

Adm. Caldwell: Submarine Force in 'Very High Demand'



The U.S. Navy's submarine force is in high demand, and construction is up, says Adm. Frank Caldwell, director of the Navy's Nuclear Power Program. In this 2012 photo, the Virginia-class attack submarine Minnesota (SSN 783) is shown under construction at Huntington Ingalls Newport News Shipbuilding. U.S. Navy / Newport News Shipbuilding

ARLINGTON, Va. – The U.S. Navy's submarine force is in high demand worldwide and is in the midst of a very high operations tempo (optempo), a Navy senior admiral said.

"Navy leaders, fleet commanders, combatant commanders have high expectations for us," said Adm. Frank Caldwell, director of the Navy's Nuclear Power Program, speaking Nov. 16 in a webinar for the annual symposium of the naval Submarine League. "They love what we bring to peacetime operations and they are absolutely counting on us and our warfighting capability and our readiness to execute those wartime responsibilities.

"We are a force that's in very high demand," Caldwell said. "In fact, all of the maritime commanders want a lot more of what the submarine force can bring and what we bring to the undersea domain. Our team is out there every single day doing eye-watering work on submarine missions or on patrols. The deployed OpTempo is very high right now and our boats and our crews are stepping up to the challenge. This is true even in the midst of COVID, which has put friction in the entire system, whether it's from building new-construction submarines, delivering boats from deep maintenance, or simply executing the operational schedule.

The admiral said there "has been a strain on our families and on our crews. But through it all I have been really impressed

with the way our submarine commanders have kept their crews safe and continued to meet deployed operational commitments not only for missions but also for strategic deterrent patrols.”

In addition to a high optempo, the submarine force also is in a construction boom at a level not seen in two decades, he said.

“We are building submarines at rates that we have not seen in over 20 years,” Caldwell said. “The new-construction build halls are full and more facilities are under construction. We have modern, high-end fixturing that allows us to hold large components in place and allow high-precision, automated cutting and welding. While submarine construction in the 1980s and 1990s relied on retaining large openings in the hull in order to insert components and equipment, today we are building more and more components on rafts or on modules, long before we slide them together into the hull to complete the submarine.”

Caldwell said the Navy “strives to keep the individual construction efforts on a steady, uninterrupted drumbeat. We refer to this as continuous build ... capitalizing on the work force learning to build more efficiently, to reduce construction timeline, and continue to gain efficiency as we go forward.”

Q&A: Rear Adm. Mark H. Buzby, Maritime Administrator



Rear Adm. Buzby, right, on the California State University

Maritime Academy's Golden Bear Training Ship. Department of Transportation

Rear Adm. Mark H. Buzby was appointed by President Donald Trump and sworn in as Maritime Administrator on Aug. 8, 2017. Prior to his appointment, Buzby served as president of the National Defense Transportation Association, a position he has held since retiring from the U.S. Navy in 2013 with over 34 years of service.

A 1979 graduate of the U.S. Merchant Marine Academy, Buzby earned his Bachelor of Science in nautical science and U.S. Coast Guard 3rd Mate License. He was commissioned in the U.S. Navy in June 1979, is a graduate of the Joint Forces Staff College and holds master's degrees from the U.S. Naval War College and Salve Regina University in strategic studies and international relations, respectively.

Buzby commanded destroyer USS Carney (DDG 64), Destroyer Squadron 31, Surface Warfare Officers School Command and Joint Task Force Guantanamo Bay. As a junior officer, Buzby served in USS Connole (FF1056), USS Aries (PHM 5), USS Yorktown (CG 48), USS John Paul Jones (DDG 53) and USS Shiloh (CG 67), primarily in operations and combat systems billets. In 1985, he was the Atlantic Fleet Junior Officer Shiphandler of the Year.

Ashore, he served on staffs of U.S. 6th Fleet, U.S. Fleet Forces Command, the Navy staff and the Joint Staff. Buzby served as the commander of the U.S. Navy's Military Sealift Command from October 2009 to March 2013.

