

GENERAL DYNAMICS

Bath Iron Works

BIW NEWS

June
2016

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(DDG 115) GEARS
UP FOR TESTING**

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From the Helm

Fred Harris, President, Bath Iron Works

In the span of a month, we will have achieved two major shipbuilding milestones in the DDG 1000 program.

The first occurred on May 20, when we officially delivered *Zumwalt* (DDG 1000) to the Navy. The next will be on June 18, when we christen *Michael Monsoor* (DDG 1001).

Both of these official events in a ship's life are important, and each are something for which everyone at BIW can be very proud.

Delivery of the ship marks the point where BIW's work is essentially done. The Navy will control the ship, and BIW will continue to provide limited support including crew training, crane and pier support and limited construction work. DDG 1000 will depart BIW this fall, heading first to its commissioning in Baltimore and then on to San Diego.

The ship's crew has moved on board their new home. This is the start of a long legacy that will see thousands of sailors calling DDG 1000 home over the years. Unlike most homes, this is one built to project American force worldwide

and to keep our sailors safe while doing so. BIW's shipbuilders understand this and construct ships that protect the men and women of the Navy, decade after decade, wherever they sail.

DDG 1000 is the lead ship of the class, and these are always difficult. Significant new technology and capabilities have been incorporated into this ship. We met challenges in all levels of design, engineering and construction – and worked our way through them.

The follow ships, DDG 1001 and DDG 1002, are already benefiting from the lessons learned on *Zumwalt*.

When we christen DDG 1001 on June 18 and transition the ship into

the Kennebec, it will be more complete than DDG 1000 was when it was launched. We have already saved many thousands of man-hours by applying what we've learned on DDG 1000 to the planning and construction of DDG 1001.

At the christening, DDG 1001 will officially be named *Michael Monsoor*. The ship is named after Petty Officer Second Class (SEAL) Michael Monsoor. Monsoor gave his life to save his SEAL teammates on September 29, 2006, in Ar Ramadi, Iraq, covering a live grenade that had been thrown at their rooftop position. He was posthumously awarded the Medal of Honor for his actions that day.

Thousands of BIW employees have applied their skills and experience to DDG 1001 to get it to this point – designers, planners, engineers, welders, painters, electricians, shipfitters, machinists and more. After launch, construction will progress and begin to move into the test and activation phase.

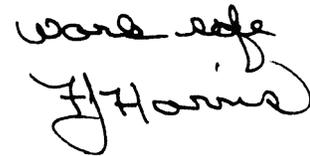
We will continue to leverage lessons learned to build this ship better, more affordably and safer.

Milestones like these are important. They are goals we work toward, benchmarking our progress as we go. Just as critical, however, are the smaller, everyday goals each of us should be working toward. One goal I'd like everyone in the yard to take onboard in 2016 is to work safer.

We can achieve this goal by doing two simple things. The first is to always wear the required PPE – no exceptions! The second is to always take two minutes for safety. Whenever you start a job, take a few quick minutes to think through any potential conse-

quences and ensure you're operating in a safe manner.

If we all work together on reasonable goals like this, we can ensure BIW is safe and that everyone goes home in the same condition in which they arrived at work.



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Rafael Peralta (DDG 115) Gears Up for Testing

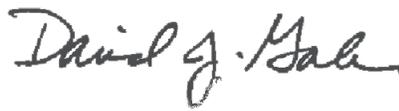
A LETTER FROM Rear Admiral David J. Gale

To the Men and Women of Bath Iron Works (BIW),

As DDG 1000 (*ZUMWALT*) enters her final days before delivery, I would like to thank you for your dedication, tireless work, and hours spent constructing the Navy's most advanced destroyer. The road to delivery has not been an easy one, but your outstanding skills and unrivaled perseverance have been key throughout the process of designing, engineering, construction and testing this revolutionary ship. From the stem to stern, the technical proficiency and superior workmanship in the construction and activation of *ZUMWALT* have demon-

strated your place among the world's finest shipbuilders.

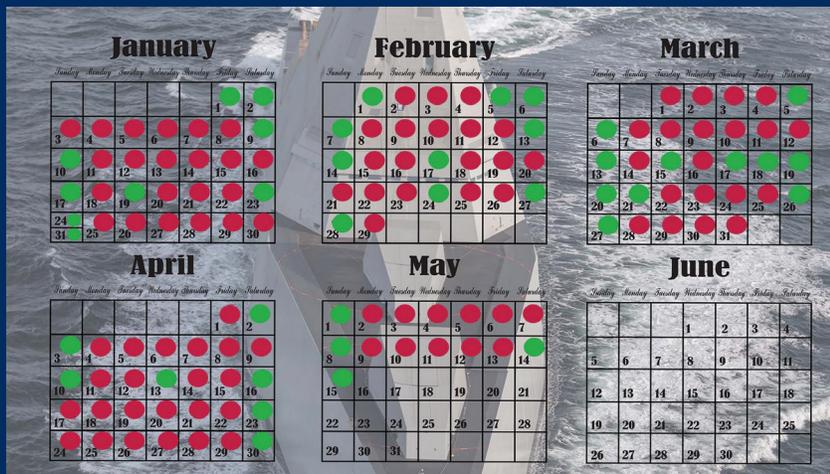
The BIW workforce should take great pride in its delivery of *ZUMWALT*. It is with the most sincere appreciation that I recognize your hard work and dedication to the DDG 1000 class and to our Navy. On behalf of the United States Navy, thank you for your efforts, and I congratulate you all on a job well-done!




Rear Admiral David Gale, Program Executive Officer, Ships



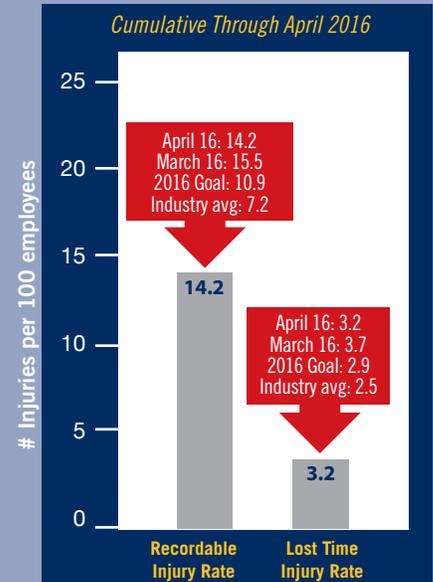
2016 RECORDABLE/LOST TIME INJURIES



Safety Performance

April
2016

INJURY RATES



KEY
Arrows show trend compared to previous month

 Rate Decreased
 Rate Increased
 No Change

Colors show performance to goal

Meeting Goal

Above Goal

BIW NEWS

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COMMENTS AND SUGGESTIONS ARE WELCOME

Forward to Danielle Olson at Mail Stop 1210 or by email at danielle.olson@gdbiw.com.

