GENERAL DYNAMICS
Bath Iron Works

BIW NEWS

Vol. 3
2020

Crews Integrate DDG 122 Stern Unit

INSIDE

Federal Support for Enhancing the Workplace, Improving Material Flow

This summer, BIW was awarded a contract modification to improve performance building DDG 51s which included $70 million to improve delivery of materials and fund infrastructure improvements to enhance the workplace.

The funding was secured by Sen. Susan Collins through her role on the Senate Appropriations Committee with the strong support of Sen. Angus King, a member of the Senate Armed Services Committee. The investment complements more than $150 million already invested by General Dynamics in BIW facilities and equipment since 2018, aimed at increasing efficiency and improving schedule performance.

The initiatives incorporate extensive input from employees and will ultimately help us meet the needs of our Navy customer in the years ahead.

Left: an early rendering of what a lunchroom/ bathroom addition to the AB might look like. The plan has since evolved to include a three story addition to maintain a full-service tool crib as well.

WORKPLACE ENHANCEMENTS

BIW is making a major investment in worksite enhancements: refurbishing existing lunchrooms, bathrooms, muster sites and meeting spaces while also creating new crew spaces, locations for personal lockers and toolboxes and offices for front line supervisors.

The plan – which is already underway – seeks to improve the quality of the spaces where employees work and where they take breaks. Improving the worksite environment will help ensure that the culture at BIW reflects the value of our skilled employees and demonstrates the importance of what each employee is asked to accomplish every day.

"This investment is not about direct mechanic efficiency – it's about caring and valuing our people by providing Safe, Reliable and Well-Kept facilities" said **Vince Dickinson**, Director, Facilities.

AB/SHELL SHOP

BIW is spending $20 million of the federal contract award on major workplace improvements. The first $6 million will be spent making improvements at the Assembly Building and Shell Shop.

Bathrooms in the Panel Line and north end of the Shell Shop have already been upgraded. Future plans include new trade spaces and personal lockers - where employees

Authors: **Vince Dickinson**, Director, Facilities (left); **Brent West**, Vice President, Supply Chain Management & Quality

ON THE COVER

Safety Engineer **Dave Rogers** watches as the 354 stern unit is lifted into place at the aft end of the future USS John Basilone (DDG 122). The unit integration was the first time mechanics used the OpEx technique of "T minus" to engage all the crews participating. The ship is named for Medal of Honor recipient John Basilone. "He was all about his team, and 522 is rallying around the John Basilone name with a 'Team First' motto,"said Ship Superintendent **Steve White**.

can store their coats, hats and lunch bags – which will line the west wall and parts of the east wall. North end offices will be renovated and others added. In addition, a new three-story tool crib/bathroom/lunchroom addition will be built outside the east wall. The construction on the addition is scheduled to start next spring and interior modifications will begin over the winter.

"In combination with the new air treatment system currently under construction, these enhancements will make a dramatic improvement in the environment for people working in the AB," said Dickinson.

The workplace improvements are being augmented by a corresponding increase in cleaning and maintenance standards to ensure the spaces remain in good condition, according to **Jim Dostie**, Maintenance Operations Manager. This has included hiring an additional 17 Custodians and developing new cleaning procedures and standards.

Facilities such as bathrooms and break rooms in manufacturing areas like the AB are being renovated.

WATERFRONT

Another $14 million is earmarked to address worksite enhancements on the piers, starting with Pier 2. BIW is currently in the study phase to determine the best options for improvements, which will include soliciting input from mechanics who work in that area.

MATERIALS / KITTING TERMINAL

BIW will invest more than $40 million as part of an initiative to revolutionize how we receive, store, and deliver materials for our ship assembly and completion activities in the Main Yard. This critical initiative, which builds on process flow improvements implemented at the Consolidated Warehouse, will culminate in Bath with construction of a dedicated material kitting terminal. The purpose is to improve the efficiency and velocity of manufacturing by increasing the predictability and reliability of material delivery and short-term storage.

The new kitting terminal and associated processes will enable BIW to kit material for just-in-time delivery and presentation to ship assembly activities throughout the Main Yard.

We see a future in which only necessary materials are staged at the job site for near-term assembly, complemented by a rapid and predictable delivery system from the kitting terminal to provide materials as they are needed in the production workflow. BIW shipbuilders will have the material they need – when they need it - in well-organized kits. We will minimize buffer areas, including Rubb tents, for material awaiting installation. This, in turn, will reduce the amount of lost and damaged material.

Project leaders intend to release a request for proposal (RFP) for the kitting terminal in January 2021. While construction is targeted to start in late 2021 with completion in 2022, we can expect to see the critical process changes needed to make this kitting terminal effective begin immediately.

What a future kitting terminal might include. The goal: optimize material flow for the Main Yard for inbound receiving, storage and outbound order fulfillment.

BIW NEWS

BIW News is published quarterly by the Communications Department (D94) of Bath Iron Works and is produced internally in the BIW Print Shop.

COMMENTS AND SUGGESTIONS ARE WELCOME

Forward to David Hench at Mail Stop 1210 or by email at **david.hench@gdbiw.com**

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Toll free information on facility status, work shift delays, and cancellations:

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MAIN GATE SECURITY (24/7)

(207) 442-2266

AMBULANCE-FIRE-POLICE

Bath, Main Yard: **ext. 2222**
Structural Fab, Outfit Fab, CW: **ext. 1222**
Bissons, CROF: 911; then call **ext.1222**

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BIW REC ASSOCIATION

For questions or suggestions regarding BIWRA programs email **biwra@gdbiw.com**

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EMPLOYEE SPOTLIGHT

JEFFREY DUNCAN

Title: Sr. Project Manager

Years with BIW: 13

Dept: 05 Estimating

TELL US A LITTLE ABOUT YOURSELF

I grew up in Portland, Oregon and graduated from Oregon State with a degree in Chemical Engineering. I worked at US Gypsum in Los Angeles, Nevada, Chicago and finally Lisbon Falls. Along the way I got married, had 3 children and now have 2 grandchildren with one more on the way in October.

DESCRIBE YOUR ROLE AT BIW

I work in Contracts/Estimating in the Finance group and my job includes running pricing models for some of the larger sized projects and preparing proposals for new business. Most recently I have been working with Engineering's Advanced Concepts group helping them prepare proposals for Office of Naval Research funding.

WHAT IS THE BEST PART OF YOUR JOB AND WHY?

I love it when the numbers reconcile. I also enjoy the people I work with. There are a lot of very bright and interesting people at BIW.

WHAT IS THE TOP CHALLENGE THAT YOU FACE IN YOUR JOB?

Sometimes there are communication issues because different areas within the yard use different languages.

DESCRIBE YOUR HOBBIES?

My "active" hobby is tennis. It's a great sport that you can play well into your later years but I encourage people to take it up at as early as possible, when your knees, shoulders, and other joints are still working well.

A "less active" hobby of mine is making stained glass windows. It's something I learned years ago. This went into hibernation while the kids were growing up. Then one day, an acquaintance bought two 7 ft. tall cathedral windows at an auction. She heard I did stained glass and she was sure I could restore these 100-year-old windows. I took it on and have continued since. I mostly create windows of birds, fish, flowers, Celtic designs, and even biblical pictures. It's an art form that suits me because, although the finished product is colorful and eye-catching, the process is more like a construction project similar to shipbuilding.