Buzby discussed the concerns of the Maritime Administration (MARAD) on Sept. 28 with Senior Editor Richard R. Burgess. Excerpts follow. Check out the digital edition of the November issue of Seapower magazine [here](#).

What concerns do you have about the nation's sealift capabilities? Could the sealift force handle the cargo demand

for a major conflict overseas?

BUZBY: My concerns are in the quantity of ships that we have, the reliability of the ships that we have and resilience of the force: in other words, the ability either repair it or to replace it if we need to due to combat loss. Theoretically, right now, we have the square footage required, about 19.2 or so million square feet, to meet the nation's sealift requirements – the most stressing requirements – to include the commercial merchant marine plus the government-owned sealift forces. Theoretically, we've got enough but that's before the first loss, that's before any breakdowns – a lot of qualifiers there. But I don't like living right on the edge. We need more depth on our bench than we have right now.

What can be done to strengthen the nation's sealift force?

BUZBY: The obvious answer is it needs to be enlarged across the board both on the commercial side and the government side. The commercial side gets driven by basically peacetime economics. Is there sufficient cargo for our commercial U.S.-flag merchant marine to carry? The more cargo that is available to carry equates to more ships. That's a good thing that adds into our sealift capacity. On the government side, it's a matter of ensuring we recapitalize our sealift forces in a timely manner. One would argue that we are not timely right now. The force that we have is aged and its reliability is becoming more questionable every year. Getting on with recapitalizing our government sealift ships, which we're working on, figuring out how to incentivize or to make more cargo available for the commercial side, making that playing field for our commercial entities more level in competition with the foreign flag shipping are all parts of the solution.

What concerns do you have about the Ready Reserve Force in particular?

BUZBY: There are 61 government ships in the sealift force, 15

that the Military Sealift Command operates and the 46 that MARAD operates in the RRF. They're funded to be maintained at 85% readiness level and, unfortunately, we're not making that level and haven't for some time. That gets borne out in the turbo-activation tests that we do every year. We're seeing casualties coming up and just in the day-to-day maintenance of the ships. We're seeing it becoming increasingly difficult to keep the ships ready to go when the bell rings in the five-day readiness status. When you're looking at a 47-year-old ship, or older, with obsolescent equipment or the availability of mariners who could operate the equipment – I'm talking steam engineers in particular – or just the physical condition of the ship itself, it is just becoming more and more of a challenge and more expensive to maintain that fleet.

How has the COVID-19 pandemic affected the U.S. Merchant Marine force?

BUZBY: It has definitely stressed it, like it has stressed all other modes of transportation. It has stressed the maritime transportation system significantly, but I would be quick to point out that [the force] has not faltered. Even though there have been greatly reduced cargoes and challenges in that respect, getting people tested and getting people certified to fill shipboard billets, the Merchant Marine has not faltered. We've continued to carry the goods for the nation and without the benefit of any grants or loans. Many of the other modes [of transportation] were the beneficiaries of lots of CARES Act funding to keep them viable and moving. Maritime hasn't got any of that.

Meanwhile, we've managed to keep the ships sailing and figured out how to keep the crews healthy and maintain a healthy shipboard environment. We've put the mitigations in place to keep the ships healthy and operational. And that continues today. I'm really proud of this industry and how all the players – shipping companies, unions, the government – all came together to make that happen. It's a real positive story,

a positive chapter in our merchant marine's history.

What role does MARAD have in physical and cybersecurity of the U.S.-flag merchant fleet?

BUZBY: We kind of stepped in and helped out with physical security during the period a few years ago when piracy was a serious threat. That has been pretty much mitigated. Now, it really, truly is the cybersecurity threat. Just literally yesterday, CMA CGM [a worldwide shipping group] of which APL – one of our Maritime Security Program carriers – is a part, had a major ransomware cyberattack against them. Just before this interview, I was talking with the president of APL, discussing the mitigations they're having to put in place to remain operational. They are fighting through, and I am afraid that this is going to become a more common occurrence in the future, whether done by criminal actors or as part of a national-level cyberattack by a potential adversary.

