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U.S. COAST GUARD

YARD NEWS

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Home For The Holidays

CGC CONFIDENCE Arrives for Emergency Repairs
Work Completed In Record 26 Days

By LTJG Michael Earley, Ship Superintendent, Industrial Department

The 210' medium endurance cutter CONFIDENCE arrived at the Yard on November 18th for a rapid three-week emergency dry dock availability. The cutter crew had recently identified excessive corrosion and wastage in the engine room bilge prior to deployment on an operational patrol from its homeport in Cape Canaveral, Florida.

Naval Architects from the SFLC's Engineering Services Division (ESD) performed a thorough assessment of the cutter's condition. They determined that CONFIDENCE was unsafe to sail without significant repairs, and that an emergency dry docking was required. Within one week of ESD's findings, the Medium Endurance Cutter Product Line made the decision to send CONFIDENCE to the Yard for an emergency repair availability.

Fixing CONFIDENCE was given top priority amongst ongoing Yard projects. Nearly continuous work occurred on CONFIDENCE over the ensuing three weeks. Each and every employee was focused on delivering CONFIDENCE on time and hoping for the cutter's return to homeport for the holidays.

The Yard's work included thorough inspections of wasted metal, fuel tank cleaning and repair, piping repairs, dry docking, temporary services, ballast removal and reinstallation, all necessary structural and welding repairs, and preservation of engine room bilges. Extensive iron work by the Structural Shop, led by Michael Haskins, totaled over 175 square feet in plating and over 40 feet of T-bar stiffener replacement and repair. The Pipe Shop, Machine Shop, Electrical Shop and Sheet Metal Shop, led by Alonzo Moulton, Kevin Center, Ricardo Mariano, Chaz Banlaki, and Andre Harrington, respectively, paved the way in removing numerous interferences, including but not limited to: insulation and flashing, various piping systems, multiple pumps and associated controllers, the reverse osmosis unit, and ballast. The Rigging Shop, led by Timothy Sheppard with assistance from the Structural Group, expertly removed the side plating and the bulky reverse osmosis unit that allowed access to deteriorated metal.

The Structural Shop continued to crop and renew wasted steel as they found additional areas of deteriorated structure that required replacement. Welders, ship fitters, and fire watches worked around the clock cutting out the damaged steel; fabricating new sections of hull and t-bar, and welding in new sections. Once all of the repairs were completed, the Paint Shop, led by Keith Jordan, coated all of disturbed areas in record time. The

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The Commanding Officer's Column

by Captain George A. Lesher

Greetings, Shipmates! Hope everyone had a wonderful holiday season and took some well deserved time off to be with friends and family. By the time you read this, we will have started the New Year 2014. But first, it is worth taking a look back at some of the highlights of the year past.

2013 featured completion of 25 availabilities: five were 270' WMEC Mission Effectiveness Projects (MEP); two were emergency drydocks – IBIS and CONFIDENCE, and the remaining were regularly scheduled drydocks. The year started off with completion of the JEFFERSON ISLAND – an unplanned drydock which started with the vessel being towed from a commercial facility to the CG Yard. In May of the year, we celebrated clean up of the last CG Yard environmental remediation area, better known as the EPA superfund site. In June, I was honored to take over as the 41st Commanding Officer of the CG Yard. The year ended strong with completion of an emergency drydock on CONFIDENCE in record time for the amount of work performed and delivering the CGC TYBEE 35 days early. Both of these deliveries put the crews back home in time for the holidays. Perhaps, most noteworthy for the year was restoring the 69 year old drydock known as the OAKRIDGE back into service. This culminated a two year, $3.74M in-house repair effort which concluded with a successful certification and docking of the CGC FORWARD.

We continue to work on improving our process efficiency each and every day. This issue of the "Yard News" highlights some of those efforts including an 18 month focus on improving our painting. We have made some significant changes, admitting that the way we were conducting our business for many years needed to be improved.