INFORMATION CALL LINES

FACILITY/SHIFT

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

1-866-630-BATH (2284)

AUTO MESSENGER

Sign up (web address below) to receive automatic messages regarding emergent matters, including facility closures
<https://asp.schoolmessenger.com/biworks/subscribe>

MAIN GATE SECURITY (24/7)

207-442-2266

AMBULANCE-FIRE-POLICE

Bath, Main Yard: ext. 2222
Hardings, CW, EBMF: ext. 1222
Bissons, CROF, James: 911;
then call ext. 1222

MEDICAL 207-442-2231

BIW REC ASSOCIATION

For questions or suggestions regarding BIWRA programs 207-442-1113

Check us out on Facebook:
General Dynamics Bath Iron Works



EMPLOYEE SPOTLIGHT

TELL US A LITTLE ABOUT YOURSELF.

I grew up in Wiscasset and spent two years studying law enforcement at Southern Maine Community College but decided I wanted to stay here at BIW. I started off at BIW as a janitor in the summer of 1989, switched to shipfitting in the early '90s for five years then moved to the paint shop. I'm very involved in the safety program, on the Ergo Committee and I work with onboarding new employees.

HOW LONG HAVE YOU WORKED AT BIW?

27 years.

WHAT IS YOUR ROLE AT BIW?

We take care of miscellaneous paint removal that needs to be done and help with cleaning up areas after other trades have come through. We prep and paint areas of the ship to prevent rust. The paint is that barrier against corrosion and the steel beginning to break up.

WHAT DO YOU DO WITH THE SAFETY TEAM?

We generally spend time thinking of new things to bring into the yard to help people do their jobs safer. I enjoy helping people, especially with the safety stuff.

WHAT ASPECT OF YOUR JOB DO YOU ENJOY MOST?

I like making a finished product. At the end of the day, we're going to put out a beautiful warship that's going to have a fine coat of paint to keep it from corroding and that coat of paint is the key. We gussy it up.

WHAT KINDS OF HOBBIES AND INTERESTS DO YOU HAVE OUTSIDE OF WORK?

I love to play golf and go on nature walks with my two sons Alex (9), and Tristan (11).

DOUG RINES



Title Preservation Tech

Been with BIW since 1989

Department P10

WHAT IS ONE THING THAT YOU COULDN'T LIVE WITHOUT?

Coffee.

WHAT IS YOUR BIGGEST PET PEEVE?

Folks not wanting to pull together—being a team really—and not wanting to help the cause. At the end of the day, we all want the same thing: make a good product for the Navy and go home safe.

NOMINATE OUR NEXT EMPLOYEE SPOTLIGHT

Want to see someone you know at BIW featured in our next employee spotlight? Nominate them today by emailing danielle.olson@biw.com

Reality Gets Augmented for Shipbuilding

Imagine seeing a designer's plans come to life in a three-dimensional (3D), holographic image.

Now imagine being a mechanic using a special headset or computer tablet to "see" exactly how the detail design is supposed to fit within a hull unit, right down to the torque on a bolt, without having to look at paper plans.

A group of BIW engineers is working to incorporate the latest in "virtual reality" (VR) and "augmented reality" (AR) into ship construction. The goal is to improve efficiency and quality to remain competitive with other shipyards.

The new technology helps show what a design will look like before it is built, like a computer-generated prototype.

A VR headset lets the user "see" a completely artificial environment, drawing on computer information to create the images, said engineer **David Heath**. That view might represent the passageway of a ship and help a person design fixtures to fit the space.

Augmented reality allows the user to work inside a real place—such as a ship's compartment—but to see, through a headset or on a tablet, computer-generated images that correspond to locations within that space, Heath said.

As one publication described it, if virtual reality is "The Matrix" then augmented reality is "The Terminator."

Ideally, shipbuilders could use AR to see how components will fit into existing spaces. Boeing is already using that in aircraft manufacturing.

"The potential for augmented reality to improve shipbuilding efficiency, quality and safety is enormous," said **Paul Friedman**, Manager of Advanced Concepts Engineering at BIW. Augmented reality "will allow much



A monitor shows what engineer **Dave Heath** sees suspended in front of him using virtual reality goggles.



Paul Friedman

clearer communication between the engineers and the tradesmen which is vital for building complex naval combatants."

BIW has worked with Electric Boat developing a system that uses a tablet to overlay a cable installation diagram on a small electronics cabinet, Friedman said.

Similar principles are at work with the 3D projections being developed at BIW to show where pipes, wiring and hot work are to be located on a panel, said **Ken Brill**, Principal Project Manager with the Advanced Concepts Engineering Group. That will help streamline that process and reduce errors.

"Augmented reality is a very similar technology to 3D Projection so many of our lessons learned in that technology apply here," Heath said.

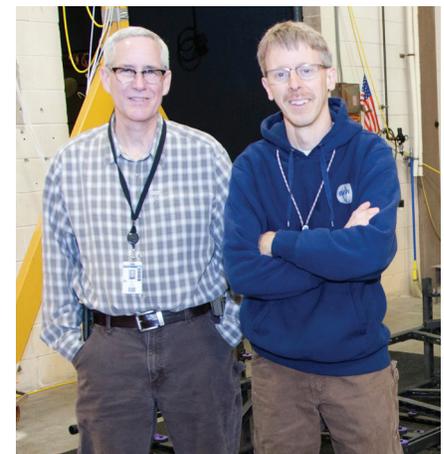
General Dynamics Information Technology working with the corporation's Electric Boat division has developed a training module for fighting fires in a confined space using a VR product, the Oculus Rift. The visor worn over the face shows a fire burning inside the USS *Wisconsin*. It tracks how the user manipulates a fire hose to gauge wheth-

er the technique would cool down steel bulkheads and put out the fire.

Use of VR and AR at BIW is still a ways off, as engineers work to make sure the system is precise and sturdy enough for ship construction. However, it is the wave of future, Friedman said.

"Augmented Reality will be a big, obvious change in the way we design, plan and build our ships," Friedman said.

"Expect to see a lot of hard hats with goggles and face shields so tradesmen can see heads-up displays assisting everything from welding structure to machining critical alignments. Engineers will be developing interactive videos instead of drawings and planners will be using immersive models to validate build plans."



Ken Brill (left), and **Dave Heath** are developing new applications at BIW.