Later this week, I'll be talking to an industry group being sponsored by NMIO, the National Maritime Intelligence-Integration Office, talking about what we need to do and how to strengthen the posture of our operating forces out there because a lot of what goes on still could be mitigated to a large extent just by having up-to-date patched programs for the systems that are on the ship, plus just good hygiene practices by the operators and by the crews. Systems often have to be used by many users and crews cycle on and off and lots of times get a little lax on passwords and other security measures. We're doing our best to try and get that word out and help people understand the need to have good cyber defenses just like they have good strong physical security on their ships.

What role does MARAD have in supporting the U.S. port facilities in modernizing and in increasing their capacity?

BUZBY: We are very much involved, especially since of all

those commercial ports that are spread around our country, 16 of which are designated as strategic ports, which we would use to load military equipment in any kind of a deployment and follow-on sustainment of those forces. We pay attention to all the ports but those 16 in particular to ensure that they have all of the intermodal connections necessary to handle modern rail connections, modern road connections, marine highway connections to not only support our military movements, but also, to remain viable commercially. Our ports are this country's economic gateways. Our economy flows through our seaports and, to a lesser extent, our airports, but certainly the vast majority of goods that come and go out of this country come through our ports. They are absolutely vital.

We've begun to make some strong investments in our ports. We have awarded BUILD grants and INFRA-grants that have benefitted ports over the years. In 2019 and 2020 we have dedicated port infrastructure development grants – \$297 million and \$225 million, respectively – that are all focused directly on port improvement and port development.

What is the status of the National Security Multi-Mission Vessel (NSMV)? Which maritime academy will receive the first one?

BUZBY: The builder has been chosen: Philly Shipyard in Philadelphia. We are well down the road in getting the final design completed. TOTE Services, our vessel construction manager, is doing a tremendous job of managing the build of the class – the “State Class.” We expect the first ship to begin fabrication in December. When complete in early 2023, it will go to the State University of New York Maritime College in Fort Schuyler. The second ship, about eight months behind the first, will be going up to Massachusetts Maritime Academy.

Will one NMSV be assigned to the U.S. Merchant Marine Academy?

BUZBY: No. At Kings Point, we train our midshipmen by sending

them to sea in the active Merchant Marine. Rather than using a school ship for their training, USMMA's training model sends Cadets to sea for four to eight months on all types of vessels in our regular commercial merchant vessel fleet, as well as Military Sealift Command and U.S. Navy vessels. That's not to say that some Kings Pointers might end up on a training ship, if they have to make up some days or something like that, but primarily the school ships are going to the state maritime academies. We do maintain a 176-foot training vessel at the Academy, the T/V Kings Pointer, which is used for ship handling and navigation training.



Adm. Buzby visits the SS Flickertail State, a crane ship in ready reserve for the U.S. Navy, stationed at Newport News, Virginia. Department of Transportation

What is your assessment of the preparedness of the graduates of your alma mater, the U.S. Merchant Marine Academy, to meet the challenges of the future?

BUZBY: I have absolutely tremendous faith in the U.S. Merchant Marine Academy's ability to prepare world-class mariners. I could not compete with the quality of midshipmen that are there these days who are preparing for their maritime careers. They are just so smart in grasping and understanding technology and anxious to get out there and become a part of the industry.

Amidst the COVID crisis, the academy has done a tremendous job in remaining operational and remaining safe. They were able to graduate the class of 2020 in June COVID-free and to bring on board in July the new class of 2024 – about 280 young men and women – get them through indoctrination COVID-free, and then at the end of July brought back all the rest of the regiment of midshipmen. They're up to almost 800 people on board all maintaining a COVID-free environment, conducting their classes and doing their sea training. There is a group of about 250 that are out at sea right now getting the Sea Year training.

