Coast Guard Cutter Polar Star returns home by Easter after 144-day Operation Deep Freeze 2023 mission



Release from Coast Guard Pacific Area

\*\*\*\*

Editor's Note: Click <u>here</u> to view the U.S. Coast Guard Pacific Area Polar Operations imagery page

SEATTLE – The Coast Guard Cutter Polar Star (WAGB 10) and crew returned to its homeport of Seattle, Saturday, following a 144-day deployment to Antarctica in support of Operation Deep Freeze 2023.

This deployment marks the Polar Star's 26<sup>th</sup> journey to

Antarctica in support of Operation Deep Freeze, an annual joint military service mission to resupply the United States Antarctic stations, in support of the National Science Foundation (NSF) – the lead agency for the United States Antarctic Program (USAP). This year also marks the 63rd iteration of the annual operation.

The Polar Star crew <u>departed Seattle</u> bound for Antarctica on Nov. 14, 2022, traveling more than 25,000 miles through the North Pacific, South Pacific, Indian, Southern, and South Atlantic Oceans, including stops in four continents.

While en route to Antarctica, the Polar Star made two logistical stops in Australia in Chowder Bay, Sydney and Hobart. In Hobart, the cutter and crew hosted a reception on the cutter for guests from the Australian Antarctic Division, Australian Border Force, Tasmanian government representatives, and <u>local industry partners</u>.

After arriving in Antarctica, the cutter broke a 15.3-mile channel through fast ice and conducted over 1,600 hours of ice breaking operations to create a navigable route for cargo vessels to reach McMurdo Station. The Polar Star and crew executed more than 60 hours of ice escorts for cargo vessels through difficult pack ice conditions. The cutter departed the Antarctic region on March 2, after 67 days of operations in support of <u>Operation Deep Freeze 2023</u>.

On the return journey, the Polar Star crossed Drake Passage, rounded Cape Horn and transited the Strait of Magellan followed by stops in Punta Arenas and Valparaiso, Chile. The Polar Star's stop in <u>Valparaiso</u> consisted of a multi-day visit where the crew conducted professional exchanges with Chilean Navy and First Naval Zone members, as well as students from the Chilean-U.S. Binational Center.

"The completion of this mission is a testament to our crew's hard work, sacrifice and dedication," said Capt. Keith

Ropella, Polar Star's commanding officer. "While this trip was incredibly rewarding and a once-in-a-lifetime experience, we are glad to be home and reunited with our friends and families again."

Operation Deep Freeze is the annual logistical support mission provided by the Department of Defense to the NSF managed by the USAP. This includes coordination of strategic intertheater airlift, tactical intertheater airlift and airdrop, aeromedical evacuation support, search and rescue response, sealift, seaport access, bulk fuel supply, port cargo handling, and transportation requirements supporting the NSF. This is a unique mission demonstrating U.S. commitment to the Antarctic Treaty and to research programs conducted for the betterment of all humanity. The Polar Star and crew contribute to this yearly effort through icebreaking to clear the channel for supply vessels.

The Polar Star will proceed to Vallejo, California, in May for Phase III of its five-year Service Life Extension Project (SLEP). SLEP was awarded to Mare Island Dry Dock LLC to recapitalize targeted systems such as the propulsion, communication and machinery control systems and conduct major maintenance to extend the cutter's service life by four years. By replacing obsolete, unsupportable or maintenance-intensive equipment, the Coast Guard will mitigate the risk of lost operational days due to unplanned maintenance or system failures. Each phase is coordinated so that operational commitments, such as Operation Deep Freeze missions in Antarctica will still be met.

The Polar Star is the United States' only asset capable of providing access to both Polar Regions. It is a 399-foot heavy polar icebreaker commissioned in 1976, weighing 13,500 tons and is 84-feet wide with a 34-foot draft. The six diesel and three gas turbine engines produce up to 75,000 horsepower.