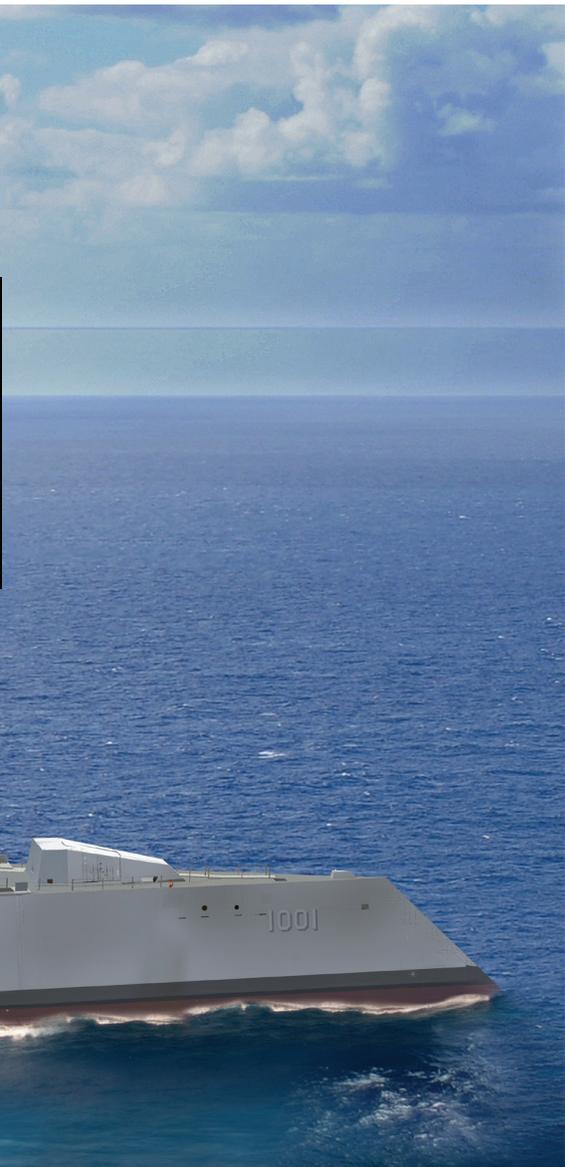
Christening of **MICHAEL MONSOOR** (DDG 1001)



ON SATURDAY, JUNE 18, Bath Iron Works will host the christening of Michael Monsoor (DDG 1001), the second destroyer in the Zumwalt Class. The ship's sponsor is **Sally Monsoor**, the namesake's mother, joining us from Garden Grove, California. Her daughter **Sara Monsoor** and two daughters-in-law, **Naomi** and **Martha Monsoor**, are her Matrons of Honor. Sally's husband **George** and two sons **Joseph** and **James** also will attend the christening.



L to r: Sara, Martha, Sally and Naomi Monsoor.



The ship's namesake, Petty Officer Second Class (SEAL) Michael Monsoor, was born in 1981 in Long Beach, California. He enlisted in the U.S. Navy in 2001 and attended basic training at Recruit Training Command in Great Lakes, Illinois. He attended Quartermaster "A" School and then transferred to Naval Air Station in Sigonella, Italy, for a short period of time. He entered Basic Underwater Demolition/SEAL (BUD/S) training in Coronado, California, and graduated as one of the top performers in his class. After BUD/S, he completed advanced SEAL training courses including parachute training at Basic Airborne School, Fort Benning, Georgia, cold weather combat training in Kodiak, Alaska, and six months of SEAL Qualification Training in Coronado, graduating in March 2005.

One year after graduating, he was deployed to Iraq in support of Operation *Iraqi Freedom* and was assigned to Task Unit Bravo in Ar Ramadi, Iraq, as part of Team 3 Delta Platoon. Petty Officer Monsoor served as a heavy weapons machine gunner and SEAL communicator.

He posthumously received the Medal of Honor for actions in Iraq on September 29, 2006, while operating with a combined SEAL/Iraqi Army team. On that day, Petty Officer Monsoor was part of a sniper overwatch security position with three other SEALs and eight Iraqi Army soldiers. An insurgent threw a hand grenade into the overwatch position. The grenade hit Petty Officer Monsoor in the chest before falling to the ground. Positioned next to the single exit, he was the only one who could have escaped harm. Instead, he dropped onto the grenade to shield the others from

the blast. Petty Officer Monsoor's actions saved the lives of his fellow teammates.

In presenting the Medal of Honor to Monsoor's parents, President George W. Bush said: "By his undaunted courage, fighting spirit, and unwavering devotion to duty in the face of certain death, Petty Officer Monsoor gallantly gave his life for his country, thereby reflecting great credit upon himself and upholding the highest traditions of the United States Navy Service."

Petty Officer Monsoor's other awards and decorations include the Silver Star and Bronze Star

BIW and the Navy are proud to honor the life and courageous service of Petty Officer Monsoor while celebrating the christening of the second of the Bath-built DDG 1000 class ships. Gates open at 9:00 a.m. for the ceremony starting at 10:00 a.m.

Health Improvements Millions of Americans Have Prediabetes

No one is excused from the risk of prediabetes. It's real, but it can be reversed. BIW's Fit for Life has Diabetes Prevention Program (DPP) classes starting now! DPP is an evidence based program, which means it really works. Participants in BIW's DPP classes have an average weight loss of 7 percent. That's 14 pounds for a 200-pound person. Those pounds make a difference. Nationally, participants in DPP reduce their risk of developing Type 2 diabetes by almost 60 percent compared to someone with prediabetes who does not enter the program.

Fit for Life has been successfully running free DPP classes for two years for both employees and their spouses. Each BIW participant can earn up to \$200 in L.L. Bean gift cards by completing program activities and goals. The 12-month program involves weekly meetings for the first eight weeks then changes to meeting monthly.

86 MILLION AMERICANS MAYBE EVEN YOU, HAVE PREDIABETES. PERSON-THINKING 'BUT-PROBABLY-NOT-ME'

No one is excused from prediabetes. It's real, but it can be reversed.

Fit for Life has **Diabetes Prevention Program** classes starting now. Contact biwfitforlife@gdbiw.com or 442-3145 to see if you qualify. Get up to **\$200** for participating!

DoIHavePrediabetes.org



BIW's Fit for Life program works with area healthcare providers to host and teach the classes, including Mid Coast Hospital, MaineGeneral, Central Maine Medical Center, and St. Mary's Hospital. Classes average about 13 participants each and are underway in Brunswick, Topsham, Lewiston and Augusta. Classes fill up quickly, so call ahead to reserve your spot for the next class. Classes start as soon as enough people sign up.

Current DPP participant, **Andrea Bannister**, a planning tech, writes,

"This class has helped me in so many ways. Not only have I lost a significant amount of weight in the last eight weeks, but I have also drastically changed my eating habits. The class has provided me with many ideas on new and different foods to try so I don't feel like I am eating the same foods over and over again. The support from the people in class, as well as others at work that are trying to be healthier has helped me tremendously. It makes you realize that there are other people out there struggling with similar issues of everyday life and together we can help each other get through the hurdles."

Are you ready to make a change to feel better, be more active and lose weight? Take a quiz at DoIHavePrediabetes.org or call Fit for Life at 442-3145 to see if you qualify and to register for an upcoming class.