As I mentioned before, they are participating with the ships to make sure the ships stay clean and keep those mitigation efforts in place. They're getting a real first-hand look at how our Merchant Marine functions even in a COVID crisis. Kings Point is doing a tremendous job. I'm very, very pleased and impressed with the job that the superintendent, Rear Adm. Jack Buono and his staff are doing up there.

What do you say to critics of the Jones Act who consider it a protectionism that is detrimental to the national economy?

BUZBY: I say it is protection for our country. The national security implications of what would happen if we were to strike the Jones Act are absolutely profound in the negative. I've been asked on several occasions before Congress what would happen if the Jones Act went away and I answer directly back with, we would not be able to deploy our nation's armed forces by sea if we were to do that, not because of the ships but because of the pool of trained mariners who crew those ships. The domestic Jones Act fleet employs the largest number of unlimited tonnage/unlimited horsepower mariners of all of our ships that sail under the U.S. flag.

You get rid of the Jones Act and its requirement for U.S. mariners in U.S. ships, those mariners won't have sailing jobs anymore and will leave the industry. Those U.S. mariners on vessels trading in the United States are the same people that I absolutely rely upon along with others from the rest of the Merchant Marine to crew up our Ready Reserve Force – all of our sealift ships in time of crisis.

I therefore lose my ability to man those sealift ships and have them available to take our nation to war if necessary. Not to mention the impact on shipbuilding and ship repair in this country – the 124 or so shipyards that we still have in this country – they would go away with the exception of just the very few yards that would be building military vessels because that requirement to build in the United States and

repair in the United States would go away as well. So, it would be, perhaps the worst thing we could do from a national security point of view.

Navy Looking at Options for Next-Generation Attack Submarine



Vice Adm. Daryl Caudle delivers a speech during a change of command ceremony in Norfolk, Va., Nov. 12, 2019. During the ceremony, Caudle relieved Vice Adm. Charles A. Richard as Commander, Submarine Forces/Submarine Force Atlantic/Allied Submarine Command. U.S. Navy / Mass Communication Specialist 2nd Class Alfred A. Coffield

ARLINGTON, Va. – The commander of the U.S. Navy's submarine forces said the service's submarine community is looking at several options for the basis of the next-generation nuclear-powered attack submarine (SSN).

Vice Adm. Daryl Caudle, commander, Submarine Forces, speaking Nov. 16 in a webinar for the annual symposium of the naval Submarine League, said the service is looking at three options: a development of the Virginia-class SSN; a development of the Columbia-class nuclear-powered ballistic-missile submarine; and a new-from-scratch SSN design.

"We're going to get alternatives and make decisions on how to make this new SSN match what we need to stay ahead of our peers," Caudle said.

Caudle discussed some characteristics and capabilities that would be desirable in the next SSN. Increased speed is one

characteristic he said is a requirement.

“Speed is basically important to every improve every single joint warfare function,” he said. Speed “plays out so well in all of our wargaming [because] it helps compensate for bad decisions. It also helps us get to the fight faster and helps sustain an all-domain maneuver warfare.”

The admiral said, “We can never get enough payload capacity, so we do want submarines with large payload capacity.”

He also said that stealth is important and not limited to acoustic stealth, but across all spectrums.

“When this new SSN rolls out, we’re going to have peer competitors that are going to be able to detect us not just acoustically but through algorithms that are going to break the water interface.”

Caudle stressed that the Navy would have to make research and development investments to achieve the characteristics desired in the new SSN.

Adm. Trussler: Information Warfare ‘All About Speed for Advantage’



Rear Adm. Jeff Trussler, left, speaks with Oklahoma officials in this 2019 photo. U.S. Navy / Mass Communication Specialist 2nd Class Allen Michael McNair

ARLINGTON, Va. —The admiral who sponsors the resources for the U.S. Navy’s information warfare operations said the modern

warfare environment is increasingly governed by the speed of information and its effects on decision-making.

"It is all about speed for advantage," said Vice Adm. Jeffrey E. Trussler, deputy chief of naval operations for information warfare and director of naval intelligence, speaking Nov. 13 at a webinar on the website of the Center for Strategic and International Studies. The event was sponsored by the U.S. Naval Institute and Huntington Ingalls Industries.

