

# Navy Begins Retirement of Cyclone-Class Patrol Ships Without Replacement



Sailors conduct a decommissioning ceremony aboard the Cyclone-class patrol ship USS Shamal (PC 13) at Naval Station Mayport, Florida. Shamal is one of three Cyclone-class patrol ships being decommissioned at Naval Station Mayport. U.S. Navy / Mass Communication Specialist 3rd Class Austin G. Collins  
ARLINGTON, Va. – The Navy held ceremonies this week to mark the decommissioning of three Cyclone-class coastal patrol ships this week, beginning the retirement of the class which has no direct replacement.

The three decommissioning ceremonies held over three days – Feb. 16, 17, and 18 – marked the imminent retirement of the Cyclone-class coastal patrol ships USS Shamal (PC 13), USS Zephyr (PC 8) and USS Tornado (PC 14), respectively, at Naval

Station Mayport, Florida.

In recent years, the three PCs were used to train crews for the 10 PCs forward deployed to the Persian Gulf. They also participated in homeland security missions such as drug interdiction countering illegal immigration.

The Navy commissioned 14 Cyclone-class PCs between 1993 and 2000. They were built by Bollinger Shipyards and designed for coastal interdiction and support of special operations forces such as SEALs. They were built with a 15-year service life and even the newest already has operated for six years beyond that.

The lead ship, USS Cyclone, was transferred to the Philippine Navy after being briefly transferred to the U.S. Coast Guard, which did not operate the ship.

Several PCs operated in support of Operation Iraqi Freedom and ultimately 10 were forward deployed to the U.S. Fifth Fleet in the Persian Gulf.

During 2004, five PCs were transferred to the U.S. Coast Guard to perform homeland security missions. All five were returned to the Navy by August 2008.

"The decision to decommission these three ships [Shamal, Zephyr and Tornado] stems from the fact that they have all exceeded their designed service life," the Navy said in a Feb. 17 web article. "Based on the rising cost of modernization efforts, the Navy will receive a better return by decommissioning and freeing up funds to invest in other platforms."

The PCs offer rare command-at-sea opportunity for lieutenants, one reason the ships will be missed. The ships will have no direct replacements, but their presence in the Persian Gulf eventually will be assumed by littoral combat ships.

“These three warships have served our Navy and our country well,” said Capt. Mike Meyer, commander, Naval Surface Squadron Fourteen, in the Navy release. “Each of them has operated well past their designed service life, with their crews contributing demonstrably to meeting our national objectives.”

The three PCs being retired are being transferred to the Navy’s inactive ship facility in Philadelphia, where they will be decommissioned officially. The official decommissioning dates are Feb. 25, March 2 and March 4 for Shamal, Zephyr and Tornado, respectively. Tornado will be held for Foreign Military Sales; the other two will be scrapped.

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## **Lawmakers Renew Push for Navy to Procure 3 Virginia Submarines Per Year**



The Virginia-class attack submarine USS Vermont (SSN 792) makes its way up the Thames River and past New London, Connecticut on Feb. 3. Leaders of the House Armed Services Committee's Seapower subcommittee want the Navy to increase its procurement of Virginia-class boats to three per year. U.S. Navy / John Narewski

ARLINGTON, Va. – The Navy needs to increase procurement of its Virginia-class attack submarines (SSNs) to three per year in order to pace the potential threat of China and Russia, said the congressmen who lead the Seapower subcommittee in the House Armed Services Committee. The U.S. Navy also needs to push ahead with development of the follow-on to the Virginia class, they said.

Speaking Feb. 19 in a webinar sponsored by the Hudson Institute, Rep. Joe Courtney, D-Connecticut, chairman of the Seapower subcommittee, and Rep. Rob Wittman, R-Virginia, ranking member, were united in their reiteration of the need for more attack submarines and have renewed the push to include three in the 2022 defense budget, a level that nearly was achieved in the 2021 final budget.

Wittman noted a recent study that reinforced how “incredibly important getting to building three attack submarines per year will be for this nation going forward.”

Wittman said it was critical the Navy request a third SSN in the president’s 2022 budget proposal because “it is extraordinarily difficult to add things to the president’s budget.”

