

Coast Guard Brings Unique Authorities, Capabilities to Tri-Services Maritime Strategy, Commandant Says



Bollinger Shipyards LLC delivered the USCGC Charles Moulthrop to the U.S. Coast Guard in Key West, Florida. This is the 41st Fast Response Cutter delivered under the current program. The FRC is the first of six to be home-ported in Manama, Bahrain, supporting the Patrol Forces Southwest Asia. Bollinger Shipyards

ARLINGTON, Va. – The U.S. Coast Guard will bring a less militaristic face to the persistent global presence of U.S. naval power outlined in the new Tri-Service Maritime Strategy, the Coast Guard’s commandant says.

The strategy, unveiled in mid-December, seeks an integrated, all-domain naval power consisting of the U.S. Navy, Marine Corps and Coast Guard, that will maintain freedom of navigation globally, defend the homeland and “prevail across a

continuum of competition – composed of interactions with other nations from cooperation to conflict.”

The Tri-Services strategy focuses on an emerging China and resurgent Russia as “the most significant threats” to the rules-based international system that existed since the end of World War II.

“The Coast Guard is poised today, more than ever, to seamlessly integrate into our nation’s joint maritime naval force, as captured in this document,” Adm. Karl L. Schultz, the Coast Guard’s commandant, said Jan. 13 at the Surface Navy Association’s Virtual Symposium.

With its unique law enforcement and military authorities, multi-mission capabilities, wealth of multilateral and bilateral agreements and partnerships, the Coast Guard has unfettered access to the global commons, he added, making the agency “a perfect complement to the lethality of the Navy and Marine Corps. And united, we bring a range of maritime capabilities to employ across the cooperation, competition, lethality continuum.”

The Coast Guard operates generally below the level of conflict or lethality and that’s the bridge between “State Department diplomacy and Defense Department lethality,” Schultz said. “Coast Guards offer a less militaristic face of state power in disputed maritime areas. They present options. They’re like Swiss Army Knives,” he said.

Other maritime nations have also recognized the agility and capability of their coast guards to operate along this continuum below lethality, Schultz said. Between 2010 and 2016, China increased the tonnage of its Coast Guard by 73% percent, and Japan did so by 50%, he said, citing RAND Corp. research.

While the U.S. Coast Guard is part of the Department of Homeland Security, charged with law enforcement at sea,

fisheries protection, marine safety and maritime security, the tri-service strategy noted Navy and Coast Guard ships conduct freedom of navigation operations globally, challenging excessive and illegal maritime claims. Coast Guard cutters and law enforcement detachments aboard Navy and allied ships exercise unique authorities to counter terrorism, weapons proliferation, transnational crime and piracy, the strategy document stated.

Coast Guard cutters have supported all six combatant commands from Indo-Pacific Command to Africa Command, Schultz said, noting the next commissioned Fast Response Cutter will be the first of that class sent to Bahrain. "We've been operating in that theater since 2003 and we will bring additional capabilities and additional capacity with these new cutters," he said.

The Coast Guard's fleet modernization, including acquisition of the Offshore Patrol Cutter, Polar Security Cutter, Arctic Security Cutter and Waterways Commerce Cutter, will provide the capacity and capabilities necessary to facilitate advancing maritime governance and protecting U.S. maritime sovereignty, according to the strategy document.

Wolfe: Navy Plans to Start Development of Nuclear Sea-Launched Cruise Missile in 2022



The USS Philippine Sea launches a Tomahawk cruise missile to conduct strikes against ISIL targets as seen from the aircraft carrier USS George H.W. Bush in this 2014 photo. The DoD's previous nuclear-armed cruise missile was based on the Tomahawk, but development of a new one is expected to begin in 2022. U.S. Navy / Mass Communication Specialist 1st Class Eric Garst

ARLINGTON, Va. – The Navy plans to wrap up an analysis of alternatives (AoA) for a ship-launched nuclear-armed cruise missile in 2021 and begin development of the missile in 2022, said the admiral in charge of strategic weapons .