United Way-Employee Gives Back

Kimberley Keller, a Project Engineer working on Flight III, has been with BIW for 10 years but has been volunteering through United Way for even longer—15 years.

When Kimberley was asked why she supports the United Way so passionately, she responded, "By donating to the United Way, I can help literally thousands of people right here in my community. That's a big deal to me, because I've also been the one who needed help and received it through United Way partners."

Her son had a Big Brother through

the Big Brothers Big Sisters (BBBS) Program who did activities with him that she couldn't - like snowboarding, basketball, and video games. BBBS is a program supported by United Way. When she moved her elderly parents back to Maine because of health concerns, she had no idea who to call to connect them with services and support. Then a coworker reminded her to dial 2-1-1, an information resource supported by United Way. They helped arrange Meals on Wheels, home visitors and transportation.

Since then, Kimberley and her chil-

dren have volunteered for various United Way organizations as a way of giving back and saying thank you.

"I feel like everyone has the chance to make a difference. We can commit to going without coffee or take-out one day a week and donate that money to the United Way. If every single person at BIW did that, the outreach to our community would be unbelievable. We can make a real difference—all of us!"



Zumwalt: THE NAVY'S NEWEST SHIP



Capt. James Kirk, PCU Zumwalt, is presented a ceremonial key.



Ann Zumwalt, daughter of Adm. Elmo “Bud” Zumwalt, namesake of the lead ship in the Zumwalt class of destroyers, sits with her husband **Michael Coppola** at the delivery ceremony on board the ship.

Following a long blast from the shipyard horn, a young naval officer stepped up to *Zumwalt*’s captain, saluted, and requested permission to stand as the first officer of the deck.

In a crisp voice that carried out from the ship’s helicopter hangar, **Capt. James Kirk** ordered: “Take the deck.”

“Aye, aye sir,” replied **Lt. j.g. Teri Prestridge**. Moments later, Kirk directed **CTTSN Melisa Morales** to authorize striking eight bells—marking the end of one watch—and the beginning of the next.

With that simple ritual, older than the nation itself, the U.S. Navy took control of the most modern warship in the world.

Zumwalt (DDG 1000), first in its class, built by the men and women of Bath Iron Works on the banks of the Kennebec River, was formally presented to the U.S. Navy at a shipboard ceremony May 20. In attendance were representatives of the many companies that contributed to the project, the crew that will sail her and the people who built her.

“We delivered a beautiful ship. It’s a good feeling,” said **Jay Sanborn**, a pipefitter who watched from a hangar balco-

ny with a handful of fellow shipbuilders, all of whom worked on the damage control system. “This is the only one in the world,” he said. “They’re going to protect the interests of the United States...I pity the enemy.”

Standing before a large American flag, DDG 1000 Program Director **Brent West** told the 250 people gathered for the ceremony that it was a great day long in coming.

“We nurtured *Zumwalt* from birth to young adult,” he said of the 610-foot warship. “It is a bit hard to let her go but we know she will be in the hands of the most skilled sailors in the world.”

West and Director of Ships Completion **Phil Kinney** then presented Kirk with a plaque bearing the ceremonial key to the vessel.

The concept of a large, heavily automated, stealth destroyer, powered by electricity and riding a wave-piercing tumblehome hull started taking shape in the 1990s. Shipyard fabrication started at Hardings in February, 2009.

“Personally, I will never forget the first day *Zumwalt* got underway—December 7, 2015. The pride—and relief—was over-

whelming,” Rear Admiral (select) James Downey, who served as program manager for DDG 1000, said. “Today we celebrate the world’s greatest Navy taking ownership of the world’s greatest ship.”

The audience for the transfer of custody ceremony included **Ann Zumwalt**, daughter of Admiral Elmo “Bud” Zumwalt, the ship’s namesake, and one of the ship’s two sponsors. She said the ceremony was emotional.

“This is the beginning. The crew and the ship have found a home and family,” she said.

“I am very proud nowing what’s coming,” she said, referring to the ship’s commissioning this October in Baltimore before joining the fleet, “and how it will protect this country.”

Known as the Navy’s conscience, Adm. Zumwalt’s legacy includes expanding the service to include all those willing and capable—regardless of race and gender—and to treat them equitably.

“As powerful as this ship is, the namesake on the stern of the ship, *Zumwalt*, is a powerful message throughout the world of what we stand for as a nation and as a Navy,” Kirk said.

PROCESS IMPROVEMENT AWARDS

Quarterly CPI Awards

On Tuesday, April 26, the CPI team hosted the Quarterly CPI Awards in the MSC Shipway Conference Center. The standing-room-only crowd cheered as over 20 of our BIW teammates accepted their award certificates and prizes for their outstanding contributions to continuous improvement during the first quarter of 2016.

The Thomas Edison Award:

Most PIIs initiated by a mechanic

David James (D50)
Peter Hudson (D10)
Michael Sewell Jr. (D27)

The Henry Ford Award:

Most PIIs initiated by a designer or planner

Richard Leveille (D86)
Kevin Ridley (D87)
Bill Frith (D91)
Allen Sarvinas (D87)

The Bob Vila Award:

Most PIIs implemented by a salaried employee

Jeffrey Dagneau (D10)
Nathan Levesque (D20)
Ben Goulette (D10)

The Compass Award:

Most PIIs implemented by a front line supervisor

Tim Vear (D10)
Henry Peavey (D10)
Josh Blackwood (D10)
Chris Stevens (D10)

The Garmin Award:

Most PIIs implemented by a non-manufacturing supervisor

Tom Guth (D86)
David Flanagan (D86)
Eric Schwerdt (D87)

The Big Kahuna Award:

PIIs with the largest savings

Ed Hauser (D84)
Scott Massey (D87)
Bill Frith (D91)
Dennis Swindler (D87)

The Lean Ninja Awards:

Green Belts who made a significant contribution with their project work

Chris Comora (D10)
John Crocker (D86)

The Beatles Award:

Most PIIs implemented by a non-manufacturing department

Configuration Management and Data Management (D82)

The A-Team Award:

Most PIIs implemented by a manufacturing trade

Tinsmiths (D17)



The A-Team Award



Tom Otis (D10), at left, accepts The A-Team Award from Tim Mercier (D08), representing the Tinsmiths.

The Beatles Award



Kelly Kingsbury (D82), representing Configuration and Data Management, accepts The Beatles Award from Jim Carr (D84).

The Lean Ninja Award



Green Belt John D. Crocker Sr. (D86), accepts the Lean Ninja Award from General Manager Dirk Lesko.