He recounted the effort to increase the procurement of a third SSN in the 2021 budget, which was ultimately unsuccessful when the proposed amendment was defeated in the House in a floor vote for the appropriations bill.

Wittman is optimistic the third submarine will be included in the 2022 budget, saying, “I think the glass is half full.”

Courtney also is optimistic, noting the recent statements by Defense Secretary Austin – a retired Army general – and Gen. Mark Milley, chairman of the Joint Chiefs of Staff – an Army general – that the budget “pie” may need to be sliced more in favor of naval, aerial, and cyber capabilities.

The construction of the Columbia ballistic-missile submarine that began recently is pressuring the budget of the Navy and capacity of the submarine industrial base.

“Frankly, we’re going to need more facilities if we’re really going to get serious about going for three [SSNs] per year on a regular basis,” Courtney said.

The nation’s two submarine builders are General Dynamics Electric Boat in Courtney’s district and Huntington Ingalls Newport News Shipbuilding in Virginia, Wittman’s home state.

Courtney said he also has concerns about the work force but is “bullish” on solving that challenge. He stressed the need to “keep performance of the shipyards at uppermost.”

Wittman supports the Navy’s plan to extend the service lives

of some Los Angeles-class SSNs as part of the formula to a submarine force large enough to meet the potential threat from near-peer competitors like China and Russia.

He also stressed the need for the Navy to focus on development of the next-generation of attack submarines to assure no gaps as the production of the Virginia-class SSNs ends.

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## **Navy Details Revised 2021 Ship Decommissioning Schedule**



USS Bonhomme Richard (LHD 6), due to be dismantled after its devastating fire in 2020. U.S. Navy / Mass Communication Specialist 2nd Class Austin Haist

ARLINGTON, Va. – The U.S. Navy has revised its ship decommissioning schedule for fiscal 2021, including the date for the Wasp-class amphibious assault ship USS Bonhomme Richard, severely damaged by fire in 2020. The list also included the first two littoral combat ships.

In an Feb. 12 administrative message, the Office of the Chief of Naval Operations announced the plans to decommission seven

ships from the fleet and remove from service one ship from the Military Sealift Command.

The ships to be retired and their 2021 retirement dates are listed below:

<b>Ship Name</b>	<b>Projected Inactivation Date</b>	<b>Post Inactive Status</b>
USS Zephyr (PC 8)	March 2	Dismantle
USS Shamal (PC 13)	Feb. 25	Dismantle
USS Tornado (PC 14)	March 4	Foreign Military Sales
USS Fort McHenry (LSD 43)	Apr. 16	Reserve
USS Freedom (LCS 1)	Sept. 30	Reserve
USS Independence (LCS 2)	July 31	Reserve
USS Bonhomme Richard (LHD 6)	April 15	Dismantle
USNS Sioux (T-ATF 171)	Sept. 30	Foreign Military Sale

The first two littoral combat ships are considered experimental and are of an earlier configuration than later production ships. They will be placed in a preserved status for re-activation if needed, as will the USS Fort McHenry.

The three Cyclone-class coastal patrol ships are the only ones of the class not based in the Persian Gulf.

The Navy also plans to retire 48 more ships during fiscal 2022-2026.

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# Boeing Is Refurbishing Harpoon Missiles for U.S. Navy Submarines



The Arleigh Burke-class guided missile destroyer USS Fitzgerald (DDG 62) conducts a live fire of a ship-launched variant Harpoon missile during Multi-Sail 2016. Boeing has now begun work to return Harpoon cruise missiles to operational status with the Navy's submarine force. U.S. Navy / Mass Communication Specialist 3rd Class Eric Coffey

ARLINGTON, Va. – Boeing has begun work to return the Harpoon cruise missile to operational status in the U.S. Navy's submarine force after a more than 20-year absence.

Boeing received an \$10.9 million Naval Sea Systems Command contract late last month to refurbish 16 Harpoon missile capsules and four all-up rounds of encapsulated Block 1C



Harpoon missiles for the Navy's submarines. Work is scheduled for completion by December 2022.

The UGM-84A Harpoon Block 1C missiles will be integrated on the Navy's Los Angeles-class submarines. The UGM-84A is encapsulated to be fired from a torpedo tube and has a rocket booster to propel it above the surface of the water and into flight.

