Cutter Bertholf Returns to Homeport following North Pacific Patrol

A Coast Guard Cutter Bertholf (WMSL 750) crewmember embraces his daughter after Bertholf returned home following a nearly three-month patrol, Nov. 1, 2021. The crew patrolled more than 27,000 miles alongside partner agencies to support international cooperation for Operation North Pacific Guard, the U.S. Coast Guard's annual Northern Pacific illegal, unreported, and unregulated fishing patrol. *U.S. COAST GUARD / Chief Petty Officer Matt Masaschi*

ALAMEDA, Calif. – The crew of Coast Guard Cutter Bertholf (WMSL 750) returned to homeport in Alameda Monday, following a 105-day deployment throughout the North Pacific, the Coast Guard Pacific Area said Nov. 1.

The crew patrolled more than 27,000 miles for approximately three months alongside partner agencies to support

international cooperation for Operation North Pacific Guard, the U.S. Coast Guard's annual Northern Pacific illegal, unreported, and unregulated fishing patrol.

An integrated international law enforcement boarding team inspected 28 fishing vessels in the North Pacific Ocean and identified 42 violations of conservation and management measures under the Western and Central Pacific Fisheries Commission and North Pacific Fisheries Commission. The team discovered a total of 702 shark fins and 20 salmon during the inspections.

The detection of violations within both regional fisheries management organizations trigger processes to hold countries accountable for ensuring their fishing fleets comply with conservation and management measures designed to conserve important fish stocks. Coast Guard boardings and inspections are critically important as the only at-sea enforcement presence across vast ocean areas, helping to ensure the sustainable harvest of fisheries resources.

Operation North Pacific Guard is an annual multi-mission effort between the Coast Guard, National Oceanic and Atmospheric Administration, Pacific Rim countries and three regional fisheries management organizations to include the Western and Central Pacific Fisheries Commission, the North Pacific Fisheries Commission, and the North Pacific Anadromous Fishing Commission. Operation North Pacific Guard 2021 was jointly planned and executed with support from Canada, Republic of Korea, and Japan. Each nation provides surface and air patrols and shares information that guides patrol assets to detect and intercept the most likely illicit fishing activity.

"The crew of the Bertholf displayed remarkable perseverance throughout the duration of the patrol," said Capt. Timothy Brown, commanding officer of the Coast Guard Cutter Bertholf. "Illegal, unreported and unregulated fishing is a major global

maritime security threat, and I’m incredibly proud of the Bertholf crew for their roles in confronting predatory and irresponsible actions in international fisheries.”

Fluor Receives $1.16 Billion Contract Extension for Navy Nuclear Propulsion Work

Nuclear-powered aircraft carrier USS Abraham Lincoln (CVN 72) participates in a strait transit exercise with Carrier Strike Group 9 in this 2007 photo. Fluor Marine Propulsion has received a DoN contract extension for naval nuclear propulsion work. *U.S. NAVY*

IRVING, Texas – Fluor Marine Propulsion LLC, a wholly owned subsidiary of Fluor, has received a Department of the Navy

contract extension fiscal year 2022 for its part of its naval reactors work in a joint program overseen by the Department of Energy's National Nuclear Security Administration and the Department of the Navy, the company said Nov. 1.

The contract includes naval nuclear propulsion work at the Navy Nuclear Laboratory (NNL) sites in New York, Pennsylvania and Idaho. The one-year, cost-plus-fixed-fee option is valued at $1.16 billion.

Fluor won the initial base Navy contract in a joint Department of Energy and Department of Navy competition in July 2018. The two contracts have an original potential value of $30 billion over 10 years if all options are exercised.

For more than 70 years, NNL has developed advanced naval nuclear propulsion technology, provided technical support, and trained world-class nuclear operators to ensure the safe and reliable operation of the Navy's submarine and aircraft carrier fleets. The NNL is solely dedicated to the naval nuclear propulsion program and is comprised of nearly 8,000 engineers, scientists, technicians and support personnel.

