SECNAV: Allies, Partners Are 'Huge Advantage' for U.S.



U.S. Navy Arleigh Burke-class guided-missile destroyers USS Gravely (DDG 107), front, and USS Roosevelt (DDG 80), rear, conduct maneuvering operations in the Mediterranean Sea in formation with Italian Carlo Bergamini-class frigate Carlo Margottini (F 592), Jan. 2, 2022. The Harry S. Truman Carrier Strike Group is on a regularly scheduled deployment in the U.S. 6th Fleet area of operations, which Navy Secretary Carlos Del Toro cited as an example of Navy flexibility. U.S. NAVY / Mass Communication Specialist 3rd Class Theoplis Stewart II WASHINGTON – The secretary of the Navy stressed forward presence and engagement with U.S. allies and partners as advantageous in pacing the threat of China and Russia in the maritime domain.

Allies and partners "are our huge advantage," said Navy Secretary Carlos Del Toro, speaking Jan. 18 at the U.S. Navy Memorial in Washington. The Chinese and Russians don't have that."

Det Toro noted the integrated defense strategy as an all-ofgovernment approach to execution of foreign policy, "using all of the capabilities that the United States has," plus those of allies and partners.

The U.S. Navy in recent years has increased its presence and patrols in the South China Sea and the Black Sea, both areas of international tension. Del Toro noted the current presence of the USS Harry S. Truman carrier strike group in the Mediterranean Sea – normally absent of a CSG in recent years – and the presence of the USS Carl Vinson CSG in the South China Sea as examples of the flexibility of naval forces and their presence that potential adversaries have to take into account.

"You've got to be present," Del Toro said.

The SECNAV, himself a former destroyer skipper, stressed the importance of building relationships with allies and partner nations. He also praised the initiatives of Chief of Naval Operations Michael Gilday and Marine Corps Commandant David Berger to "rethink strategy" and make U.S. naval forces more expeditionary, with the ability to move distributed forces more quickly to an area of operations. He cited the Marine littoral regiments being formed as an example of mobility and ability to operate within the Pacific island chain closest to China.

Cooper: LCS Deploying to U.S.

5th Fleet in 2022



The Freedom-variant littoral combat ship USS Billings (LCS 15) fires a 57mm MK 110 gun from the fo'c'sle, Jan. 8, 2022. U.S. NAVY / Mass Communication Specialist 3rd Class Aaron Lau ARLINGTON, Va. — The long-planned forward deployment of littoral combat ships to the Persian Gulf is approaching execution, with the anticipated first deployment of an LCS to the U.S. 5th Fleet, the fleet commander said.

Vice Adm. Brad Cooper, commander, U.S 5th Fleet; commander, Naval Forces U.S. Central Command; and commander, Maritime Forces, speaking in a moderated discussion sponsored by the U.S. Naval Institute and the Center for Strategic and International Studies, a Washington think tank, said the fleet expects to welcome its first LCS in 2022. The ship will be a Freedom-class LCS.

Cooper said planning is underway to receive and support the ship.

"We're in a much better position today than we were last year" to receive the LCS, he said. "I'm very familiar with all of the nuances from my last job at SurfLant [Naval Surface Force, Atlantic].

The LCS is slated to replace the Cyclone-class coastal patrol ships and Avenger-class mine countermeasures ships in the 5^{th} Fleet.

Cooper said there is "no comparison between a PC and what an LCS will bring," noting the littoral combat ship's aviation component with MH-60 helicopters and Fire Scout unmanned helicopters, more kinetic strike capability and greater range and endurance.

"The Navy, over a period of time, has bought the logistics and sustainment component of this that is already prepositioned at Bahrain," he said.

The LCS would be the latest ship modernization of the U.S. naval forces in the 5th Fleet area of responsibility. The Coast Guard's Patrol Force Southwest Asia has received two Sentinel-class fast response cutters — with two more en route and two more planned — to replace the six Island-class patrol cutters.

An expeditionary sea base ship — the USS Lewis B. Puller — is serving as a platform for mine countermeasures and naval special warfare forces. Cooper said the ship is operating in the North Arabian Sea in addition to the Persian Gulf.

In addition, the newly organized Task Force 59 is experimenting with unmanned vessels, including persistent surveillance of the Gulf of Aqaba with Saildrone unmanned surface vessels. Cooper said the 23-foot-long Saildrones have been operated in the area for more than 30 days.