*Submit your PIIs
for your chance to win!
Call the CPI Hotline
at ext. 5171 for help submitting
your Process Improvement ideas*



NEWS FROM OTHER GENERAL DYNAMICS COMPANIES

BRITS TEST FIGHTING VEHICLE WEAPONS SYSTEM

General Dynamics Land Systems-UK successfully completed an early live firing test of the main 40mm International stabilized cannon and chain gun for the AJAX platform—the British Army’s new Armored Fighting Vehicle—at a range in Wales. Formal firing tests will take place later this year.

AJAX was fitted with instruments to record all aspects of the firing, from recoil and blast stresses to the trajectory of the shot. The testing was conducted by General Dynamics Land Systems-UK and turret developer Lockheed Martin UK, with the British Ministry of Defence observing.

“Seeing the firings today gives us confidence that the British Army will receive this battle-winning and transformational capability on time and to budget,” said **Lt. Col. David Cathro**, an AJAX program manager.

Kevin Connell, vice president of General Dynamics Land Systems-UK, said, “The successful early firing of the AJAX 40mm cannon and chain gun is testament to the hard work of all those involved in



The AJAX Armored Fighting Vehicle test fires weapons in Wales.

the program. We are developing a platform that the British Army can rely upon, even in the most difficult terrains.”

The first British Army squadron will be equipped by mid-2019 with a brigade ready to deploy at the end of 2020.

From the Fleet *USS Monterey*



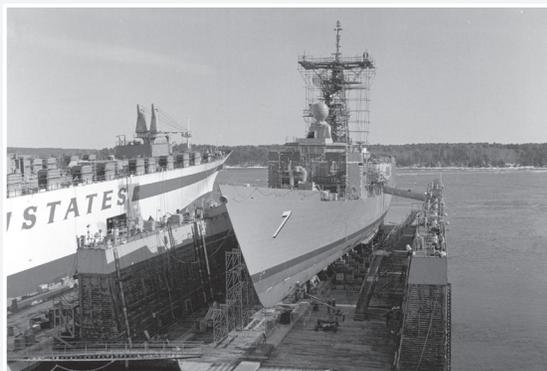
Sailors assigned to the Bath-built *Ticonderoga*-class AEGIS cruiser *USS Monterey* (CG 61), throw buoy lines over the side during a man overboard recovery exercise in the Atlantic Ocean this past April. *Monterey* is underway preparing for an upcoming scheduled deployment. *Photo and text courtesy of U.S. Navy.*

Snapshot of BIW History by Andy Toppan

A return to U.S. Navy shipbuilding with the FFG program

After focusing on larger warships for several years, by the early 1970s the Navy was ready for a class of smaller frigates. BIW was ready to meet the demand.

In 1971 the Navy, under the direction of Chief of Naval Operations Admiral Elmo Zumwalt, began serious exploration of smaller, less expensive ship designs. It was apparent that the current generation of larger ships, while enormously capable, were simply too expensive to produce in large numbers. The last of the WWII-era ships in the fleet were reaching the end of their lives, and an affordable replacement was needed. Bath Iron Works was well-positioned to meet the Navy's needs, with a modern shipyard well-suited to the 445-foot ships, which displaced about 4,000 tons. BIW received a design contract in 1972, a construction contract in 1973, and in the summer of 1975 laid the keel for Hull 370, the future USS *Oliver Hazard Perry* (FFG 7). It had been a decade since the last keel laying for a U.S. Navy ship, but BIW was finally back in the business.



FFG 7 lifted in the yard's "new" drydock in the early spring of 1977.

One key acquisition made the FFG program possible at BIW—the yard finally purchased a drydock, so all work could be completed in Bath. The dock was old—built prior to WWI—and wooden, but filled a critical role as the yard matured and grew. The wooden sidewalls were later replaced with steel, and the dock served into the 1980s at the Portland facility, alongside the much larger drydock there.

As the FFG program got rolling, BIW focused on cost and efficiency, with impressive results. Over the course of the program BIW saw a 44 percent reduction in the time from keel laying to delivery—from 32.5 months down to 18.5 months—and BIW was building FFGs for 200,000 fewer hours per ship than a competing shipyard.

Performance improvement was driven by a disciplined focus on cost,

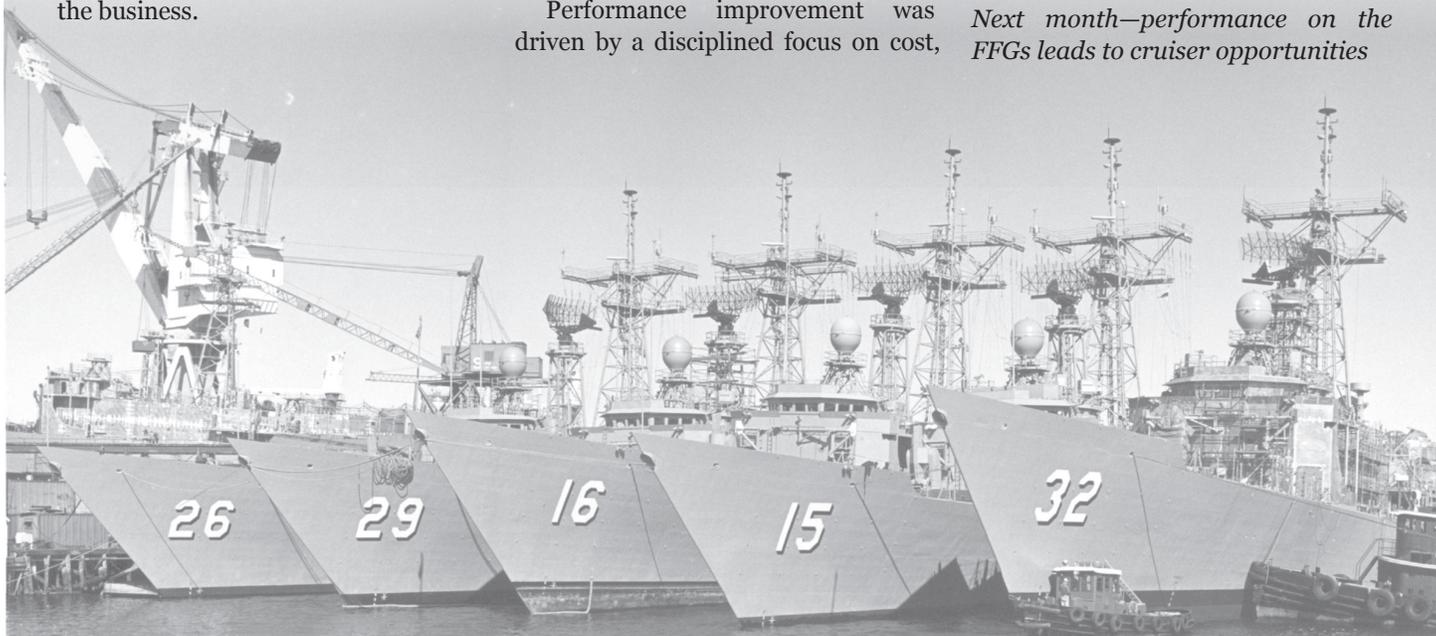
efficiency, and safety. The pre-outfit construction approach was refined, with more work being moved earlier in the construction sequence. The Assembly Building was expanded twice, reaching its current size, to make space for more pre-outfit work. BIW also made safety a priority, and from 1975 to 1980 the yard's safety record improved from among the

worst to among the best in the industry.