“We will finish the AoA this year per what was required by the NDAA [National Defense Authorization Act],” said Vice Adm. Johnny Wolfe Jr., director, Strategic Systems Programs, speaking Jan. 14 in a Nuclear Deterrence Forum webinar sponsored by the Mitchell Institute for Aerospace Studies, a Washington think tank. “With that AoA, going forward and with the Department of Defense’s concurrence, design would start in [fiscal] ’22.”

The Defense Department's (DoD's) 2018 Nuclear Posture Review (NPR) said the department would pursue a Sea-Launched Cruise Missile – Nuclear (SLCM-N), “leveraging existing technologies to help ensure its cost effectiveness. SLCM will provide a needed non-strategic regional presence, an assured response capability. It also will provide an arms-control compliant response to Russia's non-compliance with the Intermediate-range Nuclear Forces Treaty, its non-strategic nuclear arsenal, and its other destabilizing behaviors.”

The review asserted that a SLCM “will not require or rely on host nation support to provide deterrent effect. They will provide additional diversity in platforms, range, and survivability, and a valuable hedge against future nuclear ‘break out’ scenarios.

“In the 2010 NPR, the United States announced the retirement of its previous nuclear-armed SLCM, which for decades had contributed to deterrence and the assurance of allies, particularly in Asia,” the 2018 NPR said. “We will immediately begin efforts to restore this capability by initiating a capability study leading to an Analysis of Alternatives (AoA) for the rapid development of a modern SLCM.”

The previous nuclear-armed SLCM was a version of the Tomahawk cruise missile.

Wolfe said the strategic Systems Program Office will be briefed “up through the Navy and OSD [Office of the Secretary of Defense] which will eventually go to the CAPE [Cost Assessment and Program Evaluation]. Based on what the AoA says would be the right course of action to have a sea-launched cruise missile, then we would start taking whatever the AoA said and then start to look how would I design it, how would I start to integrate it.”

The Navy would request funds in the fiscal 2022 budget to develop the SLCM-N based on the decision of the DoD.

President Authorizes U.S. Atlantic Fleet Designation for Navy's Fleet Forces Command



Chief of Naval Operations (CNO) Adm. Mike Gilday meets with Sailors during a 2020 visit to Naval Expeditionary Intelligence Command. U.S. Navy / Mass Communication Specialist 3rd Class Marissa Vermeulen

ARLINGTON, Va. – The chief of naval operations (CNO) said President Trump last week signed off on the secretary of the Navy's proposed re-designation of U.S. Fleet Forces Command as the U.S. Atlantic Fleet. A timetable for the change has not been announced, but Fleet Forces Commander Adm. John Grady is proceeding with implementation.

Speaking Jan. 11 in a webinar of the Surface Navy Association convention, CNO Adm. Michael Gilday discussed the pros of the redesignation.

“It underscores the importance of the Atlantic in a way that the title ‘Fleet Forces’ doesn’t,” Gilday said. “It actually is a testament to recent tangible decisions that we made to increase our power in that body of water, to include bringing Second Fleet back, standing up SubGru 2 (Submarine Group Two). It will also include standing up [NATO’s] Joint Force Command Norfolk, which is focused on the Atlantic.”

Gilday said, “in a day and age when the homeland is no longer a sanctuary, and homeland defense is at the fore of every plan the combatant commanders have put together, the name ‘Atlantic Fleet’ always carries some gravitas with respect to defense of the nation.”

He noted the complexity of the re-designation, saying the command “also has responsibilities as a component [command] for [U.S.] Northern Command and the Eastern Pacific that extend up to the Arctic as well as their role as component of the [U.S.] Strategic Command. They really have a global responsibility with respect to the command and control of our SSBNs [ballistic-missile submarines].”

Grady seconded the complexity in a Jan. 13 webinar at the convention, noting the “downside “might be that we would lose emphasis on what we do for the homeland. Indeed, I control forces in both the Pacific and down south [in U.S. Southern Command area of responsibility].

“So, we will balance all that, and in the end the name change is an important branding opportunity, and we will move out on that,” Grady said.

“We are walking through this very methodically and deliberately before we finally execute,” Gilday said.