"I am happy to report that we will have the first refurbished [Harpoon] missiles delivered to the fleet in [fiscal] '21," said Rear Adm. Thomas Ishee, director of undersea warfare in the Office of the Chief of Naval Operations, speaking Nov. 7 at the Naval Submarine League's annual symposium in Arlington.

In a demonstration in the 2018 Rim of the Pacific exercise, a Harpoon was fired from the Los Angeles-class attack submarine USS Olympia at a target ship, the first time one was fired from a U.S. Navy submarine since the UGM-84A Harpoons were withdrawn from the force in 1997.

The UGM-84A is encapsulated to be fired from a torpedo tube and has a rocket booster to propel it above the surface of the water and into flight.

"The Navy has a deep inventory of Harpoon Block IC missiles," said Sally Seibert, director, Cruise Missile Systems at Boeing, in a statement. "These missiles can be refurbished and reintegrated into the fleet in a shorter timeframe, and at a fraction of the cost, compared to purchasing new missiles – and that is exactly what our team is doing."

The Harpoon cruise missile is a combat-proven, all-domain anti-ship missile used by the Navy and more than 30 international customers, a statement from Boeing said. "Evolving over the years to keep pace with emerging threats, the Harpoon Block II includes a GPS-aided guidance system that allows for autonomous, all-weather capability – and can

execute both anti-ship and land-strike missions. The more advanced Harpoon Block II+ adds a data link that allows for in-flight targeting updates.”

“The shelf life of the Harpoon missile allows us to maximize existing capability by bringing this weapon back to the submarine fleet,” Seibert said. “Customers who currently have Harpoon missiles in their inventory are prime candidates for refurbishments, or even upgrades, to add this extremely viable and cost-effective weapon to their arsenal.”

Currently, more than 600 ships, 180 submarines, 12 different types of aircraft and several land-based launch vehicles across the world are integrated with Harpoon missiles, Boeing said.

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## **NAVAIR Orders Five VH-92 Presidential Helicopters from Sikorsky**



Marine Helicopter Squadron (HMX) 1 conducts test flights of the new VH-92A helicopter over the South Lawn of the White House, Sept. 22, 2018, in Washington, D.C. U.S. Marine Corps / Sgt. Hunter Helis

ARLINGTON, Va. – Naval Air Systems Command has awarded Sikorsky a third production contract to build five VH-92A helicopters for the U.S. Marine Corps.

The Naval Air Systems Command awarded Sikorsky Aircraft Corp. – a Lockheed Martin company – a \$478.6 million firm-fixed-price contract modification to build five Low-Rate Initial Production Lot III VH-92As, according to a Feb. 5 Defense Department announcement. The award also includes orders for “interim contractor support, two cabin interior reconfiguration kits, support equipment, initial spares and system parts replenishment,” the release said. Work on the contract is expected to be completed by December 2023.

The VH-92A was selected in 2014 to provide transport for the

president of the United States, the vice president and other high-level government officials. The helicopter will replace the 19 VH-3D Sea King and VH-60N "White Hawk" helicopters operated by Marine Helicopter Squadron One. The Corps plans to acquire a total of 23 VH-92As, 21 for operations and two for testing. The May 2014 engineering and manufacturing development contract procured two test aircraft and four production aircraft. Six VH-92As were ordered in June 2019, followed by six more in February 2020.

The presidential helicopter fleet is operated by Marine Helicopter Squadron One, based at Marine Corps Air Station Quantico, Virginia, with a detachment at Joint Base Anacostia-Bolling in Washington.

"Government testing to validate system performance and prepare for Initial Operational Test and Evaluation is progressing on schedule and will support an Initial Operational Capability (IOC) planned for July 2021," a Navy spokeswoman said. "The VH-92A will enter service post IOC at the determination of the White House Military Office."