These improvements led to more contracts. In the following years, BIW received contracts for 37 FFGs out of a total of 51 built for the US Navy. BIW developed a reputation for delivering each ship ahead of schedule and under budget, and by the time the last FFG was delivered in 1987, the total savings was more than \$200 million across the 37 ships.

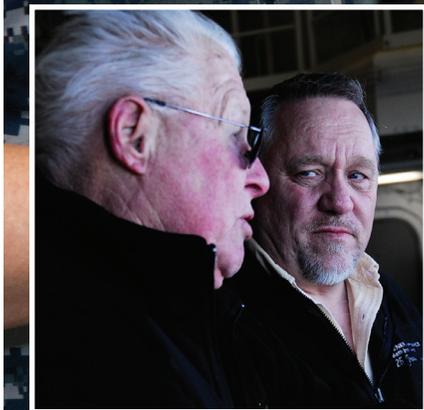
While the yard was very busy with FFGs, there were still a few commercial ships in the mix. Among these was the container ship *Maui*, launched in 1977. The 720-foot ship was the largest ever built in Bath—or anywhere north of Boston—and operated on a route between the West Coast and Hawaii for many years.

Next month—performance on the FFGs leads to cruiser opportunities



A just launched FFG is moored alongside four others, with more on the ways behind, in 1981

CAPTAIN WALKER Sails into the Sunset



Insert right: **Capt. James Kirk**, commanding officer, PCU Zumwalt, presents a gift to **Capt. Earl Walker** at his retirement ceremony. Insert left: **Capt. Earl Walker** confers with **Steve Colfer**, Director, Test and Trials, during Zumwalt Builder's Trials.

Capt. Earl Walker directed the 610-foot *Zumwalt* (DDG 1000) up through the tricky twists and currents of the Kennebec River, headed for home.

It was a successful end of Acceptance Trials for the sophisticated warship. It also was the end of Walker's career, 38 years of it guiding Bath-built ships between the shipyard and the open ocean.

Walker, 80, timed his retirement to coincide with *Zumwalt's* completion. On April 21, Walker nestled the ship into Pier 3, the final chapter in a career that included 475 transits into or from the Kennebec River.

Walker was an outside contractor, not a BIW employee, but as the person charged with bringing BIW's very large ships down a relatively small river, he has worked closely with shipbuilders to understand how the vessels behave.

Zumwalt's Chief Operating Engineer **Luis Lozano** said he valued Walker's input early in the design process. "We ended up with a better ship because of it."

At a retirement ceremony at the MSC Shipway Conference Center the day after his return, attended by some 100 people, Walker was presented gifts by **Steve Colfer**, Director of Test and Trials, **Tom Niles**, Rigging Loft Supervisor and **Capt. James A. Kirk**, commanding officer of the ship's Pre-Commissioning Unit.

A Boston-area native, Walker graduated in 1958 from the U.S. Merchant Marine Academy in New York and sailed cargo ships for United Fruit before joining Portland Pilots in 1970.

It wasn't until Walker directed *Zumwalt* downriver for Alpha Trials in December 2015 that anyone knew how it would behave.

"There's so much power in those engines," he said, noting it's hard to coax gentle thrust from engines that push a 15,700-ton ship 30 knots. "Those propellers bite a lot of water."

The first vessel Walker accompanied down the river as a watch officer was the *Argonaut*, a Sea Witch class container ship, launched in 1979.

Walker said good pilots develop a kind of muscle memory, a familiarity with the pull of the river and precise location of landmarks at different moments of the transit, timing the tides to avoid running aground on the shoals that build routinely in different spots on the river. *Zumwalt* had less than two feet of clearance when it passed through the river's shallow spots.

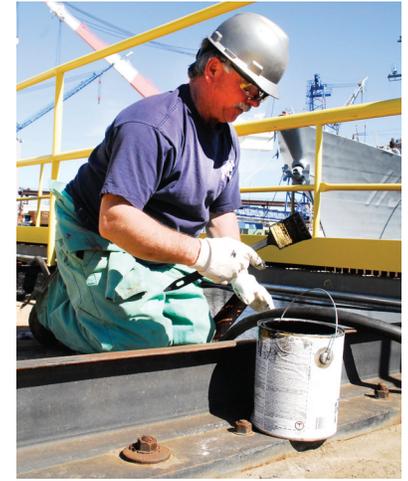
The next time *Zumwalt* heads down the river it will be Capt. Mark Klopp issuing rudder directions and engine adjustments. Walker will be watching from the sidelines, most likely aboard his own vessel, a 22-foot Lowell Brothers outboard, though he has signed a contract with BIW to be ready if needed.

After Acceptance Trials, Walker was extra vigilant as he piloted *Zumwalt* one final time past hazards lining the river, knowing any slight error could give him an unwelcome legacy.

"I didn't want my name on a ledge," he said with a smile. "That's how they get named, you know."

PIER THREE

Up and Running!



Painter **Tim Moulton** prepares Pier 3.

BIW recently made a significant investment in getting Pier 3 ready to handle a ship. The pier has not been active since *Jason Dunham* (DDG 109) was delivered to the Navy in early 2010. The project started in early January of this year and was completed in mid-April just in time for *Zumwalt* (DDG 1000) to be placed pierside as it returned from Acceptance Trials.

“This was not a small project. It truly was a team effort,” said **Paul Chase**, Section Manager in Facilities.

The upgrade included 400 feet of pipe to support potable water, the firefighting system and domestic services. Two new gangways were also constructed, forward and aft, and couldn't have been completed without the help of **Patrick Bailey**, Front

Line Supervisor, Pipe Facilities, and his team. **Pete McRae**, Front Line Supervisor, Electrical Facilities, and his team were crucial in getting a 5-megawatt power system installed to enable the 4,160-volt shore power services to support DDG 1000. The new hull design meant 50 tons of steel had to be purchased to build a new structure to create access to the ship. Unlike the DDG 51s that had access straight from the dock to the fantail, the 1000 needed a new gangway that was elevated to gain access to the flight deck. The Number 10 crane and runway used to service Pier 3 was also refurbished as part of the upgrade.

“It's great to work on something every day that supports our country,” said Chase. “What we do here is special.”

Zumwalt Change of Office



Capt. Kevin Smith reporting to duty.

