (FRC) is one of the Coast Guard's newest surface assets and is part of the efforts modernize its to fleet. The FRC performs missions including Search Rescue and and Law Enforcement. Thev are named after Coast Guard enlisted heroes and are replacing the Island-class 110foot patrol boats. There are plans for 58 FRC's to be built,



Top (L to R) X-42 shop workers Aaron Alexander, William Bittner Sr., and Anthony Zimmerman (X-12 shop) with CGC Charles David crew; Right (L to R) Jann Blevins and Aaron Alexander

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currently 35 are in service. Most recently. the 36th CGC Daniel Tarr was commissioned in Key West, Florida, on November 7, 2019.

Over its relatively short service life, preventative maintenance needs and paint failure problems have emerged. FRC's are large vessels with a relatively small crew that must focus on their vital operational missions. The CG Yard (Yard) and SFLC's Patrol Boat Product Line (PBPL) work together in a process known as Operationally Driven Maintenance Scheduling (ODMS), allowing crews to prioritize mission excellence and operational readiness. ODMS is evolving into an important scheduling and maintenance tool used to ensure FRC sustainability that provides the CG fleet with the most cost-effective operational availability.

ODMS builds in shore-side maintenance periods scheduled in advance at the FRC's homeport. An ODMS import package is developed to ensure required maintenance is completed properly and timely. The different resources that can assist with this required maintenance includes CG Maintenance Augmentation teams (MAT), outside contractors, and the Yard. A team of Yard workers is most commonly drawn from the paint and sheet metal shops. They travel to the FRC homeport, working to preserve the hull structure by painting the cutter, preventing further growth and corrosion. (continued on page 4)

## The Commanding Officer's Column

Happy New Year, CG Yard Family!

It is hard to believe that 2019 has already drawn to a close and we are moving aggressively into 2020. The milder than usual temperatures in December assisted everyone in making great progress on the vessels currently in depot. This coupled with the dedicated commitment made by everyone to leverage this weather opportunity helped to ensure our holiday season included some well-earned time off to spend with family and friends. The holiday party was a wonderful culmination to our year's efforts and I was very proud taking Admiral Moore, our new CG Chief Engineer, and Mr. Curry, his deputy, around to see each of the Group's parties. What a very impressive spread and I can assure you that there is nothing like this anywhere else in the CG.

As we begin 2020, our CG Yard reputation remains secure because of the hard work and quality effort you are putting forward every single day. Hardly a day passes by when we don't get a special "by name" request for some CG Yard family member to help out and participate in a demanding job. This is a testimony of how high our customers hold your abilities. For example, in the last 24 hours I've had calls asking me if CG Yard could perform a complex, pierside Post Delivery Availability (PDA) on a National Security Cutter in a couple years; could a particular CG Yard engineer support, tomorrow in Philadelphia, the U.S. Navy's effort to determine the condition and remaining service life of the decommissioned Oliver Hazard Perry Class frigates; and we have a new position opening up at CG Headquarters for someone with IT expertise and another specific technical skill and we would like so-and-so to apply, would you be willing to endorse this member's early departure? These calls come to me and CG Yard leaders because your reputation has been firmly established. Focusing upon our people, carrying out our jobs with an unmatched professionalism, and doing this with a passion will ensure CG Yard's continued success and unmatched reputation.



CAPT Vincent Skwarek

**People.** You can tell a lot about an organization not just by how it treats its own people but by how they interact with others outside of their close-knit team. CG Yard has a long history of caring for those in the surrounding communities of Glen Burnie, Curtis Bay, and Brooklyn Park just outside our front gate. On their own time in December, CG Yard waterfront employees collectively raised more than \$14,500 to benefit 20 local families, including more than 45 children! Additionally, a gift of \$1,000 was provided directly to St. Jude's Foundation. It is abundantly clear to our customers that you care about people.

**Professionalism.** The manner in which we perform our jobs speaks volumes to our customers. Our customers recognize that you are willing to travel that extra mile. By making the conscious effort to ensure all aspects of the jobs we are working on are completed to a high level of quality and technical skill, we are demonstrating an enviable level of professionalism. CGC Lawrence O. Lawson has been at CG Yard since Nov 6th and we have handled two big changes to the work package and remain on-schedule. First, there was wind event on Thanksgiving Eve that damaged Lawson's enclosure and ate up critical time to repair the damage. Second, our customer asked us to complete over 800 additional hours of maintenance to reduce the cutter crew's burden in returning the vessel to operational status at the conclusion of the four month depot availability. Such examples of professionalism are unmatched and help place CG Yard high in our customer's opinion.