WHAT IS ONE THING MOST PEOPLE DON'T KNOW ABOUT YOU?

I worked in a "company town" for four years. Empire, Nevada had a population of about 250, all company employees or family. For groceries, clothes, doctors, dentists, having babies, etc. you pretty much had to go to Reno, which was 100 miles away. We had two children while we were out there. It was a different kind of life. When the plant shut down, it made the national evening news.

WHAT IS YOUR FAVORITE FOOD?

Eating in: My wife's version of Pad Thai. Eating out: Dumplings from the Empire restaurant in Portland.

NOMINATE our next employee for the Employee Spotlight today by emailing **rebecca.volent@gdbiw.com**

By Michael Clarke

Bonhomme Richard Disaster Shines Spotlight on Fire Safety

On July 12 at 8:50 a.m., fire broke out on the USS Bonhomme Richard (LHD 6), an amphibious assault ship berthed at Naval Base San Diego for maintenance. Hundreds of firefighters fought the blaze, which burned for five days.

"There is fire and water damage to varying degrees on 11 of the 14 decks" said Admiral Michael Gilday, Chief of Naval Operations, describing damage from intense heat, fire and explosions. More than 60 civilian and Navy firefighters were injured fighting the fire.

In the early hours of the fire, BIW Fire Chief **Mike Clarke** was in contact with the Navy. While much information about cause and response remains under investigation, as Chief Clarke points out below, the experience drives home some key facts about fire safety and preparedness at BIW.

WHAT CAN BIW LEARN FROM THE BONHOMME RICHARD FIRE?

We review all maritime fire events because there is always on opportunity to learn from an event like this. The focus with this fire will initially be on the reliability of that ship's firefighting systems. Here at BIW, ship suppression systems are under construction. Rather than rely on them, our initial firefighting efforts incorporate city water supplies at the piers, fire engine pumps, hose and equipment from our department as well as mutual aid from fire departments in nearby communities.

We work continuously on skill development with shipboard Live Fire training classes at the Maritime Firefighting School and Symposium in Virginia Beach. But we also know we lack the capability for sustained operations for a ship fire here in Bath. Bath is much smaller than San Diego, Virginia Beach or Jacksonville. Getting the numbers of firefighters available to these communities is not possible here.

Our approach is an aggressive fire attack with a very small crew of firefighters. That means here at BIW, we have to continuously evolve in our firefighting planning, training and risk evaluations.

WHAT CAN BIW EMPLOYEES DO RIGHT NOW TO IMPROVE FIRE SAFETY?

In the early stages of a fire, seconds are crucial. All of us need to work to maintain clear paths to water supply at the piers and OST's, maintain open fire lanes for emergency vehicles; and engage in real, productive housekeeping efforts every day. Clutter and excess cardboard, wood and other combustibles should be removed from work areas. Every item that blocks, slows down or interferes with a firefighter's efforts increases the chances that BIW could lose a ship, similar to San Diego or in 2012 at Portsmouth Naval Shipyard when the nuclear submarine USS Miami was destroyed by fire.

Fire Chief Mike Clarke answered fire safety questions following the fire on LHD 6.

HOW IS FIRE DANGER INCREASED ON BOARD A SHIP?

Firefighters have added dangers facing them because of the steel construction which makes it hard to vent heat which gets trapped like an oven. Firefighters face entanglement from tubes, airlines, lines and leads, heavier smoke conditions and limited escape paths. Air supply gets used more quickly on a ship fire. These all affect firefighter effectiveness, safety and survival.

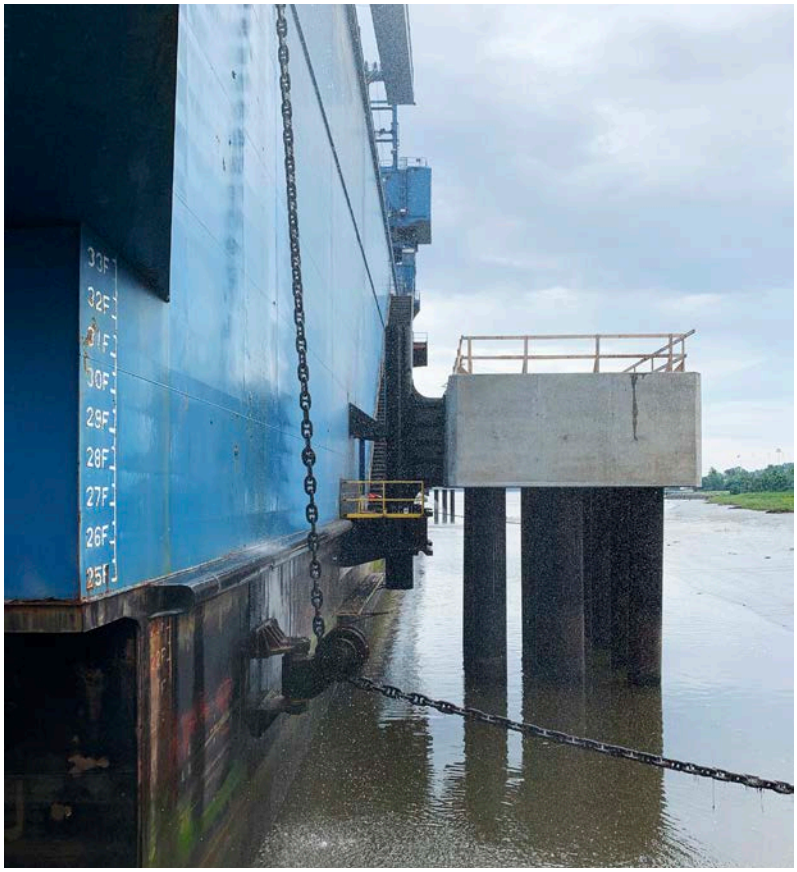
DO MANAGERS HAVE A PARTICULAR RESPONSIBILITY TO FOCUS ON THIS?

Absolutely! Leaders need to be sure all employees understand the importance of clear access into and around the ship, through fire lanes and to water supplies. Mustering and accounting for crew members guarantees everyone is off the ship and accounted for during a drill or actual emergency.

Regardless of who is working on a ship, everyone must stay aware. Fire does not care if you are management, tradesman, firefighter, vender or subcontractor…Everyone must make fire preparedness part of the job every day.

*Learning about **Safety** is part of the job.*

New Dry Dock Berth Takes Shape



The drydock clamps on to a new 'mooring dolphin' that will anchor it in place near shore at the south end of BIW.

Just south of the shipyard, massive pilings tied together with cement have been erected in the shallows of the Kennebec River, soon to be a new home for the BIW dry dock. Called "mooring dolphins," the structures will provide secure mooring points for the dry dock when it is floating.

Floating Dry Dock #3 was originally designed to rest on a series of beams to facilitate the transfer of ships from Land Level into the dock prior to launching. For twenty years, the dock has rested on these beams when not actively launching a ship. This system has worked very well, but creates difficulties when trying to do certain maintenance activities.

As part of the mid-life upgrade and repairs being made to the dock, a mooring system was designed to allow the dock to float securely alongside Land Level, when not engaged in launching ships.

"This system will allow the full spectrum of maintenance activities to be efficiently completed, and should assist in prolonging the useful life of this critical asset," said Dockmaster **Nathan Power**.