Rear Adm. (select) James Downey, Program Manager for DDG 1000 *Zumwalt*-class since 2010, handed over leadership of the program on May 23 to **Capt. Kevin Smith**, a combatant systems expert for the DDG 1000 class.

The official change of office occurred in the helo hanger of DDG 1000 in front of friends, colleagues and family. Downey has led the program through many ups and downs, said **Rear Adm. David J. Gale**, Program Executive Officer, Ships.

“Jim was the calm, competent and professional voice in the

many debates that kept the focus on the right issues,” Gale said.

Downey received the Legion of Merit (Gold Star in Lieu of Third Award) for exceptionally meritorious conduct in the performance of outstanding service from March 2010 to May 2016 from the President of the United States for his work on the *Zumwalt* program.

His new role starts in June when he will take over as the leader of the Navy's Surface Maintenance and Modernization Program.

Smith will be taking over from Downey as the PMS 500 Program Manager for the *Zumwalt*-class. This will be his fourth tour with Program Office, most recently coming from Integrated Warfare Systems 9.0 as a Program Manager. Smith has been in the Navy for 22 years.

“It's an absolute privilege to have this opportunity to follow such a strong pedigree of great men and take my place as the major program manager of the *Zumwalt* national team,” Smith said.



Rear Adm. David J. Gale presenting **Rear Adm. (select) James Downey** with the Legion of Merit Award.

BIW Service Anniversaries

April 2016

Dept Name

35 Years
 09 Grenier, Ricky Allen
 09 Roy, Gerard Lee
 10 Greeley, Gregory Sumner
 10 Twist Jr, David Roland
 15 Cornish, Michael Herbert
 15 Libby, Linda Ellen
 15 Racine, Michael Florian
 17 Desrochers, Dennis Arthur
 19 MacDonald, David Randall
 20 Canwell, Brian Lynn
 20 Marenus, David Ralph
 20 Theriault, Danny Mike
 29 Orr, Ronald Alan
 32 Estes II, Russell Edward
 43 Campbell Jr, Reginald C.
 43 Charest, Gary Gerard
 43 Estey, Stephen Michael

Dept Name

43 Ferrence, Scott Richard
 43 Parker, Bruce Blaine
 43 Parmenter, William Cordis
 45 Strand, David Mark
 50 Rice, Wayne Merrill
 50 Rines, Ronnie Robert
 52 Roy Jr, Leonard Paul
 60 Lajoie, Kenneth Ronald
 80 Berube, Ronald Joseph
 80 Whittemore, Robert Linden
 81 Wright, David Sean
 84 Caron, Timothy Richard
 86 Burke, Richard Joseph
 86 Lorom, Craig Gale
 87 Doak, Randolph Howard
 87 Jasmin, Guy George
 87 Massey, Scott Clark

Dept Name

30 Years
 19 Cote, Mark Andrew
 45 Snyder, Ann Marie
 50 Charest, Denis Paul
 50 Foye, Trevor
 84 McKenzie, Michael John
 86 Michaud, William Joseph
25 Years
 10 Puffer, Robert David
 19 Ammons, Kelley Peter
 44 Nadeau, Ross Matthew
 86 Jennings, Ricky Dale
15 Years
 13 Carver, Stephanie L

Dept Name

10 Years
 10 Jenkins, Daniel Robert
 54 Klein, Donald Thomas
5 Years
 10 Lampron, Marcel Leo
 43 Sylvester, Jason Michael
 49 Clark, Theresa Concetta
 60 Nehring, Fred William

RED CROSS AWARDS

A BIW welder who rescued a child from a burning vehicle and representatives of the BIW trials team that rescued a fisherman at sea were honored on May 10 at the American Red Cross Central and Mid Coast Maine Chapter's Real Heroes breakfast.

Once a year, the American Red Cross celebrates those who have performed acts of heroism and have shown courage, kindness and unselfish character in their service to others.



Trevor Hanna

The Real Heroes "Life Saving" award was presented to Trevor Hanna, a BIW welder who saved 8-year-old Tyler Turner from a vehicle accident while driving home one afternoon. Hanna, who always carries his Leatherman tool,

was able to cut the seat belt that had trapped Tyler in the vehicle.

After receiving the award, Hanna said he was "kind of overwhelmed" by all the attention.



Members of the BIW crew who, during Alpha Trials, helped rescue a fisherman in medical distress.

"It was pretty amazing, everything that's come out of this—letters from Sen. Susan Collins, Gov. Paul LePage ...," he said.

Hanna said he thinks a lot about being in the right place at the right time, and what would have happened if he had been delayed by 20 seconds that day—stopped at a red light or getting gas.

"What if?" he asked, "Then I wouldn't have been there to stop ..."

The Real Heroes "Rescue at Sea" award recognizes 30 BIW employees who participated in the rescue of **Dale Sparrow**, the captain of the fishing vessel Danny Boy who was in medical distress off the coast of Maine. The rescue occurred while DDG 1000 was on Alpha Trials. The 11-meter rigid-hull inflatable boat, or RHIB, was deployed and the captain was brought on board and provided medical atten-

tion then flown by a U.S. Coast Guard helicopter to Maine Medical Center.

The 30 members of the team were represented by Outside Machinist **Bob Gordon**, Rigger **Ben Bovey**, Outside Machinist **Mike Beaulé**, Rigger **Scott Thomas**, Rigging Loft Supervisor **Tom Niles** and DDG 1000 Hull Manager **Mark Haines**. Framed award certificates were later presented to the other 25 members of the team in the shipyard.

"It's the highlight of my career," said Gordon, who's worked at BIW for 36 years. "If you ask everybody here, they'd tell you the same thing."

Bovey added: "It feels good, knowing we helped."

Niles said he was proud of being part of the crew that performed so well under pressure.

"They went out and did the job," he said.



BIW Welcome

The following employees recently joined BIW.
Please welcome them.