**Passion.** Passion comes from an internalized sense of determination to see a goal achieved. We see passion in our favorite sports teams that pull out ahead and win a difficult game coming from behind. Passion has the potential to see solutions and achieve them even when the required effort is daunting. In FY16, CG Yard received \$26 million to fund an expansion to the T. Roland Lewis Shiplift to meet dry-docking capacity lost with the Oakridge decommissioning. Our first shot at getting a commercial vendor to complete this work failed. Corrections were made and the last shot fired. The efforts of Facilities Engineering and other leaders has been outstanding. We are very close to seeing this contract secured. The passion of those involved with the shiplift expansion has brought us very close to the finish line. Thank you for doing your work with passion.

Semper Paratus!

**CAPT Vincent Skwarek** Commanding Officer, United States Coast Guard Yard

# **OPS SPOTLIGHT-** USCGC NORTHLAND

USCGC Northland (Northland), homeported out of Portsmouth, Virginia, was scheduled to leave for a 90 day Eastern Pacific patrol in June when it experienced a catastrophic failure of the starboard shaft. The failure forced Northland into an emergency dry dock at the Coast Guard Yard (Yard) through August 2019.

The Yard responded *At the Speed of Need* to quickly identify the causative issue contributing to the shafts failure. Yard workers first replaced the thrust bearing. Upon further inspection of the thrust and intermediate shafts, repairs were completed that addressed not only the casualty at hand but also troubleshot future problems and alignment issues. Under the excellent leadership of R.J. Cress, Yard crews worked around the clock to ensure Northland's repairs were completed on time and under budget. Their hard work got the cutter back into configuration to go underway, demonstrating the Yard's



Approximately 4,200 kilograms of contraband on the deck of USCGC NORTHLAND with the Trafficking Vessel in the background

commitment to supporting the fleet for successful execution of Coast Guard missions.

The quick repairs completed by the Yard allowed Northland to begin a successful patrol. Within the first few days the crew received direction to intercept a potential target of interest. After a full day of searching, Northland intercepted a 282' Offshore Supply Vessel and began what turned into a four-day law enforcement boarding. Despite deteriorating weather conditions, boarding teams thoroughly searched the massive vessel; three days later they discovered bales of contraband. After weighing all contraband, they calculated its total weight to be approximately 4,200 kilograms, making this interdiction the largest single vessel seizure in CG Atlantic Area in over 7 years. This was the first major contraband interdiction for the majority of the crew! It will definitely be a moment they will remember long into their Coast Guard careers.

# TAMPA CO SAYS THANK YOU!



CO, CDR Michael Cilenti showed his appreciation by awarding 22 Yard MVP's with coins for their outstanding work to complete the availability on time despite large growth work. In the CO's words "...this has been the best availability I've had. Thank you again for all of the help and support." Bravo Zulu to:

### X11/13 Welding and Fab Shop X-31/32 Electric Shop

Brain Kindig Vince Peterson Ty Fultonburger Abe Roth

#### X12/41 Sheet Metal Shop

Edwin Rosado Billy Hunt Mike Jarrard

#### X-21 Pipe Shop

Ronnie Lowman Trevor Wills

#### X-23 Machine Shop

Mike Handsome Andrew Dove Chris O'Connell Phil Ingram Keith Hare Jared Zyla Greg Cogar

#### X-42 Paint Shop

Carson McCorry Travis Gettle Dave Anshel William Bittner

X-43 Rigging Shop

Anthony Bernacki Harry Gray

#### (continued from page 1)

Yard workers also remove interferences and restore equipment associated with the paint work. Yard teams have been praised by FRC crews and PBPL port engineers for their friendly and industrious attitudes as well for the high quality of work completed.

In fiscal year 2019, Yard teams traveled to six cutters ranging from southern Florida and Puerto Rico, to California homeports. The Yard has teamed with PBPL to schedule ODMS periods in fiscal year 2020, currently for twelve cutters, primarily homeported in southern Florida. Yard workers are rapidly gaining valuable FRC maintenance experience from recent projects such as anchor pocket modifications, MK 38 MOD 2 weapons overhaul, and "QL3" or top-end overhauls on the 4000 series MTU engines that will be applied to future ODMS work. Expertise gathered now will pay future dividends as the Recurring Depot Availability Program (RDAP) is expanded to include FRC's, currently expected to begin in 2023.



