



## Maintenance and Modernization

What do you think of when you hear about “Maintenance and Modernization”? Have you been at Electric Boat a long time? Did you just start working here recently? Both groups would likely have differing opinions about what Maintenance and modernization does because we have evolved over the last twenty years. Why should you care? With COLUMBIA coming aren't we on our “last” Overhaul?

Maintenance and Modernization means different things to different people because we do a few different things. We have four sites throughout the United States (Kings Bay GA, Portsmouth NH, Bremerton WA, and Pearl Harbor HI). We manufacture Ship Alteration kits (ShipAlts) for the Navy through the Planning yard and we also install them on ships in availabilities at the public Shipyards (Portsmouth, Pearl Harbor, Trident Refit Facility (TRF) Kings Bay, Puget Sound, and Norfolk Naval) as well as San Diego at Point Loma submarine Base and Groton Submarine Base directly for the Navy. If you have been in the trades for any appreciable amount of time you may have worked on an Extended Work Assignment (EWA) with us at the sites. We have taken many trades on the road with us, most recently to install the Large Vertical Array on USS TENNESSEE down in Kings Bay, GA.

As you probably know we are executing our first Engineered Overhaul (EOH) on USS HARTFORD in Graving dock No.2. At around 6 million man-hours expected at completion we are working to complete our first ever EOH in 48 months. This, and follow on work are important to Electric Boat and the nation for several reasons. First and foremost HARTFORD allows us to hire new trades and supervision ahead of COLUMBIA full rate Groton production. This allows us to bring people into the business and develop experience working on submarines conducting heavy duty maintenance and learning how to execute successful availabilities. If we waited until the COLUMBIA workload arrived in Groton, the hiring curve and experience base would not be achievable or set us up for success. But COLUMBIA is not the only reason that HARTFORD and future availabilities are needed at both Electric Boat and Huntington Ingalls (HII). The Naval Shipyards are struggling to execute the number of availabilities that the VIRGINIA and LOS ANGELES class maintenance plans require. Submarines are not finishing on time which means when their availability goes long, another that was scheduled to start, cannot start. If the boat

does not start on time it may be decertified and have to sit at the pier until the availability can start. HARTFORD was decertified for over a year before her availability officially started. VIRGINIA Class cannot have their hull life extended like the Los Angeles Class can so when a VACL goes long, it impacts potential future deployments. When this happens (and its happening now) this means that there are less submarines guarding our country and maintaining a readiness for war. If we were to go to war the need for national repair capability would be even greater, and as we are seeing on HARTFORD and our own previous history, this capability is not grown overnight. We must develop and retain experience at doing this work. The Navy recognizes this as a national issue and is working to award future availabilities to Groton after the HARTFORD finishes.

Additionally as much as new construction executes nuclear work (initial fill, power range test program, etc) it does not exercise our radiological “muscles” as much as commissioned ship work does. New construction reactor plants do not have the power history that commissioned ships do where radiological experience and proficiency become a constant factor to be taken into account and planned for.

But we have also begun doing other things as well. Within the last year we have begun manufacturing small assemblies, hangers, walking decks and other pieces of COLUMBIA and VIRGINIA Class submarines. We have expanded our footprint to do this, hired, and continue to hire in order to support this emerging skillset.

Hopefully by now you can see that Maintenance and Modernization is not just ShipAlt installation. It is critical to Electric Boat at this time in our history with COLUMBIA, and it is critical to the nation now and for the future of our national security if we are to be ready for war! The nation needs submarines at sea and that depends on both building new submarines for the fleet as well as repairing and returning operational boats to the fleet as fast as possible in the best condition possible!

**Jim Belz**

Director - Maintenance, Modernization, & Waterfront Ops

## CONTINUOUS IMPROVEMENT

### Safety Through Continuous Improvement

*"Give me six hours to chop down a tree and I will spend  
the first four sharpening the ax."*

Our health is one of our greatest individual assets. Without it, we are less able; or possibly unable to generate revenue through our income. Our health also provides us the ability to do the things we enjoy, making it essential to our happiness. Collectively, our health and well-being is critical to the ability of our company and therefore ourselves to be successful. When we consider these facts, continuous improvement in the pursuit of greater safety should be one of our top priorities as shipbuilders.

When we look at the way we are performing our work, one of the first questions we should ask ourselves is how can we do this safer and with less risk? More often than not, the safer means of doing something is also more efficient. While it almost seems like human nature to use that pair of water pump pliers as a hammer instead of walking to the toolbox, we must all be extremely aware of the return on investment that comes from getting that hammer (figuratively or literally).

When we approach any job here at EB or at home, we must realize that taking the time to find or develop a safer process, even if that means taking a step back or just going to get the right tool for the job can pay dividends. That additional time may initially be perceived as waste, but we all know the difference the right tool for the job can make. That extra time is an investment which will yield less risk, which in itself can be the difference between a relaxing evening with our family after work and an injury that takes us out of work or worse.

So the next time you start a job, look for a safer way to get it done. Ask your peers for their advice. It's the time to be selfish. It's the time to make an investment in yourself and your health.

#### Grassroots Process Improvements:

When creating a custom tool, fixture or jig to improve your process, make sure to also involve Safety, Engineering or any other appropriate team to make sure that it is compliant with their guidelines. You will see the reminder in the new CIAD for Grassroots ideas!