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## **Marine Corps Adds 5th F-35B Squadron to its Force**



U.S. Marine Corps Lt. Col. Alexander Goodno, the incoming commanding officer, left, and Sgt. Maj. Collin Barry, the

incoming sergeant major, with Marine Fighter Attack Squadron (VMFA) 225, Marine Aircraft Group 13, 3rd Marine Aircraft Wing, exchange the organizational colors during the redesignation and assumption of command ceremony at Marine Corps Air Station Yuma, Ariz., Jan. 29, 2021. U.S. Marine Corps / Lance Cpl. Juan Anaya

ARLINGTON, Va. – The Marine Corps is converting a fifth squadron to the F-35B Lightning II strike fighter.

In a Jan. 29 ceremony at Marine Corps Air Station (MCAS) Yuma, Arizona, the “Vikings” of Marine All-Weather Fighter Attack Squadron 225 (VMFA(AW)-225) were re-designated Marine Fighter Attack Squadron 225 (VMFA-225) as they engaged in the process of learning to operate and maintain the F-35B version of the Lightning II, according to a release from the 3rd Marine Aircraft Wing.

The squadron retired its last F/A-18D Hornet strike fighter a year ago, on Jan. 23, 2020.

VMFA-225 follow VMFAs 121, 211, 122, and 242 as the Corps’ fifth operational F-35B squadron. VMFA-225 moved from MCAS Miramar, California, to MCAS Yuma, Arizona, to join 211 and 122, both of which have flown combat missions in the Middle East. VMFAs 212 and 242 are based at MCAS Iwakuni, Japan.

“It’s an exciting day for [VMFA-225],” said Lt. Col. Alexander Goodno, the commanding officer of VMFA-225, in the release. “We will grow over the next 18 to 24 months to a full, combat-ready, capable squadron and be ready to do the nation’s bid in the war.”

“We have aircraft afloat right now from VMFA-122; we’re flying combat missions,” said Col. Benjamin Hutchins, commanding officer of Marine Aircraft Group 13, in the release. “We have VMFA-211 getting ready to deploy on [HMS Queen Elizabeth]. This is a busy business, this is our nation’s business, this is our Corps’ business.”



The Corps' single F-35C squadron, VMFA-314, is scheduled to be ready for a deployment on the USS Carl Vinson in early fiscal 2022.

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## Lockheed Martin's SPY-7 Radar Is Going to Sea



An artist's rendering of a Spanish future F-110 frigate equipped with AN/SPY-7(V)2. Navantia ARLINGTON, Va. – Lockheed Martin's new SPY-7 radar will be sailing to sea on the ships of three navies as the company highlights the radar's capabilities for application to other navies, including the U.S. Navy.

The SPY-7, which uses gallium nitride modules, initially was developed for the Navy's Air and Missile Defense Radar competition. It was adapted into the Long-Range Discrimination Radar (LRDR) procured by the U.S. Missile Defense Agency (MDA)

as a sensor of the Ground-Based Midcourse Defense system. Being installed at Clear Air Force Station in Alaska, the LRDR is designed to discriminate between incoming warheads and decoys.

The core building blocks [of the LRDR] are the same core building blocks in SPY-7," said Jon P. Rambeau, vice president and general manager, Integrated Systems & Sensors, Lockheed Rotary and Mission Systems, during a Feb. 2 interview with *Seapower*. "[SPY-7] is a modular radar that allows us to build different configurations for both land-based and sea-based applications."

The SPY-7 has been selected by the Spanish navy to integrate it with the Aegis Combat System on its F110 frigates. The Canadian navy is procuring the radar to install it on its new Halifax-class surface combatant.

Japan had selected the SPY-7 for its two planned Aegis Ashore ballistic-missile defense sites, but when the plans were cancelled in part out of concern for missile debris falling on populated areas, Japan shifted to a plan to deploy the SPY-7 on some future, unspecified sea-based BMD platform. Japan already has BMD capabilities in its Kongo-class guided-missile destroyers with Aegis systems using the SPY-1 radar.

Japan, which already has placed an order for the SPY-7, "is going through a process now to determine exactly what that platform is going to look like," Rambeau said. "We are pleased with the progress that the technology has made, and we're starting to see some uptake both here in the U.S. as well as abroad."