Above (T to B): Anthony Zimmerman (X-12 shop) and Aaron Alexander on CGC Charles David Jr, homeported in Key West, FL.

## FY2019 CG Yard Financial Performance

By: Tim Howard, Chief, Financial Operations

Fiscal Year (FY) 2019 was a challenging year at the CG Yard (Yard), from a financial perspective, but overall was successful due to the efforts of the employees. One of the measures our customers track is the Yard's labor rate. The Yard has become more competitive with private sector shipyards in part due to its steady labor rate over the last three years. We maintained a constant \$77.00 labor rate from April 2018 through September 2019. This provides a significant savings back to our customers. While there was a slight increase in the labor rate for FY 2020 (\$80.66), we are still at the same labor rate that we started with in FY 2017.

Below is a summary of the key metrics used to track our financial performance and a comparison of the FY 2019 results to FY 2018. There were only two metrics with significant change from the previous fiscal year, Retained Earnings and Net Profit/Loss. The change reflected in both of these numbers was the conscience effort to return our proceeds to the customer via the reduced labor rate. The ability to maintain the labor rate throughout FY 2019 was possible because of employee efforts to minimize overhead costs. As you can see below, our overhead costs were almost \$550 thousand less than they were in FY 2018 and were almost \$1.5 million less than the FY2019 budget.

Thank you all for your efforts in keeping the Yard on a firm financial footing. This directly impacts the Yards capability to attract new and repeat business. I look forward to another great year in FY 2020!

ALL METRICS	Do not modify the information below. Click to enter Financial Data					
METRIC	REPORT YEAR (2019)	PREVIOUS YEAR (2018)		% CHANGE	5 YEAR TREND	
REVENUES (\$,000's)	\$101,715.00	\$103,187.00		-1.4%		
OVERHEAD COSTS (\$,000's)	\$35,781.00	\$36,335.00		-1.5%		
RETAINED EARNINGS (\$,000's)	\$1,219.00	\$1,869.00		-34.8%		
PRODUCTION HOURS	911,020	912,606		-0.2%		
OVERTIWE PERCENTAGE	24.0%	24.3%		-1.2%		
NET PROFIT/LOSS	(\$650,091.33)	\$199,915.37		-425.2%		
PRODUCTIVITY PERCENTAGE	73.5%	74.2%		-0.8%	·	
ACTUAL LABOR RATE	\$76.83	\$76.96		-0.2%		
BUDGETED LABOR RATE	\$77.00	\$77.00	Ð	0.0%		



Quality is quite simply how good something is both on its own and when measured against something of a similar kind. A Quality Management System (QMS) guides organizational efforts to deliver quality products and services as requested and paid for by customers in an agreed upon time frame. A properly implemented and documented QMS is considered to be a "living and breathing document", one which allows for modification and strives for continual improvement.

Continued progress on the CG Yard's (Yard) "quality journey" depends on every employees understanding of how their daily work impacts our QMS, and more importantly, our customers' goals. The Yard's success and reputation depend on it! The Yard's QMS primarily focuses on meeting customer requirements and continual improvement. This requires a commitment by all employees to correctly perform their assigned tasks and identify and report areas of concern to their supervisors.

Communication is a key element in maintaining a successful QMS. By identifying areas for improvement and/or areas of concern, we can improve processes, making them both more efficient and effective.

The Yard QA staff is currently working with the Ordnance Shop to update the Weapon Systems Overhaul Work Instructions. The original instructions were last completed in the 1990's and contained requirements for duplicate signature reviews. The updated instructions require only one signature per line item and will include print images to ease Yard mechanic's reference. Thank you all for taking pride in your work and striving for continual process improvements!



## Vaping and Lung Injuries

Did you know there have been 530 cases of lung injury reported from 38 states and 1 U.S. territory? Seven deaths have been confirmed in six states. All reported cases have a history of e-cigarette product use or vaping. The investigation has not identified any specific e-cigarette or vaping product (devices, liquids, refill pods, and/or cartridges) or substance that is linked to all cases.