The system is comprised of mechanisms built into the dry dock that lock around twin vertical pillars which are suspended out of the water. The system prevents the dry dock from drifting away but allows it to rise and fall with the tide. The system was tested Monday, July 27, and passed with flying colors.

All construction activities on the yearlong project have been performed by Reed & Reed with support from the BIW team when needed.

DRYDOCK MOORING DOLPHINS, BY THE NUMBERS

52 | **Tons of additional steel incorporated into the drydock**

254 | **Yards of cement used to make each dolphin**

24 | **Pilings of steel and concrete drilled and anchored in bedrock**

Testing the new mooring dolphins which will anchor the dry dock in place, while letting it rise and fall with the tides.

Global Rivals Pose Real Intelligence Threat

One of the goals of the BIW Industrial Security team is to raise awareness by briefing employees on important security topics.

Currently, a major security concern for the U.S. government is China's pursuit of American defense technology.

Even as our ships enforce freedom of navigation in the South China Sea, which China claims authority over, people working for the People's Liberation Army or on behalf of the Chinese government are trying to obtain intellectual property through illicit means.

The Chinese government has allegedly used LinkedIn to recruit professionals, hacked into defense industrial base computer systems, had workers join university research teams and used shell companies to acquire sensitive technology.

In one recent case, a Chinese company created a Canadian company, which purchased an American company, in an effort to circumvent The Committee on Foreign Investment (CFIUS). Using the series of shell companies, China attempted to illegally obtain the Navy's submarine resuce technology used to rescue submarine crews from as deep as 2,000 feet.

China uses many avenues – called vectors – to obtain information to support its strategic goals. M&A represents mergers and acquisitions, a technique recently used to get advanced submarine rescue technology.

In another example, a Chinese professor and creator of a Houston-based company - owned by a Chinese parent company - is serving 16 months in prison after recruiting employees through LinkedIn who stole the intellectual property from their employer to create syntactic foam. The foam helps our Zumwalt-class destroyers evade radar. Employees who had worked making the foam had signed Non-disclosure agreements (NDA's) not to disclose information on the process, but did provide it to their new employer – which enabled the Chinese to set up their own syntactic foam manufacturing process in China.

According to the Congressional Research Service, "Made in China 2025" – that country's industrial advancement initiative - lists high-tech maritime vessels and equipment as one of its top three priorities. China employs a number of strategies, as outlined in the graphic above.

While our sailors use our ships to protect U.S. interests at sea, we need to remain vigilant and do our part to protect intellectual property at home.

For more updates on current threats, check BIW Security Connections which is located on the intranet under Industrial Security in the security awareness section or look for one of the orange Security Connections dispensers located in the shipyard.

BIW Welcomes Security Director

MaryJo "MJ" Thomas joined BIW as Director of Security in July after more than 20 years with the FBI, most recently in counterintelligence as the Senior Advisor to the Department of Defense.

She is responsible for providing oversight and direction for all BIW Security functions including Plant and Physical Security, Cyber-security and Industrial Security.

She holds a Bachelor of Arts degree from Providence College and graduated from the Rhode Island Municipal Police Training Academy and the Academy of Military Science.

Her experience includes national security, protection of defense weapons and technology, crisis management and investigative leadership. She has also served as a U.S. Air Force law enforcement specialist, an Air National Guard logistician and a K9 handler with the Rhode Island Fire Marshal's Office.

She and her husband, a retired member of the FBI Hostage Rescue Team, now live in the Midcoast and are enjoying learning about life in Maine.

By BIW Benefits

MDLIVE Telehealth Services Available at No Employee Cost Through 2020

BIW has waived all cost sharing related to MDLIVE telehealth visits through the end of 2020. This means that your deductibles, co-pays and co-insurance will not apply while seeking services through MDLIVE until 2021. Employees and their dependents who are covered on a BIW Health Plan can utilize MDLIVE in order to receive virtual medical and behavioral healthcare 24/7, 365 days a year.

MDLIVE offers a wide variety of care for minor medical conditions. The board-certified physicians at MDLIVE can diagnose and treat more than 80 routine conditions, allowing individuals to receive treatment from anywhere. MDLIVE physicians are also trained in identifying the symptoms of COVID-19, and can advise on the next appropriate steps.

Employees and their covered dependents are also able to use MDLIVE to speak with a licensed therapist, social worker or counselor. These behavioral health professionals can provide support for emotional health issues such as stress, life changes, depression, addiction or grief, allowing individuals to set-up regular visits with the same provider.

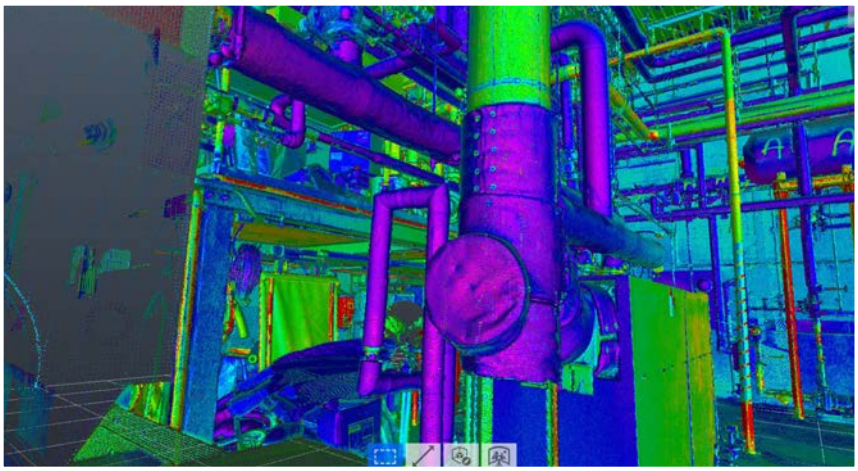
Employees and their covered dependents can access MDLIVE online at MDLIVE.com/gd or by calling 1(800) 657-6169 or by texting GD to MDLIVE (635483).

Employees and their spouses can also access MDLIVE through the Healthy Rewards app powered by Castlight. When registering for MDLIVE, enter "Bath Iron Works" in the employer field and your Cigna ID number (found on your medical card) in the Subscriber ID field.

Bath-built USS Farragut (DDG 99) returns to its homeport, Naval Station Mayport, Florida on June 14, 2020 after a successful nine-month deployment. Farragut was supporting maritime security and stability in waters around Europe, Africa, the Middle East, Central and South America, as well as the United States.

OVER THE
HORIZON

LiDar Scans Aid Planning Yard Designs



When a group of BIW Engineers and Designers had to suddenly leave Yokosuka, Japan, because of COVID-19, they cut short the shipcheck for USS Donald Cook (DDG 75). Fortunately, a scan using a LiDAR tool was completed several months prior to the later shipcheck effort that was cut short.

After abruptly heading home, designers were able to call up precise, digital images when deciding how to install new or replacement equipment and systems. That's because the scanning tool does more than just take a picture. It logs more than a million location points as it spins 365 degrees, capturing exact measurements between points.

"It's like a range finder for golf or hunting, but instead of single points, it's capturing 900,000 points per second," said **Kirsten Walkup**, Planning Yard Section Manager. "It takes a photo while rotating, then overlays photo on the points, then provides point to point measurements anywhere in the space."

LiDAR works by emitting a laser and measuring the return distance to give accurate locational and dimensional information, which can then be used to determine the distance between any two points in the scan. The core technology is used in everything from map making to assisting autonomous cars.