# US Navy awards BOLLINGER SHIPYARDS contract to build sixth berthing barge



Caption: Berthing Barge APL 69 was one of five APL 67-class barges built by VT Halter Marine, acquired last year by Bollinger Shipyards, which will build the sixth of the class. (U.S. Navy photo) Release from Bollinger Shipyards

\*\*\*\*\*

LOCKPORT, La., - (April 11, 2023) - Bollinger Shipyards ("Bollinger") today announced that the U.S. Navy has awarded the Lockport-based shipbuilder the detailed design and construction contract for the sixth Auxiliary Personnel Lighter-Small (APL(S)) 67 Class berthing and messing barge. Construction will take place at Bollinger Mississippi Shipbuilding in Pascagoula, Mississippi and is anticipated to begin in the second quarter of 2023.

"We are honored to be entrusted by the U.S. Navy to build the sixth APL berthing barge," said Ben Bordelon, President and CEO of Bollinger Shipyards. "This contract is a testament to the hard work and dedication of our team at Bollinger, and our commitment to delivering high-quality, reliable vessels that meet the Navy's rigorous standards. We look forward to continuing to grow our partnership with the Navy and delivering this critical asset to support our national defense."

The previous five APLs were built by VT Halter Marine, which Bollinger acquired in late 2022. Halter received the initial contract in 2018. APLs are used by the Navy to house crewmembers when ships are in port for availabilities and Inter-Deployment Training Cycles. The barges are mobile and can be towed to new bases or shipyards to support changing fleet requirements and also offer potential use for humanitarian missions and other temporary assignments.

APLs are 269 feet long, 69 feet wide and have a draft of 7 feet. Each vessel is equipped with offices, classrooms, washrooms, laundry facilities, medical treatment areas, a barber shop and fitness center. With mess seating for 224 enlisted personnel and 28 officers, each meal is served via five 20-minute shifts to allow food service for 1,130 personnel (three meals per day). The vessels are fitted with mixed gender berthing spaces for 74 officers and 537 enlisted personnel, for a total of 611 people.

# Rite-Solutions Receives Next-Generation Attack Submarine Navy Contract



Release from Rite-Solutions

\*\*\*\*

Middletown, RI (April 10, 2023) – Rite-Solutions has been awarded a new contract by the Naval Undersea Warfare Center Division Newport (NUWCDIVNPT) with a potential value of \$850,000 over the next two years.

The company will support the development, configuration, and delivery of a user-friendly interface software called the SSN(X) Sail Model Tool. The tool will enable sailors to

evaluate current and future submarine sensors and antennas. The tool will allow proper assessment of the impacts of various submarine sail configurations with respect to overall submarine capability and vulnerability.

Laura Deady, Rite-Solutions Sr. Vice President says, "Rite-Solutions is grateful for the opportunity to support NUWC Code 34 in developing the SSN(X) Sail Model Tool. Rite's greatest asset is the expertise of our workforce, which allows proficiency in our technical capabilities."

The contract will be performed in Newport, RI and areas where the Navy has indicated a significant need.

"We are proud to be part of the next generation of attack submarines for the Navy," adds Dennis McLaughlin, Rite-Solutions President, and CEO. "It's an honor to be recognized as an innovative company and to be invited to work on cuttingedge technology that will help keep our Navy #1 in the world for decades to come."

# SAIC Awarded \$102M Contract to Support U.S. Navy Torpedo Production



JOINT BASE PEARL HARBOR-HICKAM (June 2, 2021) Sailors assigned to the Los Angeles-class fast-attack submarine USS Columbia (SSN 771) load a Mark 48 advanced capability torpedo for Exercise Agile Dagger 2021 (AD21). AD21 is a training exercise, with one-third of the Pacific Submarine Force getting underway, to assess warfighting readiness and build capacity for the joint force. (U.S. Navy photo by Mass Communication Specialist 1st Class Michael B. Zingaro) Release from SAIC

\*\*\*\*\*

### Contract expands support of MK 48 production

Reston, Va., April 10, 2023 – Science Applications International Corp. (NYSE: <u>SAIC</u>) has been awarded a \$102.5 million contract by the U.S. Navy to continue supporting the MK 48 Mod 7 Heavyweight Torpedo program. This is a firm-fixedprice and cost-plus-fixed fee modification to a previously awarded <u>\$1.1 billion torpedo production contract</u>.