"One hundred, 200 years ago it was pretty slow-moving," Trussler said. "Over the last hundred years that [advantage] has slowly whittled away and become much shorter. Now that we're in the information age, the information advantage you might hold could be a mere matter of minutes or even seconds. ... It's about understanding the domain as never before" from the seabed to space.

"Depending on where you are, the time of day, the environmental conditions, you may be offered advantages if you know how to take advantage of them, or the enemy may be subject to some disadvantages if you know how to exploit them."

Information warfare has arisen to such importance in naval operations that there is now an Information Warfare Commander assigned to each carrier strike group on par with other composite warfare commanders such as the air warfare, undersea warfare, surface warfare, and strike warfare commanders in the strike group.

"Those windows of opportunity might be very short," said the admiral, a submariner. "The ability to take advantage ... it's all about speed, it's about the precision of information you get. ... And the volume that comes in. More importantly, those things also offer vulnerabilities. It also requires the speed of decision. So, it's not about accumulating a lot of great information. If you don't act on it in an appropriate amount

of time, that decision advantage you may have with the information you have it may just go away.”

Trussler said the speed of information “requires leaders who are going to take advantage of this. And I hope we’re evolving toward that as the information flows, the opportunity flows, those windows that can be offered into the physical environment or the RF spectrum of slight opportunities, that’s when decisions have to be made and taken advantage of before that advantage of information is lost.”

Navy Orders Second Lot of TH-73A Training Helicopters



A Leonardo TH-73A training helicopter. AugustaWestland
ARLINGTON, Va. – The Navy has ordered a second lot of Leonardo TH-73A training helicopters from the company’s U.S. operation, AugustaWestland.

The Naval Air Systems Command has awarded AugustaWestland a \$171.0 million firm-fixed-price contract modification to exercise an option for 36 TH-73As as part of the Advanced Helicopter Training System Program, according to a Nov. 12 Defense Department contract announcement. Fiscal 2021 funds were allocated for the contract modification.

The first production lot of 32 TH-73As was ordered in January 2020 with a contract award for \$176.5 million, which included initial spare parts, dedicated equipment and specific pilot and maintenance training services.

The TH-73A will replace the Bell TH-57B/C SeaRanger helicopter

in Training Air Wing Five at Naval Air Station Whiting Field, Florida, in training rotary-wing pilots for the U.S. Navy, Marine Corps, and Coast Guard.

The TH-73A is a variant of the commercial Leonardo TH-119 helicopter.

On-Time Delivery of Navy Ships from Maintenance Alleviates Shipyard Capacity Shortage



Vice Adm. William J. Galinis relieves Vice Adm. Thomas J. Moore as commander of Naval Sea Systems Command (NAVSEA) during a change of command ceremony in Leutze Park at the Washington Navy Yard earlier this year. U.S. Navy / Laura Lakeway

ARLINGTON, Va. – As the Navy pushes the efforts to reduce the days of maintenance delays to ships in maintenance, the achievement of on-time delivery of ships from their maintenance availabilities in itself will help alleviate shortages in shipyard capacity, said the commander of Naval Sea Systems Command (NAVSEA).

Vice Adm. William Galinis, the NAVSEA commander, speaking to the Defense Writers Group during a Nov. 12 webinar, listed as his No. 1 priority the on-time delivery of ships, submarines and systems, including new construction vessels and those going through maintenance and modernization availabilities.

Galinis said, “getting after the planning piece” right and

ensuring that long-lead materials are ordered and received on time goes a long way to being ready to execute construction or maintenance when a ship comes in the yard for an availability.

“We’ve got maintenance issues within some of our repair yards and in some phases of our new-construction yards that we have to get after,” Galinis said. “We’re working with industry on how we get after that. If you get ships through the shipyards on the plan that you initially envisioned, that in itself will free up capacity.”