It's increasingly a go-to tool for ship designers.

"It gets used every day by more than half the crew," said **Dave Sherburne**, a BIW Designer. "They'll pull up a photo and something doesn't make sense, so they pull up the scan of the space and get actual measurements. I don't know how many times a week I hear 'I checked the LiDAR and confirmed it will fit."

If planned alterations conflict with each other, the scans can be used to relocate a power panel for instance without having to go back to the ship.

LiDAR technology was used when BIW had to develop a rail system to remove one of Lyndon B. Johnson's main turbine generators and test to make sure the 15,000 pound machine safely fit through the winding route from the engine room up 40 feet to the flight deck.

The BIW Planning Yard is finding new ways to take advantage of the tool and the information it provides.

"What we'd like to do is take our scans, develop a pre-shipcheck design so we approach our ship checks with the detailed information to create a more accurate, high quality product," Walkup said.

The Planning Yard has its chance. With a ship check coming up later this year, BIW personnel performed LiDAR scans of USS Chafee (DDG 90) in Hawaii.

"We're using that information to do some pre-design briefing…People will know exactly what they're looking at before boarding that ship," Walkup said.

The scans also represent a strong training tool. "It puts technicians in the spaces before they get down there so there are no surprises once they set foot in a scanned space," Walkup said.

Planning Yard personnel have conducted extensive scans of more than a half dozen DDG 51s and they expect to do more. "What the Navy is pushing for is a digital twin of as-built conditions," he said.

Together, On Time, Every Time: It Takes Many Hands to Build a Navy ship

When the Test and Trials team puts the damage control measures on DDG 1002 through its paces later this year, they will be demonstrating more than just a collection of pipes, controls and sensors. They will be testing the skill, ingenuity and precision of a wide range of BIW shipbuilders who all contribute individually to the final product.

People from departments throughout BIW bring their specific expertise to design, build and support the ships we build for the U.S. Navy. By understanding each other's work and how that work impacts the overall shipbuilding schedule we are all better able to support each other and reach our delivery goals together, on time, every time.

Here are a few of the stages and support networks which make our essential work possible, using an example of a ship's all-important fire suppression system:

Functional engineers work with the Navy to determine the type of suppression system, its capacity, and the size and strength of the pipe to be installed.

Designers route the pipes and figure how the system will be installed around all the other ship systems in such a way that it does not compromise other functions and can be serviced. They then draft the final engineering bill of materials and detailed sketches for how to install the system components in each ship compartment. Sometimes that means dozens of spaces which each reflect pieces of the system.

"Every part of every ship is built over-and-over again in the virtual world to enable the craftsmen to actually make it once in the yard," said **Paul Franklin**, Sr. Principal Engineer and head of the Advanced Concepts group. "These 3-D models are reviewed by the engineers to confirm their functional design has been implemented correctly, by the Navy customer to confirm their requirements have been interpreted correctly, and by experienced shipbuilders who confirm the design can actually be built."

Supply Chain Buyers must investigate sources for the raw material once the construction plan is in place that can meet rigorous military specifications and yet be competitively priced.

Mechanics at Outfit Fabrication take pipe stock and use advanced machinery to bend sections into the twists and turns needed to fit a given space.

The timing of each of these steps is important. For example, if the materials are assembled too soon, they will need to be stored so they are not cluttering a work area - too late and the mechanics who will install them don't have what they need to do their job.

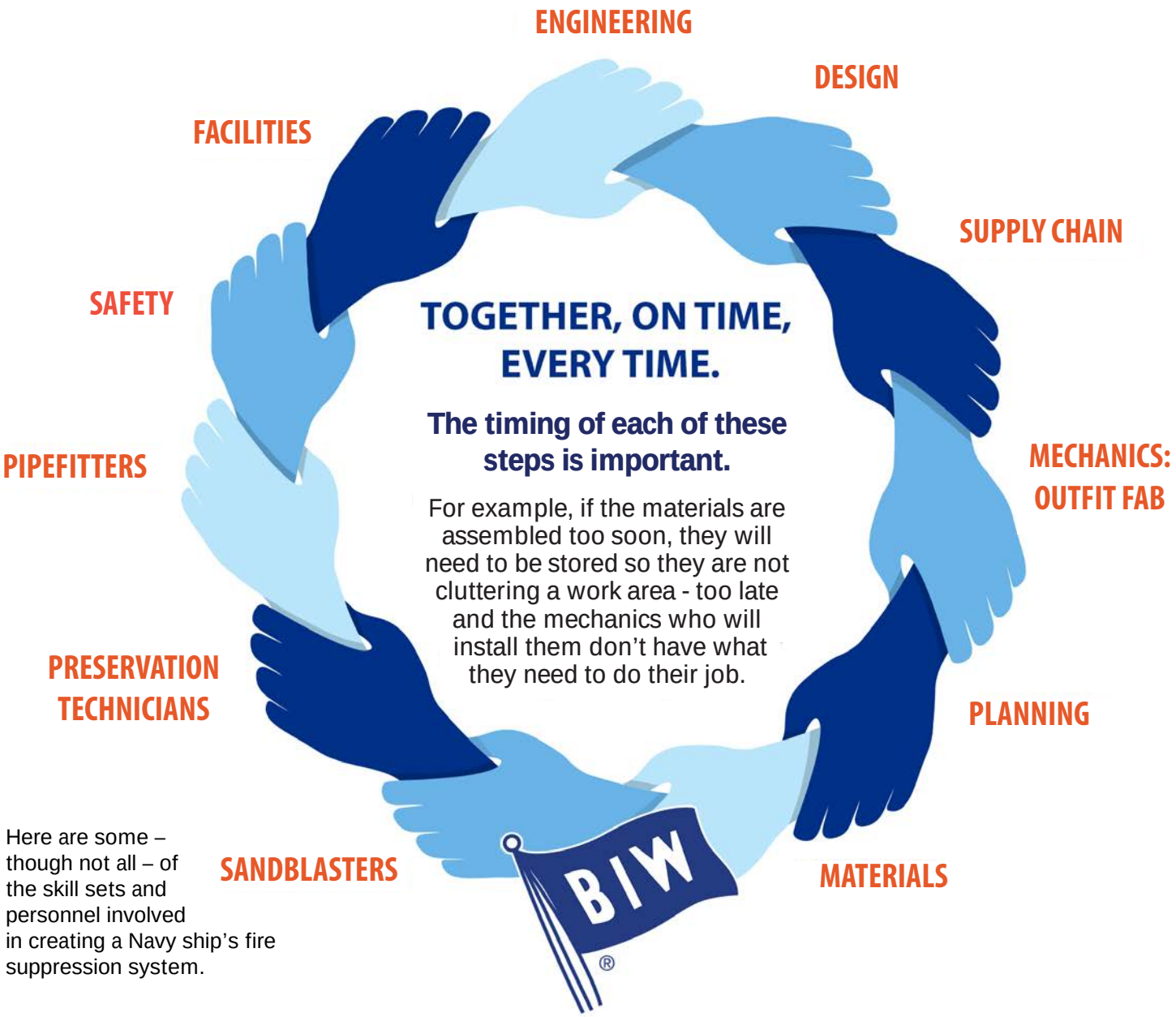
The Planning Department is charged with calculating when material needs to be available so it can be installed and based on how long that project will take, when other outfit can be added to ship units. Planning is responsible for sequencing the entire ship construction to make sure the ship is built efficiently and making best use of the people available to work on it.