Featured in this edition is arrival of the final 270' WMEC, CGC FORWARD, to undergo MEP. Later this year, we will conclude this highly successful project and move into the next phase of anchor projects for the Coast Guard which is the In Service Vessel Sustainment project. This project will kick off in the fourth quarter of 2014 with a Service Life Extension availability on the CGC MORRO BAY and the EAGLE. We look forward to the new challenges of this project and delivering improved and more reliable cutters to the fleet and American public.

Thanks for all you do,

Semper Paratus!

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Electrical Group set up portable heaters to allow the coating system to cure quickly in the freezing cold weather. The Yard was even able to take advantage of the dry docking to replace CONFIDENCE's inoperative speed log transducer.

The Yard completed CONFIDENCE's emergency repair in 26 days - one day ahead of an extended completion date due to growth work. And the repairs were accomplished 10% under budget. The Cutter was primed to return "home for the holidays."

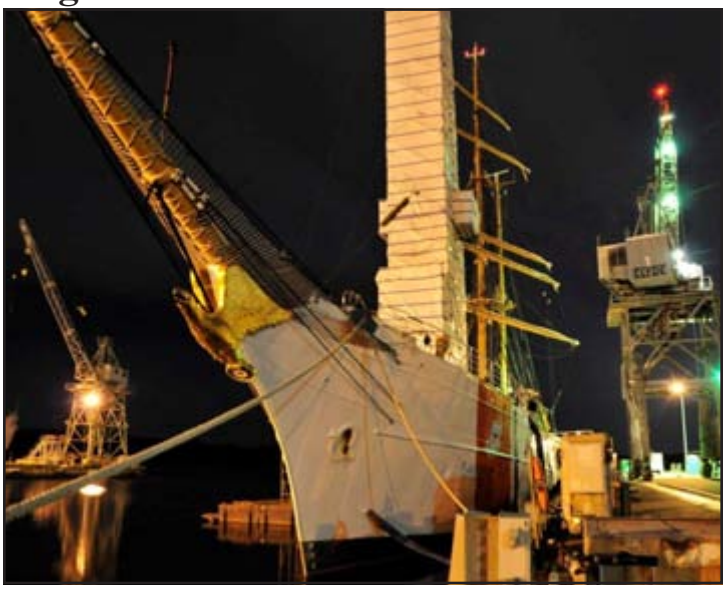
CDR Thomas Remmers, SFLC Medium Endurance Cutter Product Line Manager, commented, "I am very satisfied with the work of the Yard and its completion of CONFIDENCE's emergency dry-dock. The Yard demonstrated its value to the Coast Guard by taking a challenging project with little advanced notice and delivering a high quality product, on time and at a competitive cost. This package is a testament to the pride and professionalism of the command, industrial management team, and the industrial workforce of the Coast Guard Yard."

Yard leadership and employees were excited to host CONFIDENCE as the cutter has special meaning to the Yard. The cutter was built here and delivered to the Coast Guard in February 1966. In fact, a few of the people here at the Yard today were involved in its construction! In addition, the Yard completed a Major Maintenance Availability mid-life renovation on CONFIDENCE in 1988. The Yard modernized the cutter under the Mission Effectiveness Project in 2007.

It was the Yard's honor to serve CONFIDENCE and its crew in their time of need during these past few weeks, and we take pride in getting them to their homeport to enjoy the holiday season. The Yard looks forward to seeing them again in the future and wishes CONFIDENCE "fair winds and following seas" as it conducts operations in service to our Coast Guard and our Nation.

"We're Working On It!"