Task Force 59 also has integrated and evaluated Mantas T-12 and T-38 unmanned surface vessels in the region.

Official: Navy Seeks Integration of Combat Systems Across the Fleet



A SPY-6 radar displayed at the Navy League's Sea-Air-Space Exposition in 2019. *RAYTHEON TECHNOLOGIES* ARLINGTON, Va. — A senior Navy program executive said that the service is moving toward integration of combat systems across the fleet to achieve commonality of sensors and weapons and the benefits derived from fielding common and scalable systems.

Bob Shevock, executive director of Program Executive Office – Integrated Warfare Systems, speaking Jan. 13 at the Surface Navy Association's annual symposium in Arlington, used the Raytheon-built SPY-6 radar as an example of commonality and scalability across numerous ship classes that would yield benefits in cost and sustainment.

The SPY-6 Air and Missile Defense Radar, being installed on the Flight III of the Arleigh Burke-class guided-missile destroyers, is also scalable into the three versions of the SPY-6 Enterprise Air Search Radar which will be installed in various configurations on most aircraft carriers plus amphibious assault ships, amphibious transport dock ships and guided-missile frigates, as well as some Flight IIA Arleigh Burke-class guided-missile destroyers, replacing a number of legacy radars.

Another example cited by Shevock is the SM-6 Standard missile, which is a refined development of a surface-to-air missile into a more versatile tactical missile with anti-ship capabilities and "a multitude of missions," Shevock said.

He also cited the SLQ-32 Surface Electronic Warfare Improvement Program, the RIM-62 Evolved SeaSparrow Missile and the RIM-116 Rolling Airframe Missile "being integrated across a multitude of different platforms."

He listed common technology, common parts, similar interfaces and similar training as benefits of the commonality.

Overarching Combat System

Development and proliferation of an integrated combat system is another part of the Navy's strategy, with the ultimate goal, he said, of an overarching combat system across the fleet, with the first step being an integrated combat system across platforms.

The beginning of that first step, Shevock said, would be the merging of the Aegis Combat System — the combat system built by Lockheed Martin and installed on cruisers, destroyers and soon the future Constellation-class frigates — with the

Surface Ship Defense System, the combat system built by Northrop Grumman and installed on many aircraft carriers and amphibious warfare ships.

"That really give us the leverage when we have those common combat systems to scale up to where we really have an overarching integrated combat system across the fleet and across the battle group," he said.

Shevock reminded the audience of the original five cornerstones of Aegis: reaction time, power, availability, coverage and environmental immunity.

"After 40 years, it's about time to add another cornerstone, and that's agility," he said. "We know we're going to very quickly identify, assess and develop and deliver improvements to our Integrated Combat System to respond to the changing threat characteristics at performance, speed and scale. This ICS is going to enable us to achieve that cornerstone."

Shevock's program executive office has established a new program office, IWSX, responsible for planning and implementing the ICS.

Navy Ship Construction, Repair Hampered by Lack of Suppliers, Skilled Workers



Mass Communication Specialist 3rd Class David Glotzbach grinds deck braces aboard the amphibious assault ship USS Wasp (LHD 1), July 22, 2021. Wasp was in a dry-dock selected restricted availability at BAE Shipyards as part of a planned maintenance period. U.S. NAVY / Mass Communication Specialist 2nd Class Benjamin F. Davella III

ARLINGTON, Va. – A senior Navy shipbuilding executive said some weaknesses in the ship construction and repair enterprise is hampered nationally by a shrinking supplier base and a lack of skilled workers.

"Material availability is a challenge," said Matt Sermon, executive director of the Program Executive Office – Strategic Submarines, speaking Jan. 13 at the Surface Navy Association's annual symposium in Arlington.

A former nuclear-trained surface warfare officer, Sermon said for new construction of ships, schedule and quality of material is an issue, calling material among the top issues driving schedules affecting ship repair availabilities and new construction progress. Sermon said the end of the Cold War and the resulting socalled "peace dividend" in the early 1990s through the current era meant the number of suppliers for the submarine industrial base declined from 17,000 to 5,000, with submarine construction at a rate of less than one per year. He noted an analogous decline for surface ship construction, with the slow rate of destroyer construction and the completion of cruiser and frigate construction programs.

Globalization of industrial production also reduced the capacity of the U.S. industrial base, he said. Unlike two build-ups in response to large demand in the past, the current great power competition with the rise of China and Russia is trying to respond in the face of significant loss of commercial industrial base available to turn to defense production.