Supply Chain works closely with Planning on managing the storage and movement of materials by Materials Handlers so the supplies are available when needed and not obstructing other work.

Sandblasters make sure the steel is ready to be painted and Preservation Technicians use an engineered process to apply the protective coating to the pipe so it will last.

Pipefitters connect the sections as each ship unit is combined, torqueing flange bolts to the exact tightness required to hold the sections together under extreme pressure.

All that work is made possible by a number of support divisions, like **Safety** helping reduce the chance for injury and **Facilities** making sure the right tools are available and in good working order and **Payroll** making sure employees' can meet their financial obligations at home.



Here are some – though not all – of the skill sets and personnel involved in creating a Navy ship's fire suppression system.

Once the ship is fully integrated, the test and trials team goes through each system to make sure it is ready for sea trials. All that work is put to the test and it must pass with flying colors to satisfy the U.S. Navy and its Supervisor of Shipbuilding. More importantly, it must protect the U.S. sailors who will bet their lives on it.

"With over 25 miles of piping on a DDG 51-class destroyer, every process from Fabrication to operational testing and then selling each system to our Navy customer has to be well executed," said **Doug Murphy**, Superintendent in the DDG 1000 program. "It takes every branch of our company working together to get to the end product when the ship sails down the Kennebec," Murphy said.

Every day, BIW shipbuilders are doing exceptional work. Let's celebrate it. Like one athlete complimenting another on a nice play, show your respect for standout performance by giving a co-worker a fist bump. Send details to **fistbump@gdbiw.com** or go to **gdbiw.com/fistbump** to learn more.

With the support of BIW, the Mary E, the oldest Maine-built wooden fishing schooner still afloat, was available to the community for free tours on Aug. 2 and 21. Visitors were able to tour the ship and learn about the vessel, built in 1906 on land that is now part of the BIW shipyard.

In Remembrance

Gary E. Blais
June 9, 2020
31 years
Machinist III

James E. Kaler Sr.
June 12, 2020
39 years
Leadperson II

Carl P. Ozzella
June 18, 2020
28 years
Planning Tech

Randolph H. Emerson
June 20, 2020
28 years
Welder III

Earl T. Eastman
June 21, 2020
18 years
Maint. Carpenter, Double Craft

Edward B. Shorey
June 28, 2020
22 years
Tinsmith III

Anthony G. Hill
June 30, 2020
42 years
Tinsmith III

Louis P. Provost
July 1, 2020
14 years
Leadperson I

Raymond C. Hanna Sr.
July 6, 2020
22 years
Insulator III

Paul L. Vachon
July 9, 2020
39 years
Welder III

Maurice R. Cloutier
July 12, 2020
33 years
Ship Support

William S. Morse
July 12, 2020
41 years
Technician III, Engineering

Cleon W. Mains
July 18, 2020
26 years
Struct. Fitter, Double Craft

David W. Peck
July 18, 2020
18 years
Preservation Tech, Double Craft

Ronald G. McCarthy
July 21, 2020
27 years
Engineer III, Q/A

James B. Richardson
June 24, 2020
31 years
Manager

Gerald J. Pepin
July 25, 2020
35 years
Sr. Engineer, Project

Drew W. Butler
July 27, 2020
41 years
Front Line Supervisor

Welcome Aboard New Hires!

JUNE

Abreu, Mark Rogers	2001
Baltazar, Raz Rodriguez	4900
Binette, Tristan Robert	4600
Blatt, Tobyn Isaac	8704
Boumil, John Joseph	8700
Cahanding, Christopher Herrera	8600
Coleman Pray, Alec Joseph	4600
Colvin, Claire Hatfield	4001
Edwards, Kaleb Rogers	6200
Farrin, Joshua Paul	4001
Gogan, Sage Allan	8000
Herbert, Alexander Jeffrey	4001
Hubmann, William Wade	1000
Hunter, Paul Jeffery	0700
Huot, Daniel Richard	4001
Keefer, Christopher Jack	1000
Kelley, Griffin Thomas	8700
Leeman, Travis Lintner	8000
Libby, Brian Thomas	8600
O'Neal, Tara E.	8700
Parsons, Evan Michael	0120
Payne, Sarah Jean	4001
Peabody, Cassandra Marion	4600
Perkins Jr., William Vincent	6200
Poitras, Hunter Mark	0500
Porter, Mikaela Lynn Cameron	4600
Rowe, Todd Joseph	0700
Simard, Maria Bertha	6200
Spellmeyer, Blaize Robert	8600
Starkey, Joseph Sumner	4600
Thompson, Philip Wilson	0700
Thomson, Sarah Margaret	0700
Towle, Jacob Thomas	4600
Ventresca, Cody Thomas	3200
White, Sean Tyler	2602
Wilson, Joshua James	2606
Witham, Dylan Niles	8600

JULY

Harris Jr., David Winslow	0500
Libby, Shawn Preston	0606
Thiboutot, John Henry	0606
Menendez, Kathleen Victoria	8601
Emmons, Brendan Patrick	8700
McGivaren, Booth Nathaniel	8700
Horne, Joshua Alan	8700
Frenier, Joseph David	8700
Louis, Scott Edward	8700
Hedeman, Donald Thomas	9900
Pallozzi, Edie Nicole	8200
Stoddard, Raymond Joseph	8600
Pulido, Allan Lejero	9000
Leavitt, Ryley Tanner	9900
Levy, Noah Branden	4600
Thomas, MaryJo	2606
Temple, Madison Lea	2602
Charters, Mikayla Lynn	4600

STRESS SIGNS

Pre-Schoolers
Thumb-sucking, sleep disturbances, bedwetting, clinging to parents, loss of appetite, fear of the dark, regression in behavior, withdrawal.

Elementary-age
Irritability, aggressiveness, clinginess, nightmares, school avoidance, poor concentration, withdrawal from activities with friends.

Teens
Sleeping and eating disturbances, agitation, increase in conflicts, physical complaints, delinquent behavior, poor concentration.

Source: National Association of School Psychologists

The COVID-19 Pandemic has caused a lot of change and uncertainty among families with school-aged children. Whether you are a parent, grandparent, caregiver, aunt or uncle, you may have felt new stress and emotions as everyone prepares for the upcoming school year. Change such as this can be especially challenging for children. While there are always back-to-school adjustments, the transition may trigger more concerns this year. Children of all ages may show signs of stress as they adjust to the many changes like: hybrid classroom settings, virtual learning, and having to follow new safety protocols. It is important to be aware of the signs and seek support as we navigate these challenges.

Life365, available through Cigna's Employee Assistance Program, provides support to BIW employees and their family household members of any age at no cost. Life365 offers eight face-to-face or telephonic sessions per issue, per year.

Life365 is 100% confidential and is available 24/7, 365 days a year, at no cost to employees. Employees and family household members can contact Life365 with an unlimited number of consultations to explore what options may benefit them. Call 877-622-4327 or visit online at www.myCigna.com. (Use BIW for the Employee ID for initial registration only.) If you are already registered on myCigna.com, simply log in and go to the EAP link under the coverage tab.