The re-designation plan originally was announced by Navy Secretary Kenneth J. Braithwaite, testifying Dec. 2 before the Readiness and Management Support subcommittee of the Senate Armed Services Committee, noting that the changing world requires that the Navy must evolve to meet the threat.

“Our existing structure operates on the premise that we still live in a post-9/11 state, where NATO’s flanks are secure, the Russian Fleet is tied to the pier, and terrorism is our biggest problem,” Braithwaite said. “That is not the world of today. As the world changes, we must be bold, evolved, and change with it. Instead of perpetuating a structure designed to support Joint Forces Command, we are aligning to today’s threat.

“To meet the maritime challenges of the Atlantic Theater, we will rename Fleet Forces Command as the U.S. Atlantic Fleet and will refocus our naval forces in this important region on their original mission, to controlling the maritime approaches to the United States and those of our allies,” he said. “The Atlantic Fleet will confront the re-assertive Russian navy, which has been deploying closer and closer to our East Coast with a tailored maritime presence, capability and lethality.”

The U.S. Atlantic Fleet commander will have two numbered fleets assigned, U.S. Second Fleet, headquartered in Norfolk, Virginia, and U.S. Fourth Fleet, headquartered in Mayport, Florida. The U.S. Second Fleet was reestablished in August 2018 to confront the increasing Russian activity.

Navy Discusses Plans for Limited Optional Manning for Large and Medium USVs



Sea Hunter, the developmental Medium Unmanned Surface Vehicle (MUSV), shown here in 2018. U.S. Navy photo

ARLINGTON, Va. – The Navy has discussed plans for its forthcoming large and medium unmanned surface vehicles (USVs) to be optionally manned for limited purposes.

Capt. Pete Small, the Navy's Unmanned Maritime Systems program manager, speaking Jan. 13 at a Surface Navy Association convention webinar on the Navy's unmanned surface vehicles, said both the Large USV (LUSV) and Medium USV (MUSV) will have some capability for being manned for certain limited purposes, but not for their primary functions.

Small said the MUSV will be “essentially unmanned,” but will be equipped with a pilot house for such short-term evolutions as getting underway from and returning to a pier, refueling and anchoring. However, the MUSV will have no berthing accommodations for personnel.

The LUSV, Small said, will in its initial construct feature a pilot house and will have accommodations for personnel who “might need to be onboard for a variety of reasons that do not necessarily include vessel operations.” He said those reasons might include payload, security, test and evaluation, or in a CONOPS [concepts of operation]-driven environment.”

The MUSV prototype now is under construction by L3Harris.

The Navy has six studies under contract to develop concepts for the LUSV and also is developing government-furnished equipment to be installed in the ship.

The primary role of the MUSV is envisioned to be intelligence, surveillance and reconnaissance.

The LUSV is envisioned to be fitted with missile launchers. Small said the Navy in 2021 will begin an analysis of alternatives for offensive surface fires of the LUSV.

The Navy’s Surface Development Squadron One is operating the Sea Hunter developmental MUSV for experimentation. A second Sea Hunter, the Sea Hawk, is scheduled for delivery in 2021.

The service also is conducting experimentation with two optionally manned Project Overlord ships to develop and demonstrate autonomous operations at sea. Two more Overlord ships will be delivered in 2022 and 2023. Small said the Overlord USVs were “demonstrating increasingly autonomous operations.”

“It is too early to say where we will end up across that portfolio, but we are investigating a range of options via our

prototyping efforts,” Small said.

Northrop Grumman to Enable New F-35 Warfighting Capability



Pilots with Marine Fighter Attack Training Squadron 501 fly the F-35B Lightning II during the Marine Corps Air Station Beaufort Air Show, 2019. U.S. Marine Corps / Warrant Officer Bobby J. Yarbrough

BALTIMORE – Northrop Grumman has received a contract award from Lockheed Martin to enable new functionality to protect the 5th Generation F-35 Lightning II multi-role fighter, Northrop Grumman said in a Jan. 12 release.