"SPY-7 is part of the Aegis common source library (CSL) and the interfaces are understood," said Patrick W. McNally, director of communications for Integrated Warfare Systems & Sensors, in a statement to *Seapower*. "For Japan, we have completed the first of three releases which were recently

demonstrated to MDA. Starting from the CSL, with over one million lines of code, Japan will be receiving the best of both Baseline 9 and 10 [Aegis software].”

The U.S. Navy is considering backfitting some Flight IIA Arleigh Burke-class guided-missile destroyers with a radar more modern than the SPY-1, and Lockheed is keeping a watch on developments in the event the SPY-7 could complete in the program if it comes to pass.

Rambeau said his company also “has some more affordable options available to upgrade some of the SPY-1 arrays to provide improved sensitivity and improved resistance to electronic attack and we think we can do that at a fraction of the cost of a wholesale replacement, so we’ve put forth a couple of options for upgrades to SPY-1 to both MDA and the Navy.”

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## **Galini: Navy Considering Land-Based Test Site for Integration of Frigate Systems**



An artist's rendering of the Constellation-class guided-missile frigate (FFG), which may have some of its systems tested on land. U.S. Navy

ARLINGTON, Va. – The commander of Naval Sea Systems Command (NAVSEA) praised the risk-mitigation qualities of land-based testing and prototyping of ship systems and said the Navy said the Navy is considering it for some level for the Constellation-class guided-missile frigate (FFG).

NAVSEA Commander Vice Adm. William Galinis, speaking during a webinar of the National Defense Industrial Association's Expeditionary Warfare Conference, said the Navy is using more land-based testing and integration to reduce risk before the systems are installed on a ship.

Land-based testing "is not something we can do for every platform, but judicious use of land-based testing where it makes sense is a good engineering development tool and a risk mitigator."

Galinis noted that extensive land-based testing is being conducted for the Flight III Arleigh Burke-class guided-

missile destroyer (DDG) at the Naval Surface Warfare Center Philadelphia Division.

“As we upgrade to the Flight III [of the Arleigh Burke class], we need additional cooling capacity, additional power-generation capacity, higher voltage level,” he said. “That electric plant is being tested right now in Philadelphia from the prime mover all the way to the power conversion modules.”

The SPY-6 radar, built by Raytheon Technologies for the Flight III DDG, is being tested at the Lockheed Martin Aegis test site in Moorestown, New Jersey, with the combat systems software, “from the power-conversion unit all the way out through the array face.”

Major propulsion components of the new Columbia-class ballistic-missile submarine, being built by General Dynamics Electric Boat, also are going through extensive land-based testing at Philadelphia.

“We will probably do something along that line for the Constellation-class frigate,” Galinis said. “We’re working through the details of that right now.”

Because the hull and propulsion of the Constellation is from a proven, parent design – the Fincantieri FREMM frigate – land-based testing is likely to focus on integration of systems, particularly combat and sensor systems.

Galinis said there are changes to the frigate in terms of “buy America” requirements and certain Navy requirements.

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# Mine Warfare Director: Detect-to-Engage Timeline Needs to be Speeded Up



Avenger-class mine countermeasure ships USS Pioneer (MCM 9), USS Chief (MCM 14) and an MH-53 helicopter from Helicopter Mine Countermeasures Squadron 14 conduct mine hunting training exercises in this 2020 photo. U.S. Navy / Information Systems Technician 2nd Class James Greeves

ARLINGTON, Va. – The Navy official in charge of mine warfare development said strides are needed to decrease the search and neutralization time of mine counter-measures operations.

“We need to get faster; we need to speed the timeline up,” said Capt. Robert Baughman, director, Mine Warfare Division at the Naval Surface and Mine Warfighting Development Command in San Diego, speaking at a Feb. 2 webinar of the National Defense Industrial Association’s Expeditionary Warfare



Conference. "Improving the detect-to-engage timeline is vital as we shift from a ship in a minefield to off-board and autonomous systems."

For single-pass detect-to engage, with "on-board processing and high-end autonomous target recognition, we can neutralize the mine immediately," Baughman said. "Machine learning is improving this capability, but we need systems to either pass contacts during the mission cycle, or immediately upon recovery in the interim, telling what it assesses to be a mine.

"In the meantime, industry can help us with in-stride data transfer, transmitting high-quality data beyond line of sight that will help us get data back to the ship to start the post-mission analysis, and not wait till the end of a 20-hour mission, which then requires 20 hours of post-mission analysis on the back side," he said.