Patients in this investigation have reported symptoms such as:

- Cough, shortness of breath, or chest pain.
- Nausea, vomiting, or diarrhea.
- Fatigue, fever, or abdominal pain.
- Some patients have reported their symptoms developed over a few days, while others have reported their symptoms developed over several weeks. Lung infections do not appear to cause the symptoms.

Until more is known, if you are concerned about these specific health risks, the CDC recommends that you consider refraining from using e-cigarette or vaping products. Additional information regarding the fire safety of e-cigarettes is available in Chapter 18, Shore Fire Protection Program of the Safety and Environmental Health Manual, COMDTINST 5100.47 (series).

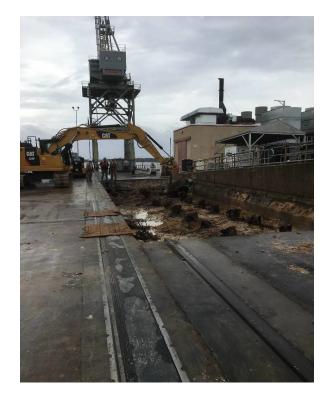
# CONGRATULATIONS!!!

Congratulations LCDR Tom Kai for his selection as a 2019 DHS Award for Excellence recipient. LCDR Kai oversaw all of the CG Yard's efforts to dry-dock the fleet of 87-foot patrol boats assigned to the east coast of the United States. He conducted shore-side and emergency repairs to over 20% of the Coast Guard's patrol boat fleet, bolstering drug interdiction, search and rescue, defense readiness and port security operations throughout the nation. He also oversaw the conversion and transfer of four 110-foot patrol boats to Ukraine and the Republic of Georgia, in direct support of the United States foreign military sales program, contributing to the security of these nations.



# FACILITIES UPDATES

Work on the Tower Crane #5 project (pictured right) began in September 2019 following an inspection report that condemned the crane runway. The inspection found there was insufficient structural support; repairs to the fill and 50+ year old piles were deemed required. The project is scheduled to be completed March 2020. The benefits of this project to the CG Yard and to the CG Fleet are tremendous. Restoring Tower Crane #5 operability will enable CG Yard Industrial Operations to complete critical ISVS work items for the 140' Ice Breaking Tugs (WTGB) and the upcoming 270' Medium Endurance Cutter (WMEC) SLEP. Without these repairs, the ISVS schedule could be jeopardized. The scheduled WTGB maintenance periods are precisely timed to the closure and opening of the locks on the St. Lawrence Seaway. Even a relatively small schedule slip could have catastrophic impacts on CG District 9's domestic icebreaking capability.





# <u>CG Yard Helps Naval Academy</u>



Two Navy sailors watch as coasties MK1 Chapman and DC3 Large operate the SCBA filling machine.

by LT Justin Bixler

In October, the U.S. Naval Academy was undergoing its Board of Inspection Survey (INSURV). congressionally mandated a inspection and reporting process measuring readiness on their training ship in Annapolis. The Naval Academy does not have the ability to charge firefighting bottles, thus they reached out to CG Yard for last minute help. LT Bixler coordinated with the Yard Fire House to fill 30 SCBA firefighting bottles. This example of the Yard's willingness to help in a time of need strengthens our relationship with not only a customer, but our brothers and sisters in arms.

# Yard Performs Configuration Change on YP's



Above: YP 708 dockside after arrival in October 2019 for its scheduled availability.

by LTJG Katherine Beasley

The CG Yard (Yard) and the Naval Academy work together to complete dry dock and dockside availabilities on Yard Patrol (YP) vessels. These YP's serve as afloat training platforms for midshipmen, giving the next generation of naval officers a foundation in basic seafaring skills. YP's range from the 30 year old wooden hull vessels of the YP-676 class to the newer 10 year old metal hull vessels of the YP-703 class. As evidence of the growing partnership between the two organizations, the Yard is completing and performing an HVAC system reconfiguration on one of the six YP-703 class, at the request of the U.S. Navy.

The Heating Ventilation and Air Conditioning (HVAC) unit on the YP-708 is being retro-fitted with a glycol system to replace the chilled and heated water system. The scope of work includes piping renewal of 13 fan coil units throughout the ship, manufacturing unit foundations, and replacement of all associated water

pumps with a glycol pump.