As part of a collaborative arrangement between Northrop Grumman, BAE Systems and Lockheed Martin, the three companies will integrate Northrop Grumman's AN/ASQ-242 Integrated Communications, Navigation and Identification (ICNI) and BAE Systems' AN/ASQ-239 Electronic Warfare/Countermeasures system for optimal operational utility.

"This arrangement allows us to collectively provide enhanced capabilities without compromising the size, weight or power of the aircraft," said Howard Lurie, vice president, F-35 programs, Northrop Grumman. "We are proud to be a primary partner of the F-35 team, providing our U.S. and allied warfighters superior combat effectiveness."

Northrop Grumman's ICNI system provides F-35 pilots with more than 27 fully integrated operational functions. Using its industry-leading software-defined radio technology, Northrop Grumman's design allows the simultaneous operation of multiple critical functions while greatly reducing size, weight and power demands on the advanced F-35 fighter. These functions include Identification Friend or Foe, automatic acquisition of fly-to points, and various voice and data communications such as the Multifunction Advanced Data Link.

The BAE Systems' AN/ASQ-239 system is an advanced, proven electronic warfare suite that provides fully integrated radar warning, targeting support, and self-protection to detect and defeat threats and enable the F-35 to reach well-defended targets.

"As Lockheed Martin's electronic warfare integrator for all F-35 aircraft, we're committed to equipping our customers with advanced capabilities that help them conduct their missions," said Deborah Norton, vice president of F-35 Solutions at BAE Systems. "Under this collaborative agreement, we will work closely with Lockheed Martin and Northrop Grumman to enhance the capability of our fully integrated EW system – heightening pilots' situational awareness and helping them evade, engage

and defeat modern threats.”

As the provider for F-35’s ICNI continuously since low-rate initial production Lot 1, Northrop Grumman has delivered more than 750 shipsets to date. Components of the new functionality are planned to begin incorporation starting in 2025 (Lot 17) and will include upgraded electronics and software.

Northrop Grumman plays a key role in the development, modernization, sustainment and production of the F-35. The company manufactures the center fuselage and wing skins for the aircraft, produces and maintains several sensors, avionics and mission systems as well as mission-planning software, pilot and maintainer training courseware, electronic warfare simulation testing and low-observable technologies.

Cutter Joseph Gerczak Conducts Patrol to Increase Maritime Presence in Pacific



The Coast Guard Cutter Joseph Gerczak (WPC 1126) has completed the first stage of its expeditionary patrol in the Pacific to counter illegal fishing. U.S. Coast Guard

HONOLULU – The Coast Guard Cutter Joseph Gerczak (WPC 1126) conducted a port call in Honolulu after completing the first stage of its expeditionary patrol in the Pacific to curtail illegal fishing and strengthen maritime law enforcement self-sufficiency with Kiribati partners, the Coast Guard 14th District said in a Jan. 12 release.

The crew of the Joseph Gerczak traveled from Dec. 28, 2020, to Jan. 3, 2021, from Hawaii to Kiribati, covering a distance of approximately 2,400 miles.

“We’re working to increase awareness of unlawful fishing operations in remote territories of the United States, the Pacific, and the Republic of Kiribati’s exclusive economic zones,” said Lt. James Provost, commanding officer of the Joseph Gerczak. “Over the course of our patrol we queried one Chinese fishing vessel while enforcing Kiribati’s sovereignty.”

As part of Operation Blue Pacific Task Force, the crew of the Joseph Gerczak deployed in support of strategic national

security goals of stability and security throughout the Indo-Pacific.

The crew of the Joseph Gerczak used intelligence-driven enforcement actions, counter predatory and irresponsible maritime behavior, and expanded multilateral fisheries enforcement cooperation.

Illegal, unreported, and unregulated fishing results in tens of billions of dollars in lost revenue to legal fishers every year. IUU operates without legal constraints, avoids overhead licensing costs, and often falsifies their documentation creating an unfair advantage.

The Coast Guard combats illegal fishing and other maritime threats across the Pacific to protect the United States and Pacific Island Countries resource security and sovereignty. Combating illegal fishing is part of promoting maritime governance and a rules-based international order that is essential to a free and open Oceania.