CGC VIGILANT (WMEC 617) - Port Canaveral, Florida



CGC EAGLE (WIX 327) - New London, Connecticut

CGC MOHAWK (WMEC 913) - Key West, Florida

CGC SAPELO (WPB 1314) - San Juan, Puerto Rico

CGC PEA ISLAND (WPB 1347) - Key West, Florida

CGC MAKO (WPB 87303) - Cape May, New Jersey

Yard Splashes TYBEE 10 Days Ahead of Schedule

The 110' patrol boat TYBEE arrived at the Yard from its homeport in Woods Hole, Massachusetts, in late August to begin a five-month routine repair availability. Jobs to be accomplished included bilge preservation and painting, renewal of sea valves, and change-out of generators. In the photo at left, Yard tradesmen remove both main diesel engines from the cutter in order to complete a comprehensive ultrasonic evaluation of the engine room bilge. The test is used to identify any areas of the hull that could require replacement, thus sustaining TYBEE's hull and keeping the patrol boat operational.

CGC TYBEE

On December 9th, the Yard wrapped up the ultrasound testing and returned TYBEE to sea ten days ahead of the original work schedule. With this and other successful repair evolutions, the Yard expects to conclude TYBEE's availability 4-weeks ahead of schedule, returning the patrol boat to its homeport in time for the holidays.

The MEP "Hall of Fame"

CGC FORWARD Takes Its Place In MEP History

The Cutter FORWARD arrived at the Yard from its homeport in Portsmouth, VA, on November 18th and made its place in Coast Guard history. FORWARD is the final 270' medium endurance cutter to undergo a six-month modernization under the Mission Effectiveness Project (MEP); in fact, the final cutter among all Coast Guard assets upgraded under MEP over the past eight years.

The MEP project began at the Yard in 2005 to overhaul select 210', 110', and 270' cutters. The Coast Guard mandates many of its surface forces assets to remain in service until replacement cutters are delivered and operational.

It is important to note that the Coast Guard commissioned the first 210' cutter in the early 1960's and the first 270' and 110' cutters in the mid l980's.

The MEP was required to overcome significant subsystem obsolescence and reliability issues (including integrity of the hull). Without the benefit of MEP, much of the Coast Guard fleet would continue to operate with excessive engineering casualties and reduced operational mission hours.

Concluding in 2014, the MEP will have completed modernization on fourteen 210' cutters, seventeen 110' cutters, and thirteen 270' cutters (Phase I & Phase II) since 2005.

The Yard will finish MEP on FORWARD in May 2014. It will be delivered before completion of the Cutter MOHAWK that arrived at the Yard in October 2013, but because of the Yard's production schedule will not be finished until July 2014. FORWARD will be inducted into the MEP "Hall of Fame" as the final MEP cutter and close out the MEP legacy at the Yard; MOHAWK will have the distinction of being the last MEP cutter to be delivered.

CGC FORWARD

Lean Update: Trades Training Gets Lean

By Eric Linton, Yard Business Manager

The Trades Training class just completed Lean training as part of their curriculum. The class was divided into four groups that worked on projects in the Paint Shop, Electrical Shop, Garage, and Outside Machine Shop. Each project applied Lean principles to improve a shop work area.

The Electric Shop team reorganized the shop's stock of conduit piping. The piping was relocated from a space exposed to the weather to a protected area inside a conex box. The piping was sorted by size and type. The team established visual stocking limits that identify when and how much material should be bought to replenish stock. And, in order to make things as simple as possible, they installed placards that provide the supply information needed for reordering material. Lean aficionados will recognize this as an application of the Kanban process for Just in Time delivery of materials. Electricians are able to quickly find what they need and easily identify when piping should be reordered.

Electric Shop Pipe Storage Before

Electric Shop Pipe Storage After

The Paint Shop Team had a similar project that reorganized a storage locker. The Yard has several paint storage lockers at different work sites. Again, the project applied Kanban concepts, but it also had a heavy 6S (Sort, Sweep, Set-In-Order, Standardize, Sustain, Safety) emphasis as shown in the pictures below. The Yard bought new storage lockers and provided the team shelving to improve stowage. The team disposed of many items during their project, and this reduced safety hazards, made materials easier to locate, and reduced the chance that the shop would maintain expired paints in its inventory.

Paint Storage Locker Before

Paint Storage Locker After

The Garage Team redesigned a bay in the garage to better organize parts and technical information. They were not able to fully implement the project because they ran into a lead paint issue in the affected area. The Garage, however, plans to implement the project after the space is remediated.