The admiral said, “there are shipyards out there that we have not fully tapped into. There’s an opportunity to bring other shipyards into the mix on the maintenance side.”

He said his command is looking at the maintenance capacity “inside the public yards and how much of that work do we really need to push out to the private sector. Our private-sector submarine yards are interested in that type of work. What we need to do is show a good requirement and what the workload would look like.”

The Navy improved its ship maintenance backlog in fiscal 2020 over 2019, reducing days of maintenance delay lost ship days from more than 7,000 to about 1,000, Galinis said, an 80% improvement, though because of some re-baselining the percentage “is closer to 40% with the original baseline,” he said.

“We’re not going to get to zero in 2021,” he said, but noted the improvement in performance was positive and that “60% to 70% of availabilities were tracking to on-time delivery.”

He said there was a handful of ships – including four Ticonderoga-class cruisers in the Cruiser Modernization Program and the fire-damaged Arleigh Burke-class destroyer USS Oscar Austin – that were delayed significantly and skewing the days of maintenance delays metric. He said the Navy is going

to re-baseline the Cruiser Modernization program.

Navy Awards \$9.47 Billion to Electric Boat for Columbia SSBN Construction



An artist's rendering of the future Columbia-class ballistic missile submarines. The 12 submarines of the Columbia class are a shipbuilding priority and will replace the Ohio-class submarines reaching maximum extended service life. U.S. Navy ARLINGTON, Va. – The U.S. Navy is sailing full speed ahead on its Columbia ballistic-missile submarine (SSBN) program with a \$9.47 billion contract to General Dynamics Electric Boat for the full construction of the future USS Columbia (SSBN 826) – the lead ship of the class – and for advance procurement, advance procurement, and coordinated material buys for the second boat of the class, the future USS Wisconsin (SSBN 827).

The Naval Sea Systems Command contract, announced Nov. 5 in a virtual press conference with reporters by James F. Geurts, assistant secretary of the Navy for Research, Development and Acquisition, was ready in waiting for the execution of the fiscal 2021 defense budget, but the Navy obtained authority from Congress to make the award as an exception to the limitations of the current continuing resolution.

The Columbia program, a recapitalization of the Navy's strategic deterrent nuclear submarine force, is the service's No. 1 acquisition priority. The Navy plans to build "at least 12" Columbia SSBNs to replace its fleet of 14 Ohio-class SSBNs, according to Rear Adm. Scott Pappano, program executive

officer for the Columbia program, also speaking at the conference. The Columbia will carry the same Trident D5LE ballistic missile type as the Ohio class.

Geurts said the Columbia program was on track and stressed the importance of keeping it that way. He praised the efforts of Electric Boat and the Navy's program team and their workers for the hard work in keeping the program on schedule.

Pappano said the Columbia will be delivered in fiscal 2027 and will be on patrol early in fiscal 2031. The SSBN likely will serve into the 2080s.

Capt. Scott Rucker, the Columbia program manager who also spoke at the conference, noted that the last start of a new SSBN occurred in the 1970s. He said the Columbia, over the last decade, has gone through numerous design reviews and production reviews and is in a high state of design completion.

Rucker said the Columbia program had more than 5,000 suppliers in 48 states.

Geurts, noting that the Columbia design was more mature "than any other sub we've ever done," said that the next major program event would be the full construction contract for the Wisconsin in 2024.

He said that early efforts had "burned off" much of the technological risk but that the Navy was hawking the program continuously to protect the margin in the schedule.

Pappano said the program used large-scale land-based prototyping and construction prototyping to shake out the design and processes and reduce risk. Some advance construction he noted included the missile tube compartment, with 13 tubes delivered to date, 11 of which have been completed for the Columbia and the Royal Navy's new class of SSBN. He and that he was confident of the boat's new nuclear

reactor and permanent magnet motor.

Rucker said the cost for the lead boat would be \$7.44 billion in calendar 2017 dollars. Congress has set a threshold of \$8 billion in 2017 dollars for the average cost of subsequent boats, noting that the cost includes government-furnished equipment. He said congressional authorities in the National Sea-Based Deterrence Fund were leveraged for the program.