Revolutionizing Navy's Sustainment with a Single Digital Thread

Mike Lyden, Rear Admiral (Ret), Supply Corps, United States Navy

Within a Naval career spanning 33 years, Mike Lyden served as Commander, Naval Supply Systems Command and 45th Chief of the US Navy Supply Corps from 2008 to July 2011 where he retired as a Rear Admiral. Mike later served as the first General Manager of the NATO Support and Procurement Agency.

Organizations with long standing “stove-piped” information technology solutions with decentralized governance are at a disadvantage in creating a single, interconnected, strategic scale and sustainable end-to-end digital sustainment solution necessary to achieve critical business requirements and true cost-wise data analytics. Navy is at a threshold where true integration of supply, maintenance and finance is possible and vitally necessary to achieve desired readiness gains through optimized investment and fully visible execution.

BACKGROUND

Navy is the only Service that separates supply and maintenance authorities and functions among different Systems Commands (SYSCOMs) and the Fleet. Achieving true end to end integration and data integrity is near impossible in this environment. While trying to do the right thing, everyone is pursuing their own end state. According to the DON's 2020-2023 Business Operations Plan, "Leaders at every level across Navy are urgently partnering with key stakeholders, gleaning best practices from private and public sectors, and monitoring impact and performance to share lessons learned to integrate combat and support operations. However, *without overall coherence and coordination, great ideas often become siloed while others languish."*

Multiple systems and databases, without overarching executive governance and end-to-end decision making, have diluted data integrity and slowed the comprehensive data analytics necessary to make definitive gains in readiness and reductions in overall cost. To a large extent the various communities and organizations in supply and maintenance continue to replicate previous "As-Is" processes in their COTS or newly developed software acquisitions.

This was particularly true in the implementation of Navy Enterprise Resource Planning (NERP) over the last decade. This led to underutilization of standard functionality, extensive customization, suboptimization, and a consistent inability to leverage and institutionalize best business practices.

However, with NERP, Navy has established a strong enterprise business backbone with single financial and wholesale supply systems. Together they can serve as a foundation to fully integrate supply and maintenance to finally maximize readiness dollars and outcomes.

True interconnectivity of sustainment, including integration and data integrity across supply and maintenance, cannot be effectively achieved by knitting together disparate systems

for supply and maintenance. The out-year costs remain too high to perpetuate existing systems into the future. Fortuitously, *the vice chief of naval operations' (VCNO) current Naval Sustainment System (NSS) architecture addresses long-standing supply and maintenance stovepipes to create a true end-to-end environment that delivers the common goal of readiness.* The Navy will have to be bold and directive to achieve true maintenance and supply integration.

THERE IS A BETTER WAY

Navy's financial leadership embraced a single financial architecture on NERP as the foundation of its effort to achieve significant progress toward audit readiness and meet Financial Improvement and Audit Readiness (FIAR) requirements. The same strategy could be extended for supply and maintenance integration.

Leveraging the NSS architecture along with the existing NERP business backbone, now supercharged on SAP HANA and the Cloud, can bring true end-to-end process control to the supply and maintenance environment with very strong linkages to finance. To achieve this Navy leadership must become more directive in terms of adherence to common processes and systems to breakdown long standing stovepipes.

Further, there must be recognition that Navy's supply and maintenance process are not so unique compared to the commercial world and therefore should not require an extensive portfolio of disparate systems, databases and analytics, or force extensive and expensive customization of NERP.

Exploiting the existing capability in NERP, augmented with a technical upgrade into the SAP S/4HANA environment, can deliver the systems capability to support a fully interconnected supply and maintenance end state vision and establish the systems backbone to support the objectives of NSS.

The integration of supply and maintenance in NERP allows the realization of the digital thread necessary for the ubiquitous capture, access and use of data across supply and maintenance. An integrated solution allows: better demand forecasting, obligation of funds using a readiness-based paradigm that takes advantage of Navy-wide inventory visibility, and automated prioritization of fleet purchase requests.