Regarding the strategic competition, Sermon said, "we weren't on the front end of it and we're dealing with that now."

His list of fragile market sectors includes castings, forgings, fittings, valves, mechanical and electrical equipment.

Sermon also said, "we're a little slow to adapt on technology when it comes to manufacturing," including additive manufacturing, robotics and automation and non-destructive testing technology.

He also said some requirements need "some updating and some rethinking, and some innovation," but the use of data analytics and artificial intelligence is helping address delays and shortages

Sermon stressed the United States no longer has the "highskilled technical-trade workforce underlying foundation," a condition he attributed to the service economy and the emphasis on a college education for young people. Throughout the shipbuilding and repair sectors there is a pressing need for more workers with the right skills, including welders, fitters, machinists, and electricians, he said, although industry partnering with technical training schools to train new workers is helping the situation.

Caudle: Russian, Chinese Submarine Threat Taken Seriously



A P-8A Poseidon multi-mission maritime patrol and reconnaissance aircraft flies over the guided-missile destroyer USS Porter (DDG 78) during a photo exercise in 2020. U.S. NAVY / Mass Communication Specialist 2nd Class Juan Sua ARLINGTON, Va. – A senior Navy admiral said the U.S. Navy takes seriously the increasingly lethal submarine forces of Russia and China but that the U.S. Navy is increasingly able to counter that threat.

"Make no mistake about it: submarines are lethal," said Adm. Daryl Caudle, commander U.S. Fleet Forces Command, speaking Jan. 12 at the Surface Navy Association's annual symposium in Arlington. "They are really, really good at what they do – China and Russia. They are quite motivated. ... It is a major threat vector for us."

Caudle said he is happy to report that the Russian and Chinese submarine threat is taken seriously.

"I don't think any time in my history have I ever seen undersea warfare taken as a team sport more so than in this current stage," he said. "It is practiced, it is command and controlled properly now, it is through a spectrum. It is not uncommon that our surface forces are holding contact on enemy submarines for a majority that we hold contact. The cueing and the ability to vector in MPRA [maritime patrol reconnaissance aircraft] to gain contact has probably never been better than it is now.

"So, this full-spectrum approach that has been going on I quite healthy," Caudle said, noting that it is easy for a ship to worry about weapon-engagement zones "and the next thing you know there's going to be two torpedoes there that you didn't predict.

"So, we need to be very wide-eyed about that threat," he said. "I think we are, and I think we're going the right way, and that's being well-practiced."

Caudle also noted the "Holy Grail" of undersea warfare since the development of nuclear-powered submarines which could stay submerged for long periods has been effective command and control of the submarines.

"We've grown over time to be very mission-command oriented," he said. "But you've still got to communicate because you've got to mass the effects at the right place and the right time."

He said communicating with submarines at depth and speed is a full-spectrum effort with systems on board surface ships, MPRA, submarines, fixed systems and with partners and allies.

"Essentially, we're getting the oceans and areas of interest wired to communicate with submarines," he said, noting the systems allow the brevity needed to assure communications security so submarines can avoid coming to periscope depth to communicate.

Rep. Gallagher: Navy Must be Ready to Counter China if Taiwan Is Attacked



U.S. Navy Boatswain's Mate 3rd Class Nicholas Rodriguez, right, and Boatswain's Mate Seaman Tony Williams move in to remove chocks and chains from an MH-60R Sea Hawk on the flight deck of the USS John Finn (DDG 113) March 10, 2021, in the Taiwan Strait. U.S. NAVY / Mass Communication Specialist 3rd Class Jason Waite

ARLINGTON, Va. - A member of Congress on the House Armed Services Committee said the Navy must be ready by 2025 to counter a Chinese invasion of Taiwan.

Citing the assertion of former commander of Indo-Pacific Command, Adm. Phil Davidson, that China could move against Taiwan by 2025, Rep. Mike Gallagher (R-Wisconsin), speaking Jan 12 at the Surface Navy Association's annual symposium in Arlington, said the Unites States "must prepare for the reality that war that starts in the territorial waters around Taiwan may not stay there."

Gallagher was critical of the concept of integrated deterrence in that it fosters a false hope that soft power can deter a determined enemy.

"My concern is that integrated deterrence is the latest in a series of Pentagon buzzwords that ultimately serve as a smoke screen for dis-investing in defense and making do with a force that is too small to meet global requirements," he said. "This jargon provides pseudo-intellectual cover for political leadership that is too weak or too distracted to give the military what it needs to execute its missions and to make hard choice between military services that might actually free up resources for the main effort: deterring China from invading Taiwan."