April 2016

Name	Dept	Name	Dept	Name	Dept
Anderson, Michael Douglas	87	Given III, Clifton Henry	62	Murphy, Gage Thomas	27
Bacon, Jameson Arthur	17	Goranson, Alicia Lee	82	Noriega, Jilian Pratt	84
Beringer, Jonathan Law C.	26	Grady, Carl Jeremy	24	St. Amand, Jessica Lyne	62
Bodmer, Kathleen Amelia	91	Griffin, Jacob Ryan	27	Sylvester, Christopher Rene	27
Calden, Derek Bruce	27	Johnson, Matthew Lucas	27	Trotter, Joel David	08
Cole, Shawn Timothy	91	Kinder, Jason Scott	17	Weaver, Cory Dale	17
Denis, Kristopher Wendall	17	Kinney, Elizabeth John	87	Weeks, Michael Ross	17
Dorey, Kayla Desiree	82	Knights, Jamie Lee	62	Zamer, Scott Edward	11
Edwards, Flint Evan	87	Lachance, Christopher Mark	07		
Farel, Emily Anne	86	Lawrence, Albert William	87		
Farrar, Zachary Phillip	43	Leeman, Colter James	62		
Galvez, Mark Anthony	97	Leeman, Shelby Elizabeth	62		



BIW Retirees

April 2016

10-00 Mark A. Schools 35 Years <i>Front Line Supervisor</i>	43-00 Adrian R. Guimond 39 Years, 11 Months <i>Welder III</i>	81-00 Ronald M. Wallace 38 Years, 2 Months <i>Material Clerk III</i>
17-00 Daniel A. Lacasse 41 Years, 8 Months <i>Tinsmith III</i>	43-00 Peter A. Heald 40 Years, 9 Months <i>Welder III</i>	82-00 Linda L. Bowie 28 Years, 9 Months <i>Technical Clerk, 1st Class</i>
20-00 Richard L. Knight 40 Years, 4 Months <i>Maintenance Electrician III</i>	80-00 Richard J. Armes Jr. 42 Years, 5 Months <i>Crane Operator III</i>	86-00 John L. White 25 Years, 4 Months <i>Designer, 1st Class</i>
24-00 William W. Leeman 40 Years, 7 Months <i>Senior Buyer</i>	81-00 Arthur J. Hould Jr. 38 Years, 10 Months <i>Material Clerk III</i>	87-00 Paul M. Gagnon 35 Years, 1 Month <i>Designer, 1st Class</i>
24-00 John H. Rothwell 35 Years, 2 Months <i>Senior Buyer</i>	81-00 Leonard A. Lebrun 38 Years, 1 Month <i>Material Clerk III</i>	91-05 Michael L. Rego 37 Years, 3 Months <i>Planning Tech</i>
27-00 Ronald A. Williams 42 Years <i>Preservation Tech III</i>	81-00 Donald T. Pelletier 41 Years, 7 Months <i>Material Clerk III</i>	



BIW In Remembrance

Richard F. Alexander (R)
February 23, 2016
42 Years
Trades Inspector

Richards B. Edwards (R)
February 28, 2016
37 Years
Maintenance Mechanic III

Warren P. Smith (R)
March 6, 2016
22 Years
Machinist III

David M. Bolduc (A)
March 10, 2016
26 Years
Insulator III

Peter H. Fiori (R)
February 10, 2016
25 years
Electrician III

Clifford L. Crosman (R)
September 8, 2015
45 Years
Leadperson III



BIW RUNNERS' TIMES:

PAUL FRANKLIN	49:06
NICK CHARLES	50:19
ANN DUNHAM	1:01:58
DAN WILLETZ	1:20:54
JUSTIN SEAMENS	41:49
<i>2ND IN AGE GROUP</i>	
DAN DASCH	42:21
<i>1ST IN AGE GROUP</i>	
MARK FOCESATO	51:15
BARBARA BUCK	54:28
<i>2ND IN AGE GROUP</i>	
ERIC LONDON	57:08
STAN LOTHTRIDGE	57:17
<i>2ND IN AGE GROUP</i>	
DEB KNOWLTON	1:16:17

THE MURPH 2016, a 5-mile trail race along the Whiskeag Trail in Bath, took place on May 7. Overcast skies and low temperatures did nothing to deter a group of BIW employees from preparing for the race in the early morning. There were a total of 144 runners and 26 walkers who participated.

The race is held in memory of Navy SEAL Lt. **Michael Murphy**, the namesake of the Bath-built *Arleigh Burke*-class guided missile destroyer *Michael Murphy* (DDG 112). The first race was initiated by DDG 112's pre-commissioning crew and now the event is organized by Bath Parks & Recreation with help from community and U.S. Navy supporters.

"It is an honor to run for a heroic man such as Michael Murphy," said

Dan Dasch, a BIW Electrical Designer. "After working on DDG 112 and meeting other men that knew him, I can tell he would have loved this run and the challenge it brings. I can relate to that because I always love a challenge and so does my dog Duncan," who joined Dasch for the race.

The race benefits the Michael Murphy Scholarship Fund, Big Brothers Big Sisters of Bath/Brunswick, Fields for our Future in Bath and Bath Parks & Recreation.



SAFETY HUB



By Vince Dickinson

Learning about safety is part of the job.

Safety Action Teams



Safety Action Team co-leaders attend the weekly Central Safety Meeting led by Safety Director Vince Dickinson.

Several groups of employees are coming together to take a comprehensive look at safety and devise strategies for improvement.

Safety Action Teams (SATs) have been established for Fabrication, Pre-Outfit, Ultra/PO2, Land Level, Ship's Completion, Shops, Facilities and Ergonomics. The teams are made up of Operations Management and LS6 mechanics with a Director serving as Sponsor to help with roadblocks.

When we call them *Action Teams*, we mean it. They do not sit around complaining. They are developing plans

with Level 2 of the Roadmap with 14 more elements being audited this week for completion. Leading the charge is the EBMF Safety Action Team, headed by **Chris Knight (D10)** and **Joe Bluteau (LS6)**, which has completed 49 percent of Level 2.

"The mechanics have done an excellent job sustaining the momentum from the first part of the roadmap," Knight said. "The team has done a great job working together – both union and management – and putting good tools in place to be successful."

Leadership is Defined by Behavior, Not Titles

Every Monday at 8:00 a.m. the co-leaders of the Safety Action Teams, along with the Operations Vice Presidents, Directors, Superintendents and Managers, meet at the Central Safety Meeting. This weekly meeting is designed to communicate safety performance, discuss incidents and review progress on specific actions in the Safety Action Teams.

Participating on a Safety Action Team is voluntary but the teams are held accountable for developing and executing action plans. Every week they report out at the Central Safety Meeting on progress toward meeting their commitments. As we often say at the meeting, leadership is not some title you wear but is how you behave. Every one of these individuals is a true leader and deserves our thanks.



L to r: Joe Bluteau (D07), Kevin Lucas (D15), Chris Knight (D10), Craig Barton (D10)

and executing them to get their area of the company ready to meet the Level 2 Roadmap Standards and address specific safety issues. This is not easy work and can sometimes be frustrating, but each team member sets aside other issues and focuses on safety.

This takes real commitment and courage, but it is truly paying off. As of this month we are 24 percent complete

GENERAL DYNAMICS

Bath Iron Works

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Bath, ME 04530

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04530
PERMIT NO.31



Faces of BIW



Above: **Paul Bozeman**, pipefitter at EBMF.

Top right, l to r: **James Hannan**, **Norm Pelletier**, **John Small** and **Vinnie Greene** all shipfitters.

Right, l to r: **Hugh Lancaster**, **Lionel Thompson**, **Bill Pelletier** and **Joshua Mansir** from the carpenter shop.