Oceania covers an area of 3.3 million square miles and has a population of approximately 40 million diverse people.

“Effective maritime domain awareness requires unprecedented information sharing,” said Cmdr. Jason Brand, chief of enforcement, Coast Guard District 14. “We are eager to collaborate with Kiribati on initiatives of common interest.”

Fast Response Cutters, such as the Joseph Gerczak, are outfitted with new and advanced command, communications, control, computers, intelligence, and surveillance systems and boast greater range and endurance compared to their forerunner, the 30-year old 110-foot Island-class patrol boats. Like their predecessors, the FRCs are designed as multi-mission platforms ranging from maritime law enforcement to search and rescue.

Marine Heading Navy's Expeditionary Warfare Unit Wants to Keep Amphibs Mobile and Enemies Guessing



Jarred Kinder, an engineer at Naval Surface Warfare Center Panama City Division, discusses mine countermeasures technology with Maj. Gen Tracy W. King, director of expeditionary warfare (OPNAV N95) during a familiarization tour Jan. 22. U.S. Navy / Eddie Green

ARLINGTON, Va. – The Marine Corps general who heads the U.S. Navy's expeditionary warfare directorate says his top priority is the acquisition of the Light Amphibious Warship (LAW) for

future operations by a highly mobile and distributed deterrent force.

The LAW is designed to complement and fill a gap in capability between the Navy's large, multi-purpose amphibious warships and shorter range landing craft, Maj. Gen. Tracy King said Jan. 12 at the Surface Navy Association's virtual symposium.

King said the LAW will be a force multiplier allowing naval forces to maintain a persistent but mobile presence to deter adversaries. "We're going to be able to stay there. Think of a lily pad," he added.

LAW is being designed as an affordable, low signature, high endurance, shore-to-shore vessel that can run up on the beach, "capable of operating independently, or in collaboration with other service warships and platforms and naval task forces," the general said.

He added that LAW was leveraging commercial support vessel design elements. The new amphib would resemble a 21st century version of the World War II Landing Ship Medium (LSM) landing craft. "Think 300-to-400 feet long, about 2,000 tons, long-range, endurance, with a mission bay full of whoop ass," King said.

LAW is not an auxiliary, connector or forcible entry platform, said King. "It is a combatant that will enable persistent presence and enhanced tactical ability in the pursuit of sea denial," he said, adding "We're going to capitalize on the benefits of mass without the risk of concentration."

On a related issue, arming large amphibious warships with anti-ship missiles to be fired by embarked Marines, King said "Do we need to put fixed launchers that look like something on an LCS? No, I don't think so." But he didn't see why the containerized weapons systems traveling with the Marines couldn't be made available to the ship's captain. "To me,

that's what the future looks like. If we proliferate the battlefield and the battlespace with these systems, then we keep the enemy guessing as to who's got what."

The concept of a light amphibious warship has been gaining ground since Gen. David H. Berger, the commandant of the Marine Corps, said the Navy needed to broaden its family of amphibious warfare ships. A more distributed, survivable force was needed to operate in a future high-intensity conflict with a peer competitor, Berger maintained.

"It's no secret the next fight is going to have a distinct maritime flavor," King said during a joint appearance at the Surface Navy event with Rear Adm. Paul, Schlise, the director of the Navy's surface warfare division.

Schlise said his top priority was completing the first Flight III Arleigh-Burke class guided missile destroyer, DDG-125, the USS Jack Lucas. The 75th ship in the Arleigh Burke line is "really the first ship of the future surface architecture," Schlise said. The ship is 44% complete and on track to be commissioned in 2023. DDG-125 will serve as a bridging platform to a future large surface combatant, DDGX, the admiral said.

Naval Surface Force Grapples with Instability in Ship Manning



Sailors and Marines man the rails aboard the Harpers Ferry-class dock landing ship USS Oak Hill (LSD 51) during Maryland Fleet Week and Air Show Baltimore in this 2018 photo. U.S. Navy / Mass Communication Specialist 2nd Class Joseph E. Montemarano

ARLINGTON, Va. – The Navy is working hard to solve a persistent manning shortage in its surface fleet, the commander of that force said in an address to the force.