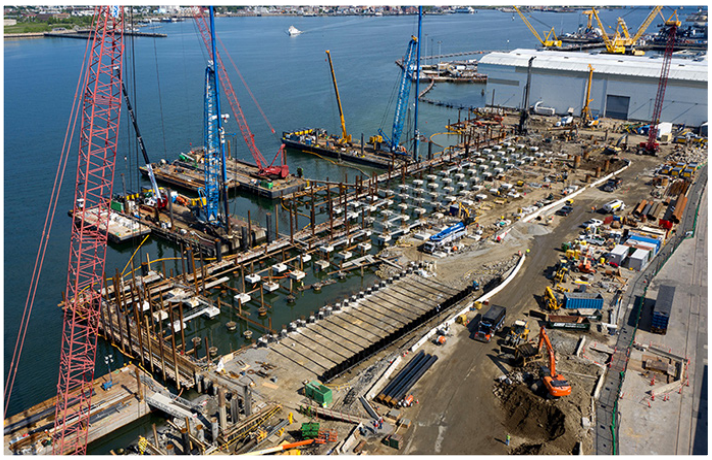
NEWS FROM OTHER
GD BUSINESS UNITS

NASSCO Christens "Con-ro" Ship Matsonia

In July, NASSCO and Matson, Inc., christened the second of two Kanaloa Class vessels, the largest combination container / roll-on, roll-off ("con-ro") ships ever built in the U.S. The new vessel was christened 'Matsonia' in a ceremony at the NASSCO shipyard in San Diego, California.

Based in Honolulu, Matson named the Kanaloa class in honor of the ocean deity revered in native Hawaiian culture. Matsonia is 870 feet long, 114 feet wide, with a deep draft of 38 feet and weighing over 50,000 metric tons.

NASSCO President **Dave Carver** said: "This extraordinary vessel is a testament to the hard work, unity and strength of our thousands of dedicated shipbuilders who made this possible."



EB Expanding to Build Columbia Class

Electric Boat has signed a $544 million contract to complete construction on the 200,000-square foot South Yard Assembly Building in support of building the nation's new class of ballistic-missile submarines.

EB is the prime contractor on the design and build of the 12 ships of the Columbia class, which will replace the aging Ohio-class of ballistic-missile submarines. Final assembly and test of the Columbia class will start in 2024.

"General Dynamics Electric Boat continues to make investments – in facilities, in our supply chain and in the next generation of shipbuilders – to support the Columbia class, the Navy's top strategic priority," said EB President **Kevin Graney.** "Efficient completion of the SYAB will position us to begin delivering the next-generation of ballistic submarines in advance of the Ohio-class retiring from service."

Below: Combination container / roll-on, roll-off ("con-ro") ship 'Matsonia' is Christened at NASSCO.

Service Anniversaries

JUNE

Dept	Name
45 Years	
10	Dennis, Peter
40 Years	
09	Perron, Richard
50	Callan, Sean
15	Peaslee, William
10	Plummer, Elaine
30 Years	
15	Dowe II, Richard
27	Levesque, Kevin
43	Chaput, Randall
27	Cadman, Ralph
27	Anthony Jr, John
25 Years	
17	Colson, Shawn

Dept	Name
10 Years	
19	Moskevitz, Andrew
43	Wick, David
10	Hinkley, Aaron
5 Years	
15	Lash, Matthew
27	Purintun, Randall
10	Gilbert, Ronald
50	Clark, Alexander
27	Everett, Jamie
19	Cantin, Brian
09	Eaton, Randy
19	McCollett, Jahanna
80	Blais, Peter
15	Travis, Sean
50	Estey, James
10	Beaule, Matthew
27	Willett, Tyler

Dept	Name
19	Peters, Randy
81	Collins, Patrick
27	Parker, Christopher
86	Hinkley, Corey
86	Cross, Brentten
87	Alexander, Dustin
86	Hodgkins, Daniel
86	Black, Caleb
57	Coulombe, Rick
75	Whitney, Richard
87	Tracy, Chad
86	Craven, Gregory
86	Colfer, Joshua
41	Rossignol, Andrew
41	Bailey, Myles
41	Poulin, Allyson
86	Trueworthy, Andrew
86	Caldwell, Joseph
01	Crowe, Thomas
86	Hartford, Eric

Dept	Name
06	DeLoge, Rickey
24	Skiff, Elias
24	Whittemore, Steven
81	Harrison, Frank
20	Daly Rancourt, Joseph
20	Cunio, Ryan
91	McKenney, Zachery
84	Woodward, Brandon
84	Hunt, Blaine
84	Farley, Ryan
84	Theriault, Matthew
84	Day, Griffin
84	Foster, Kimberly
81	Braley, Dylan Zane
81	Frost, Jacob Cameron
84	Russell, Logan Anthony
86	Campbell, Matthew Stephen
86	Crocker Jr, Courtney Lee
87	Millett, Sarah Marie
87	Tarleton, Patrick Kyle

JULY

Dept	Name
40 Years	
09	McPhee, Gerald
09	Shaw, Raymond
10	Pelletier, Nancy
27	Garant, Raymond
86	Lailer IV, Arthur
86	Boisvert, Roland
30 Years	
07	Mitchell, Mark
07	Peaslee, Philip
09	Porter, Kurt
15	Griffin, Michael
19	Myers, Glen
43	Hayes, Edward
50	Coulombe, Mark
20 Years	
84	Smith, Ronald
15 Years	
41	Brown, Robert
41	Greenbaum, Wendy

Dept	Name
10 Years	
10	Kunde, Eric
43	Richards, Brandon
43	Chase, Eric
5 Years	
07	Malmstrom, Timothy
07	Smith, Jeffrey
08	Weatherwalks, Steven
09	Whitman, Travis
09	Smith, Casey
09	Forrest, Ernest
09	Trussell, Eric
09	Bartlett, Nathanial
10	Wood Jr, Curtis
10	Hooper, Anthony
10	Fisher III, Joseph
10	Ward, Roland
15	Wing, David
15	Lacroix, Joseph
15	Caron Jr, Raymond
17	Greenleaf Jr, Lawrence
19	VanDenBossche, Robert

Dept	Name
19	Meyer, Nathan
19	Combs, Justin
19	Anker III, John
19	Holden, Nathan
19	Stewart, Lloyd
19	Bennett-Nein, Mason
19	Holbrook, Kyle
27	Streevey, Joshua
27	Baran, Jeffrey
27	Brett, Robert
27	Clark, Anthony
27	Gerow, Terrance
27	Boyd, Troy
27	Carter, Samuel
30	Eastman, Joshua
30	Welcome, Cordell
30	Norton, Adam
31	Czosnek, Terry
43	Antworth, Joshua
43	Daku, Benjamin
43	Gilmore, Ivan
50	Matthews, Benjamin
50	Preble, Clarence
50	Talbot, Franklin

Dept	Name
50	Albert, Jeffrey
50	Ruiz, Alejandro
50	Combs, Matthew
50	Kenney, Jason
50	Lackie, Matthew
50	Fish, Alex
66	Chapman, Russell
81	Walton II, James
41	Majewski, Reid
41	Herrick, Robert
41	Smith, James
41	Tyrving, Patrick
86	Reed, Zachary
86	Gores, Kendrick
86	Holeway, Jeffrey
87	Malcolm, Benjamin
87	Wakinekona, Lisa
05	Foye, Joseph
05	Rose, Emily
05	Kirouac, Dennis
20	Trask, Tim
20	Merrick, Kathleen
21	Howe, Daniel
21	Dorr, Robert

LUNCHTIME JAM SESSION

Front Line Supervisor **Mike Sewell** helped entertain employees during lunch-time at the South End tents this summer, which were put up to allow for social distancing during lunch. Sewall performed on a few Fridays as did Sr. Instructor **Murlyn Greenleaf**.