Rucker said the first quad pack of missile tubes for the Columbia would be completed in February 2021. Huntington Ingalls' Newport News Shipbuilding has started construction on the stern, which will "come out" in spring 2021 and "the bow will go in." He said that large sections of the ship already are in construction.

SAIC In Full Production for Mk48 Torpedo Propulsion Sections for U.S. Navy



Torpedoman 1st Class Gary Anderson, assigned to Naval Submarine Torpedo Facility (NSTF) in Yorktown, Va., explains the components of a Mark 48 torpedo to Vice Adm. Daryl Caudle, commander of U.S. Submarine Forces, July 24, 2020. U.S. Navy / Mass Communication Specialist 2nd Class Alfred Coffield

ARLINGTON, Va. — Science Applications International Corp. (SAIC) is now in full production mode for the propulsion sections of the U.S. Navy's Mk48 submarine-launched torpedo, a company official said. The company also plans to bid on components for an upcoming Foreign Military Sales contract for the torpedo.

In a Nov. 4 interview with Seapower, Steve Rigdon, vice president for Programs at SAIC, said the company currently is building and delivering 260 after-body tail cones for the torpedoes, which contain the propulsion system and the propeller. In August 2020 the Navy exercised the fourth and final option of the contract for \$84.8 million for the torpedo's production, which includes torpedoes for Australia and Taiwan. Deliveries under this option are scheduled to begin in October 2022 and be completed by October 2023.

The Navy has restarted procurement of the Mk48 torpedo to shore up its inventory for its submarine force. Earlier production of the torpedo – originally built by Gould – had ceased in the mid-1990s. SAIC received a contract to build the after-body tail cones. Lockheed Martin builds the guidance-and control section. The Navy is providing the fuel tanks and warheads for this production run of weapons.

Rigdon said the Naval Sea Systems Command has issued a Request for Proposals for a new seven-year contract for procurement for both after-body tail cones and fuel tanks for the Mk48.

"We also recently won a fuel tank contract from NUWC [Naval Undersea Warfare Center] Keyport, [Washington], and that is for FMS purposes," he said. "We're currently building fuel tanks as well."

Navies other than the U.S. Navy that have procured the Mk48 include those of Australia, Canada, Brazil, Taiwan, and Turkey.

Rigdon said that has been one of the biggest challenges has been reinvigorating the supply chain.

"We were working off of a [technical] data package that was pretty old and there were some technical challenges as well as getting the supply chain back up and delivering the assemblies and components that we need," he said. "It's been an engineering challenge; it's a challenge we've been up to."

He also said his facility has maintained full-rate production despite the COVID-19 pandemic. Most of the program management and engineering staff have been working remotely.

SAIC has received accelerated funding under the CARES Act for the torpedo program, receiving 90 percent of incurred cost rather than the pre-pandemic arrangement of 80 percent.

SAIC is building the torpedo assemblies with about 25 production workers at its facility in Bedford, Indiana, located adjacent to the Naval Surface Warfare Center Crane Division. The final assembly and testing of the torpedoes is conducted by the NUWC Keyport.

“Every single one [after-body tail cones] will go through multiple in-water runs before it’s deemed a war-shot [torpedo],” Rigdon said, noting that the Navy’s Intermediate Maintenance Activity in Keyport completely disassembles, cleans, and re-assembles the tail cones after every in-water run.

“A lot of the success in this program is because of the partnership between the Navy and SAIC,” He said. “Our singular focus is delivering these after-bodies to the best submarines in the world so that they have the best weapons in the world.”

Battle Force 2045 Will Encapsulate Navy-Marine Corps

Integration



Rear Adm. James W. Kilby visits the guided-missile destroyer USS Wayne E. Meyer (DDG 108) in this 2017 photo. U.S. Navy / Mass Communication Specialist 3rd Class Kelsey L. Adams

ARLINTON, Va. – The U.S. naval force in 2045 – reflected in a forthcoming force structure study called Battle Force 2045 – will reflect a more closely integrated Fleet and Fleet Marine Force to meet the challenges of the future operating environment.