It is this single digital thread that can revolutionize Navy's sustainment and achieve desired readiness.

IT CAN BE DONE

The Navy currently runs finance and wholesale supply operations in Navy ERP on HANA within the National Security Services (NS2) Cloud. Planning, procurement, and other core functions are run as separate applications. Maintenance, from the field to depot level, is outside NERP altogether. To execute the complete sustainment processes, data is moved across multiple applications within a complex landscape with multiple views.

SAP has embedded several applications within S/4HANA, the next upgrade of its product. This unifies applications such as Advanced Planning and Optimization (APO), Advanced Available to Promise (AATP), Extended Warehouse Management (EWM), and Transportation Management (TM) into a single system, supported by a single database. Organizations that migrate to S/4HANA minimize siloed operations, get a powerful engine for analytics, and realize significantly increased functionality within the core solution.

Two industry examples bring perspective to the opportunities provided by this path:

Work at Newport News Shipbuilding (NNS), a subsidiary of Huntington Ingalls Industries, includes design and construction of aircraft carriers and submarines. In an enterprise like this, world-class software isn't a

consideration; it’s imperative. NNS previously ran SAP’s ERP Central Component (SAP ECC) system similar to the current Navy ERP program. NNS successfully migrated 22 years of data effectively and error-free to SAP’s S/4HANA system. Upon implementation, they realized improvements across multiple operational domains.

Airbus Defence and Space SE, a division of Airbus, faces changing market expectations, competition, and program and supply chain risks. Due to mergers and restructuring, they had accumulated three major ERP systems running siloed processes with limited data transparency across the business.

With their Finance Vision 2.0 they created one central finance community across the business, underpinned by lean processes and efficient systems. The company implemented the SAP S/4HANA solution for central finance. Critical data such as sales forecasts and project cash flows are now available instantly, and planning processes are now quicker and more agile. With a single authoritative source for all data feeds, they operate from real-time insights.

With a clear vision and focused executive direction, it can be done: a single, interconnected, strategic scale and sustainable end-to-end digital sustainment solution fully integrated with finance.

SAP has enjoyed an extensive relationship supporting multiple Defense Departments and Ministries across the globe as they modernize and improve their asset management and mission readiness capabilities.

See SAP technology in action by visiting the Synchronized Planning for Defense video series, found here.

AUKUS Agreement Will Provide Tomahawk Missiles to Australian Navy

A tomahawk land attack missile is launched aboard the Arleigh Burke-class guided-missile destroyer USS Curtis Wilbur (DDG 54) during a live-fire demonstration as part of Pacific Vanguard (PACVAN) in 2019. *U.S. NAVY / Mass Communication Specialist 2nd Class Taylor DiMartino*

ARLINGTON, Va. — The AUKUS agreement between Australia, the United Kingdom and the United States announced last month highlighted the plan to add nuclear-powered attack submarines to the Royal Australian Navy (RAN), but the agreement also will add long-range precision-strike capability to the RAN in the form of Tomahawk cruise missiles to arm destroyers and also long-range precision missiles to the Royal Australian Air Force (RAAF) and to ground forces.

“Throughout the decade, Australia will rapidly acquire long-range strike capabilities to enhance the ADF’s ability to deliver strike effects across our air, land and maritime

domains," the Australian Department of Defence said in a release. The management of this transition, and other capability acquisition options that will meet Australia's strategic requirements, will be at the forefront of consultations through AUKUS over the next 18 months."

RGM-109 Tomahawk cruise missiles will arm the RAN's three Hobart-class destroyers to enable the ships to strike land targets. The Tomahawks will be housed in Mk41 Vertical Launch System cells. The Tomahawk is built by Raytheon Missiles and Defense.