Retirees

JUNE

Dept	Name	Dept	Name	Dept	Name	Dept	Name
09	**Edward D. Campbell Jr.** 31 Years, 10 Months Outside Machinist III	07	**Francis A. Greenleaf** 40 Years, 3 Months Machinist III	10	**Peter A. Lockwood** 30 Years, 9 Months Sr. Process Control Engineer	87	**Keith N. Neureuther** 37 Years, 10 Months Designer, 1st Class
07	**Dennis J. Civiello** 33 Years, 9 Months Machinist III	91	**Jeffrey A. Hillman** 32 Years, 6 Months Planning Tech	24	**Karen L. Lockwood** 32 Years, 7 Months Assistant, Executive	57	**William M. Philippon** 40 Years, 8 Months Manager
09	**Michael W. Coombs** 39 Years, 3 Months Outside Machinist III	40	**Scott H. Jones** 42 Years, 10 Months Sr. Principal Project Manager	50	**Daniel R. Madore** 45 Years, 3 Months Shipfitter III	09	**Jeffrey F. Plouff** 41 Years, 11 Months Outside Machinist III
32	**Lyle E. Dearborn Jr.** 38 Years Yard Rigger III	69	**Jeffrey L. Kuchinski** 31 Years, 2 Months Stagebuilder III	86	**Bette A. Mayer** 50 Years, 7 Months Designer, 1st Class	87	**Michael S. Salvail** 33 Years, 9 Months Designer, 1st Class
86	**Louise P. Dickinson** 33 Years, 3 Months Designer, 1st Class	15	**Carl M. Laslie** 38 Years, 3 Months Pipefitter III	19	**Gerald O. McCoy Jr.** 36 Years, 1 Month Electrician III	45	**Teri L. Stevens** 32 Years, 2 Months Administrative Technician
20	**Jeffrey S. Ellis** 32 Years, 2 Months Maintenance Mechanic III	19	**Carolyn S. Lepack** 32 Years, 3 Months Electrician III	19	**Jamie A. Milligan** 31 Years, 9 Months Electrician III	15	**Vernon A. Stevenson Jr.** 31 Years, 1 Month Pipefitter III
24	**Suzanne M. Garneau** 24 Years, 8 Months Buyer II	40	**David E. Levesque** 41 Years, 11 Months Associate Engineer	19	**Matthew A. Moore** 31 Years, 11 Months Electrician III	15	**Kasha E. Williams Hussey** 16 Years, 10 Months Pipefitter III

JULY

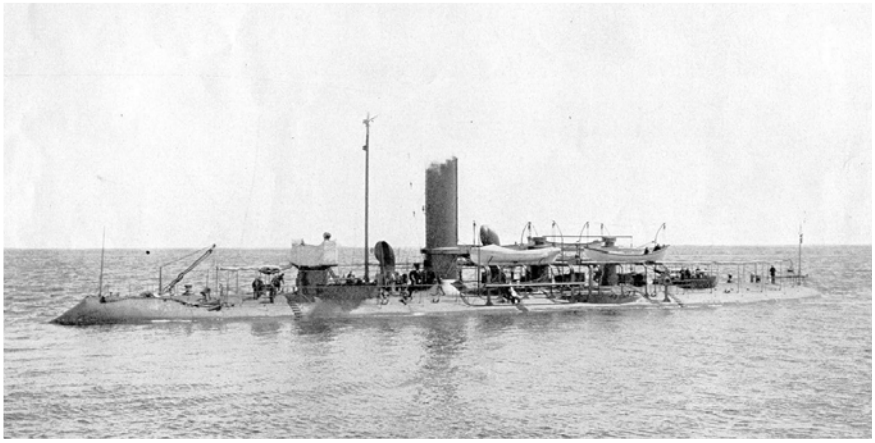
Dept	Name	Dept	Name	Dept	Name	Dept	Name
84	**John H. Anthony Jr.** 37 Years, 10 Months Sr. Planner	17	**Donald J. Fortin Jr.** 43 Years, 2 Months Tinsmith III	50	**Gary L. Letourneau** 39 Years, 4 Months Shipfitter III	50	**William K. Riley** 7 Years, 3 Months Shipfitter III
24	**Debra J. Beane** 12 Years, 7 Months Sr. Buyer	40	**Paul D. Friedman** 12 Years, 2 Months Sr. Principal Engineer	20	**Michael C. McCann** 32 Years, 8 Months Maint. Electric & HVACIII	10	**Heinz W. Sell** 12 Years, 5 Months Front Line Supervisor
09	**Marcel R. Brissette** 39 Years, 9 Months Outside Machinist III	86	**Terry D. Graviett** 40 Years, 2 Months Designer, 1st Class	09	**Robert M. Mesimer** 35 Years, 10 Months Outside Machinist III	43	**Parker A. Simmonds Jr.** 31 Years, 3 Months Welder III
07	**Roger J. Cote** 33 Years, 11 Months Machinist III	84	**David J. Harper** 46 Years, 10 Months Sr. Planner	91	**Aldo M. Moreau** 41 Years, 11 Months Planning Tech	19	**Paul O. Traugh II** 31 Years, 0 Months Electrician III
86	**Marcel R. Cyr** 46 Years, 6 Months Designer, 1st Class	40	**Russell H. Hoffman** 35 Years, 11 Months Manager	15	**John L. Ouellette** 31 Years, 5 Months Pipefitter III	87	**Bruce K. Wescott** 13 Years, 2 Months Designer, 1st Class
09	**Steven E. Ellis** 42 Years, 7 Months Outside Machinist III	07	**Richard M. Labbe** 41 Years, 11 Months Machinist III	87	**James S. Pennell** 42 Years, 3 Months Designer, 1st Class	40	**David J. Wetherbee** 36 Years, 1 Month Principal, Engineering
25	**Douglas L. Fitch** 41 Years, 0 Months Carpenter III	43	**Maurice N. Lamarre** 46 Years, 4 Months Welder III	81	**Dominick A. Pono** 41 Years, 9 Months Material Handlers III	27	**Gary P. Thibodeau** 31 Years, 2 Months Preservation Tech III
86	**Richard E. Footer II** 37 Years, 7 Months Designer, 1st Class	15	**John C. Leclair** 32 Years, 8 Months Pipefitter III	15	**James A. Porter Jr.** 32 Years, 7 Months Pipefitter III		

BIW HISTORY **SNAPSHOT**

By **Andy Toppan**

The Armored Ram USS Katahdin

The armored ram Katahdin, hull # 5, was undoubtedly the most unusual vessel built at BIW, and was one of the most challenging.



The armored ram Katahdin, hull number 5, was undoubtedly the most unusual vessel built at BIW, and was one of the most challenging.

Although ramming, as a naval tactic, can be traced back to antiquity, the practice was clearly on the decline by the late 1880's, when Katahdin was conceived. Indeed, since the famed Civil War battle between USS Monitor and the ironclad ram CSS Virginia (a.k.a. Merrimack), the increasing range and power of modern naval guns had shifted tactics away from close-range, brute-force ramming of opposing ships.