The Outside Machine Shop Team improved an area in Building 11 by completing a 6S event that reduced the amount of time needed by a mechanic to find materials to a targeted 30 seconds.

It's hard to overemphasize these achievements because they are the kind of incremental improvements we must make to remain an effective organization. The Yard is definitely a better place because of the work of these students, and we will benefit from what they have learned for years to come.

Yard "Peels" Back Cause of Errors; Gets "Primed" for Corrections

Room for Improvement Leads to Pathway for Success

The Mission Effectiveness Project (MEP) began at the Yard in 2005 to accomplish modernization on specific cutters of the 270', 210' and 110' fleets. Critical to the overhaul of each MEP asset is the cutter's final painting.

Two years ago in 2011, the Yard bade farewell with a feeling of pride for successful modernization of three 270' MEP vessels. But shortly after their MEP completion, the Cutters TAMPA and NORTHLAND had paint failures. The ships experienced erosion and peeling failures on their hulls and superstructures (see NORTHLAND photo at bottom right). Recognizing this was a serious technical defect and, more importantly, breech of customer trust, the Yard initiated a quality assurance investigation, and our parent command - the Surface Forces Logistics Center (SFLC) - initiated a root cause failure analysis.

The SFLC tasked an independent consulting firm to work with the Yard Quality Assurance staff to analyze the root cause for the paint failure; emphasizing each paint application step – hull location, material applied, date applied, environmental conditions (air temperature, dew point, surface temperature) at time of application. Each application step was reviewed for conformance to the Coast Guard's paints and coatings manual as well as the manufacturer's specified procedures.

The study showed that the physical methods of applying paint did not appear to have impacted the paint failures, and the paint was robust enough for the environmental conditions of the cutters' operational areas.

The primary cause of the failure was application of the white top-coat over a primer system which had fully cured, resulting in no chemical bond between the two coats of paint. Eventually, the top coat flaked off the hull. The Yard's unfamiliarity and first-time use of the new primer epoxy coating and incomplete instructions for the product's curing times contributed to this failure.

Acknowledging paint application failures of the past, Yard managers and the Paint Shop put steps in place to assure success in the future. Education, a change in paint scheduling, improved painting facilities, and increased budget for the Paint Shop emerged as focus points for improvement of the critical painting process in a cutter's successful availability at the Yard.

The Yard held three sessions of intensive paint training for the Paint Shop during this past summer and fall. Instructors from the Society for Protective Coatings (SSPC) administered the Coating Application Specialist (CAS) Level II training, provided the National Association of Corrosion Engineers (NACE) Level I paint inspector training, and administered a 3-day SSPC C-7 blaster training course to the majority of shop personnel.

CAS training covered knowledge of bare metal surface conditions, removal of paint, attainment of a profile for applying new paint, and application of paint via the correct paint pump with compatible nozzle to achieve required mil thicknesses. Instruction assured that the painters' could demonstrate how to verify surface conditions and how to use appropriate gauges to determine wet film thickness and dry film thickness.

NACE training concentrated on surface preparation for painting via power tool cleaning or grit blasting; verification of surface readiness for paint applications, and how to ensure manufacturers' recommendations for paint products are understood and followed.

The SSPC C-7 blaster training identified components needed for grit or shot blasting; provided instruction on how to operate blasting equipment, and offered hands-on information on the set-up and placement of blasting equipment.