The AGM-158B Joint Air-to-Surface Standoff Missiles (Extended Range) (JASSM-ER) will arm the RAAF's F/A-18F Super Hornet strike fighters and, in the future, F-35A Lightning II strike fighters, to strike targets at ranges up to 900 kilometers.

Also, the AGM-158C Long-Range Anti-Ship Missiles (Extended Range) (LRASM**)** will arm the F/A-18Fs Both the JASSM-ER and the LRASM are built by Lockheed Martin.

Australia also will arm its land forces with unspecified precision-strike guided missiles "capable of destroying, neutralising and supressing diverse targets from over 400 [kilometers]," the release said.

The Department of Defence also said it will be in "continuing collaboration with the United States to develop hypersonic missiles for our air capabilities."

The Australian government also will be "accelerating $1 billion for **a** sovereign guided weapons manufacturing enterprise – which will enable us to create our own weapons on Australian soil."

The nuclear-powered submarines for the RAN are a long-way off in time, so the government plans a life-of-type extension of Australia's Collins class submarine fleet, which "will enhance Australia's ability to deter and respond to potential security

challenges.”

USS Billings Returns Home After U.S. 4th Fleet Deployment

The Freedom-variant littoral combat ship USS Billings (LCS 15) transits the Caribbean Sea, July 10, 2021. *U.S. NAVY / Mass Communication Specialist 2nd Class Austin G. Collins*

MAYPORT, Fla. – The Freedom-variant littoral combat ship USS Billings (LCS 15) returned to Mayport, Florida, Oct. 30, following its successful first deployment to the U.S. 4th Fleet area of operations, said U.S. Naval Forces Southern Command/U.S. 4th Fleet Public Affairs.

Billings (Gold crew), along with the “Snowmen” of Helicopter Sea Combat Squadron (HSC) 28, Detachment 5, deployed June 30, to conduct U.S. Southern Command and Joint Interagency Task

Force South’s counter-narcotics operations in the Caribbean Sea.

During their deployment, Billings, with its embarked U.S. Coast Guard Law Enforcement Detachment (LEDET), assisted in disrupting an estimated 1,597 kilograms of cocaine worth over an estimated street value of over $111.8 million and removed 13 suspected drug traffickers from the narcotics trade.

When a 7.2-magnitude earthquake struck Haiti Aug. 14, 2021, Billings joined in humanitarian assistance and disaster relief (HADR) efforts as part of the Joint Force Maritime Component Command. Billings provided support as an afloat refueling base for Joint Task Force-Haiti aircraft and utilized its MH-60S Sea Hawk from HSC-28 to move personnel and transport life-saving aid to remote areas in need.

“I am incredibly proud of the Sailors on Billings for everything they accomplished this deployment,” said Cmdr. Brett Seeley, commanding officer aboard Billings. “The incredible work ethic, professionalism, and resiliency of this team was crucial in conducting real world operations. Taking narcotics off the streets, easing suffering of the people of Haiti through HADR, and building partnerships in this part of the world has had tangible impacts and sets the stage for those who sail after us. I could not have asked for a better maiden deployment for our mighty warship and the Thundercat crew.”

Billings conducted three bilateral maritime exercises with Jamaica and the Dominican Republic to strengthen partnerships and build interoperability between forces.

During a port visit to Santo Domingo, Dominican Republic, the ship hosted a reception onboard, welcoming Dominican Republic President Luis Rodolfo Abinader, Vice

President Raquel Peña and Chargé d'Affaires of U.S. Embassy Santo Domingo Robert W. Thomas.

Upon arriving in U.S. 4th Fleet area of operations, Billings also participated in a surface training exercise with USS Sioux City (LCS 11) and USS Wichita (LCS 13), marking the first time three Freedom-variant LCS ships have been deployed and operating together at the same time.

Throughout the deployment, Billings partnered with other U.S. Navy warships, as well as numerous U.S. agencies from the departments of Defense, Justice and Homeland Security, in the effort to combat transnational organized crime.