“We need to man our ships to the right requirement across the OFRP [Optimized Fleet Readiness Plan], not just when they are ready to deploy,” said Vice Adm. Roy Kitchener, commander, Naval Surface Forces, speaking from San Diego in a video shown Jan. 12 during a webinar at the Surface Navy Association convention.

“We’re making progress with our manning issues, but many challenges remain,” Kitchener said. “We continue to fund more DDG [guided-missile destroyer] billets but it will take time for those Sailors to arrive on the waterfront. Our sea-duty gaps have been reduced to below 11,000 and that reduction is projected to continue to 7,500 by September 2021. But in the last fiscal year, we still resorted to 1,760 temporary

personnel assignments to fill the remaining gaps for deployers.

“That is not a long-time solution,” Kitchener said. “It adds stress on our Sailors, and thereby the force.”

He pointed out that the manning readiness of a ship “has always been the product of a complex interplay of requirements and funding, inventory and distribution policies, fleet policies and actions, and the frictions between them. Ultimately, this readiness starts with getting the readiness requirement correct. The requirement must consider both in-port and at-sea work, including all of the maintenance you do.”

He added, “achieving an accurate distribution of manpower is not only important for the short-term ship employment but also to the long-term proficiency and experience of our technicians, operators and maintainers, which we need to better value.”

Kitchener is implementing an analytics-based project called Surface Manning Experience (SURFMEX), which “will define standard methodology for quantifying and tracking a Sailor’s proficiency and experience as they progress through those career-spanning training continuums.”

SURFMEX is intended to help assign Sailors “to the right places, first to learn, and then to perform.”

The project is designed to help distinguish between Sailors who attended a training course years ago and a Sailor who just graduated who look on paper to seem equally prepared for a demanding shipboard billet and to tracking and evaluating their individual fleet experience and proficiency.

Kitchener identified six ratings that will come under the SURFMEX project: sonar technician, Aegis fire controlman, gas turbine system technician (electrical and mechanical),

quartermaster and engineman.

Royal Canadian Navy Welcomes New Commander



The Royal Canadian Navy ship HMCS Winnipeg (FFH 338) transits the Pacific Ocean while participating in a gunnery exercise during Exercise Rim of the Pacific 2020. U.S. Navy / Mass Communication Specialist 3rd Class Jenna Dobson

OTTAWA – Vice Adm. Craig Baines assumed the duties of commander of the Royal Canadian Navy (CRCN) in a virtual change of command ceremony ceremonies Jan. 12, presided over by Gen. Jonathan Vance, chief of the defense staff (CDS), at National Defence Headquarters.

Baines becomes the 37th CRCN, relieving Vice Adm. Art McDonald,

who will be promoted to the rank of admiral and will succeed Vance as the 20th CDS.

Baines is a 33-year veteran of sea-going appointments and staff officer positions, with an initial sea tour aboard HMCS Saguenay (D79) and command of HMCS Winnipeg (FFH 338). He commanded Canadian Forces Base Esquimalt, Canadian Fleet Atlantic, Maritime Forces Atlantic and Joint Task Force Atlantic, and became the of deputy vice chief of the defense staff in July 2020.

“Change of command ceremonies represent both continuity and change, and it’s a tremendous pleasure to mark the change of command of the Royal Canadian Navy between two great sailors: Vice Admiral Art McDonald and Vice Admiral Craig Baines,” said Minister of Defence Harjit S. Sajjan. “Under Vice Admiral McDonald’s leadership, we have seen the RCN maintain an impressive operational tempo at home and abroad. His focus on people and innovation have positioned the navy for success as it transitions to the future fleet.”

“Through his 33 years of service, Vice Admiral Baines has a proven operational and institutional track record from which to draw upon as he continues to put Canada’s sailors first in all that he does,” Sajjan said. “I am delighted to appoint Vice Admiral Baines to command the Royal Canadian Navy and I know that he will lead by example, put our ethos into practice, and continue to steer the navy towards the objectives of the future fleet.”