In total, 43 tradesmen of the Paint

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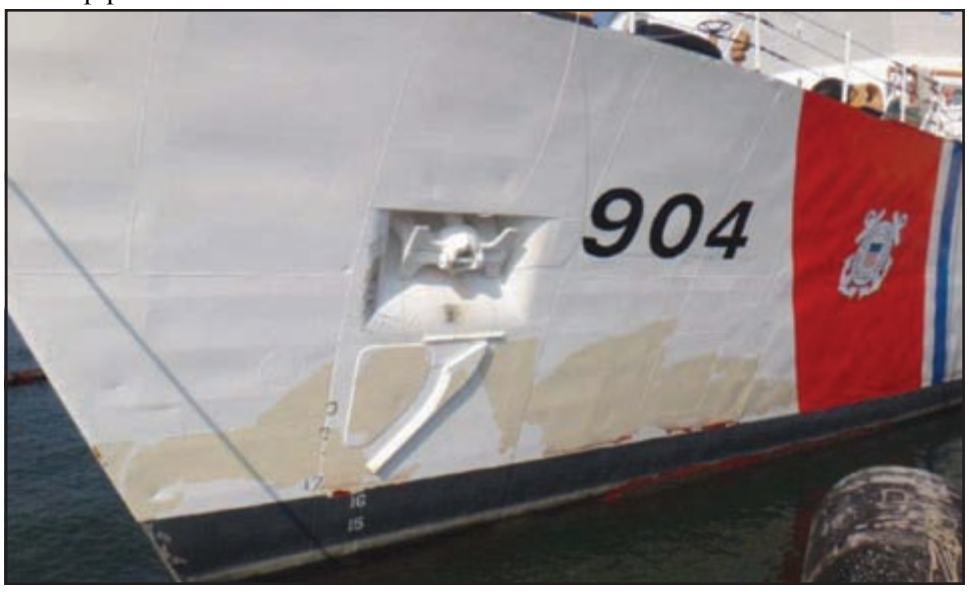

The 270' medium endurance cutter NORTHLAND underwent modernization as a Mission Effectiveness Project (MEP) from April 2010 to March 2011. As part of the MEP contract, painting and coatings of the cutter's underwater hull, body, and freeboard took place. As evidenced in the photo above, NORTHLAND reported paint failure to the port side, forward freeboard, boot-top and underwater hull in May 2011.

A NACE instructor (center) demonstrates measurement of wet film thickness of marine coating 302h zinc (a modified organic zinc) to Yard paint trade theory trainee, William Bittner, Jr. (right).

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Shop participated in paint training classes, striving for continuous improvement of Yard paint applications for their customers. In addition, such education was critical to the Yard's continued SSPC Qualification Procedure (QP-1) painting certification, originally bestowed by SSPC to the Yard in 2006 and successfully audited for the past seven years.

"We're getting better at what we're doing," remarked John Downes, General Foreman of the Yard Services Group that includes the Paint Shop. "We've gotten positive feedback from many of our ships since we began this training. The training gives our painters and blasters the ability to explain what their processes are to the customer and gives the paint leaders a greater understanding about how to verify proper tools and products used to apply paint. With this instruction, we can verify that systems are being applied properly with the correct surface preparation and in the right ambient temperatures. We are giving our customers the confidence that they are receiving the proper coating systems at the Yard."

In addition to needed technical education for paint applications, a change of painting culture was required to assure continuous improvement.

Final painting on the ships has all too often been pushed to the end of a cutter's availability, giving reduced time for the painters to accomplish their tasks and perform a quality job. Painters often have no choice than to work with less than ideal weather conditions since the ship is getting ready to depart.

"This produces a 'squeeze' on the Paint Shop," commented CDR Matthew Lake, Yard Industrial Manager. "We often put the Paint Shop in a no-win situation of having to accomplish too much work in too little time. But now, we have re-wickered the way we schedule and execute our repair availabilities."

The Yard has recently focused efforts on meshing painting tasks with other production schedules. The Yard Project Staff has implemented use of enclosures for painting, if weather mandated, as well as better planning strategies for the Paint Shop's sequence of work. To support the latter goal, availability schedules are being examined so they do not conflict, making it easier for paint crews to move from one project to the next.

"This effort, coupled with the expanded and proactive training for the Paint Shop, has produced a much higher satisfaction rate with our customers and has reduced our failure rates," commend Yard Project Manager Fred Brady.