This required a Yard team of combined trades from the rigging, structural, pipe, electro, and paint shops. The Yard is not only a "onestop shop" for ship repairs, but employs a workforce that has the knowledge, skill, and capability to solve technical problems with ingenuity. The strength of the timeand materials cost model for prototypes and back-fit engineering work on existing vessels is that it minimizes costs by eliminating the premium fee charged to change requests, a common practice in commercial pricing models. Development of this prototype grew out of the successful SLEP of the YP-676 class; currently work is underway on YP-686 which is the third hull to come to the Yard for SLEP. The Yard workforce is proud of the work accomplished in support of the Naval Academy's training mission!



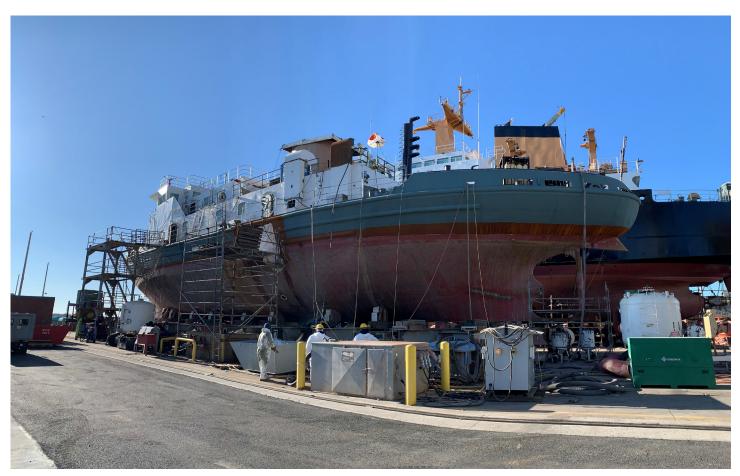
Above: Newly Fabricated HVAC foundation with reconfigured HVAC unit

# WE'RE WORKING ON IT



Left: Joseph Phinney, X-30 Work Leader, pictured at the docks in Sturgeon Bay, Wisconsin. The X-30 group has successfully completed the second ISVS barge integration. Two mechanics from X-30 group traveled to Sturgeon Bay to integrate the newly installed ship depth sounder transducer, closed circuit television, ship's announcement/alarms system, telephone, bow thruster, and internet on the 140' CGC Mobile Bay.

Below: The 140' Bay class Icebreaking Tug Biscayne Bay arrived in July 2019 for its scheduled SLEP. Biscayne Bay is homeported in Saint Ignace, MI with a primary mission of domestic icebreaking in the connecting waterways of the Great Lakes. End of Industrial is scheduled for mid-July 2020.



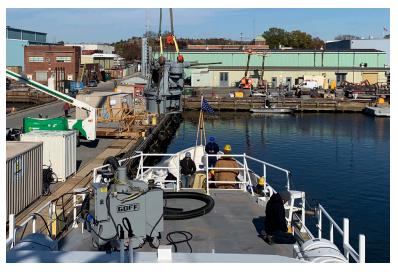
Below Left: "What's happening behind the curtain? The 154' CGC Lawrence Lawson arrived in early November 2019 to the CG Yard for the USCG's first organic dry-dock, prior dry-docking were under warranty with the manufacturer. Scaffolding was set (twice following wind damage!) in preparation for blasting, side scanning was completed, 7 square feet of hull was replaced, and painting is underway.

Below Right: CG Yard rigging and ordnance workers remove the MK 38 MOD 2 from CGC Lawrence Lawson to protect it from damage while the cutter undergoes blasting and painting. Initially 4 hours were planned for removal, but cold weather in the Baltimore area created difficulty with the adhesive used to secure the MK 38. After 40 hours of intensive labor, CG Yard was able to safely remove the machine gun weapons system. These lessons learned will inform future FRC work at the Yard.



VOLUME: MMXIX

NUMBER





COAST GUARD YARD NEWS DIGEST DEPARTMENT OF HOMELAND SECURITY U. S. COAST GUARD



# MONSTER JAM DISCOUNTED TICKETS AVAILABLE NOW

## MWR IS SELLING DISCOUNTED TICKETS TO MONSTER JAM TRIPLE THREAT SERIES AT ROYAL FARMS ARENA, BALTIMORE MD 28 Feb- 1 Mar 2020