**Have a process improvement idea, or simply just want a board to bounce ideas off? Discuss your idea with your supervisor. If additional resources are required for implementation, your supervisor can contact Process Engineering.**

## **Keel of Future USS Tang is Well and Truly Laid**

Electric Boat held a keel laying ceremony for the future Virginia-class submarine Tang (SSN 805) on August 17, 2023, at the Quonset Point facility. The keel-laying is a ceremonial event in which the initials of the ship's sponsor are welded onto a plate to be attached to the submarine, marking a milestone in the construction of a ship.

SSN 805 Tang will be the third ship in the U.S. Navy to carry this storied name. The first USS Tang was a Balao-class submarine, SS 306, credited as the most successful U.S. submarine of WWII, sinking the most tonnage of any U.S. submarine—33 enemy ships—on five war patrols over the course of just 14 months.

“This ship represents our ongoing commitment to provide the Navy with the most capable and lethal submarines it needs to ensure our country's freedom in an increasingly contested undersea arena,” said Kevin Graney, president of General Dynamics Electric Boat. “It takes a diverse team of talented and dedicated professionals to design, engineer and build these remarkable machines, and each one of us comes to work every day knowing the safety of our sailors depends on the work we do.”

The ship's sponsor, Mimi Donnelly, is the daughter-in-law, wife and mother of U.S. Navy submariners. She was accompanied at the ceremony by her husband, retired Vice Admiral Jay Donnelly.

Speaking to the audience of Navy personnel, invited guests and Electric Boat employees, Donnelly expressed her appreciation for the technical expertise and exacting standards required to construct a Navy submarine.

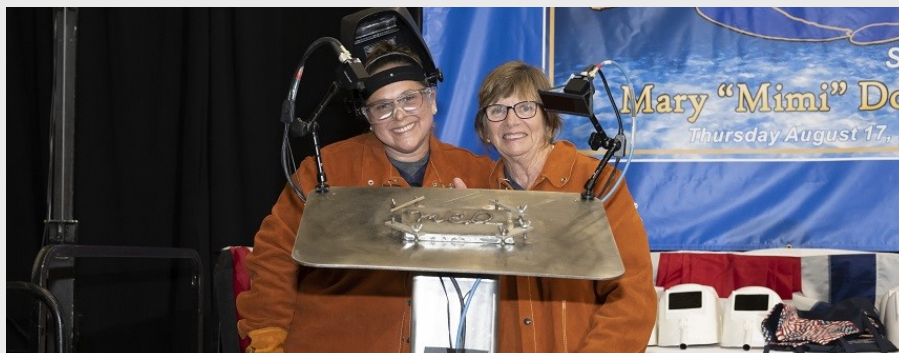
“As the wife and mother of submariners, when my loved ones went to sea I was comforted by the knowledge that their ships were the best in the world—expertly built, tested at every phase of construction and well-maintained—nobody does it better.”

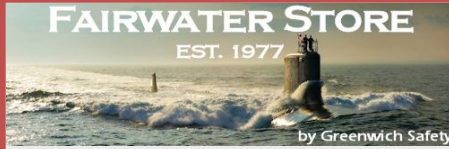
The keynote address was delivered by Vice Admiral William Houston, Commander, Submarine Forces. In his remarks, he stressed to the shipbuilders the importance of their work.

“I look at you, the workers, who build these magnificent submarines, and I just cannot thank you enough,” said Houston. “As a submarine force commander responsible for 25,000 submariners, you give us the best platform to operate in the world.” Houston continued by underscoring the role shipyard workers hold in the defense industry. “You are contributing to an enterprise of defense of the greatest nation in the world in support of freedom and democracy throughout the world.”

Donnelly joined Electric Boat welder Allison Fasulo of Warwick, RI, to help weld her initials onto a steel plate, which will be permanently mounted in a place of honor on the completed vessel. At the completion of the weld, Donnelly authenticated her initials and declared the keel “well and truly laid.”

Tang is the 32nd submarine in the Virginia class designed for the full range of 21st-century mission requirements, including anti-submarine and surface ship warfare and special operations support. Tang will be equipped with the Virginia Payload Module (VPM). The VPM comprises four large-diameter, vertical payload tubes in a new hull section inserted into the existing Virginia-class submarine design. The tubes enable the submarine to deliver a variety of capabilities, including weapons, unmanned undersea vehicles and other undersea payloads.





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**Hours of Operation**  
 Bldg 4: 9:30am to 4pm  
 Bldg 104: 8am to 4pm  
 New London: 7am to 2pm  
 7am to 1:30 Th.



## QP Weekly Safety Briefing

08/27/2023 – 09/02/2023

**200%**  
ACCOUNTABILITY

Is your  
 emergency  
 eyewash/shower  
 station ready  
 for action?



Week 36

**GENERAL DYNAMICS**  
Electric Boat

Policy Statement # 13: Electric Boat Corporation has established Occupational Health and Safety as the Company's Number One Priority.

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## DIRECTORY

*When calling from an outside line, remember to dial 433 and the last four digits of the numbers below.*

<b>EMERGENCY</b> .....	3-3333
Ambulance.....	3-3344
Fire Department.....	3-3617
EEO Officer.....	3-4167
Benefits.....	3-4201
Employment.....	3-7386
Environmental.....	3-2791
Ethics Hotline.....	1-800-433-8442
Payroll.....	3-3702
Safety.....	3-2811
Security.....	3-5530
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Timekeeping.....	3-6604
Training.....	3-0591
Yard Hospital.....	3-3470
Rad Con.....	3-5019

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