Facilities improvements in the Yard have been designed and implemented to improve painting processes. The Yard recently opened a new paint complex. The $10M project provides new blasting, painting, and drying bays. The Yard is developing an enclosure system that will improve the painting environment for 87' WPBs availabilities. And the Yard is purchasing two water jet machines to in-source surface preparation; thus increasing flexibility and capacity for this critical step of the painting process.

The Paint Shop will see a budget increase of $146K for FY 14 over the previous fiscal year, and managers are developing a new surge paint requirements contract that will have fixed price features, thus increasing the shipyard's capacity and reducing customers' costs.

"There aren't any silver bullets," commented Eric Linton, Yard Business Manager. "This will be a long and involved process, and occasionally, there will be setbacks. We are, however, committed to improving our painting processes with better project management, more modern equipment, contracted services, and training for our personnel."

Recently, the 87' cutter SAILFISH arrived at the Yard in mid-September to begin an anticipated two month repair availability. Work involved repairs to the propulsion system, and the patrol boat departed for its homeport with a complete stem to stern paint job.

The Yard recently received the following comment from CWO Brian McCabe, Chief of Engineering Maintenance, Sector New York Detachment Sandy Hook. CWO McCabe remarked, "In my 20-years, I have been to multiple dry-docks and dockside maintenance periods. When

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CGC SAILFISH returned from the Yard to its homeport in Bayonne, New Jersey, I immediately noticed that its hull and superstructure paint job looked outstanding. It's nice to see how much pride was taken while conducting this work."

The Yard is primed for a pathway of continuous improvement in its painting processes.

"Painting cannot be an afterthought," said Captain George Lesher, Yard Commanding Officer. "We are changing our painting culture at the Yard and meeting with success!"

Eschenbach Receives Department of Energy Award

The Yard family congratulates Rick Eschenbach, Mechanical Engineer, Yard Facilities Management Department, on the receipt of a 2013 Federal Energy and Water Management Team Award bestowed at the Department of Energy (DOE) Federal Energy Management Program's 32nd Annual Award Ceremony. The festivities were held on November 6th in Washington, D.C. The ceremony is held each year during Energy Awareness Week.

The award program recognizes outstanding contributions to energy and water efficiency within the federal government, the nation's largest energy consumer. The goals of the program are to accelerate energy savings and cost savings; encourage innovative technology transfer; strengthen our national security, and help America decrease its dependency on foreign sources of energy.

The Secretary of DOE honored Rick and four other Coast Guard engineers for their implementation of a nationwide electric metering program. This year's honorees made significant achievements among the areas of energy conservation, renewable energy implementation, sustainable practices for high-performance buildings, and fleet & transportation management.

During FY12, the Coast Guard completed an aggressive, agency-wide advanced metering infrastructure project, with estimated annual savings of $624,000 (approximately 19.8 billion Btu's). Team members suggested installation of a robust meter network that provides wireless electricity data from 1,960 meters spread over 220 Coast Guard sites, including the Yard. The meters transmit electrical consumption data from individual electrical panels, buildings, and vessel shore ties to a local data acquisition server. Data from the advanced meters is used to identify opportunities for efficiency improvements, verify savings of efficiency measures, and streamline energy reporting processes.

The Coast Guard now has detailed data for these sites that account for 75% of total shore electricity consumption. Conservative estimates attribute a reduction of 2% in overall energy consumption due to installation of the meters. At this rate, engineers estimate the $8 million project will pay for itself in less than 13 years.

The meter for Buildings #3 & #31 (pictured at left) is was one of 96 meters mounted in various Yard facilities and shore ties, providing critical energy data for the project.