"SAIC has a long history of supporting the U.S. Navy, notably our work providing the dominant undersea weapons it requires," said Bob Genter, president of Defense and Civilian Sector at SAIC. "We are honored by the Navy's confidence in SAIC, and proud to expand our support of the MK 48 program."

Under the new contract option, SAIC will produce, assemble, test and deliver the U.S. Navy's MK 48 Mod 7 Torpedo Afterbody Tailcones (AB/TC) and MK29 Mod 0 Warshot Fuel Tanks to the U.S. Navy and foreign partners through implemented Foreign Military Sales (FMS) programs.

Currently, SAIC also provides all necessary facilities, resources and management to meet the contract's integration, production, test and delivery requirements.

To learn more about SAIC's work with the Department of Defense, visit <a href="http://www.saic.com/defense">www.saic.com/defense</a>.

# HII is Awarded Contract Modification for Columbia-Class Ballistic Missile Submarines



Release from HII

\*\*\*\*

NEWPORT NEWS, Va., April 11, 2023 (GLOBE NEWSWIRE) – HII (NYSE: HII) announced today that its Newport News Shipbuilding division has been awarded a \$567.6 million subcontract modification from General Dynamics Electric Boat to provide long-lead-time material and advance construction activities for *Columbia*-class ballistic missile submarines.

HII is currently under contract for construction of submarine modules for Build I, the first two submarines in the class: *District of Columbia* (SSBN 826) and *Wisconsin* (SSBN 827). The advance procurement funds from this subcontract modification, awarded April 4, will allow NNS to purchase major components and commodity material and to begin advance construction on Build II, the next five submarines in the class.

"This contract modification underscores the critical manufacturing work our shipbuilders do for the U.S. Navy, as major contributors to the *Columbia*-class," said Brandi Smith, NNS vice president for *Columbia*-class construction. "When delivered to the fleet, these submarines and their crews will protect peace and freedom around the world, in service of the nation. Our shipbuilders understand the responsibility, commitment and discipline required of them each day, and take great pride in supporting this mission."

A photo accompanying this release is available at: <a href="https://hii.com/news/hii-contract-columbia-class-ballistic-missile-submarine-april-2023/">https://hii.com/news/hii-contract-columbia-class-ballistic-missile-submarine-april-2023/</a>.

The Navy has designated the *Columbia* class its top acquisition priority. Ultimately, the *Columbia* class will replace the fleet of *Ohio*-class ballistic missile submarines, and take over the role of the nation's sea-based strategic deterrent, providing the most survivable leg of the nation's strategic triad.

NNS is a major shipbuilding partner in the *Columbia*-class program, constructing and delivering six module sections per submarine under contract to General Dynamics Electric Boat.

# NAVAIR Sees AI as Future of Air Wing



NATIONAL HARBOR, Md. – In a well-attended presentation by Naval Air Systems Command (NAVAIR) on April 3 at Sea-Air-Space 2023, RDML Stephen Tedford, program executive officer for Unmanned Aviation and Strike Weapons (PEO (U&W)) explained the need for trust in autonomous systems while providing an overview of the Navy's unmanned aircraft, weapons, and target systems.

"If we have trust in autonomy, we can then make the move to truly artificial intelligence and in the future of the air wing," Tedford said.

He encouraged a real-world perspective when thinking about autonomous systems, remarking that, "I know many of you here that are in suits now are retired military. Many of you […] flew jets. At some point all of you were up and trying to find the tanker late at night, trying to get on the back side of the hose to get home. We learned that lesson over Afghanistan."

"How can you make in-flight refueling autonomous possible?"

Tedford queried. "What if a pilot just has to get close enough and then let the system take over for itself. And make it more reliable, make it consistent and make it easier," he continued.