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Fri 28 Feb-7PM- \$30.00 Sat 29 Feb- 1PM \$30, optional Pit Pass \$20 (must accompany corresponding 1PM event ticket) Sat 29 Feb-7PM \$30.00 Sun 1 Mar- 1PM \$30, optional Pit Pass \$20.00 (must accompany corresponding 1PM event ticket) *PIT PARTY 10:30am-12:00pm on select dates* 

TICKETS ARE AVAILABLE NOW THROUGH FEBRUARY 24TH TICKETS AVAILABLE TO ALL MWR ELIGIBLE PATRONS

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> To place a ticket order please visit the Columbus Recreation Center Bldg 143, or email <u>christopher.e.stewart@uscg.mil</u>

# Yard Employees Give To The Local Community

For the 2019 Thanksgiving season, the Structural Group, Electro Group, and Mechanical Group reached out to the Anne Arundel County Holiday Sharing Program to find families in need of meals for Thanksgiving dinner. During this holiday event the groups donated to 24 families in need of a Thanksgiving meal! While Electro Group workers purchased non-perishable items, Structural Group workers donated perishable items. All items were sorted into gift baskets; employees from each group then delivered the baskets to the 24 families. All families expressed their gratitude and appreciation for the gift baskets. The families are not the only ones who gain from this experience... many Yard workers report "full hearts" and a renewed appreciation for their own life accomplishments as a result of being involved.



## COAST GUARD YARD NEWS DIGEST DEPARTMENT OF HOMELAND SECURITY

U. S. COAST GUARD



## 2020~ NEW YEAR~ NEW FOOD

## Starting in January the Dry Dock Club will offer new menu items:

Turkey Burgers "The DDTB" Beyond Meat Patty Chicken Cordon Bleu Panini Southwest Egg Rolls Mac & Cheese Bites Wings your Way ~ UNBREADED HOT Homemade soup served Tues-Thurs Dry Dock is open 1100-1300 Mon-Fri & Wed Evening @ 1530

VOLUME: MMXIX

NUMBER: 122



**Shipyard Joe Coffee Shop** NEW Hours of Operation Mon-Fri 0630-1130



\$1.00 Refills





DATE: 30 Dec 19

ORIGIN: MWR

## **MILESTONES**

## **Promotions**

Cuffley, Edward	AC Equipment Mechanic	WG-5306-11
McLucas, Shane	<b>Electronic Industrial Controls Supervisor</b>	WS-2606-11
Thompson, Christopher	Engineering Techician	GS-802-9
Upright, John	Engineering Techician	GS-802-9
Johnson, Bret	Structural Helper Trainee	WG-3801-3
Middleton, Stanley	Machinist Leader	WL-3414-10

## Yard Enlisted of the Quarter

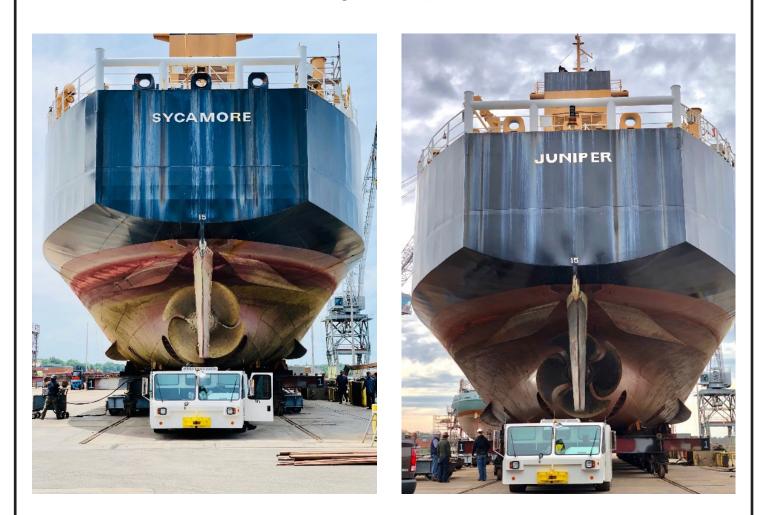


HS3 Rebecca Wolfe CG Yard Clinic

## Yard Civilian of the Quarter



# **Photo of the Quarter**



Photos taken by Carl Weiland (Mechanical Group) of CGC's Sycamore and Juniper undergoing Major Maintenance Availabilities within six months of each other at the Yard this year.

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Kristen Soper, Editor (USCG Yard) Sean F. McDaniel, Graphic Designer (SFLC-ESD) "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:

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