Rolls-Royce Opens New $11 Million Facility to Support U.S. Navy Programs

Rolls-Royce's flagship Naval Defense campus in Walpole, Massachusetts. *ROLLS-ROYCE*

WALPOLE, Mass. – Rolls-Royce has completed an $11 million investment in its flagship Naval Defense campus with the opening of a new high-tech manufacturing, repair and test facility. The 25,000-square-foot facility will enhance and modernize the company's naval operations in Walpole, adding waterjet maintenance, repair and overhaul (MRO) servicing to its portfolio of world-class capabilities.

"We're excited to add this new capability so we can better serve our U.S. Navy customers," said Dan Rediger, Rolls-Royce head of Naval Operations. "Our Walpole team has proudly equipped the Navy for more than 50 years and this investment ensures that we can continue to meet their growing needs for decades to come."

As the U.S. Navy Littoral Combat Ship (LCS) program continues to mature, Rolls-Royce is seeing an increased demand for spare equipment and MRO services associated with scheduled maintenance. Each Freedom-class variant of the LCS is equipped with four Rolls-Royce waterjets that were designed and manufactured on the company's Walpole campus. The new facility gives Rolls-Royce the capacity and capability to perform the waterjet MRO work in Walpole, as well.

Rolls-Royce is a global leader in propulsion equipment and continues to provide unparalleled products and services to the U.S. Navy. The company is the sole supplier of shock-rated propeller systems, which have demonstrated extraordinary levels of reliability and robustness in service. Rolls-Royce Propulsion equipment can be found on more than 95% of the U.S. Navy's surface warfare fleet.

"We are proud to provide the power to protect in support of our United States Department of Defense customers," said Tom Bell, president, Rolls-Royce Defense and chairman & CEO of Rolls-Royce North America. "This investment is a clear signal that we remain committed to meeting their needs both today and well into the future with world-class, American-made products

and services.”

The investment is also expected to have a positive impact on the region, bringing new business to the local economy and new high-tech, manufacturing jobs to the Rolls-Royce Walpole campus.

“I want to congratulate Rolls-Royce for expanding their footprint in Massachusetts, which promises to increase regional access to employment opportunities in high-tech manufacturing,” said Mike Kennealy, Massachusetts housing and economic development secretary. “The Commonwealth has made great strides in building a talented workforce and fostering innovation, and this facility ensures Rolls-Royce will continue to play an important role in our ecosystem well into the future.”

Navy Hypersonic Rocket Motor Moves Closer to Flight Testing

The U.S. Navy, in collaboration with the U.S. Army, conducts a static fire test of the first stage of the newly developed 34.5” common hypersonic missile that will be fielded by both services. *U.S. NAVY / NORTHROP GRUMMAN*

WASHINGTON – The Navy Strategic Systems Programs successfully conducted a second test of the First Stage Solid Rocket Motor (SRM) Oct. 28 in Promontory, Utah, as part of the development of the Navy’s Conventional Prompt Strike (CPS) offensive hypersonic strike capability and the Army’s Long Range Hypersonic Weapon (LRHW), the Navy’s Office of the Navy Chief

of Information said Oct. 29. The offensive weapon systems will enable precise and timely strike capability against deep inland targets in contested environments.

”Today’s successful test brings us one step closer to the design validation of our new hypersonic missile that will be fielded by both the Navy and the Army,” said Vice Adm. Johnny R. Wolfe Jr. director, Navy’s Strategic Systems Programs, which is the lead designer for the common hypersonic missile. ”We are on schedule for the upcoming flight test of the full common hypersonic missile. Our partners across government, industry, and academia are continuing the excellent work that is essential to providing a hypersonic capability to our warfighters as quickly as possible.”

This SRM test is part of a series of tests validating the newly developed common hypersonic missile. This live fire test follows previous tests of the First and Second Stages on May 27 and August 25, 2021. This static fire test marked the first time the First Stage SRM included a thrust vector control system. The thrust vector control system is a key component of the missile booster that allows the rocket motors to be maneuverable in flight.