In an Oct. 29 webinar at the Center for Strategic and International Studies sponsored by the U.S. Naval Institute and Huntington Ingalls Industries, Marine Lt. Gen. Eric M. Smith, commander, Marine Corps Combat Development Center and deputy commandant for Development and Integration, and Vice Adm. James W. Kilby, deputy chief of naval operations for Warfighting Requirements and Capabilities, discussed the integration needed between the two services to support each other in support of combatant commanders in a joint environment.

Asked by moderator retired Vice Adm. Peter Daly to offer any insights on the forthcoming Naval Force Structure Assessment and the subsequent fleet assessment by the Office of the Secretary of Defense, Smith said, “The most importance from my perspective is the need for a balanced fleet. ... You can’t choose pieces, parts, and look at the easiest way to get to X or Y number. You have to look at the totality of the fleet, and its capability, of which the Marine Corps is a proud part.”

“In our force structure assessment process, we typically took a 10-year view, and this year we went farther to 2045,” Kilby said. “The farther you go out into the future, the less sure are in what is going to be. We had different expressions of

what Red [enemy forces] could be and what Blue [friendly forces] could be, but I think it is consistent with what we've talked in many forms where we had a more distributed force."

During a recent wargame at Quantico, Virginia, "we able to establish our own ability to have effects if we don't have the full national technical means available to us," Kilby said. "We looked at some specific platforms and [noted that] they're as impactful as we thought they were."

He said the wargame showed that the amphibious warfare force structure probably needed "some new elements to help us with Expeditionary Advance Base Operations, supporting littoral operations in a contested environment.

"When you see the results that come out, there will be more work for us to do," Kilby said, noting in particular the need for amphibious warfare force structure to align to Marine Corps Commandant Gen. David Berger's Force Design 2030.

SECNAV Touts New Frigate for Possible Sale to Allied, Partner Navies



An artist's rendering of the Constellation-class guided-missile frigate. The new small surface combatant will have multi-mission capability to conduct air warfare, anti-submarine warfare, surface warfare, electronic warfare, and information operations. U.S. Navy

ARLINGTON, Va. – The secretary of the Navy is bullish on the future Constellation-class guided-missile frigate (FFG) and

said it may be a possible candidate for sale to the nation's allied and partner navies.

In an Oct. 28 webinar discussion with retired Rear Adm. Frank Thorp IV, president and CEO of the Navy Memorial in Washington, D.C., Navy Secretary Kenneth J. Braithwaite sees the potential for service in many nations' navies for the FFG, liking the potential of sales to the large number of customers for the F-35 Joint Strike Fighter.

"Why can't we create a Joint Strike Frigate?" Braithwaite mused. "Why can't we take that same platform and offer it to our allies and partners around the world? After all, it is an amalgamation of an Italian-U.S. joint effort to build that ship in a U.S. shipyard. It's already got an international footprint."

Thorp pointed out a comment Oct. 26 from National Security Adviser Robert O'Brien at the Marinette Marine shipyard in Wisconsin, where the Constellation, will be built, that building two frigates would not be enough.

"We're going to need two, three, four frigates built a year to get to the numbers of where we want to be," O'Brien [told employees](#) during a visit to the shipyard, reported Paul McCleary in the Breaking Defense website. "This yard has the capability to build two or three of them itself."

"It's great to have that kind of support in the White House and I'd love to see us build [more]," Braithwaite said. "I'm a huge fan of that ship. It is an incredibly capable vessel. ... I spent a lot of time picking the name for that ship to make it fit into the culture piece of who we are and what we are as the United States Navy.

Braithwaite noted that the Navy's FFG program of record calls for 20 to be built but predicted that "we'll build more than 20 of those."

He also noted that many navies operate ex-U.S. Navy Knox- and Perry-class frigates, which could be replaced by new frigates.