Milestones

Promotions

Keith Jordan, Painter Supervisor, WS-4102-9

Donald Benson, Electro Supervisor, WS-2801-15

Michael Griffith, Planner/Estimator (Shipfitting), WD-3820-8

Wade Lai, Electrical Engineer, GS-850-12

Robert Phillips, Painter, WG-4102-9

Welcome Aboard

SN Michael Cirrincione, MMA
FN Jordan Tushingham, MWR
Danny Glover, Heavy Equip Mechanic
William Kahler, Jr., Marine Machinery Repairer
William Kahler, Sr., Marine Machinery Repairer
Nabil Curtis, Pipefitter Helper Trainee
Robert Kaloc, Pipefitter Helper Trainee
Russell Brittian, Marine Machinery Mech Helper Trainee
Stephen Campbell, Painter Helper Trainee
Tyrus Dove, Painter Helper Trainee
William Sims, Rigger Helper Trainee
Devon Doyle, Rigger Helper Trainee
Rodger Pugh, Jr., Rigger Helper Trainee
Enidel Torres, Jr., Rigger Helper Trainee
David Scharf, Rigger Helper Trainee
Eric Neely, Logistics Mgmt Spec
David Malone, Engineering Tech
David Layton, Ship Superintendent
Simone Dzreke, Inventory Mgmt Spec
Sarah Wickenheiser, Naval Arch
Mark Thompson, Marine Machine Repair
Kristin Reich, Acct Tech
Charles Kane, Equip Spec

Baltimore Area Coast Guard Commands Celebrate Diversity Day

Guest artist Michelle Yu dances the "Elixir of Love" at the Baltimore Area Coast Guard Commands' 2013 Diversity Day celebration. The performance is a Chinese fan folk dance symbolizing the joy of a happy marriage or a reunited family.

The Baltimore Area Coast Guard commands held their 4th annual Diversity Day in the Yard's Columbus Recreation Center on November 4th. Military personnel and civilian employees enjoyed cultural exhibits, ethnic food sampling, and performances by guest artists. African-American, Hispanic-American, and Asian/Pacific-American performers provided cultural education as well as outstanding entertainment. Captain Katherine Tiongson, Chief, Office of Intelligence Plans & Policy, Coast Guard Headquarters, provided keynote remarks.

Those supporting the 2013 Diversity Day included the Yard, Surface Forces Logistics Center, Sector Baltimore, Asset Project Office Baltimore, ALD Mobile Support Unit, Coast Guard Baltimore Federal Women's Program, Coast Guard Spouses Association, Coast Guard Enlisted Association, Yard MWR, and SFLC Morale.

YARD NEWS

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Baltimore Chapter of CWOA Helps Those in Need

By CWO2 Mark Mackowiak, CWOA

Within the Coast Guard, there are numerous programs that are designed for a wide variety of action. Those actions range from, but aren't limited to, recognition of stellar performance, helping with children's programs, and assisting a Coast Guard family when they may need a little help.

For those programs to succeed, the Service relies on its people and its internal organizations for support. One such organization that had a very successful year in 2013 was the Baltimore Chapter of the Chief Warrant Officers Association (CWOA).

The 60 members of the chapter organized and managed five hot dog sales throughout the year to raise vital money for a variety of programs in the greater Baltimore area.

"Without everyone's help this year with the hot dog sales, we couldn't have made such an important impact," said CWO3 Joe Suarez, the Baltimore Chapter President. "We want to thank everyone for their support."

The chapter provides financial support to: Coast Guard Yard Spouses Association, Tom's Run, Kid's Camp, Angel Tree, Nathan Bruckenthal Run, Fallen Comrade Golf Tournament, Coats for Kids at Curtis Bay Elementary School, and the Enlisted Person of the Year program.

In addition, the chapter manages a popular annual event at the Yard - the turkey raffle during the holiday season.

"The turkey raffle is a good morale booster," said CWO3 Gabriel Snyder, the chapter's treasurer. "Once word spread about the size and quality of the turkeys that could be won, ticket sales soared," CWO Snyder said.

The Baltimore Chapter of the CWOA prides itself in being able to help so many organizations through financial means or staffing support. They plan on continuing the popular fund raising events for 2014 with its first hot dog sale in May!

Department of Homeland Security
U.S. Coast Guard Yard

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