Nevertheless, and despite considerable internal debate concerning the value of such a ship, the Navy requested bids on construction of a coastal defense ram in 1890. BIW, as a new shipyard eager for work, was the sole bidder on the contract, and Katahdin became the yard's third Navy contract.

The ram was, by its nature, a very unusual vessel. The design somewhat resembled a modern submarine, with very low freeboard, a turtleback hull, heavy armor, and robust internal structure to resist the impact of ramming another vessel at 17 knots. Aside from her armored ram bow, Katahdin carried no major weapons, just a few light guns.

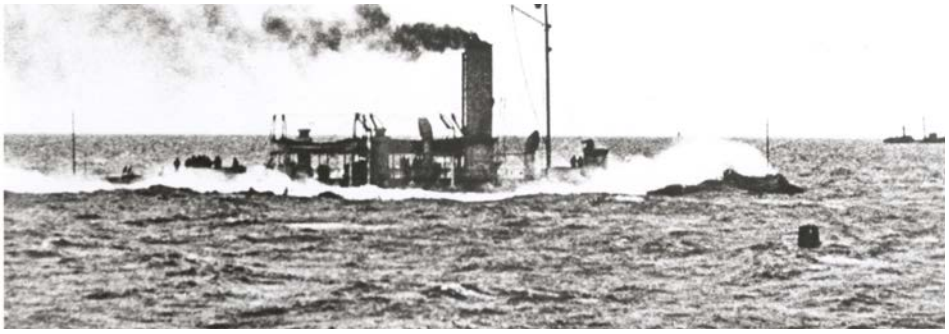
Katahdin's keel was laid down in the summer of 1891, alongside the gunboats Machias and Castine. Despite the challenges of building a complex vessel in a relatively primitive shipyard, and delays in delivery of material, she was launched in the winter of 1893, and was finally ready for trials in early 1895.

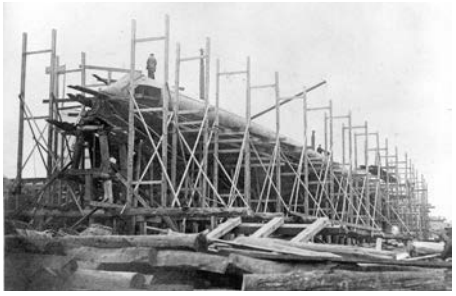
Unfortunately, sea trials revealed that the ram could only achieve a speed of 16.5 knots, rather than 17 knots as specified in the contract. BIW went to great lengths to resolve the issue, even building a cofferdamn, or partial drydock, to change Katahdin's propeller while afloat. Eventually the problem was found to be inherent in the design, and a protracted political debate over the ship ensued. Ultimately a resolution of Congress authorized the Navy to accept the ship and pay BIW for the vessel, since the problems were outside the yard's control.

Katahdin was eventually commissioned in 1897, but almost immediately went into reserve, as there was little practical need for the vessel. In service, Katahdin was reported to be incredibly crowded, always damp, and insufferably hot, due to poor ventilation and a 5,500 horsepower steam plant squeezed into the 250-foot hull.

The ram was again commissioned in 1898 when the Spanish American War brought the threat of attacks on US ports, but returned to reserve when the Spanish fleet was defeated far from US shores.

After a decade in reserve, the troublesome ram was designated as Ballistic Experimental Target A and was sunk as a gunfire target in Chesapeake Bay in September, 1909, concluding the short life of a vessel built well after her time.





Hi-Tech Precision in New Blast and Prime

Steel plate freshly blasted and primed exits the curing oven at the new Blast and Prime facility at Structural Fabrication.

One of the first steps in building a Navy ship occurs when steel plates are blasted down to bare metal and coated with a protective primer.

That process is much more precise and efficient now that the new blast and prime line is up and running at the Structural Fabrication Facility in East Brunswick.

All structural steel used in ship construction must be blasted for surface preparation and cleanliness and primed with a weldable preconstruction primer. The preconstruction primer prevents the steel from rusting and corroding during the fabrication process which can create defects such as pitting. The specialty coating also allows for welding without significant impact to the quality of the weld.

The Blast and Prime process is made up of seven individual machines. The Blow Off Unit has two "air knives" that blow water, light snow and debris off the steel plate so the rest of the machinery does not get contaminated. Then, the Preheat Oven dries and heats the substrate, removing moisture from the material before it enters into the blast chamber.

The blast machine is made up of two operations. The first blasts the steel to remove mill scale and rust while also creating a texture or profile on the surface. This roughness is important because the prime attaches to it. At the same time the profile cannot be too great because the peaks would penetrate through the coating film causing pinhole corrosion. The second part of the blast cabinet is the cleaning operation which includes a large rotary brush, ten high velocity nozzles and finally compressed air hoses which all work together to clean the abrasive off of the material.

Prior to entering the spray booth, a scanner identifies the leading, trailing and outside edges of the material. This tells the spray guns when to turn on and off ensuring the most efficient use of the spray equipment and reducing overspray. The spray booth has eight spray guns, four upper and four lower. Each spray gun can be individually programmed. This program is called a recipe which is created to meet the coating coverage of 0.5 to 1.0 mil of paint. One millage of paint is equivalent to the thickness of one sheet of paper.

Paint thickness is important for welding efficiency. Once the coating has been applied, the material moves into a curing oven to make sure the coating has cured enough to move out of the building to the next fabrication operation.

The equipment that supports or operates the machinery is an HMI, (Human Machine Integration). It looks like a computer screen and through a series of Programmable Logic Controllers, the HMI tells each component when to turn on and off as the material passes down the line.

Many features are built into each piece of equipment to provide important information. An example is the "light curtains" that tell air knives and brushes when to raise or lower depending on the height of the material passing through.

This new equipment should provide years of reliable and dependable structural material ready to be transformed by BIW's workers into the world's greatest and most powerful ships.

Mechanics use monitors to observe steel as it passes through stages of Blast and Prime.

Protect Your Work Family – Wear a Face Covering

Face coverings have been proven to reduce the spread of airborne viruses, including COVID-19. BIW employees are expected to wear face coverings whenever it is unlikely or impractical to maintain six feet of social distancing from others.

Remember, many of us have loved ones at home that we want to keep safe, children or older relatives or people with medical conditions for whom catching COVID-19 could be life-threatening.

Bath Iron Works and the work we do are recognized as critical infrastructure for the nation by the Department of Homeland Security. It is important we do our part to fulfill that mission by doing our best to keep safe and stay healthy.

That includes:

- Walking in the shipyard during shift change or other busy periods
- Working where six feet of distance can't be maintained at musters or other Meetings where six feet can't be maintained
- Walking through an office area
- In close proximity to someone such as talking or waiting in line

So please…Be safe, cover your face.

Have an idea for a slogan to encourage face coverings? Send it to communications@gdbiw.com

CROF Designers Go Gaelic

A group of second shift Design team members at the Church Road Office Facility have made it a ritual to wear kilts to work on Friday nights. "We decided to all wear kilts on St. Patty's day last year, and the younger ones in the clan decided that Fridays would be a good day to wear them, so the rest is history," said Designer **Robin Cook**. Members of clan CROF, from left to right, **Rick Shaw**, **Chris Wallace** and Cook. Not pictured, **James Wells**.

GENERAL DYNAMICS
Bath Iron Works

700 Washington Street
Bath, ME 04530

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Faces of BIW