U.S. peer competitors are weaponizing and fielding hypersonic capabilities, creating warfighting asymmetry that must be addressed. These tests are vital in developing a Navy-designed common hypersonic missile that the Navy and Army will field. The common hypersonic missile will consist of the first stage SRM as part of a new missile booster combined with the Common Hypersonic Glide Body (CHGB).

The Navy and Army are on track to test the full common hypersonic missile that will be a catalyst for fielding the CPS and LRHW weapon systems. The services are working closely with government national laboratories and industry to continue developing and producing the common missile.

“This test continues to build momentum to deliver hypersonics capability for our warfighters in support of the National Defense Strategy,” said Lt. Gen. L. Neil Thurgood, director of Hypersonics, Directed Energy, Space and Rapid Acquisition. “Fielding hypersonic weapons is one of the highest priority modernization areas the Department of Defense is pursuing to ensure our continued battlefield dominance, and the joint team did a tremendous job executing this test and keeping us on schedule.”

Information gathered from ongoing tests will further inform the services offensive hypersonic technology development. Hypersonic weapons are capable of flying at speeds greater than five times the speed of sound (Mach 5), are highly maneuverable and operate at varying altitudes. The common hypersonic missile design for sea and land-based applications provides economies of scale for future production and relies upon a growing U.S. hypersonics industrial base.

Japan, U.S. form Surface Action Group in South China Sea

Japan Maritime Self-Defense Force Murasame-class destroyer JS Yudachi (DD 103), left, and Independence-variant littoral combat ship USS Jackson (LCS 6) sail together in the South China Sea. *JMSDF*

SOUTH CHINA SEA – Japan Maritime Self-Defense Force (JMSDF) Murasame-class destroyer JS Yudachi (DD 103) and Independence-variant littoral combat ship USS Jackson (LCS 6) operated bilaterally in the South China Sea, said Lt. Cmdr.

Lauren Chatmas, U.S. Navy, Destroyer Squadron Seven Public Affairs.

Joining to form a Surface Action Group (SAG) while transiting, the ships practiced a range of surface warfare tactics to include flight operations, communications drills and coordinated tactical maneuvering, all designed to enhance interoperability and enabling the ships to practice bilateral tactics in close proximity to one another.

“Meeting our JMSDF allies in the South China Sea allowed both of our teams to build readiness as we sail in the Indo-Pacific,” said Cmdr. Michael Root, Jackson Gold Crew commanding officer. “The complex maneuvering and operations we accomplished without meeting face-to-face reflects the strong friendship and maritime professionalism that our nations and navies share.”

Coming together with partners and allies at sea allows the U.S. Navy to operate closely with other navies and in ways shore exercises do not allow. It further provides the crews with real-life situations to practice their everyday watchstanding and communication skills with foreign vessels.

“On our way to the Gulf of Aden and Somali waters to engage counter piracy mission, we met with USS Jackson, and conducted various tactical training,” said Cmdr. Wakushima Hidetaka, JMSDF JS Yudachi commanding officer. “Despite COVID-19, Japan and U.S. naval forces are working closely in any sea area, making full use of the characteristics of the naval force.”

Attached to Destroyer Squadron (DESRON) 7, Jackson is on a rotational deployment to the U.S. 7th Fleet area of operations in support of security and stability in the region, and to work alongside allied and partner navies to provide maritime security and stability, key pillars of a free and open Indo-

Pacific.

As the U.S. Navy's forward-deployed destroyer squadron in Southeast Asia, DESRON 7 serves as the primary tactical and operational commander of littoral combat ships rotationally deployed to Singapore, functions as Expeditionary Strike Group 7's Sea Combat Commander, and builds partnerships through training exercises and military-to-military engagements.