He praised his colleague Rep. Elaine Luria (D-Virginia), also speaking at the symposium, for her "tracing the historical pattern of these calls for 'divesting to invest.'"

"What we need to integrate into deterrence is more conventional hard power: more ships, more long-range missiles, more long-range bombers in the Indo-Pacific, things that will make the PLA [People's Liberation Army] think twice," he said.

"Betting on tomorrow's transformative technology probably makes less sense than fielding reliable technologies that work today," he said.

Gallagher offered a few suggested initiatives to improve the Navy's position versus China:

- Using American territories such as Guam, Wake, and Midway to host long-range anti-air and anti-surface weapons and intelligence, surveillance and reconnaissance assets or serve as logistics nodes.
- Hardening existing defenses in the island chains.
- "Creatively use existing platforms and systems so they can better contribute to the 2025 near-term fight."
- Building a larger Navy, though he noted that ships authorized this year are not likely to be ready for

combat by 2025.

He warned that the current unavailability of the Red Hill fuel farm in Hawaii was "unacceptable" and must be restored to operation. He termed it as "the beating heart of America's Pacific posture."

Gallagher — in whose district some littoral combat ships and frigates are built — listed some near-term initiatives that could improve the Navy's posture in the Pacific.

- Use littoral combat ships as stop-gap craft to enable distributed operations until the light amphibious warship comes on line.
- Put Marine anti-ship missiles on board littoral combat ships for expeditionary operations.
- Use the LCS as "mother ship for unmanned swarms" and as a command-and-control node.
- Use cruisers and early DDGs slated for retirement as missile barges and as missile-defense ships for harbors to keep valuable VLS [vertical launch system] cells "in the game" or for conventional prompt strike

Gallagher also said the Navy needs to move out on the DDG(X) next-generation destroyer and the Department of the Navy should commit to building two large surface combatants per year for 10 years.

He asserted that the only short war for Taiwan would be a Chinese victory.

"So, if we're going to win, we have to buy time to mass assets in the region while denying a Chinese invasion," he said. "I'm concerned that our planning has not caught up to that reality."

He advocates the re-establishment of U.S. Taiwan Defense Command to "fully integrate wartime planning with Taiwan."

Heliborne Electronic Warfare Pod Set for Delivery to Navy in Summer 2022



An artist's conception of the AOEWS at work. *LOCKHEED MARTIN* ARLINGTON, Va. – Lockheed Martin expects to deliver the first production pods of a heliborne electronic warfare system to the Navy this summer.

Joe Ottaviano, director, Maritime & Air Cyber/Electronic Warfare for Lockheed Martin, told reporters Jan. 11 at the Surface Navy Association's annual symposium in Arlington that Lockheed Martin has completed flight testing of the Advanced Off-Board Electronic Warfare (AOEW) System and expects to deliver the first low-rate initial production examples to the Navy in July or August 2022.

The ALQ-248 AOEW is a self-contained pod designed to be taken aloft by an MH-60R or MH-60S Seahawk helicopter and serve as

an offboard electronic attack system to counter anti-ship cruise missiles. The AOEW will be able to detect an incoming missile, evaluate its direction and use radio frequency countermeasures to deter the missile.

The pod can be attached to either side of the helicopter, which provides power and mobility for the pod, but the pod's operation is independent of the helicopter crew and linked to the SLQ-32(V)6 shipboard electronic warfare system. The AOEW can work independently or with the ship's onboard electronic surveillance sensor, SEWIP Block 2, to detect an incoming missile and then evaluate where it is going.

The AOEW will be linked in the future to the SLQ-32(V)7 with the Block III version improvements of the Surface Electronic Warfare Improvement Program.

In September 2021, the Naval Sea Systems Command awarded to Lockheed Martin Rotary and Mission Systems, Liverpool, New York, a \$17.8 million firm-fixed-price contract modifications exercise options for AOEW LRIP units.

The Navy initially ordered four engineering and manufacturing development models for evaluation that were delivered by early 2020.

CNO to Elevate Navy Safety Center to a Two-Star Command



A helicopter from Helicopter Sea Combat Squadron 3 combats a fire aboard the amphibious assault ship USS Bonhomme Richard (LHD 6). U.S. NAVY / Mass Communication Specialist 1st Class David Mora Jr.