Open architecture may be the key.

"We always want open architecture systems," Tedford said. "We need them for flexibility in our systems. Just like applications on your phone that you can add and get rid of. We need to be able to do that with our mission systems in the unmanned environment as well."

Tedford also focused on the people behind the tech and stressed that autonomous systems and artificial intelligence don't operate in a bubble. Fundamentally, an unmanned system is still a human system.

"We know that unmanned really isn't actually unmanned," said Tedford. "There's a huge support staff that's involved in getting an aircraft in the air and conducting the mission. What we're talking about [...] having direct connectivity between our unmanned platforms and a manned platforms where the unmanned becomes an extension of the manned mission."

### **Combatting Climate Change**

Captured by SD 1078 in the Atlantic Ocean during Hurricane Fiona, Sept. 22, 2022. (Video: NOAA and Saildrone) Excerpted from the upcoming article in the May 2023 issue of Seapower Magazine

As climate change increasingly affects weather patterns over the Atlantic Ocean and Gulf of Mexico, tracking hurricanes and monitoring their intensity has become more critical than ever.

The National Oceanic and Atmospheric Administration (NOAA) reports that between 1980 and 2021, hurricanes caused 6,697 deaths and over \$1.1 trillion in damages. Hurricanes' massive waves and roaring winds can also have catastrophic effects on ships at sea, making accurate forecasting a must for naval operations.

While new technology has steadily improved hurricane-tracking forecasts since the 1990s, predicting how rapidly a tropical storm or hurricane may intensify has been more problematic. To understand storm intensity, scientists measure heat and momentum, collecting data on the exchange of energy between the ocean and atmosphere. But in order to do this in the most accurate way, scientists need data from inside the storm itself.

That's where uncrewed systems come in. "With uncrewed systems, we can either do what we're already doing, but do it more productively and efficiently, or we can go get data we just couldn't get before," said NOAA Corps Captain William Mowitt, director of NOAA's Uncrewed Systems Operations Center.

You can read the full article about how the U.S. Navy, NOAA, and private partners are using uncrewed systems and new technologies to forecast hurricanes in the May issue of Seapower Magazine.

Vicky Uhland is a Colorado-based writer and editor who also covers the Navy League's annual Sea-Air-Space conference.

## Navy's Frigate Program Pushing Hard for 2026 Delivery of USS Constellation



Captain Kevin Smith responds to workforce pipeline question from Ann Tropea, Editor-in-Chief at Seapower. Photo Credit: Dan Goodrich

NATIONAL HARBOR, Md. —The Navy is pressing full bore to ensure that its new guided-missile frigate joins the fleet on time, the ship's program manager said.

"We're pushing hard with our industry partners to deliver that ship in 2026," said Captain Kevin Smith, program manager, Constellation Class Frigate, speaking to an audience at the Navy League's Sea-Air-Space Expo in National Harbor. "A lot of hard work has gone into the design, the production readiness, and now we're actually building it up in Marinette, Wisconsin."

A frigate, in modern terminology, is "primarily an escort for high value units that don't have their own self-defense," Smith said. "It's also to help offset some of the work of the large surface combatants like the cruisers and destroyers. It is a primary anti-submarine warfare platform, just like the FFG 7 [the Perry class frigates which have been decommissioned]."

"I am very happy with the performance we're seeing thus far," Smith said. "Obviously, we did change to a different variable to sonar a few years ago. ... The performance is astounding. ... Its integration with the [SQQ]-89 [antisubmarine warfare system] is going to be huge for the United States Navy and will be welcomed by the fleet."

Smith also said the Aegis Baseline 10 combat system and the Enterprise Air Search Radar will give the new ship "a lot of capability."

#### Fincantieri Partnership

The future USS Constellation (FFG 62) is one of three frigates under contract to Fincantieri's Marinette Marine shipyard, the others being FFGs 63 and 64, under a 10-ship contract, including options. Smith said construction of FFG 62 will start soon and he expects the option for FFG 64 to be awarded this year as part of a four-ship buy.