Under commander, U.S. Pacific Fleet, 7th Fleet is the U.S. Navy's largest forward-deployed numbered fleet, and routinely interacts and operates with 35 maritime nations in preserving a free and open Indo-Pacific region.

U.S. Coast Guard, Haitian Coast Guard Interdict Suspected Drug Smugglers

A Coast Guard Cutter Joseph Doyle (WPC-1133) small boat crew and cutter crewmembers conduct a contraband transfer following an interdiction near Gonave Island, Haiti, Oct. 27, 2021. The suspected smugglers and contraband were transferred to the Haitian coast guard. *U.S. COAST GUARD*

MIAMI – Coast Guard Cutter Joseph Doyle's crew transferred 1,485 pounds of marijuana and three suspected drug smugglers to Haitian Coast Guard crewmembers on Wednesday, following an interdiction off the coast of Haiti.

The small boat crew transferred 27 bales of marijuana and the suspected smugglers aboard.

The Doyle's crew spotted a vessel with visible bales of contraband on board, during a routine patrol, Oct. 26, at 2:50 p.m, approximately 9 miles northwest of Gonave Island, Haiti. Doyle's crew coordinated a pursuit with Haitian Coast Guard crewmembers and deployed a small boat crew to interdict the vessel.

"Continued coordination and collaboration between the U.S. and Haitian coast guard enabled this successful interdiction and prosecution," said Lt. David Steele, Coast Guard Liaison Officer, U.S. Embassy Haiti. "The U.S. Coast Guard will continue to partner with the Haitian coast guard to build capacity, reduce the destabilizing effects of transnational organized crime and secure Haiti's maritime borders."

The suspected smugglers and contraband were later transferred to the Haitian coast guard. No injuries were reported.

Navy Selects BAE's 57mm Mk110 Gun for Constellation-Class Frigates

The Mk 110 57mm Gun Weapons System (GWS) is fired as part of a regular operational exercise aboard Independence-variant littoral combat ship USS Charleston (LCS 18), July 11. *U.S. NAVY / Mass Communication Specialist 3rd Class Adam Butler*

BAE Systems has received a $26 million contract to equip the U.S. Navy's Constellation class frigates with the fully automatic 57mm Mk 110 naval gun, the company said in an Oct. 28 release.

The contract, awarded earlier this month, includes engineering support and calls for two Mk 110s for the USS Constellation (FFG 62) and USS Congress (FFG 63). The new Constellation class of multi-mission guided-missile frigates is designed to operate in blue water and in the littorals, for an increased forward naval presence.

The Mk110 gun system, known internationally as the Bofors 57 Mk 3, is the deck gun of choice for the Constellation class. It is a multi-mission, medium-caliber shipboard weapon, effective against air, surface, or ground threats without requiring multiple round types. The system is capable of firing up to 220 rounds per minute at an effective range of more than nine nautical miles using BAE Systems' six-mode programmable, pre-fragmented, and proximity-fused (3P) ammunition.

"The selection of the Mk 110 for the U.S. Navy's Constellation class frigates signifies confidence in the gun system and its ability to meet current and future needs in shipboard defense," said Brent Butcher, vice president of the weapon systems product line at BAE Systems "The Mk110 gun system provides this next-generation frigate with the continued performance that our surface fleet has come to expect from its intermediate caliber guns."

This contract also includes providing a Mk110 system to the U.S. Coast Guard's third Argus Class Offshore Patrol Cutter, USCGC Ingham. Deliveries are expected to begin in 2023 under the contract with Naval Sea Systems Command Integrated Warfare Systems 3C (NAVSEA IWS).

The 57mm Mk 110 is currently in service on the Navy's Littoral Combat Ship and the U.S. Coast Guard's National Security Cutter. To date, BAE Systems is providing 39 Mk110 guns to the Navy and 15 to the Coast Guard. Worldwide, 103 Mk110/57 Mk 3 naval gun systems are under contract with nine nations.