The captain also said, "capabilities need to be smaller, more expeditionary, and more reliable. Unmanned systems need to be highly modular, built with open architecture in mind, with hi-rez sensors, and to be networked systems of systems. Sailors must be able to fix them on the ship and easily modify them for specific missions. We can't rely on a team of contractors or Ph.D.'s to effect repairs or change out sensors in the field."

Being acoustically quiet and having a low signature overall are important, Baughman said.

Single-use minesweepers are not affordable at this point, he said. "All future systems and enabling technologies should have this as a consideration in their design and development.

"Communications and navigation systems must be resilient and also be able to operate in denied environments for sustained periods of time," he said. "Having a clandestine capability can help with this, especially when we talk about mining

technology. If they're networked, we can control them better, turning them on or off as required to avoid detection at a time of our choosing.

"For all of these systems, power and portability are extremely important," the captain said. "We need systems with long duration that can conduct surveys and persistent station keeping for whatever we task UUVs to do. We need to be platform agnostic.

"We are a more expeditionary, off-board, distributive force than we were even five years ago, and regularly integrate with our coalition partners," Baughman said. "So, being able to rapidly and seamlessly share info and make timely decisions as necessary through our tactical decision support aids, up and down the decision process. File size, classification, bandwidth and latency constraints can't hinder our ability to share data across the force. Data management is becoming more and more of an issue."

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## **Burke: Keflavik Important to North Atlantic Operations**



Sailors assigned to Patrol Squadron (VP) 4 shovel snow away from the port engine of a squadron P-8A Poseidon maritime patrol and reconnaissance aircraft on the the apron of Keflavik Air Base, Jan. 03, 2020. U.S. Navy / Lt. Cmdr. Ryan McFeely

ARLINGTON, Va. – The U.S. Navy's top admiral in Europe highlighted the importance of using the airfield in Keflavik, Iceland, in the current era of great power competition, as a base for maritime patrol and anti-submarine warfare (ASW) aircraft.

"We need to operate there," said Adm. Robert Burke, commander, U.S. Naval Forces Europe/Africa, speaking Feb. 2 at a webinar sponsored by the U.S. Naval Institute and the Center for Strategic and International Studies, funded by Huntington Ingalls Industries. "There were 12 P-8s on the ground when I was there at the end of October. They were very busy. I can tell you it wasn't an exercise and it's not hard to imagine why."

Burke referred the listener to 2019 when "there were open-

source reports of 10 Russian submarines operating in the Arctic and the North Atlantic. From there, they head into the Atlantic and they go there to exercise their ability to hold Europe and the continental United States at risk with land-attack cruise missiles.”

The admiral pointed out that “[s]ome of those missiles, in the not-to-distant future, will be capable of hypersonic speeds. That’s a real threat and that’s something we have to be ready to address.”

The international airport in Keflavik was the site of a U.S. naval air station during the Cold War, with an ASW operations center. A squadron of P-3 Orion maritime patrol aircraft was deployed there on a rotational basis. A detachment of U.S. Air Force F-15 Eagle fighters also was present to intercept Soviet bombers that ventured over the Atlantic.

Iceland has no armed forces other than a coast guard, but Keflavik represents an important contribution to the U.S. and NATO’s capabilities with Keflavik’s airfield.

With mobile operations command centers, the Navy rapidly can deploy one to Keflavik to stand up an ASW command, control, and analysis capability for deployed maritime patrol aircraft.

Two other North Atlantic nations are acquiring P-8A aircraft. The U.K. Royal Air Force already is operating its new P-8s, having reconstituted a maritime patrol capability after the 2011 retirement of its Nimrod aircraft. The first P-8A for the Royal Norwegian Air Force is now under construction to replace its P-3 aircraft. Other NATO nations including Germany, Spain, Portugal and Greece operate P-3s, and France and Italy operate Atlantique aircraft.

Burke praised the P-8 for its “incredible legs, incredible capabilities.”

While the Russian submarine force is much smaller than its peak during the Soviet era, it has continued to push development of modern submarines, now in their sixth generation.