The Navy worked with Fincantieri to design an advanced construction pilot, "to really exercise all of the capital improvements, all of their workflow processes, all of their instructions, all the way through the value stream … from materials planning and getting the work orders to the workforce, making sure all those are understood."

The frigate's Aegis Combat System and SPY-6 Enterprise Air Search Radar are being integrated at the Lockheed Martin test lab in Moorestown, New Jersey, and at Wallops Island, Virginia. The propulsion plant and machinery control systems will be tested at a land-based test site in Philadelphia.

#### Need for Skilled Workforce

Smith said the Navy is working closely with Marinette Marine in strengthening the company's supply chain and develop and retain its skilled work force "to make sure we have a good strong industrial base workforce to build these frigates for the next decade and decades to come. We need that as part of our industrial base risk reduction."

The program manager also discussed the challenges of recruiting a skilled work force, in response to a question from Seapower.

"How do you build a community that people want to live and grow and raise families and be shipbuilders?" he asked rhetorically. "We have people on our staff that have experience in that. The other part is working with Marinette on how we can really build the workforce. There's training, there's investments on how they can get people to come work and stay and then be retained."

"Some shipbuilding people come out of high school ... and they stay there a year, maybe two," Smith said. "But if they don't make it past two years, they're not going to stay. So how do we get people to stay for longer than a year or two? And how do we how do we really get them excited about shipbuilding?"

"You may read about some of the things Colombia [the Columbiaclass ballistic-missile submarine program] is doing," continued Smith. "We're looking at doing the same exact thing ... to think about Wisconsin ... There's other jobs out there that maybe are better ... but we're working on a lot of those things with the company and kind of coaching them with some of this funding we got from Congress. The big message here is I would predict that this company is going to be around for a long time and we need to get into the shipbuilding business long term as far as a prime and then we'll be able to count on them for decades."

## Shall We Play a Game? Winning Isn't the Point, Experts Say



NATIONAL HARBOR, Md. – War games may be a useful tool for leaders dealing with regional conflicts and great power rivalry, but the purpose isn't to win, according to a panel of gaming experts.

"Many people think war games are a boot camp for victory, in reality, war games get you to think about multiple choices, courses of action for the tactical, the operational and the strategic levels of war, so it's really not necessarily about winning," said panel moderator Dr. Steven Wills, Navalist, at the Center for Maritime Strategy, Navy League of the United States. Panel members echoed Wills' comment at the Navy League's 2023 Sea-Air-Space Expo.

"A single, well-designed game predicts 'a' future, not 'the' future," said Commander Phillip Pournelle, USN (Ret.), Senior Operations Analyst and Wargame Design at Group W, an analysis, modeling and research company. The best it can do is provide insights into the future, "in a manner similar to how a shotgun hits a duck."

"Winning is the wrong way to look at wargaming," said Jeremy Sepinsky, Lead Wargame Designer, CNA. "If you win a war game, you have discovered one potential way of success among an infinite number of choices that all must follow that exact alignment for your success to be realized." But losing a wargame identifies "how your systems are going to fail," Sepinsky said, adding even if you don't know how it failed it can point to what happens if it fails and how to mitigate that failure.

The session ended with all of the panelists demonstrating wargames they had developed like the Taiwan Straits game by Dr. Matt Cancian, of the U.S. Naval War College and the Center for Strategic and International Studies.

Most were complex with a blizzard of rules like IUU (illegal, Unreported, Unregulated) Fishing game, with a variety of dice, playing cards representing fishing boats, tiny fish, zoned areas marked with numbers indicating fisheries' size. "You are a fishing fleet, your job is to fish," explained Sepinsky, "each of the ships has a certain profit quota that you're trying to make."

The cards representing the ships have two sets of gauges "one for the welfare of the people on your ship. What are you wages. How are your social security benefits? Are you paying into their retirement plans," said the game-co-creator." On the right hand side you've got the safety of the ship. Is it patched? Is it leaking oil. Does it meet regulations and standards for the waters you're going to be fighting in?"