Baines said it was a huge honor to continue to serve with a group of outstanding Canadians who wear a uniform on behalf of their country, often serving in a complex environment far from home.

“We will continue to prioritize support to our sailors, defense team members and their families while managing ongoing cultural change, domestic and international operations, fleet

recapitalization, training and readiness, all while innovating throughout our organization to make us the most inclusive, respect-driven navy we can be.”

The Royal Canadian Navy is composed of 28 warships, submarines, and coastal defense vessels, plus many more auxiliary and support vessels, with approximately 8,300 regular force and 3,600 reserve sailors, supported by approximately 3,800 civilian employees.

With its motto of “Ready, Aye, Ready,” the RCN generates combat-capable, multipurpose maritime forces that support Canada’s efforts to participate in security operations anywhere in the world, as part of an integrated Canadian Armed Forces.

Navy: Construction of New Frigate Starts in Early Fiscal 2022



An artist's rendering of the guided-missile frigate FFG(X). The new small surface combatant will have multi-mission capability to conduct air warfare, anti-submarine warfare, surface warfare, electronic warfare, and information operations. Construction on the lead ship is set to begin in the first quarter of fiscal 2022. U.S. Navy

ARLINGTON, Va. – The Navy plans to start construction of the lead ship of the Constellation-class guided-missile frigate (FFG) during the first quarter of fiscal 2022 (the fall of calendar 2021), a Navy official said.

Speaking Jan. 12 at a webinar during the Surface Navy Association's annual convention, Capt. Kevin Smith, the Navy's program manager for the Constellation frigate, laid out a timeline for the FFG 62 program. The keel-laying of the Constellation is slated for the first quarter of fiscal 2023, and delivery of the ship to the Navy is scheduled for the third quarter of 2026.

The Navy plans to build 20 Constellation-class FFGs. Under the initial Detailed Design and Construction contract, the first Constellation-class FFG will be built, with options for nine

additional hulls. Plans Three are funded one each in fiscal 2020-2022; two each in 2023-2024; three in 2025; and two each in 2026-2030.

The focus of the FFG 62 program office in 2021, Smith said, is on approval of the ship design; conducting the Critical Design Review and Production Readiness Review; and starting construction of the first ship.

Smith said the cost of the lead FFG will be \$1.28 billion, which includes \$795 million for the fixed-price design and construction contract, with the remainder covering the cost of government-furnished equipment and support. The Navy is required by Congress to keep the average cost of each of the nine follow-on ships between \$800 million to \$950 million in fiscal 2018 dollars. He said the average cost of the next nine FFGs is estimated to be \$781 million in 2018 dollars.

Smith said the Navy is looking at potential need to extend production of the FFG to a second shipyard after the first 10 ships are delivered. With a second shipyard, the cost of a hull could change. He stressed the need to promote competition and affordability for a second order of 10 FFGs.

A slide presented by Smith gave more detail to the characteristics of the Constellation. It will have a length overall of 496.1 feet, a beam of 64.6 feet, and a draft of 18 feet. Fully loaded displacement will be 7,291 long tons.

The ship will have personnel accommodations of 200 personnel. The design crew will be 24 officers and 176 enlisted Sailors.

Weapon systems on the ship will include one Mk110 gun; 32 Mk41 vertical launch system cells; 16 launchers for the Naval Strike Missile, a Mk49 launcher for the Rolling Airframe Missile; the Mk 53 decoy launching system; and the SLQ-32(V)6 electronic counter-measures system.

Smith the FFG will have space, weight capacity, power and cooling for a future directed energy weapon, but not a railgun.

Combat systems installed will include the Aegis Baseline 10; SPY-6(V)3 Enterprise Air Search Radar; Mk48 gun weapon system; SQQ-89(V)16 undersea warfare system; and Variable-Depth Sonar System.

Aviation capability will include one MH-60R Seahawk and a vertical takeoff unmanned aerial vehicle.

Smith said with the lead ship contract award, the Constellation will have greater than 96% of U.S.-made content in terms of value.

The program manager said the Constellation will have tubes to launch 16 Naval Strike Missiles.