ARLINGTON, Va. – The chief of naval operations is increasing the focus of the Navy on safety in its operations by elevating the Naval Safety Center to a full command.

CNO Adm. Michael Gilday, speaking Jan. 11 to an audience at the Surface Navy Association's annual symposium in Arlington, said the Naval Safety Center in Norfolk, Virginia, would be redesignated the Navy Safety Command and its commander would be a two-star admiral with experience as a carrier strike group commander.

"That command will evaluate how the entire Navy – from the fleet commander down – manage safety and risk, and it will grade how effectively commands are self-assessing performance," the CNO said.

The commander of the Navy Safety Command would report directly

to the CNO.

Gilday said he considered the Navy's Board of Inspection and Survey as a model for the Naval Safety Command and how it will perform.

The Navy has suffered a number of high-profile collisions at sea in recent years, most notably the 2017 collisions of the Arleigh Burke-class guided-missile destroyers USS Fitzgerald and USS John McCain with merchant ships, resulting in the deaths of 17 Sailors. The amphibious assault ship US Bonhomme Richard was damaged beyond economical repair in 2020 by a fire while pierside.

Gilday noted in his speech that the fleet had suffered "14 other major fire events in the past 12 years."

Kitchener: SWO Retention on An Upward Trend



Vice Adm. Roy Kitchener, speaking at the Surface Navy Association's annual symposium. U.S. NAVY ARLINGTON, Va. – The retention of surface warfare officers is improving, the U.S. Navy's "surface boss" said, one metric that affirms the Navy's efforts to assess its readiness and to take action to address the challenges.

"Within the wardroom, SWO retention continues on an upward trend, a 5% increase over the past five years, exceeding or remaining on par with the aviation and submarine communities," said Vice Adm. Roy Kitchener, speaking Jan. 11 to an audience at the Surface Navy Association's annual symposium in Arlington, Virginia.

"While a positive indication, there's still a lot of work to do, and we're really not satisfied where we are," Kitchener said.

"We'll be looking at the entire career spectrum through an analytical lens to determine what our officer retention goal should be," he said. "We need to think differently about how we manage retention. I would submit that past retention policies may not help us retain the best talent as we move into the future."

Kitchener said the Navy is looking at how other services and other high-performing organizations "manage their talent pool."

He also said the Navy will look at important factors such as childcare and family planning.

"We're also devoting resources to retention in a number of ways throughout the SWO career path with increased compensation, diverse education opportunities, tours within industry, and additional flexibility in their career path," he said. "We have a lot of work to do in this area, but we are committed to the task."

Lockheed Martin Upgrading SPY-1 Radars on 21 DDGs to Counter Evolving Threats



Arleigh Burke-class guided-missile destroyer USS Barry (DDG 52) pulls into Commander, U.S. Fleet Activities Sasebo, Japan, in 2016. U.S. NAVY / Mass Communication Specialist 3rd Class Kristopher S. Haley

ARLINGTON, Va. – Lockheed Martin is continuing to upgrade primary radars on a number of the U.S. Navy's guided-missile destroyers (DDGs), a company official said. Older SPY-1 versions are being modified with digital Low Noise Amplifiers, or LNAs, which can improve their sensitivity and thereby improve the accuracy, range and discrimination of the radar.

"How do you develop a low-cost, high-payoff solution to keep SPY-1 relevant as the threat evolves?" Jon Rambeau, Lockheed Martin's vice president and general manager for Integrated Warfare Systems and Sensors, asked rhetorically in an interview with *Seapower*, pointing to the LNA as a step in that direction.

The SPY-1 radar is the primary sensor of the Aegis Combat System on the U.S. Navy's Ticonderoga-class cruisers and Flight I, II and IIA Arleigh Burke DDGs and is used to detect and track aircraft, cruise missiles and ballistic missiles.

The LNA is part of the upgrade of the 21 Flight I and II DDGs to enable a "full BMD [ballistic missile-defense] capability in accordance with the 2030 Missile Defense Review," Rambeau said.

He said Lockheed Martin is under contract for upgrading nine SPY-1 arrays under funding provided by the Navy and the Missile Defense Agency. The arrays are being tested and made ready for installation of the DDGs.

Rambeau there was "some discussion around the Navy's future plans for those 21 ships and that's something we're watching very carefully."

He said the LNA upgrade may be something the company thinks can be relevant for international customers as well.