In some wargames "you want them to lose just a little bit," Dr. Yuna Wong of the Institute for Defense Analyses said. The purpose was to see what could go wrong and identify potential problems and weaknesses. Some organizations want to use wargames to validate or prove plans. "Remember wargames can't prove anything and they can't validate anything," she said.

## Navy's Newest Carrier to Deploy in May, Program Official Says



Caption: Captain Kevin Smith responds to workforce pipeline question from Ann Tropea, Editor-in-Chief at Seapower.

NATIONAL HARBOR, Md. —The Navy is pressing full bore to ensure that its new guided-missile frigate joins the fleet on time, the ship's program manager said.

"We're pushing hard with our industry partners to deliver that ship in 2026," said Captain Kevin Smith, program manager, Constellation Class Frigate, speaking to an audience at the Navy League's Sea-Air-Space Expo in National Harbor. "A lot of hard work has gone into the design, the production readiness, and now we're actually building it up in Marinette, Wisconsin."

A frigate, in modern terminology, is "primarily an escort for high value units that don't have their own self-defense," Smith said. "It's also to help offset some of the work of the large surface combatants like the cruisers and destroyers. It is a primary anti-submarine warfare platform, just like the FFG 7 [the Perry class frigates which have been decommissioned]."

"I am very happy with the performance we're seeing thus far," Smith said. "Obviously, we did change to a different variable to sonar a few years ago. ... The performance is astounding. ... Its integration with the [SQQ]-89 [antisubmarine warfare system] is going to be huge for the United States Navy and will be welcomed by the fleet."

Smith also said the Aegis Baseline 10 combat system and the Enterprise Air Search Radar will give the new ship "a lot of capability."

### Fincantieri Partnership

The future USS Constellation (FFG 62) is one of three frigates under contract to Fincantieri's Marinette Marine shipyard, the others being FFGs 63 and 64, under a 10-ship contract, including options. Smith said construction of FFG 62 will start soon and he expects the option for FFG 64 to be awarded this year as part of a four-ship buy. The Navy worked with Fincantieri to design an advanced construction pilot, "to really exercise all of the capital improvements, all of their workflow processes, all of their instructions, all the way through the value stream … from materials planning and getting the work orders to the workforce, making sure all those are understood."

The frigate's Aegis Combat System and SPY-6 Enterprise Air Search Radar are being integrated at the Lockheed Martin test lab in Moorestown, New Jersey, and at Wallops Island, Virginia. The propulsion plant and machinery control systems will be tested at a land-based test site in Philadelphia.

#### Need for Skilled Workforce

Smith said the Navy is working closely with Marinette Marine in strengthening the company's supply chain and develop and retain its skilled work force "to make sure we have a good strong industrial base workforce to build these frigates for the next decade and decades to come. We need that as part of our industrial base risk reduction."

The program manager also discussed the challenges of recruiting a skilled work force, in response to a question from Seapower.

"How do you build a community that people want to live and grow and raise families and be shipbuilders?" he asked rhetorically. "We have people on our staff that have experience in that. The other part is working with Marinette on how we can really build the workforce. There's training, there's investments on how they can get people to come work and stay and then be retained."

"Some shipbuilding people come out of high school ... and they stay there a year, maybe two," Smith said. "But if they don't make it past two years, they're not going to stay. So how do we get people to stay for longer than a year or two? And how do we how do we really get them excited about shipbuilding?" "You may read about some of the things Colombia [the Columbiaclass ballistic-missile submarine program] is doing," continued Smith. "We're looking at doing the same exact thing ... to think about Wisconsin ... There's other jobs out there that maybe are better ... but we're working on a lot of those things with the company and kind of coaching them with some of this funding we got from Congress. The big message here is I would predict that this company is going to be around for a long time and we need to get into the shipbuilding business long term as far as a prime and then we'll be able to count on them for decades."